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ARIZONA COURT OF
APPEALS DIV TWO

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ELIZABETH A. FRITZ
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IN THE COURT OF APPEALS
STATE OF ARIZONA
DIVISION TWO

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| FARMERS INVESTMENT COMPANY, a corporation,<br><br>Appellant,<br><br>vs.<br><br>THE ANACONDA COMPANY, a corporation; AMAX COPPER MINES, INC., and THE ANACONDA COMPANY, as partners in and constituting ANAMAX MINING COMPANY, a partnership; ANAMAX MINING COMPANY, a partnership,<br><br>Appellees. | No. 2CA-CIV-1756<br><br>Pima County<br>Superior Court<br>No. 116542 |

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ABSTRACT OF RECORD ON APPEAL
Volume II, pp. 121-255

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* * *

(TITLE OF ACTION)

THE ANAMAX DEFENDANTS'
MOTION FOR PARTIAL SUMMARY
JUDGMENT AS AGAINST THE
CITY OF TUCSON

Filed: March 13, 1974

COMES NOW the defendants, THE ANACONDA COMPANY, AMAX COPPER MINES, INC., as partners in the ANAMAX MINING COMPANY (hereinafter "ANAMAX defendants"), pursuant to Rule 56, Arizona Rules of Civil Procedure and herewith file their Motion for Partial Summary Judgment as against the Intervenor, the City of Tucson on their counterclaim filed on or about September 13, 1973. This motion is based upon the pleadings, depositions and answers to interrogatories of file herein, the affidavits and exhibits attached hereto and upon the memorandum in support of the motion

for summary judgment also attached hereto.

(Signed CHANDLER, TULLAR, UDALL
& RICHMOND by Robert E. Lundquist,
Attorneys for named Defendants)

MEMORANDUM IN SUPPORT OF MOTION

(Prefatory note: The complaint in intervention filed by the City of Tucson in this case named, inter alia, The Anaconda Company as a defendant. The answer to the complaint and the counterclaim were also filed in the name of The Anaconda Company. Since that time, the interest in the Twin Buttes mining operation, material to both the complaint and the counterclaim, was transferred from The Anaconda Company to The Anaconda Company and Amax Copper Mines, Inc., as partners in and constituting the Anamax Mining Company. Therefore, the Anamax defendants pr s this motion for summary judgment as successors in interest of the counterclaim

of The Anaconda Company. Rule 25(d), Arizona Rules of Civil Procedure.)

Rule 56, Arizona Rules of Civil Procedure, states that summary judgment

> ". . . shall be rendered forthwith if the pleadings, deposition, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact that the moving party is entitled to judgment as a matter of law."

The facts material to the Anamax defendants' counterclaim against the Intervenor City of Tucson are undisputed, as will be shown herein. The law, at least insofar as it applies to these facts, is also clear. This motion is directed solely to the issue of whether the City's acts are in violation of the reasonable

use doctrine and not towards the issues raised in the City's answer to the counter-claim such as laches and estoppel which may require a trial.

Arizona's groundwater code, A.R.S. Secs. 45-301 et seq., requires the State Land Department to designate groundwater basin boundaries and boundaries of groundwater basin subdivisions. Id. Sec. 45-303. A "groundwater subdivision" means "land overlying as nearly as may be determined by known facts, a distinct body of groundwater. . . . " Id. Sec. 45-301(6) (emphasis added). The administrative duty imposed by these statutes led to the declaration of the Sahuarita-Continental Subdivision of the Santa Cruz Basin on June 8, 1954. Therefore, the area material to this motion has been administratively investigated and legally declared a "distinct body of groundwater." The boundaries of

the Sahuarita-Continental Subdivision are shown in an attachment.

The State Land Department is also required to designate from time to time "critical areas" which, under the statutes are supposed to be groundwater basins or subdivisions that do not have sufficient groundwater "to provide a reasonably safe supply for irrigation of the cultivated lands in the basin at the then current rates of withdrawal." Id. Sec. 45-301(1); Sec. 45-308. The statutes put controls on the use of water for new irrigation purposes, but domestic and industrial uses are exempted from control. Id. Sec. 45-301(3); Sec. 45-322. Pursuant to this statutorily imposed duty, the State Land Department declared a "critical area" within the confines of the Sahuarita-Continental Basin Subdivision in 1954. See attachment. The boundaries of a critical

area appear to be required by the statutes to be the same as the boundaries of the "distinct body of groundwater," the basin or the subdivision. Id. Secs. 45-301(1). - 301 (6), - 308. In the case of the Sahuarita-Continental Critical Groundwater Area, however, one can see that such is not the case, although there are common boundaries. However, it is easy to see how the boundaries of the Critical Area, which determine the impositions of code controls on the use of water from the Subdivision supply only for irrigation purposes, might be confined roughly to those areas of the Subdivision which are suitable for irrigation and cultivation, under a different interpretation of the statute. In any event, the State Land Department has declared the supply of groundwater in the Sahuarita-Continental Subdivision to be insufficient for irrigation at the rates

of withdrawal. It is obvious that further or increased withdrawal will put a greater drain on the supply of Subdivision water.

The Anamax defendants own approximately 19,500 acres of land within the boundaries of the above Basin Subdivision at least 1,600 acres of which have been retired from irrigation. They own and operate an open pit copper mine on parts of their lands, and percolating groundwater from the supply over which these lands and the Subdivision lie forms a vital part of counterclaimant's mining and milling process. Water withdrawn from the Subdivision supply is used on lands within the Subdivision and, after use, the water is available for return to the groundwater supply.

The Intervenor City of Tucson, however, admits in its complaint that it owns well sites inside the Critical Area and

pumps water withdrawn from their land north to the City proper to be sold to its customers. In transporting the water across the north boundary of the Critical Area, it at the same time transports the water across the Subdivision boundary which is coterminous with the Critical Area boundary on that side. The City also admits in its complaint that its use is down grade from the Subdivision and it logically follows that none of the water withdrawn from the supply by the City is returned for re-use. The deposition of Assistant City Manager Frank Brooks indicates that the City has increased the volume of its withdrawals from the supply from nine million gallons per day to over eighteen million gallons per day. Deposition of Frank Brooks, pp. 52-54. This is roughly 20,000 acre-feet per year. The City admits it intends to continue

and increase such practices. The designation of the Critical Area in the Subdivision indicates that even without such withdrawals the water table would continue to decline to the damage of landowners in the Subdivision.

The doctrine of reasonable use of percolating groundwaters. The above facts are undisputed. The law to be applied to these facts dictates that the City's actions are illegal.

Water withdrawn from the ground is presumed to be percolating groundwater. Howard v. Perrin, 8 Ariz. 347, 76 P.2d 460 (1904). Therefore, absent a clear showing that such is not the situation in the case at bar, the law regarding percolating groundwater applies.

Arizona has adopted the rule of reasonable use of percolating groundwaters. Bristor v. Cheatham, 75 Ariz. 227, 225 P.2d

153 (1953). Before discussing the doctrine and examining its applicability to the present case, however, it is helpful to review briefly the common law development of the doctrine.

Under the common law of England, a landowner was said to own all that lay below and above his property --- from the heavens to the inferno. These ownership rights included the use of unlimited quantities of groundwater. Acton v. Blundell, 152 Eng. Rep. 1223 (Ex. 1843). As long as the landowner acted without malice, he could do anything he liked with water withdrawn from his lands, and any resultant damage to neighbors was damnum absque injuria. Groundwater was treated like oil or minerals and could be conveyed away from the source for sale or use elsehwere. E. g. Clinchfield Coal Corp. v. Compton, 28 Vt. 49 (1855). This rule was initially

adopted in the American colonies along with the rest of the common law.

Faced with different geologies and climates, the potential abuse inherent in such a rule, such as the establishment of municipal well farms, inevitably led to reactions by some American courts. See Erickson v. Crookston Waterworks, Power & Light Co., 100 Minn. 481, 484, 111 N.W. 391, 392 (1907). Two new rules regarding the use of groundwater were developed: The correlative rights doctrine, see, e.g., Eckel v. Springfield Tunnel & Dev. Co., 87 Cal.App. 617, 262 p. 465 (sic) (1923)., and the rule of reasonable use. E.g., Canada v. City of Shawnee, 179 Okla. 53, 64 P.2d 694 (1937). Although these two doctrines are slightly different in a particular irrelevant here (sic), both require that water withdrawn from a supply be put to a beneficial use "on the lands

from which it was taken." E.g., Stillwater Water Co. v. Farmer, 89 Minn. 58, 93 N.W. 907 (1903); Meeker v. East Orange, 77 N.J. 623, 74 A.379 (1909). Although the English common law theory that the landowner also owns the water beneath his lands still holds, the American adaptation in the form of the reasonable use doctrine limits this ownership right to uses in connection with the lands overlying the common supply.

Arizona committed itself to the doctrine of reasonable use of percolating groundwater in 1953. Bristor v. Cheatham, supra (Bristor II). In the first Bristor case, 73 Ariz. 228, 240 P.2d 185 (1952), which was reversed by the second, Justice LaPrade dissented from the holding that groundwaters were subject to appropriation and not privately owned, stating:

> " . . . the only issue before the trial court was whether the owner of land overlying a supply of percolating water common adjoining land owners may pump the water from wells upon his land and convey it to other lands for the benefit of the latter <u>from whence it does not return to replenish the common supply</u>, if the supply available to the adjoining land owners from pumps upon their own lands. . . is diminished to their injury." 73 Ariz. at 242 (emphasis added).

Justice DeConcini expressed a similar view, also in dissenting in the first <u>Bristor</u> case. 73 Ariz. at 255. Both justices joined the majority in <u>Bristor II</u> in adopting the reasonable use doctrine. That "lands from which the groundwater is taken" equals lands over the "common supply",

in this case the Basin Subdivision, is borne out by law and logic. For example, no one could seriously contend that a rancher must water his stock at the precise point at which the water comes from the ground, nor that a farmer cannot irrigate land away from his wellhead. Reasonable use requires essentially that, provided the water is used reasonably and beneficially on some lands, the water after it is used be available for return to the common supply.

In this respect, it is helpful to note the analogy between riparian rights to water from a surface stream or river, and rights to percolating groundwater under the doctrine of reasonable use. In Bristor II, the Supreme Court quoted the Restatement of Torts, Sec. 852, comments b & c relating to the riparian right of reasonable use of surface waters. 75

Ariz. at 237. The court then stated:

> "While the foregoing quotation is concerning reasonable use between riparian owners, the same work in Section 861 states that the problem of determining reasonable use is the same whether the water is in a water course or under the surface of the earth and that the foregoing comments are applicable to groundwater." Id.

Thus, since the principles are generally the same, we may examine the common supply notion in the context of riparian rights to a river. In Anaheim Union Water Co. v. Fuller, 150 Cal. 227, 88 P. 978 (1907), for example, the plaintiffs were riparian to the Santa Ana River. The defendants lands were above the plaintiffs', abutting the same river. The defendants, however, took water from the river and

conveyed it to lands outside of its drainage area, using it on land in the drainage area of another water course which joined the Santa Ana at a point below the plaintiffs. The Supreme Court of California affirmed the entry of an injunction against the defendants' use, reasoning as follows:

> "Land which is not within the watershed of the river is not riparian thereto, and is not entitled . . . to the use or benefit of the water from the river, although it may be part of an entire tract which does extend to the river. . . . . The principal reasons for the rule confirming riparian rights to that part of lands bordering on the stream which are within the watershed are that, <u>where the water is used on such land, it will, after</u>

> such use, return to the stream, so far as it is not consumed, and that, as the rainfall on such land feeds the stream, the land is in consequences entitled, so to speak, to the use of its waters." 88 P. at 980. (Emphasis added, cites omitted).

