

**INTERNAL REVENUE SERVICE**  
NATIONAL OFFICE TECHNICAL ADVICE MEMORANDUM

October 28, 2002

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CASE MIS No.: TAM-141935-02/CC:PSI:B07

Team Manager:

Taxpayer's Name:

Taxpayer's Identification No:  
Years Involved:  
Date of Conference:

LEGEND:

Taxpayer:

Company 1:

Company 2:

Company 3:

State:

Geothermal Area:

Customer:

Contract:

x:

Year 0:

y:

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z:

a:

Year 4:

b:

c:

Tax Year 1:

d:

Tax Year 2:

e:

Tax Year 3:

ISSUE(S):

- (1) Is the geothermal deposit for purposes of determining percentage depletion under section 613(e) geothermal brine, geothermal steam or geothermal heat when geothermal brine is converted to steam used in the production of electricity?
- (2) Where there is no sale of a geothermal resource in the immediate vicinity of the well, must the Taxpayer use a representative market or field price ("RMFP"), if one is available, to calculate its percentage depletion allowance?
- (3) Where there is no RMFP, and an alternative method is used to determine gross income from the property ("GIFP") for purposes of computing percentage depletion, should the GIFP be determined by reference to the income actually received?
- (4) In the absence of an RMFP and under the circumstances described below, has the Taxpayer determined a reasonable allowance for depletion?

CONCLUSION:

- (1) The geothermal deposit, for purposes of computing percentage depletion, means a geothermal reservoir consisting of natural heat which is stored in rocks or in an aqueous liquid or vapor (whether or not under pressure).

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- (2) Where there is no sale of a geothermal resource in the immediate vicinity of the well, and a representative market or field price is available, then the RMFP will equal the gross income from the property for purposes of the depletion allowance.
- (3) In the absence of an RMFP, and an alternative method is used to determine the gross income from the property for depletion purposes, the GIFP should be determined by reference to income actually received.
- (4) In the absence of an RMFP and under the circumstances described below, the Taxpayer has determined a reasonable allowance for depletion?

**FACTS:**

Taxpayer is a joint project of Company 1, Company 2 and Company 3. Taxpayer operates a plant and production wells in State in the Geothermal Area. Taxpayer generates electricity from steam produced from geothermal deposits, and sells electricity to Customer pursuant to Contract. Contract was entered into pursuant to State's program to provide incentives for the development of geothermal resources. For purposes of this memorandum, we assume that during the years at issue, there is no RMFP for the sale of geothermal resources.

Contract is for a term of x years, and began in Year 0. During the first y years of the contract, Taxpayer is paid guaranteed fixed prices for electricity. During the remaining z years of the contract, Taxpayer is paid for electricity at a rate determined by reference to a formula utilizing short run avoided costs.

During the years at issue, Taxpayer calculated the GIFP using a formula which multiplies the gross sales of electricity by the ratio of production costs to total costs. For this purpose, production costs are those costs related to the production of steam from the geothermal reservoir. Production costs do not include the cost of converting steam to electricity. Taxpayer originally calculated that a percent of its total costs were due to production costs. In Year 4, Taxpayer commissioned a cost allocation study, which determined that the actual ratios of production costs to total costs were b and c percent for the two portions of Tax Year 1, d percent for Tax Year 2 and e percent for Tax Year 3. Taxpayer seeks an adjustment to claim the increased amount of depletion reflected in the Year 4 study.

**LAW AND ANALYSIS:**

Section 611(a) of the Internal Revenue Code provides, in part, that in the case of

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mines, oil and gas wells, other natural deposits, and timber, there will be allowed as a deduction in computing taxable income a reasonable allowance for depletion and for depreciation of improvements, according to the peculiar conditions in each case; such reasonable allowance in all cases to be made under regulations prescribed by the Secretary.

