



OFFICE OF THE ATTORNEY GENERAL OF TEXAS
AUSTIN

GERALD C. MANN
ATTORNEY GENERAL

Mr. John E. Taylor, Chief Supervisor
Oil & Gas Division,
Railroad Commission of Texas
Austin, Texas

Dear Sir:

Opinion No. 0-1760

Re: Construction of the terms "natural gas," "casinghead gas," "sour gas," and "sweet gas," as used in Article 6008, Vernon's Annotated Civil Statutes.

We have your letter of January 17, 1940, in which, after quoting certain portions of sections 2, 3, and 7 of Article 6008, Vernon's Annotated Civil Statutes, you ask the following questions:

- "1. Is casinghead gas likewise 'natural gas'?"
- "2. Is gas produced from a well producing oil at a gas-oil ratio of 100,000 cubic feet per barrel or less and which contains more than $1\frac{1}{2}$ grains of hydrogen sulphide per 100 cubic feet 'sour gas' or 'casinghead gas' and may the Commission limit the use of such gas to the purposes provided for sour gas?"
- "3. Is the gas produced from a well producing oil at a gas-oil ratio of in excess of 100,000 cubic feet per barrel and which contains more than $1\frac{1}{2}$ grains of hydrogen sulphide per 100 cubic feet 'sour gas' or 'casinghead gas'?"
- "4. Is the gas produced from a well producing oil at a gas-oil ratio exceeding 100,000 cubic feet per barrel but which contains less than $1\frac{1}{2}$ grains of hydrogen sulphide per 100 cubic feet 'sweet gas' or 'casinghead gas'?"

"5. If the Commission finds that to curtail the production from or shut in a well producing 'sweet gas' will result in waste or loss of the well because of physical conditions in the reservoir, does the Commission have authority to allow the gas produced from such a well to be burned in the manufacture of carbon black?

"6. If the gas described in questions 3 and 4 is held to be 'casinghead gas' may such gas be vented to the air either before or after it has been processed for its gasoline content?"

Our answers to your questions are as follows:

1. In our opinion "casinghead gas" is a form of "natural gas." There is no definition in Article 6008 of the term "natural gas," and it is, therefore, to be construed in its ordinary signification. Article 10, Section 1, Vernon's Annotated Civil Statutes. The ordinary signification of the term "natural gas" includes all gas produced from a natural subterranean reservoir, as distinguished from gas manufactured from other substances by artificial processes, and therefore includes casinghead gas. It also may be noted that Article 6008 by implication includes "casinghead gas" in "natural gas;" for example, subsection (h) of section 2 provides that "sweet gas" shall mean "all natural gas" except "sour gas" and "casinghead gas."

2. In our opinion, gas produced from a well producing oil at a gas-oil ratio of 100,000 cubic feet of gas or less per barrel of oil and which contains more than $1\frac{1}{2}$ grains of hydrogen sulphide per 100 cubic feet, is "casinghead gas," and is not "sour gas," and the Railroad Commission may not limit the use of such gas to the purposes provided for "sour gas."

The statutory classifications of "sour gas" and "casinghead gas" are not absolutely clear. Under the provisions of subsection (g) of section 2, Article 6008, "sour gas" is defined, among other things, as being "any natural gas containing more than one and one-half ($1\frac{1}{2}$) grains of hydrogen sulphide per one hundred (100) cubic feet." The term "casinghead gas" is defined by subsection (i) of section 2, Article 6008, to mean "any gas and/or vapor indigenous to an oil stratum and produced from such stratum with oil."

It will be noted that there is no express language in the statutes which would preclude "casinghead gas" from also being "sour gas." This situation is to be contrasted with the express provision under subsection (h) of section 2, Article 6008, that "the term 'sweet gas' shall mean all natural gas except 'sour gas' and 'casinghead gas.'"

We believe, however, that it was the intention of the Legislature to restrict the term "casinghead gas" to gas which is produced with oil from an "oil well" as that term is defined in subsection (e) of section 2, Article 6008, and to restrict "sweet gas" and "sour gas" to gas produced from a "gas well" as that term is defined in subsection (d), section 2, Article 6008. Our reasons for this conclusion are as follows:

(a) The term "casinghead gas" in its ordinary signification is restricted to gas produced with oil from an oil well. In the case of *Humble Oil & Refining Co. v. Poe*, 29 S.W. (2d) 1019, Judge Laddy of the Commission of Appeals, said:

"There is a well-defined distinction in law between gas produced from a gas well and casinghead gas. The latter is that which flows from oil wells, coming between the casing and the tubing. Westcott's Handbook of Casinghead Gas (2nd Ed.) p. 6; Johnson & Huntley's Oil & Gas Production, p. 170; *Magnolia Petroleum Co. v. Connellee* (Tex. Comm. App.) 11 S.W. (2d) 158; *Mussellem v. Magnolia Petroleum Co.*, 107 Okl. 183, 231 P. 526; *Mullendore v. Minnehoma Oil Co.*, (Okl. Sup.) 233 P. 1051."

See also the following cases, adopting the same construction of the term "casinghead gas." *Mullendore v. Minnehoma Oil Co.*, (Okl.) 246 P. 837; *Utilities Production Corporation v. Carter Oil Co.*, 72 F. (2d) 655; *General Petroleum Corporation of California v. United States*, 24 F. Supp. 285; *Brea Cannon Oil Co. v. Commissioner of Internal Revenue*, 77 F. (2d) 67; *Utilities Production Corporation v. Carter Oil Co.*, 2 F. Supp. 81.