Thus, it is the facts of nature, the hydrological realities, that form the right to the reasonable use of water, be it on the surface or underground. The critical factor is that water must be available for return to the common supply, so far as it is not consumptively used.

Cases cited by the Bristor II Court bear out the principle that groundwater may not be conveyed to a point beyond lands overlying the common supply under the rule of reasonable use; In Burr vs. McClay Rancho Water Company, 154 Cal. 428,

98 Pac. 260 (1908) water was being transported from one parcel of land owned by a party to a noncontiguous parcel for use on the noncontiguous parcel. This transportation was sanctioned because both the parcel from which water was being extracted and the parcel on which it was being used overlay the common source of supply, the "water bearing strata."

City of San Bernardino vs. City of Riverside, 186 Cal. 7, 198 Pac. 784 (1921) condemns a transbasin diversion but by clear implication would permit an intrabasin diversion. Anaconda concedes that the Arizona Supreme Court has not sanctioned all diversions within a drainage area.

Horne v. Utah Oil & Refining Company, 59 Utah 279, 202 P. 815 (1921) recognized the right to transport water to points within an area so long as it wasn't taken

out of the area that overlay the "artesian district."

Glover vs. Utah Oil & Refining Company, 62 Utah 174, 218 Pac. 955 (1923) defined "off the land" as being out of the artesian district.

State vs. Anway, 81 Ariz. 206, 349 P.2d 774 (1960). Anway was permitted to take water off of one parcel of land he owned and transport it to and use it on another parcel of land. This was being done in a critical groundwater area and it was sanctioned. Justice Phelps in his dissent maintained that this violated the principle of Bristor vs. Cheatham, supra. The majority of the court obviously did not agree with this conclusion and obviously did not intend to limit the use of water on a specific, precise piece of land. Since the area was a critical groundwater area, it was judicially certain

that the movement was within the ground-water basin.

See also Evans v. City of Seattle, 74 P.2d 984 (Wash. 1935); Katz v. Walkinshaw 70 P. 663 (Cal. 1902); Forbell v. City of New York, 58 N.E. 644 (N.Y. App. 1900)(city could not take water beyond the boundaries of the common supply); Volkman v. City of Crosby, 120 N.W.2d 18, 22-23 (N.D. 1963); cf. Montecito Valley Water Co. v. City of Santa Barbara, 144 Cal. 578, 77 P. 1113 (1904). In Montecito Valley Water Co., supra, the court engaged in a highly instructive comparison of that case with Katz v. Walkinshaw, supra:

> "First, it should be noted, as applicable to all of these appeals, -----that this case is radically different from that of Katz v. Walkinshaw . . . . Here no question arises as to the use, or the right

to use, or the apportionment of seepage or percolating waters by and between the owners of the overlying lands. Here the waters flow or are developed in a barren and mountainous country, are of no use upon the lands within the watershed where they are found, but are of great value to the neighboring towns, cities, and fertile valleys. Each one of the parties to this action is carrying the water to alien soil and no claimants, even those who are riparian proprietors, pretend to use the water upon the lands from which it is obtained. In Katz v. Walkinshaw the condition presented was that of a well-defined underground catchment basin; a subterranean basin; a subterranean lake, so to speak,

loosely filled with gravels. The lands above this subterranean basin were valuable because of the waters beneath, and such of the water as was taken from this basin and used upon its superior lands found its way back to the source of supply as surely as does such water when used by a riparian proprietor of a flowing stream within its watershed. In Katz v. Walkinshaw the controversy arose between the owners of such superior lands upon the one hand and a defendant water company upon the other, which, tapping the subterranean basin, was draining its waters for use upon lands without the limits of the basin which use, if continued, threatened the impairment and destruction of all

the overlying lands." 77 P. at 1114. (emphasis added, cites omitted).

Therefore, it is clear that the phrase "lands from which the water is taken" means lands within the groundwater basin subdivision, the common supply.

Jarvis v. State Land Department, 104 Ariz. 527, 456 P.2d 385 (1969)(hereinafter "Jarvis I"), and Jarvis v. State Land Department, 106 Ariz. 506, 479 P.2d 169 (1970) (hereinafter "Jarvis II") are determinative of the case at bar and further support the common supply principle. In those cases, the real party in interest, the City of Tucson, had drilled six wells in Avra-Altar Valley and was pumping water for use in three distinguishable places: (1) for use on land within the Marana Critical Groundwater Area, and therefore over the water basin; (2) to land outside of the water basin

but in the valley "drainage area;" and (3) out of the entire watershed into another water basin. The petitioner brought an original action in the Supreme Court seeking injunctive relief against the City's pumping over state land. In responding to this action, the City did not contest the fact that it was conveying "off the lands" from which it was taken, but argued, inter alia, that petitioners had not shown any demonstrable damage to their water supply on which to base any relief. Brief of Real Party in Interest, at 5-17, 19, Jarvis I, supra. The Court, however, held that cognizable injury was demonstrated by the following fact: it took judicial notice that a critical area had been declared in the valley water basin, 104 Ariz. at 530, 456 P.2d at 399. Noting the definition of a critical area in A.R.S. Sec. 45-301(3), the court

held that this fact alone was enough to establish injury. 104 Ariz. at 530-31, 456 P.2d at 388-89. The Court was also apprised of the fact that it was possible for the City to withdraw 33,000 acre-feet per year. See Petitioner's Reply Brief at 6, Jarvis I, supra. An already declining water table would necessarily be damaged by the transbasin diversion. Therefore, the City was enjoined.

In Jarvis II, supra, the City returned to the issue it had not contested in Jarvis I: the issue of where the water pumped from its wells in the Avra-Altar Valley could be used, i.e. the "on the lands" issue. The City contended that the rule of reasonable use permitted pumping to points out of the water basin, but in the drainage area, as well as to Ryan Field, which was in the critical area and therefore judicially certain to be

within the water basin boundaries. The Jarvis II Court, however, permitted only the latter use, since Ryan Field was situated over the common basin.

It appears that the existence of a critical area inside the basin is relevant only to the issue of damage, and not to a definition of where water may be used. It is the boundaries of the body of groundwater, the basin in Jarvis II, that are determinative. This follows from the fact that the Court stated the City could pump water to residences outside of the critical area if it could be shown that they were inside the water basin. 106 Ariz. at 510, 479 P.2d at 173.

The City of Tucson is violating the reasonable use doctrine by its acts in and out of the Sahuarita-Continental Basin Subdivision, and such violation may be remedied in a summary proceeding. The

material facts in the case at bar are clear. The State Land Department pursuant to duly delegated legislative authority has determined the Sahuarita-Continental Basin Subdivision to be a "distinct body of groundwater," or a "common supply" for those owning land over the basin. Pursuant to the same authority, the Department has also found that there is an unsafe supply of groundwater for irrigation uses in the Subdivision by declaring the Sahuarita-Continental Critical Groundwater Area in the Subdivision. The Court may take judicial notice of such facts. The City owns certain parcels of land in the Subdivision, has sunk wells into the supply, and is transporting approximately 20,000 acre-feet of water <u>annually out of the Subdivision</u>. The City has not shown that it has retired agricultural lands which

formerly used this quantity of water within the Subdivision so as to bring it within the purview of the modification of the Jarvis injunction. See Jarvis v. State Land Department,[1] nor could such a showing be made. The City has in effect

---

1. In an order modifying the writ of permanent injunction issued in Jarvis II the Supreme Court of Arizona granted Tucson permission to pump 1228 acre-feet per year through its pipelines out of the water basin to its customers. Jarvis v. State Land Department, No. 9488 (Ariz. Sup. Ct., Mar. 31, 1971). Earlier, the city had purchased 307 acres of land lying within the Marana Area which had been irrigated with percolating groundwater at the rate of 4 acre-feet per year, or 1228 acre-feet per year total.

established "well farms" over the supply of water common to the Anamax defendants and other landowners within the Basin Subdivision, and is taking the water away from the supply to be sold so that it is not beneficially used on the lands from which it is taken and so that it is unavailable for return to the supply after use. This is precisely the abuse of rights which a great majority of the reasonable use cases dealt with. E.g., Jarvis I, supra; Jarvis II, supra; Canada v. City of Shawnee, 179 Okla. 53, 64 P.2d 694 (1937). Such illegality may be remedied in a summary proceeding -- the Jarvis cases are examples. The City's acts are putting a further, and illegal strain on the supply of groundwater in the Sahuarita-Continental Basin Subdivision which is and will be further damaging to the Anamax defendants and

other landowners in the Subdivision by hastening the decline of the water table, causing economic harm, and eventually leading to an uneconomic situation, thereby, causing these lands to fall barren.

Anamax, therefore, is entitled to partial judgment on its counterclaim against the Intervenor, the City of Tucson, that the present use made by the City of the waters of the Sahuarita-Continental Basin Subdivision is illegal under the doctrine of reasonable use, and further entitled to an order permanently enjoining the City of Tucson and its agents from increasing withdrawals from the supply above the levels at which it was pumping water out of the Subdivision as of the date of this movant's counterclaim.

(Signed CHANDLER, TULLAR, UDALL
& RICHMOND by Robert E. Lundquist,
Attorneys for named Defendants)

* * *

AFFIDAVIT OF ROBERT E.
LUNDQUIST

(Attached to foregoing Motion
for Partial Summary Judgment
and made part thereof)

(Venue)

ROBERT E. LUNDQUIST, being first duly sworn upon his oath deposes and says that he is one of the attorneys for The Anaconda Company, Amax Copper Mines, Inc., as partners in the Anamax Mining Company; that he has read the foregoing Memorandum in Support of the Motion for Partial Summary Judgment against the City of Tucson dated this date, and knows the contents thereof; that the facts stated

therein are true to the best of his knowledge, information and belief.

Furthermore, your affiant is informed, believes and therefore states that Exhibits "A" and "B" attached to Duval's Motion for Summary Judgment against the City of Tucson, on the counterclaim, accurately reflects the boundaries of the Sahuarita-Continental Basin Subdivision and Critical Groundwater Area, as declared by the State Land Department; that said Exhibit "A" is part of the file of Cause No. 11439 in the Supreme Court of Arizona, and that said Exhibit "B" is part of the file in Cause No. 10486 in the Supreme Court of Arizona.

FURTHER AFFIANT SAYETH NAUGHT.

(Signed ROBERT E. LUNDQUIST
before a Notary Public on
March 13, 1974)

NOTE: Anamax Defendants incorporate by reference the map attached as Exhibit A to Duval Defendants' Motion for Summary Judgment as against the City of Tucson, being a map of the Sahuarita-Continental Critical Groundwater Area and Basin Subdivision identical to that filed in Cause No. 11439 in the Supreme Court, and further incorporate by reference Exhibit B to Duval Defendants' Motion for Summary Judgment against the City of Tucson, being an official State Land Department Map of the Sahuarita-Continental Subdivision of the Santa Cruz Basin as established by Order No. 14, June 8, 1954, a copy of which map was filed in Cause No. 10486 in the Supreme Court of Arizona.

