

Sue G. JAMESON *v.* ETHYL CORPORATION

80-108

609 S.W. 2d 346

Supreme Court of Arkansas

Opinion delivered December 22, 1980

1. MINES & MINERALS — RULE OF CAPTURE — CONSTRUCTION. — The rule of capture adopted by Arkansas provides that petroleum, gas and oil belong to the owner of the land unless they escape and go into other land or come under another's control; thus, if an adjoining owner drills his own land and taps a deposit of oil or gas extending under his neighbor's field, so that it comes into his well, it becomes his property.
2. MINES & MINERALS — RULE OF CAPTURE — RULE LIMITED IN SECONDARY RECOVERY PROCESSES. — The rule of capture should not be extended to apply without qualification to secondary recovery processes and it should not be expanded to permit the so-called "sweeping" process without liability for damages.
3. MINES & MINERALS — USE OF SECONDARY RECOVERY METHODS — RIGHTS OF ADJOINING LANDOWNERS. — Appellee, Ethyl Corporation, drilled a number of peripheral "injection wells" designed to raise the differential pressure level of the surrounding area so as to cause brine to flow toward the center of the pool and into Ethyl's production wells which resulted in Ethyl being able to achieve an efficient and maximum recovery of brine; however, appellant's property, which is not leased to Ethyl, is within the peripheral area of the injection wells of the Ethyl block and Ethyl's recovery process has caused removal of a substantial amount of bromide from appellant's property. *Held:* This secondary recovery process should be permitted; however, it is conditioned by imposing an obligation on the extracting party to compensate the owner of the depleted lands for the minerals extracted in excess of natural depletion, if any, at the time of taking and for any special damages which may have been caused to the depleted property.

Appeal from Columbia Chancery Court, *Charles E. Plunkett*, Chancellor; reversed and remanded.

Woodward & Kinard, Ltd., by: *Joe D. Woodward, Mike Kinard*, and *Michael G. Epley*, for appellant.

Baker & Botts, Houston, Texas, and *Anderson, Crumpler & Bell, P.A.*, for appellee.

William J. Wynne and James E. Baine, amici curiae.

GUY AMSLER, JR., Special Justice. The question before this Court concerns certain subterranean mineral rights with respect to a 95-acre tract located in Columbia County, Arkansas. The Appellant, Sue G. Jameson ("Appellant" or "Jameson"), owns these lands in fee. The Appellee, Ethyl Corporation ("Ethyl") holds leases and other operating interests to remove brine (salt water) from approximately 15,000 acres located in the Kerlin Brine Field ("Field"). The Jameson tract is located within the Field but is not leased to Ethyl. The Field is located in the Smackover Formation approximately 8,000 feet subsurface and contains a relatively large pool of brine containing bromide ions which have been commercially extracted by the Appellee since 1969. The parties negotiated for a number of years as to a proposed lease or other extraction rights as to the Jameson tract but were unable to agree as to terms. The basic issue involves a construction of the rule of capture to determine whether it should permit Ethyl to follow a process whereby the brine below the Jameson property has been and is currently being caused to flow into production wells operated by Ethyl pursuant to a recycling process which replaces it substantially diluted of valuable bromine.

After threatened litigation by Jameson, Ethyl filed suit for a declaratory adjudication seeking to establish the legality of its extraction process pursuant to the rule of capture. Jameson counterclaimed for damages and requested injunctive restraint of Ethyl's extraction processes. The issues were bifurcated and the matter was submitted to the Chancellor for a determination of liability only, although much of the evidence also related to the question of damages, provided a right of recovery existed. The Chancellor concluded that this Court's decision in *Budd v. Ethyl Corporation*, 251 Ark. 639, 474 S.W. 2d 411 (1972) expressed the controlling law of the case; determined that the rule of capture announced by this Court in the *Budd* case and in *Osborn v. Arkansas Territorial Oil & Gas Co.*, 103 Ark. 175, 146 S.W. 122 (1912) was applicable to Ethyl's extraction process; and accordingly granted declaratory relief to Ethyl and denied Jameson's counterclaim. Ethyl's operations in the Field have been the

subject of two prior reported cases viz., *Budd v. Ethyl Corporation, supra*, and *Young v. Ethyl Corporation*, 521 F. 2d 771 (1975) (and on appeal from remand as to a determination of damages 581 F. 2d 715 [1978]). Although the parties have placed different interpretations upon the evidence presented, there is little significant dispute as to the underlying facts insofar as they relate to the issue of liability. The Appellant asserts that the actions of Ethyl constitute a trespass or a private nuisance. The pertinent facts are as follows:

