Appeal from the decision of the U. S. Geological Survey establishing new boundaries for Nugget Formation Participating Area "B," Brady (Deep) Unit. (GS-114 O&G.)

Affirmed.

1. Oil and Gas Leases: Production -- Oil and Gas Leases: Unit and Cooperative Agreements -- Words and Phrases

"Paying Quantities." The term "paying quantities," used in the Brady (Deep) Unit Agreement to determine whether or not a participating area of a unit should include additional tracts where the existence of hydrocarbons in paying quantities is disputed, refers to cost of drilling and production plus a reasonable profit.

2. Geological Survey -- Oil and Gas Leases: Production -- Oil and Gas Leases: Unit and Cooperative Agreements

The U.S. Geological Survey is the technical expert of the Department in matters concerning geologic evaluation of oil and gas lease production, and the Secretary is entitled to rely on the Survey's determinations, as to the extent of the participating area of a unit, absent a clear showing of error.

APPEARANCES: Frank H. Houck and Harry O. Hickman, Esqs., Denver, Colorado, for appellant; Ruland J. Gill, Jr., Esq., Salt Lake City, Utah, for Mountain Fuel Supply Company and Wexpro Company; J. D. Henry, Esq., Englewood, Colorado, for Champlin Petroleum Company.

41 IBLA 348
Amoco Production Co. has appealed from the September 26, 1978, decision of U. S. Geological Survey approving the first revision of the Nugget Formation Participating Area "B," Brady (Deep) Unit, Sweetwater County, Wyoming. This decision upheld a 120-acre increase in the participating area as approved by the acting area oil and gas supervisor, Northern Rocky Mountain area. The revision was made pursuant to section 11 of the unit agreement, which provides for periodic redetermination of the unit participating area and concomitant revision of the schedule of allocation percentages, if necessary. Section 11 of the unit agreement provides in part:

11. PARTICIPATION AFTER DISCOVERY. Upon completion of a well capable of producing unitized substances in paying quantities or as soon thereafter as required by the Supervisor, Unit Operator shall submit for approval by the Supervisor a schedule * * * of all land then regarded as reasonably proved to be productive in paying quantities; all lands in said schedule, on approval of the Supervisor, to constitute a participating area, effective as of the date of completion of such well or the effective date of this Unit Agreement, whichever is later * * *.

The participating area or areas so established shall be revised from time to time, subject to like approval, whenever such action appears proper as a result of further drilling operations or otherwise, to include additional land then regarded as reasonably proved to be productive in paying quantities, or necessary for unit operations * * * and the percentage of allocation shall also be revised accordingly. The effective date of any revision shall be the first of the month in which is obtained the knowledge or information on which such revision is predicated, unless a more appropriate effective date is specified in the schedule. [Emphasis supplied.]

Appellant and the other working interest owners, Mountain Fuel Supply Company (Mountain Fuel), Champlin Petroleum Company (Champlin), and Exxon Company, U.S.A. (Exxon), have disputed the acreage revision for 4 years. The initial revision, adding 210 acres to the participating area in the unit, was approved by the supervisor in November 1975, but in July 1976 this approval was set aside and remanded to the supervisor in order to determine whether well 26 N in the proposed addition was capable of producing unitized substances in paying quantities. In January 1977, the supervisor determined that 26 N was nonpaying.

The present dispute arose in April 1977, when Champlin, the unit operator, submitted a new application for the first revision of the unit. The new application requested only 120 additional acres, and
asked that the revision be effective as of February 1, 1975. The supervisor approved Champlin's application on July 22, 1977, effective February 1, 1975. Amoco and Exxon then appealed to the director of the Survey, and the acting director affirmed the supervisor's decision to add 120 acres. Approval of the first revision was suspended pending outcome of Amoco's appeal. The suspension remains in effect, pending the outcome of the current appeal to the Board of Land Appeals.

Amoco argues that the Survey misinterpreted the meaning of "proved to be productive in paying quantities" as the phrase is used in section 11 of the unit agreement. Appellant maintains that, despite the supervisor's determination that well 26 N was not productive in paying quantities, the tract on which it was drilled could be adjudged productive in paying quantities. Appellant suggests that the productive limits of the Nugget reservoir extend beyond the revised area approved by the acting director. Because the additional tracts Amoco wishes to see included in the revision lie above the water-oil contact of the reservoirs, Amoco contends that the contribution this part of the reservoir makes to unit production justifies a determination that the tracts are productive in paying quantities.

Champlin and Mountain Fuel submitted answers supporting the acting director's decision that the additional tracts have not been reasonably proved to be productive in paying quantities.

Appellant requests oral argument under 43 CFR 4.25, but not a hearing. Champlin also requests oral argument. Oral argument is opposed by Mountain Fuel. In view of the extensive briefs which have been filed, it is the Board's opinion that oral argument would serve no useful purpose, but would instead retard speedy disposition of this case.

[1]  Appellant bases its appeal on a question of law, not fact, i.e.:
[W]hether in a situation where the production from the participating area is in paying quantities those tracts of land from which the production is being obtained should be considered to be productive in paying quantities, notwithstanding the fact that a well drilled on certain of the tracts might not be productive in paying quantities.

1/ Mountain Fuel's answer was also submitted on behalf of its subsidiary, Wexpro Company.
2/ Harry W. Carlson states that he is owner of an overriding royalty and has been deprived of considerable income since the dispute began in February 1975. He requests expeditious disposition of the appeal.