* * *

(TITLE OF ACTION)

DUVAL DEFENDANTS' RESPONSE
TO PLAINTIFF'S MOTION FOR
SUMMARY JUDGMENT, OPPOSING
AFFIDAVITS AND MEMORANDUM

Filed: March 18, 1974

Duval Defendants respond to and oppose Plaintiff's Motion for Summary

Judgment, upon the grounds hereinafter set forth:

1. The material facts are disputed. Further, even if the facts and conclusions set forth in the Affidavits and Exhibits attached to Plaintiff's Motion were true, such facts would be insufficient to support summary judgment and there would remain for determination numerous and disputed genuine issues of law and material fact.

2. Plaintiff is not entitled to judgment as a matter of law.

3. The Plaintiff's Motion and the Affidavit supporting it contain the following legal and factual deficiencies, any of which, standing alone, would be sufficient to require denial of the Motion:

a. The Affidavits do not establish as an evidentiary fact that Duval

Defendants "use" a substantial or even an appreciable amount of water outside the Critical Area, though this unsupported and incorrect proposition is stated in the Motion. To the contrary, Duval's primary uses occur inside the Critical Area.

b. There is no evidence whatsoever before the Court that the present or future pumping of water by Duval Defendants from their wells situated on their lands has affected or will in any way affect, either from a factual or legal standpoint, the groundwater table under Plaintiff's land or Plaintiff's past, present or future uses of groundwater.

c. There is no evidence that the groundwater level decline alleged in Plaintiff's complaint but not mentioned in its Motion or Affidavits, has not been

solely caused or largely contributed to by the Plaintiff's own increased, excessive and wasteful uses of groundwater.

d. The remedy invoked and the summary judgment sought is injunction. The Affidavit is devoid of any facts which would enable, much less require, the Court to reject the specific affirmative defenses asserted by the Answer of Duval Defendants, which include (1) Plaintiff's being guilty of laches; (2) Plaintiff's claim being barred by limitations; (3) Plaintiff's having unclean hands; (4) the necessity of making a comparative appraisal of the interests of third persons and the public, the character of the interests involved, and the relative hardships to the parties; (5) Duval's having made a substantial contribution to the common source of supply by retiring large acreages of

farmland from cultivation; and (6) that the granting of an injunction would deprive Duval Defendants of their property without due process and without just compensation and would deny them equal protection of the laws.

4. As construed by Plaintiff, the Arizona groundwater statutes would be unconstitutionally vague, arbitrary, and discriminatory, would deny Duval Defendants substantive and procedural due process and of equal protection of the laws, and would result in an unconstitutional taking of Duval Defendants' property without just compensation and for a private and constitutionally prohibited purpose.

This Response is based upon the records, files and discovery materials herein, the attached exhibits and affidavits and the Memorandum of Points and

Authorities following.

(Signed FENNEMORE, CRAIG, von AMMON & UDALL by Calvin H. Udall and James W. Johnson, Attorneys for Duval Defendants)

MEMORANDUM OF POINTS AND AUTHORITIES

I

THE MATERIAL FACTS ARE MANY AND DISPUTED AND RAISE THE ADDITIONAL ISSUES OF WHETHER PLAINTIFF'S CLAIM IS BARRED BY LACHES, ESTOPPEL, UNCLEAN HANDS, RELATIVE HARDSHIPS OR BY OTHER EQUITABLE PRINCIPLES

FICO asserts the facts are simple and undisputed. The facts are not simple and undisputed. Contrary to FICO's assertions, Duval is not transporting water primarily for use outside the Critical Area.[1]

1. Duval Defendants assume that even under the distorted version of the reasonable use doctrine which FICO is attempting to urge on the Court, the transportation out of the Critical Area and out of the state, for that matter, of the water which forms the moisture content in copper concentrates and of agricultural crops such as cotton,

(continued)

(footnote "1" continued):

grain and pecans, does not violate the reasonable use doctrine. In a purely literal sense, the sale of crops and concentrates involves the sale and transportation of water. However, Duval defendants know of no cases which hold that the sale of crops or concentrates constitutes unlawful transportation of water.

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This case is controlled by the doctrine of reasonable use. Reasonableness is a question of fact. "What is a reasonable use must depend to a great extent upon many factors, such as the persons involved, the nature of their use and all the facts and circumstances pertinent to the issue." Bristor v. Cheatham (Bristor II), 75 Ariz. 227, 237, 225 P.2d 173 (1953). Among the many pertinent facts and circumstances which must be considered in this case are those summarized below. Cases of this magnitude and complexity cannot be decided by disregarding the hydrological and other factual situations which the groundwater statutes were designed to regulate.

Because FICO takes the position that the designation of the Critical Groundwater Area is all important and because Duval maintains that it does not use

significant quantities of water outside the Critical Groundwater Area, Duval's activities in relation to the Critical Area should be examined. Of far greater importance, however, are Duval's activities in relation to the statutorily designated Groundwater Subdivision. FICO has not once mentioned, much less discussed, the existence of the Sahuarita-Continental Groundwater Subdivision, so designated by the State Land Department pursuant to A.R.S. Sec. 45-308. To the contrary, FICO has tried to gloss over and obscure the very clear and distinct meanings of the statutory terms "groundwater basin" and "groundwater subdivision" by implying that such terms are synonymous with "critical groundwater area" even though each of these terms is specifically and separately defined by A.R.S. Sec. 45-301. FICO makes no distinction

whatever between these terms of art and uses them interchangeably. (FICO's Motion, p. 2, grounds 4 and 5). FICO even states that there is a "groundwater basin underlying the Sahuarita-Continental Critical Groundwater Area" (Motion, p. 1). In referring to Jarvis I in its memorandum at page 4, FICO implies that this Court is now dealing with a "groundwater basin of a duly designated critical groundwater area." Duval Defendants concede that a designated critical groundwater area could be contiguous with a designated groundwater basin and/or one or more designated groundwater basin subdivisions. But this is not the case here.

Although FICO works hard to muddy the waters, it remains that "critical groundwater area" and "groundwater subdivision" have separate, distinct and

precise statutory definitions. And it is not the designation of the Critical Area but the designation of the Subdivision which is controlling here. However, even this does not tell the entire story. Bristor v. Cheatham tells us there is far more to consider than the mere location of pipelines which supply make-up water.

Attached as Exhibit "C" is a map showing the location of Duval's properties and activities in the upper Santa Cruz Valley south of Tucson. The nature of Duval's uses is summarized in the attached affidavits. Duval mines approximately 38,325,000 tons of ore annually from its Esperanza and Sierrita Pits in the Sierrita Mountains on the west side of the valley. The ore is hauled to Duval's mills where it is ground to a fine powder and mixed with water. From the slurry

thus formed, the copper is removed in the form of concentrates by the flotation process. The mill tailing remaining in the slurry is disposed of by piping it to tailing ponds. Water in the slurry is pumped from the tailing ponds back to the mill and reused.

The milling process requires approximately one ton of water for each ton of ore milled. Although water is conserved and recycled to the maximum extent possible, approximately 23,000 acre feet of make-up water are required annually. Make-up water is pumped from land owned by Duval in the Santa Cruz Valley and fed into a common pipeline which transports such water to the mills. The Esperanza Well Field is located on a tract of approximately 562 acres located inside the Critical Area. The Sierrita Well Field is also located inside the Critical Area

on a tract of land comprised of approximately 5,950 acres known as the south half of the Canoa Land Grant. Of the lands owned by Duval inside the Critical Area, approximately 1,530 acres have a history of cultivation and are entitled to the use of approximately 10,710 acre feet per year for agricultural purposes under the Groundwater Code. (based on 7 acre feet of water per acre required for pecans, see depositions of Warren E. Culbertson, Feb. 11, 1971, p. 23, line 9; Feb. 23, 1971, p. 206, line 4) Duval has temporarily retired or will retire all such agricultural acreage from cultivation. All of Duval's operations lie entirely within the Sahuarita-Continental Groundwater Subdivision except the opened portion of the Sierrita Pit. Altogether, Duval owns or leases approximately 17,610 acres overlying the common basin supply

as defined by the Subdivision boundaries. Of this approximately 12,000 acres are located inside the Critical Area. Only a small amount of the water from the common pipeline is transported outside the Subdivision, that being for dust control in the Sierrita Pit. However, in 1973, for example, the Sierrita Pit produced over 480 acre feet of ground-water which was pumped into the Duval mill circuit, and compensates for amounts so transported outside the Subdivision. The only other uses outside the Critical Area are de minimis amounts used inside the Subdivision in Duval's leach and pre-cipitation process and those amounts consumed by concentrates.

The primary use for which water is pumped by Duval is in the mill circuits for the transportation of tailing. Only about 37 acre feet per year of this

process water is consumed by the copper concentrate which is transported elsewhere for smelting. This water can be considered as transported away from the Critical Area only in the sense that the water which forms the bulk of most agricultural crops is transported away. All of the rest of the process water is piped to tailing ponds and returned to points within the Critical Area. Thus, contrary to FICO's assertions, there has been no use of mill water outside the Critical Area.

Duval does not concentrate waters on small, postage-stamp sized well fields as Tucson did in the Jarvis case. Duval does not transport the water for merchandising as did Tucson. Most importantly, no water is transported outside the Sahuarita-Continental Groundwater Subdivision. All of Duval's uses are on

its lands overlying the groundwater basin, and all amounts not consumptively used are allowed to return to the common basin. Further, even if FICO were correct in its proposition that Duval cannot transport water outside the Critical Area, which it is not, it is a fact that Duval's mill processes result in no net use outside the Critical Area. More than that, Duval has retired agricultural lands within the Critical Groundwater Area resulting in a net annual addition to the common supply of more than 10,710 acre feet annually. This more than compensates for Duval's net consumptive uses.

But this tells the story of the water balance only. It does not begin to tell the story of the other equitable and factual circumstances involved. What is a reasonable use must depend upon all

of the facts and circumstances involved including the persons involved and the place and nature of the use. What is a reasonable use for mining purposes might not be a reasonable use for agricultural or municipal purposes. Copper ore is almost never conveniently located near a suitable aquifer. Almost by definition, minerals are found in rock. Consequently, it is almost always necessary to transport water from those sections of the aquifer where productive wells can be drilled to ore bodies and milling facilities. Copper has been mined in Arizona since before statehood, and has continued with the full approval and encouragement of the legislature and the courts. It can only be concluded that the transportation of water for mining has long been regarded as a lawful and reasonable use of groundwater in Arizona.

Also bearing on the issue of reasonableness is the fact that copper is a metal in critically short supply in the United States and one which is essential to all sectors of the economy. Unlike pecans, copper can be produced in certain places. Arizona produces over 52% of the ore mined in the United States. Duval itself produces over 5% of the nation's ore. So scarce is copper that ore deposits with grades as low as 3/10 of 1%, such as those mined by Duval, are considered valuable. By contrast, pecans are in no way essential to the national welfare and many areas in many states offer excellent conditions for the cultivation of pecans.

Duval has been in the process of construction and developing its properties for mining since before 1956. As appears from the affidavit of Mr. B. G.