(b) We believe that the construction above adopted is in conformity with the general intention of the Legislature to prevent the waste of natural gas. From reading the provisions

of Article 6008 as a whole, we believe that it is evident that it was the legislative intention to put careful restrictions upon the use of gas from gas wells, the restrictions on "sweet gas" (subsection 1, section 7, Article 6008) being more stringent than the restrictions on the use of "sour gas," (subsection 2, section 7, Article 6008) because of the adaptability of sweet gas for use in generating light, or fuel for domestic purposes. On the other hand, the Legislature evidently considered that where gas is produced as a necessary incident to the production of oil from an oil well, the value of the oil produced would warrant the use of the casinghead gas "for any beneficial purpose." (Subsection 3, section 7, Article 6008).

In view of the above considerations, we conclude that the term "casinghead gas" applies to all gas produced from any "oil well" as defined in subsection (e), section 2, Article 6008, and that the terms "sweet gas" and "sour gas" apply only to gas produced from any "gas well," as defined in subsection (d), section 2 of Article 6008. Since, under the provisions of subsection (e), section 2, Article 6008, the term "oil well" includes any well which produces one barrel or more of crude petroleum oil to each 100,000 cubic feet of natural gas, a well producing oil at a gas-oil ratio of 100,000 cubic feet of gas or less per barrel of oil would be an "oil well," and under our construction of the term "casinghead gas," the gas produced from such oil well would be "casinghead gas," and would not be "sour gas," regardless of whether the gas contained more than $1\frac{1}{2}$ grains of hydrogen sulphide per 100 cubic feet of gas. Under the provisions of subsection (3) of section 7, Article 6008, "casinghead gas may be used for any beneficial purpose, which includes the manufacture of natural gasoline," and the use of such gas is not restricted to the uses permitted for "sour gas" under the provisions of subsection (2) of section 7, Article 6008.

3. In our opinion, gas produced from a well producing oil at a gas-oil ratio of in excess of 100,000 cubic feet of gas per barrel of oil and which contains more than $1\frac{1}{2}$ grains of hydrogen sulphide per 100 cubic feet of gas is "sour gas" and not "casinghead gas." Subsection (d), section 2, Article 6008 defines a "gas well" as being, among other things, a well which "produces more than one hundred thousand (100,000) cubic feet of natural gas to each barrel of crude petroleum oil from the same producing horizon." Under the

provisions of subsection (g) of section 2, Article 6008, the term "sour gas" is defined, among other things, as being "any natural gas containing more than one and one-half ($1\frac{1}{2}$) grains of hydrogen sulphide per one hundred (100) cubic feet." It is clear that the well referred to in your third question is a gas well, as defined in the statutes, and under the construction adopted above, the gas produced from such well would not be "casinghead gas." Because of its content of hydrogen sulphide, it would be "sour gas" instead of "sweet gas."

4. In our opinion, the gas produced from a well producing oil at a gas-oil ratio exceeding 100,000 cubic feet of gas per barrel of oil but which contains less than $1\frac{1}{2}$ grains of hydrogen sulphide per 100 cubic feet of gas would be "sweet gas" and not "casinghead gas." As we have pointed out in our answer to question No. 3, since the well produces oil at a higher oil-gas ratio than 100,000 cubic feet of gas per barrel of crude petroleum oil, the well would be a gas well and not an oil well, and the gas produced from such well would not be "casinghead gas." / You will, of course, note that under the provisions of subsection (g) of section 2, Article 6008, the term "sour gas" includes not only gas which contains more than one and one-half grains of hydrogen sulphide per 100 cubic feet of gas, but also gas which contains more than 30 grains of total sulphur per 100 cubic feet of gas, or gas which in its natural state is found by the Commission to be unfit for use in generating light or fuel for domestic purposes. We assume from the wording of your question that the gas you refer to in your question No. 4 does not come within any of these provisions, and if this assumption is correct, the gas would be "sweet gas," and not either "casinghead gas" or "sour gas."

5. In our opinion, the Commission does not have authority to permit the use of "sweet gas" in the manufacture of carbon black, except where it is used as gas lift under the provisions of subsection (4) of section 7, Article 6008. Subsection (j) of section 3, Article 6008, specifically provides that the term "waste" shall include "the use of sweet gas produced from a gas well for the manufacture of carbon black," and said section further provides that "the production, transportation, or use of natural gas in such manner, in such amount, or under such conditions as to constitute waste is hereby declared to be unlawful and is prohibited." The Railroad Commission is clearly limited in its powers to the exercise of such authority as is delegated to it by the Legislature,

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and it would be acting unlawfully if it permitted any use of sweet gas which is expressly prohibited by the statutes. Danciger Oil & Refining Co. vs. Railroad Commission, 49 S.W. (2d) 837. As to whether or not the statutory restriction upon the use of sweet gas would be valid under the circumstances stated in your letter, we do not express an opinion, since it is plain that the Railroad Commission would only be authorized to do those things which are permitted by the statutes of the State.

6. We need not answer your sixth question, since you made it conditional upon our holding that the gas described in your questions 3 and 4 is "casinghead gas," and we have held that such gas is not "casinghead gas," but "sour gas" in question 3, and "sweet gas" in question 4.

Very truly yours

ATTORNEY GENERAL OF TEXAS

By *James P. Hart*
James P. Hart
Assistant

JPH:pbp

APPROVED MAR 13, 1940

Gerald B. Mann
ATTORNEY GENERAL OF TEXAS