Section 613(a) provides, in part, that in the case of the mines, wells, and other natural deposits listed in subsection (b), the allowance for depletion under section 611 will be the percentage, specified in subsection (b), of the gross income from the property excluding from such gross income an amount equal to any rents or royalties paid or incurred by the taxpayer in respect of the property. In no case will the allowance for depletion under section 611 be less than it would be if computed without reference to this section.

Section 613(c)(1) provides that the term "gross income from the property" means, in the case of a property other than an oil or gas well and other than a geothermal deposit, the gross income from mining.

Section 613(d) states that, except as provided in section 613A, in the case of any oil or gas well, the allowance for depletion will be computed without reference to §613.

Section 613(e)(1) provides that in the case of geothermal deposits located in the United States or in a possession of the United States, for purposes of subsection (a)--  
(A) such deposits will be treated as listed in subsection (b), and  
(B) 15 percent will be deemed to be the percentage specified in §613(b).

Section 613(e)(2) provides that, for purposes of §613(e)(1), the term "geothermal deposit" means a geothermal reservoir consisting of natural heat which is stored in rocks or in an aqueous liquid or vapor (whether or not under pressure). Such a deposit will in no case be treated as a gas well for purposes of this section or section 613A, and this section will not apply to a geothermal deposit which is located outside the United States or its possessions.

Section 1.613-3 of the Income Tax Regulations states that in the case of oil and gas wells, gross income from the property, as used in section 613(c)(1), means the amount for which the taxpayer sells the oil or gas in the immediate vicinity of the well. If the oil or gas is not sold on the premises but is manufactured or converted into a refined product prior to sale, or is transported from the premises prior to sale, the gross income from the property shall be assumed to be equivalent to the representative market or field price of the oil or gas before conversion or transportation.

Revenue Ruling 85-10, 1985-1 C.B. 180, holds that gross income from the property is computed in the same manner for geothermal steam wells as for oil and gas wells for percentage depletion purposes.

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Revenue Ruling 90-62, 1990-2 C.B. 158, holds that if natural gas is sold after it is removed from the premises, for a price that is lower than the RMFP, gross income from the property for purposes of the allowance for percentage depletion is determined without regard to the RMFP. A producer is not entitled to an allowance for depletion based on gross income from the property that exceeds the price the producer actually receives.

The initial question raised is whether there is a difference in the calculation of gross income from a geothermal deposit under §613, depending on the products of the resource, or how it is used. It is suggested that the percentage depletion allowance should be determined differently for a geothermal deposit that is used for its heat value alone than for a deposit that produces steam which is used to turn turbines. The definition of a geothermal deposit, contained in §613(e)(2), is a geothermal reservoir consisting of natural heat which is stored in rocks or in an aqueous liquid or vapor, whether or not it is under pressure. The definition does not make any distinction, or provide any cause for making a distinction, based on the use of the resource. Therefore, there is no need to differentiate the means of calculating percentage depletion based on the use of the resource.

Section 611 grants a reasonable allowance for depletion. Section 613 allows percentage depletion for mines, wells and other natural deposits. Percentage depletion of a geothermal deposit, as stated in §613(e), is fifteen percent of the gross income from the property. Under §1.613-3, in the case of oil and gas wells, gross income from the property, as used in §613(c)(1), means the amount for which the taxpayer sells the oil or gas in the immediate vicinity of the well. If the oil or gas is not sold on the premises but is manufactured or converted into a refined product prior to sale, or is transported from the premises prior to sale, the gross income from the property shall be assumed to be equivalent to the representative market or field price of the oil or gas before conversion or transportation.