Messer attached hereto, this construction and developme proceeded with the full knowledge of the President of Farmers Investment Company, Mr. Keith Walden. Mr. Walden allowed and cooperated in this development with the knowledge that large supplies of water would be required for the operation of Duval's mines and that Duval would develop such water supplies at points within the Critical Area. In spite of these facts and knowing Duval was spending literally scores of millions of dollars, FICO stood idly by. FICO's claim is now barred by laches and estoppel. It is also barred by the limitations set forth in A.R.S., Title 12, Chapter 5.

FICO is requesting summary judgment granting it an injunction. However, the appropriateness of an injunction depends upon a comparative appraisal of all the

factors of the case. Restatement, Torts, Sec. 936. Among the factors to be considered are the interests of third persons and of the public (Sec 942), a balancing of the relative hardships to the parties (Sec. 941), the character of the interests involved (Sec. 937).

Duval pumps approximately 23,000 acre feet annually. FICO pumps over 31,000 acre feet. (See e.g., FICO's answers to Duval's Interrogatory No. 11 First Set) Only a small portion of the water pumped by Duval is consumptively used and the remainder is allowed to return to points overlying the common supply. In contrast, approximately 75% of the water pumped by FICO is consumptively used and never returns to the common supply. Duval has spent approximately $225,000,000 in capital investment alone for the Duval and Sierrita mines, mills and related

operations. In contrast, the entire value of FICO's holdings in the Santa Cruz Valley does not exceed $20,000,000. Duval employs over 2,250 full time employees and has an annual payroll of over $2,770,000. FICO employs approximately 250 persons, only about 140 of which are full time, with an annual payroll of approximately $1,000,000. (deposition of R. Keith Walden, pp. 257-58)

Duval's mining properties in Pima County are assessed at $82,014,000. Duval paid property taxes in 1973 of $4,847,427. In contrast, FICO paid less than $105,000 in property taxes in 1970. (FICO's answers to Duval's Interrogatories, First Set, No. 54, 1970 being the last year as to which such information was requested.) Duval currently spends more than $50,000,000 annually for the purchase of equipment and supplies. The

corresponding purchases by FICO are much less. Duval's operations have been a strong and productive economic force in Pima County and Arizona while FICO's operations collected over $2,385,000 in federal subsidies between 1967 and 1972.

FICO has not shown that it has been damaged by Duval or that pumping by Duval has in any way contributed to any draw-down experienced in FICO wells. On the contrary, according to the data published by the United States Geological Survey and others and as shown by the affidavits attached hereto, many wells in the Critical Area have experienced substantial periods of rising water levels since Duval began pumping. Duval has installed pumpback systems to recycle, reuse and conserve to the greatest extent reasonably possible, the water used in its processes.

In contrast, FICO has engaged in extravagant and wasteful irrigation and cropping practices. The majority of plaintiff's 5,000 acres of pecan trees are double and inter-cropped. The plaintiff is raising crops precisely as it did after the establishment of the Critical Area but has, in addition, planted on the same acreage 5,000 acres of pecan trees, a crop which plaintiff admits consumes more water than the crops grown prior to its planting of pecans. (deposition of R. Keith Walden, pp. 190-91; see also deposition of Warren E. Culbertson, Feb. 23, 1971, pp. 152-54) If, as FICO contends, the purpose of the Groundwater Code and the designation of the Critical Area is to limit "irrigation of the cultivated lands in the basin at the then current rates of withdrawal", then FICO has itself violated the reasonable use

doctrine. Duval has made specific sworn statements as to these wasteful irrigation and cropping practices employed by the plaintiff in its answers to plaintiff's interrogatories 48 through 51 (second set). These factual statements of waste are not in any way challenged by plaintiff's affidavits in support of its motion. Further, FICO continues to engage in flood irrigation practices in spite of the fact its pecan trees may be much more effectively and efficiently irrigated by the trickler irrigation system, which could reduce the application of water by approximately one-half. On these grounds alone, and for the simple reason that the plaintiff does not seek equity with "clean hands", summary judgment should be denied. Not only has plaintiff completely failed to use reasonable measures for the conservation of water, it has engaged in

lavish and extravagant applications and multiple cropping. The waste of water is not only universally condemned by case law, it is also a crime in Arizona. A.R.S. Sec. 45-109(A)(5); Sec. 45-319, 323.

Yet, annually FICO pumps over 31,000 acre feet of water over 75% of which is consumptively used, compared to only 23,000 acre feet pumped by Duval, of which all but 23% is restored to the ground. When these figures are translated into the social and economic benefits produced for each acre foot of water consumed, the difference is overwhelming. And this is against the background of FICO's delay in asserting its alleged rights and its own wasteful practices and failure to reasonably conserve water. Duval submits that th use of water for multiple and intercropping and for the production and

flood irrigation of pecans and other non-essential crops which consume inordinate amounts of water under arid conditions such as exist in the Santa Cruz Valley is wasteful and unreasonable and should be enjoined.

II

THE DOCTRINE OF REASONABLE USE

FICO's entire motion is based on a single, simple, but erroneous, assertion: that any transportation whatever of water from a Critical Groundwater Area is an unreasonable use per se. However,such is not and never has been the law of Arizona.

To the contrary, all lands overlying a common supply of groundwater, as defined by the State Land Department pursuant to A.R.S. Sec. 45-308, regardless of whether such lands lie within or without a designated Critical Groundwater Area, are

equally entitled to the reasonable use of water from the common supply. This principle is expressed in the Jarvis decisions and by the many cases cited and relied upon in those decisions. FICO places considerable reliance upon Jarvis to sustain its position because Jarvis involved the transportation by the City of Tucson of water from a Critical Groundwater Area. However, the issue involved here is different from the issues involved in Jarvis. Jarvis involved a transbasin diversion as opposed to an intrabasin diversion, which is the case here. Accordingly, FICO's reliance on the magic words "Critical Groundwater Area" as an automatic solution to its case is misplaced. As it must to even color a legal theory, FICO deliberately ignores the doctrine of reasonable use and the fact that Duval's activities are

within the Sahuarita-Continental Subdivision of the Santa Cruz Water Basin, so designated by the State Land Department, as the land overlying the common supply of groundwater from which Duval and FICO withdraw water.

The Meaning of "Critical Area"

It is essential to keep in mind that Duval's uses of groundwater are within the Continental-Sahuarita Subdivision of the Santa Cruz Groundwater Basin so designated by the State Land Department on June 8, 1954, pursuant to its duty to do so under A.R.S. Sec. 45-308. Yet nowhere in its Motion or Memorandum does FICO mention this fact or even the existence of the Sahuarita-Continental Subdivision. A "groundwater subdivision" is defined by statute as:

> . . . an area of land overlying as nearly as may be determined by known facts, a distinct

> body of ground water. It may consist of any determinable part of a groundwater basin. (Emphasis added.) A.R.S. Sec. 45-301(6).

Thus, the existence of the common body of groundwater is determined by hydrological facts. But the existence of a critical area, which forms the foundation of FICO's entire argument, is determined not by hydrological facts, but by agricultural facts. A "critical groundwater area" is defined by statute as:

> . . . any groundwater basin as defined in paragraph 5 or any designated subdivision thereof, not having sufficient groundwater to provide a reasonably safe supply for irrigation of the cultivated lands in the basin at the then current rates of withdrawal. (Emphasis added.) A.R.S. Sec. 45-301(1)

The essence of the definition of critical groundwater area is not the extent of the common supply, but the extent of irrigable lands. This is aptly

illustrated by this case, where the Sahuarita-Continental Critical Area is entirely within the Sahuarita-Continental Subdivision. The Critical Area does not include the entire Subdivision, but it does include all irrigable lands within the Subdivision. There is good reason for this. The purposes behind the designation of critical groundwater areas and nearly all statutes and regulations relating to critical groundwater areas have to do solely with regulating development of new agriculture within the critical groundwater area. Southwest Engineering Co. v. Ernst, 79 Ariz. 403, 410, 291 P.2d 764 (1955). Industrial and certain other wells are expressly exempted from the statutory proscriptions relating to critical groundwater areas. A.R.S. Sec. 45-301(3) and 322. Where it is apparent that lands would not be suitable

for agricultural purposes, there is no reason to unnecessarily expand the boundaries of the critical area to include such non-irrigable lands.

Meaning of Drainage Area

The basin subdivision should not be confused with the drainage area, discussed somewhat in Jarvis and also peripherally mentioned by FICO in its Motion. The drainage area does not relate to groundwater hydrology but relates strictly to surface drainage. The boundary of a drainage area is the divide along which surface waters will drain into one watershed or another. There is no statutory procedure for designating drainage areas, and the precise location of a drainage divide will to some extent be a matter of judgment. The body of groundwater which percolates beneath the surface of the ground does not necessarily have any relationship to the surface

drainage area. This is illustrated by the case at bar where the eastern portion of the Subdivision extends well beyond the eastern boundary of the drainage area. This is shown on the map which is attached hereto as Exhibit "D" on which the drainage area has been drawn according to the State Highway Department Quadrangle Sheets. Said map also depicts the location of the boundaries of the Sahuarita-Continental Critical Area, the Sahuarita-Continental Subdivision and Duval's activities in relation thereto. A copy of Order No. 14 and the official map of the Sahuarita-Continental Subdivision, certified by Louis C. Duncan, Deputy State Land Commissioner, is on file with the Arizona Supreme Court in Cause No. 10486 therein. Copies of said documents, certified by Clifford H. Ward, Clerk of the Arizona Supreme Court, are

attached to Duval's Motion for Summary Judgment against the City of Tucson herein as "Exibit B".

The Meaning of "Off the Land"

FICO's position is a gross distortion of the reasonable use doctrine and of the decisions of this court. Arizona courts have never condemned as illegal per se the transportation of water outside a critical area. Nor can such a proscription be inferred from any decision of the Arizona courts.

What the doctrine of reasonable use and the decisions of the courts do proscribe is the transportation of water to lands away from the common supply, to points where its return to the common supply is prevented.

The doctrine of reasonable use was adopted in Arizona in Bristor v. Cheatham (Bristor II), 75 Ariz. 227, 237-38, 255

P.2d 173 (1953), reversing, 73 Ariz. 228, 240 P.2d 185 (1952). Recognizing that the principal difficulty in applying the reasonable use doctrine was to determine what was a reasonable use under the circumstances and observing that "[W]hat is a reasonable use must depend to a great extent upon many factors, such as the persons involved, the nature of their use and all of the facts and circumstances pertinent to the issue," the Arizona Supreme Court adopted the rule of reasonable use in the following language (75 Ariz. at pp. 237-38):

> This rule does not prevent the extraction of ground water subjacent to the soil so long as it is taken in connection with a beneficial enjoyment of the land from which it is taken. If it is diverted for the purpose of making reasonable use of the land from which it is taken, there is no liability incurred to any adjoining owner for a resulting damage. As stated in Canada v. City of

Shawnee, supra:

> ' * * * the rule of reasonable use as applied to percolating waters' does not prevent the proper user by any landowner (sic) of the percolating waters subjacent to his soil in agriculture, manufacturing, irrigation, or otherwise; nor does it prevent any reasonable development of his land by mining or the like, although the underground water of neighboring proprietors may thus be interfered with or diverted; but it does prevent the withdrawal of underground waters for distribution or sale for uses not connected with any beneficial ownership or enjoyment of the land whence they are taken, if it thereby result (sic) that the owner of adjacent or neighboring land is interfered with in his right to the reasonable user (sic) of subsurface water upon his land, or if his wells, springs, or streams are thereby materially diminished in flow or his land is rendered so arid as to be less valuable for agriculture, pasturage, or other legitimate uses.' (Emphasis added.)