Some time before 1969, representatives of Ethyl determined that a substantial pool of bromine-enriched brine existed in the Field at the Smackover level which could be commercially extracted and processed into brominated compounds and elemental bromine. The bromide ion content of the brine was estimated to be approximately 5,000 parts per 1,000,000 in the Field. The pool in actuality is contained in porous limestones with estimated varying thickness from zero to 150 feet. Leases or other operating rights to extract oil, gas and brine from the Field were obtained by Ethyl for a large part (approximately 90%) of the acreage within the Field, and drilling operations were begun in 1969.

Representatives of Ethyl attempted to obtain leases for the entire block of lands comprising the Field on substantially the same terms from all landowners on an agreed rent, in lieu of royalty basis. The Appellant, through her son Paul Jameson, attempted to negotiate a lease which contained a number of clauses he deemed necessarily proper to protect the Appellant and also made a proposal for participating in Ethyl's profits over and above its profits being made at the time of leasing Appellant's properties. Both parties considered their respective proposals to have been reasonable, and conversely the other's position to be unreasonable. Ethyl owns mineral leases on all sides of Appellant's 95 acre tract.

The evidence in the trial included expert testimony of two petroleum geologists separately sponsored by the parties, each of whom was recognized as qualified by the other. The substance of their testimony differed primarily with respect to what they had been engaged to do by their respective clients. Ethyl's expert witness explained the rationale of Ethyl's drill-

ing and extraction processes, and Jameson's expert witness expressed added opinions about the process and about the amount of bromine-enriched brine which had flowed into Ethyl's wells and had been replaced with "tail brine" (i.e., brine from which a substantial part of the bromine had been extracted by Ethyl through a chlorine chemical process) and "Magnolia field brine" (i.e., additional brine added to the recycling process which was obtained by Ethyl from sources outside the Field).

Ethyl's witnesses explained that soon after its operations began, a substantial amount of brine began to migrate into the Magnolia Oil and Gas Field located northeast of the Kerlin Brine Field which, if not corrected, would soon have made the extraction process commercially impractical. On advice of a consulting firm, Ethyl drilled a number of peripheral "injection wells" designed to raise the differential pressure level of the surrounding area so as to cause the brine to flow toward the center of the pool and into Ethyl's production wells. This type of secondary recovery effort was not uncommon and resulted in Ethyl being able to achieve an efficient and maximum recovery of brine from the Field. The Jameson property is within the peripheral area of the injection wells of the Ethyl block.

Although Ethyl's expert witness was not willing to acknowledge any specific amount of depletion of bromine-enriched brine from the Jameson property's subterranean pool, the testimony is relatively clear that over the course of the recycling process the bromine content thereof has been substantially reduced, if not totally exhausted from a commercial perspective. The Appellant's expert witness quantified this depletion based upon information related to the Field, Ethyl's drilling reports and other known information. In addition, Appellant's witness testified that the maximum normal drainage of bromide from the Jameson property would not have exceeded 2% in the absence of the pressure differential created by Ethyl's injection wells, but that removal of as much as 89% of the bromide from the Jameson property had occurred due to the added differential pressures which caused the tail brine and Magnolia field brine to mix

with the flow toward the low pressure areas of Ethyl's production wells.

The Appellant attempts to characterize the recycling process as a pushing of tail brine and Magnolia field brine onto the Jameson property in order to force the valuable bromine-enriched brine into Ethyl's wells, which Appellant labels "pushing" or "sweeping". Ethyl conversely contends the process simply allows it to drain in that direction, in part because the tail brine is miscible and accordingly mixes with the brine in the area, which Ethyl labels as "pulling." Although certain steps apparently could have been taken to seal off a substantial portion of the flow of the bromine-enriched brine from the Jameson property and other isolated locations which were not leased to Ethyl, the evidence preponderates that this was not commercially feasible under the circumstances. Likewise, it seems equally clear from the evidence that it would have been impractical for the Appellant to drill production wells unless she was financially prepared and willing to get into the bromine extraction business since the large volume of brine logically could not be transported, processed and recycled over long distances.