The clear language of §1.613-3 states that, if the oil and gas is not sold in the immediate vicinity of the well, then gross income from the property should be determined using a representative market or field price ("RMFP"). An RMFP is "the price that is actually paid by buyers for the same commodity in the same market." See *Shamrock Oil and Gas Corp. v. Commissioner of Internal Revenue*, 35 T.C. 979, 1032 (1961) *aff'd* 346 F.2d 377 (5th Cir. 1965). An RMFP is proven through the examination of actual transactions. *Id.* An RMFP is calculated by taking a weighted average, based on quantity, of all contracts in which a comparable mineral was sold in the taxpayer's locality. See *Hugoton Production Co. v. United States*, 349 F.2d 418, 420 (Ct. Cl. 1965). This includes all contracts in effect during the year in question, including those existing contracts with unfavorable pricing terms, and not just contracts entered into during that year. See *Panhandle Eastern Pipeline Co. v. United States*, 408 F.2d 690, 701-708 (Ct. Cl. 1969). Essentially, an RMFP is determined by examining sales of gas that are comparable in time, quantity, quality and availability to marketing outlets, and

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represents the price that similar gas brought at the mouth of the well in the field. See *Shamrock*, 35 T.C. at 1033. An RMFP is not the same as a fair market value. *Id.* at 1032. Considerations of what a buyer could have or should have paid for the mineral are entirely irrelevant. *Id.*

As seen in the *Shamrock* case, a particular sale must meet two general requirements to be included in the calculation of an RMFP. The sales must be of the same commodity and they must be sold in the same market to qualify. The holdings of *Shamrock* and similar cases regarding the elements of the RMFP are codified in §1.613-4(c). The first element, that the sale be of the same commodity, requires that the mineral be of like kind and grade. Generally, §1.613-4(c)(2) states that a mineral is of a like kind and grade if, in common commercial practice, it is sufficiently similar in chemical, mineralogical, or physical characteristics to the taxpayer's ore or mineral that it is used, or is commercially suitable for use, for essentially the same purposes as the uses to which the taxpayer's ore or mineral is put. The second element to be shown for inclusion into an RMFP is that the mineral be sold in the same market. Under §1.613-4(c)(3), in determining the representative market or field price for the taxpayer's ore or mineral, consideration will be given only to prices of ores or minerals with which, under commercially accepted standards, the taxpayer's ore or mineral would be considered to be in competition. The taxpayer's market is defined by economics, supply and demand, and the existence and availability of a market, rather than by geographic boundaries. See *Phillips Petroleum Co. v. Bynum*, 155 F.2d 196, 198 (5th Cir. 1946).

Determining an RMFP is inherently factual. Determining an RMFP in the case of a geothermal deposit, would involve an examination of actual contracts for the sale of a geothermal resource in the vicinity of the wellhead which is commercially suitable for the taxpayer's use. Further, these sales would necessarily be from geothermal deposits in actual competition with Taxpayer. If no wellhead sales of comparable geothermal resources exist that would be in competition with the Taxpayer, then there is no RMFP.

Courts have interpreted the language of §1.613-3 as limiting the calculation of gross income from the property to an assessment of the representative market or field price where the oil or gas is not sold in the immediate vicinity of the well. See *Shamrock*, 35 T.C. at 1033; *Hugoton Production Co. v. United States*, 349 F.2d 418, 427 (Ct. Cl. 1965). The court in *Hugoton* reasoned that, in the case of minerals other than oil and gas, the Regulations provide alternative methods of calculating gross income from the property where there is no RMFP. *Id.* However, because there is no such alternative given for oil and gas properties, the Commissioner has chosen to provide only one method for calculating gross income from the property. *Id.*

While *Hugoton* held that use of an RMFP is the only authorized method for calculating gross income from the property where the oil or gas is not sold in the immediate vicinity

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of the wellhead, the court stated that it was not dealing with a situation where there was no RMFP. *Id.* at 428. The Court of Claims commented in *Panhandle* that the holding in *Hugoton* meant that “the applicable regulation requires the use of a ‘representative market or field price,’ if an acceptable price of such nature can be established. Neither the court’s decision in that case nor the regulation requires the impossible, i.e., the use of a price that cannot be determined representative, or as precluding us from applying some other formula that produces a fair result. To hold otherwise would mean that in the instant proceedings the Government has successfully presented to plaintiff a ‘heads I win, tails you lose’ proposition.” See *Panhandle*, 408 F.2d at 718.