Emphasis was placed on limiting the use of the water to "purposes incident to the beneficial enjoyment of the land from

which they are obtained." 75 Ariz. at 236. However, Bristor did not specifically define the term "off the land" or "the land from which they are obtained" or similar phrases. Bristor v. Cheatham was decided on a motion to dismiss. The court had no evidence before it. Having no evidence of the physical facts as to the location and limits of the common groundwater basin, the court did not attempt to define the terms such as "off the land."

FICO reads these terms in an absurdly literal manner. Throughout its Motion and Memorandum, FICO repeatedly emphasizes that the groundwater pumped by Duval is not used on the well sites from which it is taken, therefore, it is used "off the land." This is ridiculous. "Off the land" means, and can only mean, "away from the common supply."

Carried to its logical conclusion, FICO's definition of "off the land" means away from the well head where the water was extracted from the ground. Practically every drop of water pumped everywhere for agricultural or industrial purposes must be transported some distance from its source in order to be put to a beneficial use. FICO itself transports water over distances of several miles. In fact, the Arizona decisions specifically permit transportation off the well site. For example, State ex rel. Morrison v. Anway, 87 Ariz. 206, 349 P.2d 774 (1960), decided after Bristor, held that under the doctrine of reasonable use, water could be transported from wells located on irrigated lands for use on other lands not previously irrigated. Anway makes clear that the mere distance

from the pump to the point of beneficial application is not determinative of the question of lawfullness.[2]

FICO's use of the term "off the land"

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2. Similarly where the Arizona Supreme Court subsequently modified its injunction in Jarvis to permit the City of Tucson to retire a parcel of land from cultivation and to transport water from the Avra-Altar Valleys in amounts representing the historical use on such parcel to the City, the court specifically permitted the City to pump such water from wells located on parcels other than the parcel retired from cultivation or from

> ....other wells within the Avra-Altar Valleys overlying the Marana Critical Groundwater Area. . . . (Order modifying injunction, Cause 9488)

is clearly wrong. The doctrine of reasonable use only prohibits the use of groundwater outside the groundwater basin from which it is pumped.

> The reasonable use doctrine requires that the exploitation rights of the overlying proprietor be limited. It permits him to pump only such water as he can apply to reasonable beneficial uses upon his own land, and outlaws, as unreasonable, diversions to lands beyond the source basin. (Emphasis added.) Casner, American Law of Property, Volume 6A, p. 196.

This is the law of Arizona. It can be seen in Anway, Bristor, Jarvis and the cases cited in the Jarvis decisions.[3]

3. The court cited many cases in Jarvis II in support of its statement of the reasonable use doctrine. Although none of these cases expressly define expressions such as "off the land," "the land from which it is taken," or similar phrases, wherever such a definition would have been relevant, the cases clearly consider such land to be the land overlying the common supply and not merely the well site or other parcels of land arbitrarily defined by property lines. See, e.g.,

(continued)

footnote 3, continued:

Horne v. Utah Oil & Refining Co., 59 Utah 279, 202 Pac. 815 (1921); Glover v. Utah Oil & Refining Co., 62 Utah 174, 218 Pac. 955 (1923); Silver King Consolidated Mining Co. v. Sutton, 39 P.2d 682 Utah (1934); Burr v. Maclay Rancho Water Co., 154 Cal. 428, 98 Pac. 260 (1908); City of San Bernardino v. City of Riverside, 186 Cal. 7, 198 Pac. 784 (1921); Evans v. City of Seattle, 74 P.2d 984 (Wash. 1935); Katz v. Walkinshaw, 70 Pac. 663 (Cal. 1902), on rehearing, 74 Pac. 766 (Cal. 1903); Schenk v. City of Ann Arbor, 163 N.W. 109 (Mich. 1971); Forbell v. City of New York, 58 N.E. 644 (N.Y. App. 1900); Rouse v. City of Kingston, 123 S.E. 482 (N.C. 1924); Volkman v. City of Crosby, 120 N.W.2d 18 (N.D. 1963).

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What is meant by "the land from which it is taken" can be determined from the dissents in the first Bristor opinion which Bristor II overruled. Justice LaPrade, who helped form the majority in the second Bristor opinion, dissented in the first opinion, and stated:

> . . . the only issue before the trial court was whether the owner of land overlying a supply of percolating water common to adjoining land owners may pump the water from wells upon his land and convey it to other lands for the benefit of the latter from whence it does not return to replenish the common supply. if the supply available to the adjoining land owners from pumps upon their lands drawing water therefrom is diminished to their injury. (Emphasis added.) 73 Ariz. 242.

Similarly, Justice DeConcini, dissenting in part from the first Bristor opinion, explained the prohibition under the reasonable use doctrine:

> Under reasonable use there is . . . a prohibition upon a use on other land or at a distance away from the base of the common supply if such alien use interferes with the use or water of other property owners. (Emphasis added) 73 Ariz. at 255.

These dissents call out a fundamental rationale supporting the doctrine of reasonable use. This rationale is simply that water shall not be moved to a point from which it cannot return to the common supply. A shorthand way of saying the same thing is that water shall not be used off the land to which it is subjacent. But this is not to say that water may not be moved within the same groundwater basin or basin subdivision to other land which overlies the common supply and which has a right to the reasonable use of water from the common suppl" It is a hydrological fact--the very one which gave rise to this lawsuit--that

water is not subjacent to any particular arbitrarily defined parcel of land, but must realistically be considered subjacent to the entire basin under which it percolates. A landowner who draws water, draws it not only from his land but from all land in the basin as do other landowners when they pump. That water may be temporarily under his land is all that gives him the right and ability to mine and use it.

Jarvis Specifically Permits the Water Uses Made by Duval

FICO places great reliance on Jarvis v. State Land Department (Jarvis I), 104 Ariz. 527, 426 P.2d 385 (1969), and Jarvis v. State Land Department (Jarvis II), 106 Ariz. 506, 479 P.2d 169 (1970), for the proposition that transportation out of a critical groundwater area is transportation "off the land" and therefore

prohibited. FICO misreads these cases. The discussion in Jarvis relating to transportation outside the critical area did not involve the issue of whether there was transportation "off the land" but only whether the plaintiff was damaged by such transportation. As was stated in Bristor II, 75 Ariz. at 237-38, two elements must be shown in order to make out a violation of the reasonable use doctrine: (1) that the water is not diverted for the reasonable use of the land from which it is taken," and (2) resulting injury. In Jarvis I, Tucson admitted the first element: The diversion was trans-basin, to land overlying a completely separate groundwater supply. The transportation was "off the land". The importance of the discussion of the critical area in Jarvis went solely to the second element: resulting injury. The court in

Jarvis I held that since a critical groundwater area by definition has insufficient water for agriculture, existing water uses can only be impaired by addition of other users. The issue of "off the land" being admitted, damages were presumed from the statutory definition of critical area.

Significantly, in Jarvis II where the court was confronted with the need to define "the overlying lands", it specifically permitted the City of Tucson to deliver water from its well fields located in the Marana Critical Groundwater area to Ryan Field. This transportation of water was legal because Ryan Field overlies the common basin of water from which the water delivered to it by Tucson is taken:

> Its lands overlie the Avra-Altar Water Basin and geographically it lies within the Marana Critical

> Groundwater Area so as to entitle it to withdraw from the common supply for purposes except agriculture. Tucson should not be prohibited from delivering water to Ryan Field for lawful purposes since the Ryan Field supply is from the common basin over which it lies and from which it could legally withdraw water by sinking its own wells for domestic purposes. 106 Ariz. at 510, 479 P.2d at 173. (Emphasis added.)

Admittedly in Jarvis II Ryan Field was situated within the Marana Critical Groundwater Area. However, it was not the fact that Ryan Field lay within the Critical Groundwater Area but the fact that Ryan Field overlay the common basin, which made the delivery permissible. The Supreme Court stated unequivocably (sic) that land overlying the water basin is entitled to withdraw water from the common supply. Although Jarvis II did not involve transportation to land overlying the common supply but outside the Critical Groundwater Area, the court

nevertheless went on in the next paragraph of its opinion to state that Tucson could deliver water to customers lying outside the Critical Area if it could show that such customers were on lands overlying the common supply:

> Until Tucson can establish that its customers outside the Marana Critical Groundwater Area but within the Avra-Altar Valleys' drainage areas overlie the water basin so as to be entitled to withdraw water from it, there are no equities which will relieve it of the injunction heretofore issued. 106 Ariz. at 510, 479 P.2d at 173.

Such a showing has been made in this case. The lands of Duval are situated within the Sahuarita-Continental Subdivision of the Santa Cruz Basin, so designated by the State Land Department as land overlying a distinct body of groundwater.

Location of Mill

FICO asserts in its affidavit in

support of its Motion that Duval's mill and pits overlie igneous rock which is "essentially impermeable." Admittedly, Duval could not produce enough water from either its mill site or its mines to sustain its operations. However, as previously discussed, the primary use of water by Duval is the transportation of tailing material from the mills to the ponds. The actual place of use is not the mills but the tailing ponds. The tailing ponds, as shown by FICO's own geologic map, Exhibit "A" to its Motion, overlie the alluvium in which the basin supply percolates. Further, contrary to the assertions of impermeability, Duval's Sierrita and Esperanza pits produced more than 680 acre feet of groundwater during 1973 which was cycled into the process water circuits.

However, by far the more important

consideration is that FICO's case is based entirely on statutory definitions. It relies upon the statutory definition of "critical area" to avoid difficult problems of proof. From that definition FICO asserts that there is an overdraft on the groundwater basin, that there is insufficient water to sustain its farming operations at current rates of withdrawal, and that further withdrawals will further deplete the water supply. FICO further argues, although incorrectly, that the existence of a designated critical area automatically prohibits the transportation of water out of the critical area.

What FICO deliberately overlooks is that the definition of "groundwater basin subdivision" is born of the same embryo as that of "critical area." A.R.S. Sec. 45-301 defines them both.

It defines the basin subdivision as the land overlying "a distinct body of groundwater," i.e., the groundwater basin, the common supply. If FICO wishes to accept and rely on the definition of critical area, then it must also accept the definition of subdivision. The State Land Department pursuant to its statutory duty to do so has defined the land which overlies the common groundwater basin, just as it has designated the boundaries of the critical area on which FICO so heavily relies. FICO cannot change the boundaries of this Subdivision merely by filing an affidavit in this action.

In reliance upon the designation of the Sahuarita-Continental Groundwater Subdivision by the State Land Department Duval pent over $225,000,000.00 in the development of its mine, mill and related facilities. In fact, it was specifically

intended that the designation of subdivisions induce such reliance. The purpose of such designation is to establish the extent of the groundwater supply so that persons may be encouraged in economical enterprises without fear of being required to demonstrate in lengthy and expensive trial proceedings that their uses lie precisely over the common supply. Unlike the designation of a critical area, no consequence attaches under the statutes to the designation of the groundwater subdivision. It is clear that the definition of subdivision was written with the common law doctrine of reasonable use in mind, that the consequences which attach to the designation of the subdivision are those which attach at common law. In other words, once the land overlying "a distinct body of groundwater" is defined, the principles of reasonable

use applicable to the land overlying the common supply obtain.