The consequence in any event is that: (i) a substantial amount of the bromine which previously lay at the Smackover subterranean level of the 95-acre Jameson property moved into the production wells and then into the asset category of Ethyl's operations as a direct result of efforts purposely initiated by Ethyl; and (ii) the bromine extraction process has been able to be continued so as to maximize the recovery from some 15,000 to 16,000 acres in the Kerlin Brine Field.

Viewed from a judicial perspective it seems clear that the law as developed with respect to the rule of capture, trespass and nuisance fails to adequately provide a resolution of the issue with respect to bromine-enriched brine where secondary recovery methods are utilized, the results of which materially alter the natural drainage consequences of extracting from encircled properties lying within a common pool. It seems equally clear that the law should not turn upon the issue of whether the activities are characterized as "pushing"

or "pulling", or whether a differential pressure is created by injection or the addition of larger quantities of brine. Similarly, the obviously necessary steps of secondary recovery (which by definition create alterations to the norm) from a common pool area (be it oil, gas, brine or other fluid minerals) should not be subject to the arbitrary control of a limited number of landowners. Nor should the law permit those persons who are in an economically advantaged posture to be able to gain negotiating clout by being allowed to undertake, with impunity, processes that go beyond extracting transient minerals or gasses which have drained or flowed by natural process to their drilling sites.

Unitization laws have for many years helped to resolve these conflicting interests with respect to oil and gas production in many states, including Arkansas. See ARK. ACTS 1939, No. 105 adopted as the Arkansas Oil and Gas Conservation Act, codified as Ark. Stat. Ann. § 53-101 et seq (1971 Repl.) and *Dobson v. Oil and Gas Commission*, 218 Ark. 160, 235 S.W. 2d 33 (1950).¹

In the 1912 case of *Osborn v. Arkansas Territorial Oil & Gas Co.*, *supra*, this Court adopted the rule of capture as follows:

¹We note that Act 937 of 1979 (Ark. Stat. § 53-1301 et seq.) authorized the Arkansas Oil & Gas Commission to order the formation of brine production units. Section 1 of the Act states in part:

"It is hereby declared to be in the public interest to foster . . . the development and production in the State of the natural resource of brine; to authorize and to provide for the operation and development of brine properties in such a manner that the greatest ultimate recovery of brine and the chemical substances contained therein be had and that the correlative rights of all owners be fully protected . . ."

The Act is permissive, in that the action of the Commission is invoked on an application of a "producer." A "producer" is defined as the owner of an existing well or wells capable of producing brine as well as any owner or owners who are capable and willing to incur the capital investment required for the purposes of drilling, completing and equipping the proposed well or wells within any existing or proposed brine production unit. While it is not shown in the record apparently Ethyl has not elected to petition for formation of a production unit. In any event, Act 937 was adopted after this cause of action was filed and neither of the parties has argued its applicability to this case.

"Petroleum, gas and oil are substances of a peculiar character. . . . They belong to the owner of the land, and are part of it so long as they are part of it or in it or subject to his control; but when they escape and go into other land or come under another's control, the title of the former owner is gone. If an adjoining owner drills his own land and taps a deposit of oil or gas extending under his neighbor's field, so that it comes into his well, it becomes his property. . . ." 103 Ark. 175, 146 S.W. 122, 124.

Osborn, however, did involve a secondary recovery process, nor does the language of the rule adopted envision processes such as those used by Ethyl in the situation now under consideration.

The underlying reason for adoption of the rule of capture by Arkansas and other states was the acknowledged impracticality of tracing ownership of a transient substance which migrated from lands of one owner to lands of someone else. However, as noted in *Oil and Gas Laws, Williams and Meyers*, Volume I § 204.5, there have been varying reactions of the courts of different states to the question of whether the rule of capture should be applied without qualification to secondary recovery processes. In some of the cases orders from state regulatory agencies have been involved and in some of the cases unleased owners have been offered participation. See *Tidewater Associated Oil Co. v. Stott*, 159 F. 2d 174 (5th Cir. 1946), cert. denied, 331 U.S. 817 (1947); *Railroad Commission v. Manziel*, 361 S.W. 2d 560, 93 A. L.R. 2d 432 (Tex. 1962); *Baumgartner v. Gulf Oil Corporation*, 184 Neb. 384, 168 N.W. 2d 510 (1969); and *Greyhound Leasing & Financing Corp. v. Joiner City Unit*, 444 F. 2d 439 (10th Cir. 1971). For further discussions in this regard see also *Hardwicke*, "The Rule of Capture and Its Implication As Applied to Oil and Gas", 13 Texas L. Rev. 391 (1935); and *Kuntz*, "Correlative Rights and Oil and Gas", 30 Miss. Law Journal (1958).