41 IBLA 350
If production from the participating area is in paying quantities and it is established (as here) that hydrocarbons underlying certain tracts are contributing to such production, then all of the tracts so contributing to production in paying quantities should be included within the participating area.

The term "paying quantities" is used in section 11 of the unit agreement, supra. "Pay-
ing quantities" has been held to have two distinct meanings when used in an oil and gas context. Wolf Creek Oil Co. v. Turman Oil Co., 83 P.2d 136, 139 (Kan. 1938). When "paying quantities" is used in a habendum clause, such as a condition that a lease may be extended so long as oil and gas is produced in paying quantities, then production costs plus a reasonable profit, but not drilling costs, are generally included. The Polumbus Corp., 22 IBLA 270 (1975); Fick v. Wilson, 349 S.W.2d 622, 625 (Tex. 1961); Benedum-Trees Oil Co. v. Davis, 107 F.2d 981 (6th Cir. 1939), cert. denied 310 U.S. 634 (1939). When the term is used in other contexts, drilling costs may be included in the determination of production in paying quantities. Fort Worth National Bank v. McLean, 245 S.W.2d 309, 311 (Tex. 1951). The supervisor correctly interpreted the term "paying quantities" under the terms of the Brady (Deep) Unit Agreement. He found well 26 N was nonpaying because it was incapable of producing sufficient oil and gas to repay drilling and production costs plus a reasonable profit. The acting director, U. S. Geological Survey, approved the supervisor's decision.

The remaining issue is the extent to which the Board should review the U. S. Geological Survey's application of the term to the situation. On the basis of well 26 N and other data, the supervisor found that it had not been shown that the excluded area was capable of production in paying quantities. The Survey decision reads in part:

The 120 acres added to the initial participating area are situated between the initial Nugget Formation Participating Area 'B' lands and the location of well No. 26-N. As the Area Supervisor stated in his report, since well 26-N is a nonpaying well, lands "structurally down-dip therefrom are not lands to be regarded as reasonably proved productive in paying quantities." (Emphasis added). The revised participating area approved by the Acting Area Supervisor includes nine 10-acre subdivisions containing lands up-dip from well 26-N. In addition, the approved revised participating area includes three adjoining 10-acre subdivisions which are cut by a limiting fault on the western edge of the trap.

With the possible exception of one or two 10-acre subdivisions on the periphery of the approved revised

41 IBLA 351
participating area, the additional 10-acre subdivisions Exxon [3/] and Amoco have proposed to include are located at a greater distance from well 26-N or are structurally low to the above-mentioned nine 10-acre subdivisions which were included in the revised participating area.

Available data indicates that the reservoir is under the influence of a strong water drive which is displacing flank oil to the up-structure producing wells.

We recognize that Exxon and Amoco may be correct to the extent that they argue that the productive limits of the Nugget reservoir actually extend beyond the revised participating area. However, appellants have failed to establish that, in 1977, on the basis of the data presented to the Acting Area Supervisor in connection with the revision, any of the lands outside of the revised participating area might "then" be "regarded as reasonably proved to be productive in paying quantities" as of February, 1975. (Emphasis added.) In fact, at the time the Acting Area Oil and Gas Supervisor was reviewing the application for the participating area revision that they are now challenging, both Amoco and Exxon, in separate written submissions, asserted that the oil producing capacity of well No. 26-N is unknown. This assertion strongly undercuts their contention that the additional 10-acre subdivisions they wish to have included in the revised participating area should be regarded as reasonably proved to be productive of unitized substances in paying quantities.

While Exxon's and Amoco's submissions contain seemingly definite structure maps, in actuality, the contour lines depicted on the maps merely reflect their extrapolations based on available data. The reliability of these extrapolations decreases to the extent that the maps purport to depict contours at increasing distances from the wells from which the data was derived.

In the final analysis, the delineation of a revised participating area requires an evaluation of the engineering and geological data available. However, as such limited data is often subject to conflicting interpretations by equally competent individuals, the ultimate decision is a matter calling for the exercise of judgment and discretion.

\[1\] Exxon Company, USA, did not appeal the U. S. Geological Survey decision.

41 IBLA 352
The Survey is the Secretary's technical expert in geologic evaluation, and the Secretary is entitled to rely on its reasoned analysis. *Getty Oil Co.*, 27 IBLA 269, 274 (1976); *ARKLA Exploration Co.*, 25 IBLA 220 (1976). The Secretary is entitled to rely on Survey’s geologic evaluation of oil and gas production in the absence of a clear and definite showing of error. *Corrine Grace*, 30 IBLA 296 (1977). No such showing is made here.

Appellant questions the timing of the availability of information concerning well 26 N’s productivity. However, section 11 of the unit agreement states that the “effective date of any revisions shall be the first of the month in which is obtained the knowledge or information on which such revision is predicated, unless a more appropriate effective date is specified in the schedule.” The terms of the unit agreement allow the area oil and gas supervisor to take data concerning well 26 N into account. It has not been shown that the decision of the acting director is in error.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision appealed from is affirmed.

Joseph W. Goss
Administrative Judge

We concur:

Douglas E. Henriques
Administrative Judge

James L. Burski
Administrative Judge

41 IBLA 353