It is essential that there be a statutory procedure, such as that set forth in A.R.S. Sec. 45-303 for the conclusive designation of the lands overlying the common supply and which are accordingly entitled to the reasonable use of water from that supply. Without it, the result would be chaotic. Persons such as Duval would be expected to proceed at their peril in the investment of hundreds of millions of dollars. Unlike determinations such as the location of the irrigable acres in a basin, the location of the body of groundwater cannot be determined from convenient reference to surface topographic features. The precise delineation of the boundaries of the common supply must to some extent depend on the exercise of judgment and

such boundaries are always changing. Water levels are continuously rising and declining, and groundwater contours are constantly altered by changing pumping patterns. Unless persons can rely upon the designation of a groundwater subdivision without fear that they will risk their entire investments in expensive protracted court proceedings involving nice hydrological questions and the resultions of conflicting hydrological opinions as to the precise boundaries of the common basin, the orderly economic development of the state will be completely thwarted.

Finally, it is important not to lose sight of the overriding and controlling principle in this case: the doctrine of reasonable use. Reasonableness is a question which demands actual consideration all of the facts and circumstances in-

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cluding the persons involved and the place and nature of the use. As stated before, what is a reasonable use for mining purposes might not be a reasonable use for agricultural or municipal purposes. Ore deposits are found in rock, not on top of aquifers. While the location of a farm is generally determined by the location of the water supply, the location of a mine is determined by the location of the ore. Water must therefore be transported significant distances in connection with the operation of virtually every mine in Arizona. Even under its own theory, FICO would have no complaint if Duval had built its mill in the valley. Yet to have done so would have been impractical and would have represented the least economical and least beneficial use of all of the lands involved and the least respect for the environment. To require

Duval to now move its mill to Green Valley, on land much better suited for agricultural and residential uses, would be even more foolish and would serve only to put form ahead of substance.

Retirement of Agricultural Lands

For the foregoing reasons, Duval would be entitled to its present uses of water whether it had retired any farmland or not. That Duval has retired over 1,500 acres of land in the Critical Area and has thus contributed over 10,700 acre feet annually to the common basin supply is an equity which weighs heavily in its favor. FICO argues that this means nothing because of an oblique reference in Jarvis II to A.R.S. Sec. 45-147. There, where the court allowed Tucson to retire agricultural land and transport water completely away from the groundwater basin, which is not the case here, the court

alluded to A.R.S. Sec. 45-147 which establishes priorities to conflicting applications for uses in appropriable waters and which accords municipal uses higher priority than agricultural uses. FICO then argues that this section accords agriculture priority over mining and industrial uses in this case. But, as the court in Jarvis itself stated, the priorities set forth in this section have application to appropriable waters only. They were not carried over into the groundwater code as they could have been if the legislature had intended to set values on the relative benefits to be derived from different groundwater uses. While for obvious reasons, municipalities might expect to enjoy a high priority under all circumstances, it cannot be inferred that the same priorities would hold true for other uses under all circumstances. At the time of enactment of

the appropriation statutes, the traditional and most practicable source of water for agriculture was surface diversions. Similarly, the land most suitable for agriculture was generally located along surface water courses. Considering these circumstances, the legislature could have intended that the most efficient use of water resources would contemplate that agriculture should have priority in the use of surface water. Correspondingly, mining and industry, with their traditionally greater resources and less dependency on proximity to rivers and streams, would be encouraged to develop water from groundwater sources, as has been done.

Thus, the priorities set by the legislature in the waters of the state, i.e, the appropriable waters, cannot be said to carry over or to have any effect

on groundwater. To the contrary, it is established doctrine in Arizona that the right to the reasonable use of groundwater for beneficial purposes is a property right belonging to the owner of the land overlying the common supply, and the doctrine is stated without regard to the characterization of the use as municipal, industrial, agricultural, or whatever.

The reason for allowing the City of Tucson to retire agricultural land and allowing it to transport the water elsewhere was not A.R.S. Sec. 45-147 at all, for it had nothing to do with the principles appliable in the Jarvis case. Rather the reason was the simple fact that as a result the complainants suffered no damage in the exercise of their water rights. This is a well recognized and long established principle of reasonable use and has nothing whatever to do with

the statutes applicable to appropriable waters, as distinguished from groundwater, in Arizona. For example, in Glover v. Utah Oil Refining Co., 218 Pac. 955 (Utah 1923) cited in Jarvis II at 479 P.2d at 172, a similar situation was present. The defendant purchased the water rights of more than 100 lot owners overlying the common artesian district and was "conducting the waters thereof to a point beyond the boundaries of said artesian district and there use the same for commercial and manufacturing purposes." 218 Pac. at 956. The court stated that under the doctrine of reasonable use water could not be conveyed away from the boundaries of the common supply to the injury of overlying owners. The real question before the court then was:

> What would constitute an injury to adjoining owners or persons owning water rights within said

> artesian district? 218 Pac. at 956.

The court observed that the plaintiff was not injured in its exercise of its water rights but was contending that it was additionally entitled to those which the other owners of lands overlying the common supply would otherwise be entitled but elected to use elsewhere:

> Plaintiff does not claim that defendant proposes interfering with a right which plaintiff is enjoying at the present time, but with a right which plaintiff hopes to get in the event that those who now own the right should abandon it or dispose of it to be used outside the artesian district. 218 Pac. at 957.

The court ruled that it was permissible to transport water beyond the boundaries of the common artesian district provided water rights of corresponding quantities on lands overlying the common district

were retired:

> We are not inclined to subscribe to the doctrine that the owner of a water right within an artesian district cannot use it, or dispose of it for use, beyond the boundaries of the district without the right thereto being forfeited to other users within the district. The contention of appellant in that regard, in the opinion of the court, is utterly incompatible with the right of private property and the established policy of the state, which permits a change of place in the use of water as long as the rights of others are not injured thereby. In the instant case, the rights of plaintiffs. . . will not be injured by the contemplated change of the place of use, and consequently it follows that plaintiff's complaint does not state facts sufficient to constitute a cause of action. 218 Pac. at 958-59.

The application of A.R.S. Sec. 45-147 is similarly incompatible with the doctrines of private property enunciated in Arizona as being applicable to groundwater. The surface waters of the state

are public waters and are apportioned in periods of short supply on the basis of first in time first in right. In contrast, the rights to the use of groundwater are private property rights belonging to the owners of the land overlying the supply. They are apportioned on the basis of ownership of lands. The measure of apportionment is not annual flow or temporal priority but reasonable and beneficial use.

Thus, under the doctrine of reasonable use, there are no "conflicting" claims in the sense that there may be "conflicting applications" under the appropriation statutes. All lands overlying the common supply are equally entitled to water from that supply for reasonable and beneficial purposes. There is no system of relative priorities, such as exist under the appropriation statutes,

for excluding one type of use in favor of another, when applications for the same water are filed at the same time. As was said in Bristor II quoting from Canada v. City of Shawnee, 179 Okla. 53, 64 P.2d 694,696, the rule of reasonable use:

> . . . does not mean that there shall be an apportionment of subterranean percolating water between adjacent landowners, for such a thing is often, if not always, impossible, and it was this same impossibility which gave rise to the English rule itself.

Once again, plaintiff is playing a game of definitions. Plaintiff states and relies on the statutory distinctions between "domestic," "municipal," "irrigation," "mining," and "industrial" uses of water contained in a chapter of the water code which relates solely to appropriable waters and which has no application to groundwater, the subject of this lawsuit.

Yet, Plaintiff chooses to completely reject the clear provision of the ground-water chapter exempting from its operation wells for "industrial or transportation purposes." A.R.S. Sec. 45-301(3). Plaintiff also overlooks the fact that there is no such exemption for "municipal" wells, and accordingly its reliance on Jarvis in yet another respect is misplaced.

III

CONSTITUTIONAL CONSIDERATIONS

It is axiomatic that wherever possible "statutes shall be construed in such a manner as to preserve their constitutionality. . . . " Selective Life Insurance Co. v. Equitable Life Assurance Co., 101 Ariz. 594, 598, 422 P.2d 710 (1967); Stillman v. Marston, 107 Ariz. 208, 209, 484 P.2d 628 (1971). However, if FICO's position were taken as correct, that designation of the Sahuarita-Continental

Groundwater Area pursuant to A.R.S. Secs. 45-301 et. seq., prohibits Duval's uses of groundwater, then, as so construed, such statutes would be arbitrary and discriminatory and would create arbitrary and unreasonable classifications of water users and land owners. Further, the groundwater statutes would be unconstitutionally vague, would deny Duval equal protection of the laws, and would deprive Duval of its property for a constitutionally impermissible purpose without due process and without just compensation.

<u>FICO's Construction of the Statutes Would Result in Such Statutes Being Arbitrary, Discriminatory, and in Creating Unreasonable and Arbitrary Classifications Among Different Classes of Land Owners and Water Users.</u>

If FICO's construction of the statutes were taken as correct, then the

statutes would be arbitrary on their face. From the very definition of "critical groundwater area," it would be apparent that the statutes were designed solely for the benefit and protection of agricultural water users. By definition, a critical groundwater area is a basin or subdivision, "not having sufficient groundwater to provide a reasonably safe supply for irrigation of the cultivated lands in the basin at the then current rates of withdrawal." A.R.S. Sec. 45-301(1).

Further, under the groundwater statutes, only agricultural water users are entitled to petition for the formation of a critical groundwater area. A.R.S. Sec. 45-308(B) provides that a critical area shall be formed upon the department's initiative or upon "petition to the department signed by . . . the <u>users of</u>

groundwater" within the basin or subdivision. (Emphasis added). But the definition section limits "user of groundwater" to mean "any person who is putting groundwater to a beneficial use primarily for irrigation purposes". A.R.S. Sec. 45-301(13).

The result is that agricultural users and only agricultural users are entitled to petition the State Land Department for the protection of a critical groundwater area. This clearly denies all other users equal protection of the law and discriminates unreasonably and arbitrarily in favor of agricultural interests and against all others.

The unconstitutional application of the statute is shown by the designation of the very critical area here in issue. The Sahuarita-Continental Critical Area encompasses all of the cultivated and

reasonably irrigable lands in the Sahuarita-Continental Groundwater Subdivision, but excludes more than half of the land in the Subdivision, none of which is reasonably irrigable. Agricultural interests are allowed to petition for the formation of a critical groundwater area and thereby form an enclave which shall be exempt from the common law application of the doctrine of reasonable use and thereby exclude industrial, municipal and all other users from the benefits of that common law doctrine without also giving such other users the opportunity to petition to have their land included within the critical area. Agriculture is allowed to restrict the application of the common law doctrine of reasonable use when it appears that there is not sufficient water available to sustain agriculture at current rates of withdrawal, yet

mining companies are not afforded the same protection. They are not entitled to the designation of a critical area when it appears that there is not sufficient water available to sustain mining at current levels of withdrawal. Such invidious discrimination cannot withstand constitutional scrutiny.

Not only is the designation of a critical area arbitrary in relation to all water uses except irrigation, it is equally arbitrary in relation to hydrological facts. There can be no rational justification for discriminating between landowners overlying a common supply on the basis of which side of a line their properties lie, when such line has no relation whatever to the hydrologic boundaries of the supply, and consequently no relation to the control of the declining water table in the basin.