*Panhandle* established that, for oil and gas properties, where an RMFP can not be found, an alternative method should be used. Without specific regulatory guidance, the key principle for selecting an alternative method is the §611 requirement that the allowance for depletion be reasonable. *Panhandle*, for example, allowed the taxpayer to use the actual sale price away from the wellhead, subtracting out the cost of transporting the gas. *Id.* The same “workback” method was used in two Revenue Rulings dealing with analogous situations under the Windfall Profits Tax Act, where no RMFP could be found because there were no wellhead sales in the North Slope of Alaska. See Rev. Rul. 83-161, 1983-2 C.B. 202; Rev. Rul. 83-124, 1983-2 C.B. 201. The removal price was calculated by reducing the sales price by the transportation costs to the market.

Taxpayer utilized a method which apportioned the sales price between the costs of the production activities and the transportation and conversion costs, based on the ratio of production costs to total costs. While the “workback” method has been an allowed alternative method for calculating the gross income from the oil or gas property where there is no RMFP, it is not necessarily the only allowable method. Taxpayer’s business involves the extraction of geothermal steam, which is then used to generate electricity. The generation of electricity is largely an entirely separate business from the production of steam from geothermal deposits. Based on the peculiar conditions of Taxpayer’s business, the calculation appears to be a reasonable means of calculating what portion of the sale price for electricity is attributable to the sale of the geothermal resource in the vicinity of the wellhead. Therefore, while the regulations require that an RMFP be utilized, where available, for calculating the gross income from the property for depletion purposes, where no RMFP is available a reasonable alternative method is allowed. In Taxpayer’s case, the alternative method used was reasonable based on the facts and circumstances.

It has been contended that, where the lack of an RMFP necessitates the use of an alternative method, GIFP should be calculated by referring to the short run avoided cost of producing electricity from natural gas, rather than the actual sales price under the Contract. It is argued that the Taxpayer’s sales price is artificially high, due to the favorable terms of Contract, and that a method which better reflects the fair market value of the steam and electricity produced should be used. Section 613 allows

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percentage depletion based on the gross income from the property for geothermal deposits. Under §1.613-3, and as discussed above, GIFP is determined by the actual amount for which the resource is sold in the immediate vicinity of the well. If the resource is not sold in the immediate vicinity of the well, then an RMFP is used, which is based on actual sales prices of the resource in the immediate vicinity of the well in the taxpayer's market. As seen in the *Shamrock* case, fair market value is irrelevant for determining an RMFP, and only actual sales prices are used. Use of the actual sales price provides a better approximation of the statutory methods of determining GIFP than a method based on the short run avoided cost.

The appropriateness of the use of the actual sales price is further illustrated by the State energy policies which led to the Contract. State, as an effort to encourage the development of geothermal deposits, provided incentives for the production of electricity from geothermal resources. The result was the Contract program, which provides advantageous price terms for the sale of electricity produced with geothermal resources. Preventing Taxpayer from using its actual sales price in the calculating of the GIFP for percentage depletion purposes would deny much of the benefit intended by State's incentive program.

Use of a method of calculating the GIFP through reference to the short run avoided cost of producing electricity with natural gas also presents a possible conflict with Revenue Ruling 90-62. Requiring that Taxpayer utilize a method which refers to the short run avoided cost leaves open the possibility that the depletion allowance under such a method could exceed the amount the Taxpayer actually received, should the short run avoided cost increase sufficiently. Such a method would be unreasonable, and not allowable under Revenue Ruling 90-62. Therefore, Taxpayer was reasonable in using the actual sales price in the calculation of GIFP for determining the allowance for percentage depletion.

Although we conclude that the taxpayer's method for determining GIFP is reasonable, no inference is intended to be drawn regarding the results of Taxpayer's commissioned study of costs. The determination of costs actually incurred in the production of geothermal steam and in the conversion of steam to electricity is a factual one that is beyond the purview of this office.

#### CAVEAT(S)

A copy of this technical advice memorandum is to be given to the taxpayer(s). Section 6110(k)(3) of the Code provides that it may not be used or cited as precedent.