In *Budd v. Ethyl Corporation*, *supra*, this Court had occasion to address the issue of whether Ethyl's operations in the Field which forcibly injected brine into input (injection) wells were entitled to the benefit of the rule of capture. As to a 240-

acre tract lying next to but outside of Ethyl's 15,000 area block, this Court held that the rule of capture applied and that Ethyl was not obligated to account for any minerals which may have flowed as a result thereof into its wells from the 240-acre tract. However, as to a 40-acre tract lying within Ethyl's peripheral area of input (injection) wells, this Court concluded that a separate analysis was necessary. Because of the limited nature of the lessee's interest in the 40-acre tract within Ethyl's peripheral area of input wells and certain equities noted, this Court also rejected Budd's claim against Ethyl concerning the 40-acre tract. Obviously, this Court would not have treated the encircled 40-acre tract differently if this Court had reached the decision in the *Budd* case that it was immaterial whether the lands were inside or outside of Ethyl's peripheral area of input wells. Because of this the 8th Circuit Court of Appeals in the diversity case of *Young v. Ethyl Corporation, supra*, attempted to construe the Arkansas law in a comparable situation and concluded that the rule of law should not be expanded to permit the so-called "sweeping" process without liability for damages.

While Arkansas' unitization laws are not, as previously noted, involved in this case, we do believe that the underlying rationale for the adoption of such laws, i.e., to avoid waste and provide for maximizing recovery of mineral resources, may be interpreted as expressing a public policy of this State which is pertinent to the rule of law of this case. Inherent in such laws is the realization that transient minerals such as oil, gas and brine will be wasted if a single landowner is able to thwart secondary recovery processes, while conversely acknowledging a need to protect each landowner's rights to some equitable portion of pools of such minerals. A determination that a trespass or nuisance occurs through secondary recovery processes within a recovery area would tend to promote waste of such natural resources and extend unwarranted bargaining power to minority landowners. On the other hand, a determination that the rule of capture should be expanded to cover the present situation could unnecessarily extend the license of mineral extraction companies to appropriate minerals which might be induced to be moved from other properties through such processes and, in any event, further extend the bargaining power of such entities to reduce

royalty payments to landowners who are financially unable to "go and do likewise" as suggested by Ethyl.

The laws of trespass and nuisance and the rule of capture each evolved out of circumstances designed to balance the relative rights and responsibilities of the parties and the interests of society in general. As noted in the *Young* case, *supra*, a great deal of technology and geological understanding has developed since the 1912 *Osborn* decision. As envisioned in the *Young* case, which we consider to be persuasive, we are unwilling to extend the rule of capture further. By adopting an interpretation that the rule of capture should not be extended insofar as operations related to lands lying within the peripheral area affected, we, however, are holding that reasonable and necessary secondary recovery processes of pools of transient materials should be permitted, when such operations are carried out in good faith for the purpose of maximizing recovery from a common pool. The permitting of this good faith recovery process is conditioned, however, by imposing an obligation on the extracting party to compensate the owner of the depleted lands for the minerals extracted in excess of natural depletion, if any, at the time of taking and for any special damages which may have been caused to the depleted property. By this holding we believe that the interests of the owners and the public are properly protected and served.

This matter was submitted to the chancellor only on the issue of liability and on a remand the chancellor must determine damages. In this regard we point out the language set forth in the case of *Whitaker & Company v. Sewer Improvement District No. 1*, 229 Ark. 697, 318 S.W. 2d 831 (1958), where we said:

A court of equity should be as alert to afford redress as the ingenuity of man is to cause situations to develop which call for redress.

In other words, sometimes a court of equity must devise a formula of damages to fit a particular situation.

Accordingly, the decision of the lower court on the issue

of liability is reversed and the case is remanded for trial of the damage issues.

Reversed and remanded.

Sepcial Justice Walter Davidson joins in the opinion.

HOLT, PURTLE and STROUD, JJ., did not participate.