The effect is to cut the baby in half. Duval's operations do not consist of discrete parts. The mining and milling of ore is an integrated operation with different phases of the operation being conducted on different properties according to the suitability of those properties for such purposes. Approximately 12,000 acres of Duval's operations lie within the Critical Area, but FICO contends that because some of Duval's mining operations lie beyond the limits of the irrigable land in the Upper Santa Cruz Valley, the integrated use of such land is not permissible and Duval is not entitled to use such other lands for mining purposes.

FICO's position also creates an unlawful discrimination in favor of the owners of the lower lands in the valley. In Glover v. Utah Oil & Refining Co., 59 Utah

279, 202 P. 955, (1923), cited in Jarvis II at 106 Ariz. at 509, the court commented that FICO's position, if carried to its logical conclusion, could deprive even the plaintiff of water, as well as others situated on higher lands in the basin, as the common supply was depleted and its boundaries constricted around the lowest aquifers. The plaintiff contended that to permit water "to be conveyed to lands outside the district 'is to deprive her land of the advantage of position which nature had given it. . . '". The court held that such a consideration should not be the controlling factor:

> If the bottom of the water bearing stratum in the artesian basin is parallel with the surface of the ground, and defendant is situated at the lowest point upon the surface, defendant in the future, if necessary, could just as consistently contend that it is entitled to the advantage of its position and therefore

> operate its wells to the point of completely draining the upper portion of the basin. We do not here decide that such conduct on the part of defendant would be permissible, but only to illustrate the fact that "advantage in position" should not perhaps be considered as a controlling factor in cases involving the correlative use of water. 202 P. at 958.

FICO asserts that it is entitled to take advantage of its favorable location in the lowest part of the basin and prohibit all other uses in the basin on lands not so favorably situated. Yet the water FICO pumps does not come merely from its own land but is pumped from all of the land thereabout. The rain falls evenly on all land in the basin, not merely on FICO's. The amount of water pumped by FICO far exceeds the amount of recharge which occurs on its land. There is no equitable or legal reason why all of the land in the basin should be subservient to

FICO's. All are equally entitled t the reasonable use of water from the common supply for beneficial purposes.[4]

Under FICO's Construction, the Groundwater Statutes Would Be Unconstitutionally Vague and Would Deny Both Procedural and Substantive Due Process.

If the groundwater statutes and the designation of the critical area do supersede the application of the common law doctrine of reasonable use in these circumstances, as FICO contends, then the groundwater statutes are unconstitutionally vague. No one reading the groundwater statutes would understand that they prohibit transporting water pumped from

4 One might not be permitted to unreasonably concentrate waters on small well sites to the injury of his neighbors within the basin, but such circumstances go to the reasonableness of the use and not to the question of whether land is entitled to the use of water from the common supply for reasonable purposes.

industrial wells located on tracts of thousands of acres within a critical area to mills located over the common supply, as defined by the same statutes, for the commercial milling of copper ore. No one reading a published notice of the proposed designation of a critical area would understand that his rights to the industrial use could e terminated by such designation. To the contrary, the statutes appear to limit agricultural uses only and to reaffirm the common law doctrine of reasonable use as to all other uses. As was said in Southwest Engineering Co. v. Ernst, 79 Ariz. 403, 411, 291 P.2d 764 (1955), the classification of the Act is based "on the distinctions and differences between present agricultural users and potential agricultural users of groundwater in critical areas." (Emphasis added). No class of users

other than agricultural is discussed by Ernst. The definition of "critical area" relates exclusively to the availability of water for agricultural purposes. A.R.S. Sec. 45-301(1). Only agricultural users may petition for the designation of a critical groundwater area. A.R.S. Sec. 45-301(13) and A.R.S. Sec. 45-308. Industrial wells are specifically exempted from the Act. A.R.S. Sec. 45-301(3).

The Act contains the further provision directing that groundwater basins and subdivisions shall be designated and that such basin subdivisions shall comprise "an area of land overlying, as nearly as may be determined by known facts, a distinct body of groundwater." A.R.S. Sec. 45-301(5)(6) and 303. Such definitions would have meaning only if the doctrine of reasonable use on the land overlying the common supply were being

reaffirmed. Such definitions would be meaningless and useless if the limits of the available irrigable acreage are taken as the boundaries of the common supply.

If the Code makes the boundaries of the Critical Area crucial to the exercise of Duval's property rights, then Duval is entitled to be apprised of such fact by a reasonable reading of the statute. Such is a minimal requirement of due process. Where, as here, one could not read the statute and understand that his water rights could be terminated by the designation of a critical groundwater area, the statute is fatally defective.

Further, the State has affirmatively lead (sic) Duval to believe that the doctrine of reasonable use was reaffirmed by the groundwater statutes. Not only do the groundwater statutes provide for the designation of the boundaries of the

common supply, the boundaries of the common supply were so defined by the State Land Department by Order No. 14 designating the Sahuarita-Continental Groundwater Subdivision. Such order has not been changed, altered or amended in any way. The State Land Department, the very agency charged with the designation of the boundaries of the common supply and with enforcement of the groundwater statutes, has entered into a series of leases and grants of rights-of-way intended to allow Duval to transport water outside the Critical Area for beneficial use on lands overlying the common supply, many of them state lands. The State has encouraged the development of Duval's activities with full knowledge of the facts and has encouraged Duval to spend over $225,000,000.00 in capital investment alone. By such affirmative actions, the State has represented to

Duval that its activities are lawful and not in violation of the groundwater statutes or the reasonable use doctrine. For the State now to rule that such uses violate the statutes and to work a forfeiture of Duval's investments would constitute a denial of due process and equal protection.

To Grant FICO's Motion Would Take Duval's Property For a Private Purpose Without Due Process and Without Just Compensation.

The Supreme Court stated in Jarvis I, 104 Ariz. at 531:

> . . . The doctrine of reasonable use is a rule of property.

Thus the right of Duval to the beneficial use of water on its lands overlying the common supply is a property right. This right cannot be confiscated by the mere designation of a critical groundwater area. The Fourteenth Amendment of the

United States Constitution provides that no state shall deprive any person of property without due process of law. Article II, Sec. 17 of the Constitution of Arizona provides:

> "No private property shall be taken or damaged for public or private use without just compensation having first been made, or paid into court for the owner. . . "

Thus, unless and until Duval is compensated for the loss of its property rights under the doctrine of reasonable use, i.e., the right to the beneficial use of water for mining purposes on lands overlying the common basin supply, the groundwater statutes operate as an unconstitutional taking of Duval's property. Further, it is a taking for a private purpose, which is prohibited in

any event under Article II, Sec. 17 of the Arizona Constitution (with certain exceptions applicable here). The designation of the Critical Groundwater Area, if FICO's construction were correct, would confiscate Duval's rights to water for milling purposes and confer on FICO the right to the use of the entire basin supply.

Further, Article II, Sec. 4 of the Arizona Constitution and the Fourteenth Amendment of the United States Constitution, provide that no person shall be deprived of property without due process of law. Yet, if as FICO contends, the designation of a critical groundwater area is completely determinative of where one may and may not use water within the same groundwater basin, then the procedures for designating such critical areas fall far short of the minimum requirements of

due process. For example, due process of law requires that property not be taken without notice and opportunity to make defense. McManus v. Industrial Commission, 53 Ariz. 22, 85 P.2d 54 (1939). Under the statute, Duval's water rights under the reasonable use doctrine, the beneficial enjoyment of its lands, and its capital investment of over $225,000,000.00, can all be confiscated with no more notice than publication of the proposed critical groundwater area once each week for four successive weeks in a newspaper of general circulation in the county. A.R.S. Sec. 45-309. Such notice completely falls far short of the constitutional requirements.

## CONCLUSION

It is easy to see why FICO does not once mention, much less discuss, either in the body of its Motion or in its

Memorandum, the meaning of the statutory terms "groundwater basin" or "subdivision" of a groundwater basin. Rather, by choosing to complain only in terms of "outside the critical area," FICO is attempting to avoid proving the factual allegations of its case and to foreclose consideration of the facts and equities which clearly entitle Duval to its present water uses.

FICO takes the position, as it must, that the designation and boundaries of a "critical groundwater area" are all important and that the designation and boundaries of a "groundwater basin" or a "subdivision thereof" are meaningless. If FICO did not assert this position, it would be forced to concede that Duval Defendants, owning lands both inside and outside the boundaries of the critical groundwater area have legally vested, statutorily and constitutionally protected

property rights to use groundwater underlying such subdivision, so long as the uses are reasonable and are upon lands overlying the "common basin" or "subdivision" supply.

The terms "groundwater basin" and "subdivision thereof" have precise meanings under the groundwater statutes and at common law, and these meanings reflect hydrological realities. They do not, as FICO contends, reflect arbitrary surface features such as irrigable acreage. Further, well recognized consequences attach both at common law and under the groundwater statutes, from the identification of the boundaries of the common supply, the "distinct body of groundwater". One such consequence and the intention of designating a groundwater subdivision is to identify the lands whose owners may justifiably rely upon being entitled to

the use of water for reasonable and beneficial purposes within such basin subdivision. As a matter of law, both under the Arizona groundwater statutes and under the common law doctrine of reasonable use, Duval is entitled to its present groundwater uses.

The law's claim to reason should be preserved, and the court should reject the easy but artificial solution to this case suggested by the Plaintiff. The Motion for Summary Judgment should be denied.

(Signed FENNEMORE, CRAIG, von AMMON & UDALL by Calvin H. Udall, Attorneys for named Defendants; also signed by James W. Johnson for the firm)

* * *

AFFIDAVIT (Of Mr. Messer)

(Attached to foregoing as
Exhibit A and filed therewith)

(Venue)

B. G. MESSER being first duly sworn upon his oath deposes and says:

He is a Vice President of Duval Corporation and Duval Sierrita Corporation; that he has resided in Tucson, Arizona since approximately February of 1955.

He graduated from Colorado School of Mines in 1936 with an E.M. From then until 1951, he was employed in various capacities by Miami Copper Company and was Chief Mine Engineer when he terminated this employment.

Since 1951, he has been employed by the Duval Corporation or their predecessor in interest, Duval Sulphur &

Potash Company.

He has served in various capacities since his employment by Duval among which are Assistant Resident Manager, Manager of Mineral Acquisition, Land Manager and Vice President.

He is personally familiar with the negotiations leading up to the acquisition of the Esperanza property and the construction of the mill and related facilities. The same is true with respect to the acquisition and construction of the mill and other facilities of Duval Sierrita Corporation.

He is also generally familiar with the farming activities of Farmers Investment Company (FICO).

He has read the Plaintiff's Motion for Summary Judgment As to Duval Corporation and Duval Sierrita Corporation, in the action brought by FICO and now pending

in the Superior Court of Pima County.

The map which is attached to Duval's Response to FICO's Motion as Exhibit "C" was prepared under his supervision and accurately depicts the location of lands owned and leased by Duval in the upper Santa Cruz Valley.

All of Duval's operations are within the Sahuarita-Continental Groundwater Subdivision except the opened portion of the Sierrita pit. Altogether Duval owns or leases approximately 17,610 acres inside the Sahuarita-Continental Groundwater Subdivision. Of this acreage, over 12,000 acres are located inside the Critical Area. Further, of the lands inside the Critical Area, approximately 1,530 acres have a history of irrigation and Duval has temporarily retired or will retire all such agricultural acreage from cultivation.

Duval mines at the rate of approximately 38,325,000 tons of ore annually from its Esperanza and Sierrita pits. The average grade of copper of the ore mined by Duval is approximately 3/10 of 1%. According to figures prepared by the Arizona Department of Mineral Resources and others, Arizona is currently producing over 52% of the copper ore mined in the United States. On the basis of these figures, Duval produces 5% of the nation's ore. Make-up water for Duval's operations is required at the corresponding rate of 23,000 acre feet per year. This water is supplied from the Esperanza Well Field located on a tract of approximately 562 acres located inside the Critical Area and from the Sierrita Well Field also located inside the Critical Area on a tract comprised of approximately 5,950 acres. Only a small amount of water is

pumped out of the Subdivision to be used for dust control in the Sierrita pit and for application on a small portion of Duval's leach ore dumps. In 1973 the Sierrita pit, however, produced over 480 acre feet of groundwater; and the Esperanza pit produced over 200 acre feet. This water was pumped into Duval's mill circuits. The only other uses outside the Critical Area are de minimis amounts used inside the Subdivision in Duval's leach and precipitation process and those amounts consumed by concentrates.

However, the primary use for which water is pumped by Duval is the the (sic) transportation of tailing from the mills. Only about 37 acre feet per year of the mill process water is consumed by copper concentrates and the remainder is piped to tailing ponds and returned to points within the Critical Area. The west

portion of the Esperanza Tailing Pond lies outside but up-gradient from the Critical Area; water which is occasionally deposited in the west side of the pond drains toward and into the Critical Area.

Duval has spent over 225 million dollars in capital investment for the Duval and Sierrita mines, mills and related operations. Annual expenditures for equipment and supplies average approximately 50 million dollars per year. Duval employs over 2,250 full time employees and has an annual payroll of $22,770,000.00. Duval's mining properties in Pima County are assessed at $82,014,000 and taxes paid on those properties during 1973 amounted to $4,847,427.00.

He personally knows that Plaintiff's President, Mr. Walden, was generally aware of the proposed mining, milling and construction activities of Duval

Corporation since the year 1956. In fact, Mr. Walden offered a right-of-way to Duval and in fact voluntarily granted a right-of-way to Tucson Gas & Electric Company in 1957, with the intention that it be used to supply power for the Esperanza Well Field. Further, Mr. Walden granted Duval access across its property for the purpose of drilling its Esperanza Wells in 1956. He is informed and believes, and therefore states, that Mr. Walden and other managing agents of Plaintiff are generally aware of the physical plant, properties and facilities of Duval Corporation and particularly of its wells and pipelines. He further states that since about February 1968, Mr. Walden has known that Duval Sierrita Corporation purchased the South Half of the Canoa Grant immediately adjoining land owned by FICO. He further states that Mr. Walden knew

on or before August of 1968 that Duval Sierrita had drilled a large well on said property and intended to drill five more large wells for the development and production of water in connection with the proposed Sierrita operation. He is informed and believes and therefore states that at all times subsequent to August 1968 and long prior to the filing of the FICO lawsuit, Mr. Walden and other managing agents of FICO were aware that said wells had been or were being drilled, that a large piepline (sic) had been or was being constructed, and that vast amounts of money had been or were being spent to construct the substantial mill and other facilities now operated by Duval Sierrita Corporation.

Duval's parent, Penzoil Company made cursory examinations of FICO's properties in early 1973 and on the basis of such

examinations the undersigned believes that the reasonable market value of FICO's properties in the Santa Cruz Valley is less than $20,000,000.00. According to figures released by the United States Department of Agriculture, FICO has received over $2,385,000.00 in federal subsidies for its Arizona operations between 1967 and 1972.

(Signed B. G. MESSER before
a Notary Public on March 15, 1974)

* * *

AFFIDAVIT (of Mr. Gookin)

(Attached to foregoing Response
and filed therewith)

WILLIAM S. GOOKIN, being first duly sworn on oath deposes and says:

He is a registered Professional Engineer licensed to practice in Arizona,

California, Colorado, Kansas, Nevada, New Mexico, Oklahoma, South Dakota, Texas and Utah. He graduated from the Pennsylvania State University with the Degree of Bachelor of Science in Civil Engineering in 1937. Immediately after graduation he moved to Arizona. Since that time he has been continually associated with water development, management and related activities under arid, climatic and soil conditions.

He is currently president of W. S. Gookin & Associates, an Arizona corporation.

He began his professional career in Arizona as an engineer with the U. S. Geological Survey, Water Resources Division, and broadened his experience through work with the City of Tucson and Allison Steel Manufacturing Company. Thereafter for 13 1/2 years he held positions of progressively increasing responsibility with

the U. S. Bureau of Reclamation. Throughout this period he was employed with the planning of water resource development projects in which irrigation played a dominant role. His specialty was hydrology.

He resigned from the U. S. Bureau of Reclamation to become District Engineer for the San Carlos Irrigation & Drainage District in Pinal County, Arizona, a project which depends upon both stored surface water and pumped groundwater.

In 1956 he was retained by the Arizona Interstate Stream Commission to perform engineering work in connection with the pending litigation in the case of Arizona v. California, et al. In 1957 he was made Chief Engineer of the Arizona Interstate Stream Commission in which capacity he served throughout the duration of the litigation.

In 1958 Mr. Gookin was appointed Administrator of the Arizona Power Authority, a position he held jointly with the position of Chief Engineer of the Arizona Interstate Stream Commission.

In 1960 Mr. Gookin resigned as Administrator of the Arizona Power Authority and continued as Chief Engineer of the Arizona Interstate Stream Commission until he was appointed Arizona State Water Engineer upon the creation of that post in 1962. He continued in that capacity until 1969.

His consulting activities began in 1956. Increasing demands for his consulting services led him to establish the firm of W. S. Gookin & Associates in 1960. He now devotes full time to the presidency of that organization.

He is or has been a Fellow or member of

American Society of Civil Engineers
National Society of Professional Engineers
Chi-Epsilon Honorary Civil Engineering Fraternity
President of the Association of Western State Engineers
Pacific Southwest Inter-Agency Committee
Western States Water Council
Small Projects Committee, National Reclamation Assn.
Colorado River Water Users Association
Chairman of Committee of Fourteen, Seven Colorado River Basin States

In December, 1969 he was retained by Mr. Udall to study the hydrology of the Santa Cruz Basin, including water supply, pumpage, irrigation practices, consumptive use of water by crops, and industrial uses.

Since that time, he has studied and is now in the process of studying the foregoing matters and in connection therewith has reviewed the available published data and literature, including the open-file report prepared by the United States

Geological Survey entitled "Geohydrology and Water Resources of the Tucson Basin, Arizona" dated May 1970, and the well and water level data of the University of Arizona.

As a part of this Study, he has made numerous field inspections and has viewed and examined the physical features of the Basin, as well as, in a general way, the farms and farming operations of Farmers Investment Company in said Basin. He has also studied the irrigation and cropping practices of FICO and the beneficial and non-beneficial uses of water by the crops grown by FICO.

He has examined on several occasions the plants, properties and facilities of the Duval Defendants, also located in said Basin, and is familar (sic) with the layout and operation of said plants and facilities, including operation and

maintenance of the tailing ponds of the Duval Defendants.

He has reviewed the "Motion for Summary Judgment as to Duval Corporation and Duval Sierrita Corporation" in the case of Farmers Investment Company v. The Anaconda Company, et al, No. 116542, together with attachments thereto.

The map which is attached to Duval's Response to said Motion, as Exhibit "D", was prepared under his supervision. The map correctly depicts the boundaries of the Sahuarita-Continental Critical Groundwater Area and the Sahuarita-Continental Subdivision of the Santa Cruz Groundwater Basin and was prepared from certified copies of the official maps of the State Land Department designating said Critical Area and Subdivision. The Boundary of the drainage area was prepared on the basis of elevations and drainage features shown

on the Arizona State Highway Department planimetric maps for the Santa Cruz Valley. The locations of the various activities of Duval shown on the map are also correctly depicted.

Except for water used for dust control in the Sierrita Pit and an even smaller amount applied to leach a small portion of Duval's ore dumps, Duval does not use water outside the Sahuarita-Continental Subdivision of the Santa Cruz Groundwater Basin. The only other uses outside the Critical Area are de minimis amounts used inside the Subdivision in Duval's leach and precipitation process and those amounts consumed by concentrates.

Total consumptive uses of water pumped by Duval, including evaporation from tailing ponds, comprise approximately 23% of the water pumped by Duval. The remaining 77% is restored to the ground

at points within the Critical Area. The west portion of the Esperanza Tailing Pond lies outside the Critical Area, however, it lies up-gradient from the Critical Area, and waters deposited therein drain toward and into the Critical Area. Personal investigations as well as data published pursuant to requirements to do so by the United States Geological Survey and the University of Arizona show that there have been substantial periods where water levels in the Critical Area have gained in elevation since Duval Defendants started pumping.

Of the water pumped by FICO, at least 75% is consumed by beneficial and non-beneficial uses. Pumping by FICO for agricultural purposes could be reduced by approximately half by the installation of a trickler irrigation system.

(Signed W. S. GOOKIN before a Notary Public on March 15, 1974)

* * *

MAP DEPICTING LOCATION OF LANDS OWNED AND LEASED BY DUVAL IN THE UPPER SANTA CRUZ VALLEY

(Attached as Exhibit C to foregoing Response and filed therewith)

Map is not of record in the Court file. A notation filed by Duval Defendants with their Response indicates that copies of exhibit C were not available at the time and that same would be supplied shortly. Apparently this was never done.

* * *

MAP DEPICTING BOUNDARIES OF SAHUARITA-CONTINENTAL CRITICAL GROUNDWATER AREA AND THE SAHUARITA-CONTINENTAL SUBDIVISION OF THE SANTA CRUZ GROUNDWATER BASIN

(Attached as Exhibit D to foregoing Response and filed therewith)

(Exhibit D, prepared under the supervision of W. S. Gookin from certified copies of the official maps of the State Land Department designating subject Critical Area and Subdivision, is incorporated by reference thereto)

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STATE OF ARIZONA )
) ss:
COUNTY OF MARICOPA )

I Craig Swick hereby certify:
Name

That I am Reference Librarian, Law & Research Library Division of the Arizona State
Title/Division

Library, Archives and Public Records of the State of Arizona;

That there is on file in said Agency the following:

Microfilm of Farmer's Investment Company v. Pima Mining Company et al, Arizona Supreme Court Case No. 11439-2, Abstract of Record on Appeal Volume II, pages 121-255 in Farmers Investment Company v. Anaconda Company, et al., filed March 17, 1975. Court of Appeals Instruments (Part Two) Page 122 with the Table of Contents and Abstract following.

The reproduction(s) to which this affidavit is attached is/are a true and correct copy of the document(s) on file.

Craig B. Swick
Signature

Subscribed and sworn to before me this 12/14/2005
Date

Etta Louise Muir
Signature, Notary Public

My commission expires 04/13/2009.
Date

Notary Public State of Arizona
Maricopa County
Etta Louise Muir
My Commission Expires
04/13/2009