## Barton, Jayne

**From:** Burhop, Shirley
**Sent:** Thursday, February 26, 2004 12:38 PM
**To:** Vogel, Kenneth
**Subject:** Fina training documents for your review

**Attachments:** 3Coal examples.doc; 3O&GExamples.doc; 3Sales to Affiliates - draft.ppt

Attached are three files: a power point presentation, O & G examples, and coal examples. They will be used to teach auditors and compliance specialists how to value production not sold at arm's length in accordance with the benchmarks.

Debbie has asked that we send these by both you and Geoff for review before we conduct the training. We hope to commence the training in late March.

Please provide me any comments or suggestions you might have on any of the materials.

3Coal examples.doc (50 KB) 3O&GExamples.doc (63 KB) 3Sales to Affiliates - draft.p...

Example 7
Coal

First Benchmark:

- § Gross proceeds accruing under the non-arm's length contract are acceptable if:
  - l the contract is comparable to arm's length contracts
  - l parties to the arm's length contract are not related to the lessee
- § This benchmark has rarely been used because most contracts are confidential

Example:

Warrington Coal produces 100,000 tons of subbituminous coal at 8,800 Btu in the Powder River Basin. They sell it to their affiliate Warrington Sales at $6.75 per ton. As this is a non-arm's length contractual arrangement, Warrington Coal must value the coal for royalty purposes using the benchmarks (criteria).

Warrington Coal somehow acquires the contract terms of coal sales in the immediate area and current sales quarter:

| | | | |
|---|---|---|---|
| Clifford Coal | 75,000 tons | 8,850 Btu | $6.90/ton |
| Spencer Energy | 120,000 tons | 8,650 Btu | $6.63/ton |
| Warrington Sales | 100,000 tons | 8,800 Btu | $6.80/ton |
| Wyoming Rose | 130,000 tons | 8,800 Btu | $6.70/ton |
| M&C Coal Mining | 90,000 tons | 8,400 Btu | $5.60/ton |

They may only use comparable contracts for comparison. (M&C Coal's Btu content is too low, and Warrington Sales is an affiliate. Neither contract price can be used for comparison.) As the remaining arm's length contracts fall in the same range as Warrington Coal's price, they may use their own non-arm's length contract price ($6.75) for royalty valuation purposes.

# Example 8
# Coal

Second Benchmark:

- § The price accepted or approved by the public utility commission for inclusion in the rates charged to electric power customers
- § Used only by investor-owned utilities

<u>Example:</u>

Sky High Mining sells coal to its affiliate power plant Sky High Electricity. The first valuation criteria cannot be used as there are no other comparable coal sales contracts in the region. Sky High may use the second criteria as their affiliate is an electric utility that reports its power generation activities to the state public utility commission (PUC).

Fuel costs are reported at least annually to a PUC and are based on the delivered costs of fuel. The price must be accepted and approved by the PUC for inclusion in the rates charged to electric power customers. If the delivered cost to the plant includes transportation or washing costs, the lessee may deduct the appropriate allowances from the reported costs.

# Example 9
# Coal

Third Benchmark:

- § The price of delivered coal reported to the Department of Energy, Energy Information Administration
- § FERC From 423 or Form No.1
- § Used by electric power cooperatives
- § Transportation allowances usually apply

Example:

Mountain Mining sells coal to its affiliate power plant Mountain Electricity. The first valuation criteria cannot be used as there are no other comparable coal sales contracts in the region. The second benchmark cannot be used as Mountain Electricity is a cooperative and doesn't report to a PUC.

However, as Mountain Electricity is large enough (with a total generation nameplate capacity of more than 50 megawatts) it must report fuel purchases to the Federal Energy Regulatory Commission (FERC). These coal costs are collected and published by the Energy Information Administration of the Department of Energy. If the delivered cost to the plant includes transportation or washing costs, the lessee may deduct the appropriate allowances from the reported costs in calculating net gross proceeds.

## Example 10
## Coal

Fourth Benchmark:

- § Determine the coal value taking into account spot prices or other relevant matters including circumstances unique to the mine
- § This is the benchmark most often used

Example:

Condor Mining sells 200,000 tons of subbituminous coal at 8,400 Btu to affiliate Eiffel Sales Company for $5.50 per ton. Condor cannot use the first three benchmarks as there are no comparable arm's length sales contracts in the region, and they are not selling directly to a power plant. Condor also sold tonnage to several other non-affiliated purchasers in the same quarter:

| | | |
|---|---|---|
| Oliver Energy | 250,000 tons | $5.63/ton |
| Krolock Minerals Sales | 125,000 tons | $5.70/ton |
| EFX Energy | 300,000 tons | 5.40/ton |

The fourth benchmark does not contain any comparability criteria. It would be relevant matter under the fourth benchmark to use a weighted average of these arm's-length contracts. This example may be better if we use a situation in which there are no arm;s-length contracts and we use a Coal Daily spot price adjusted for transportation.

**Deleted:** If all of the comparability factors included in the first criterion are met, then under the third benchmark Condor may use a weighted average of its other sales contracts to determine an acceptable value for royalty determination, as long as it is not less than the Eiffel Sales contract price.¶

¶

((250,000)(5.63) + (125,000)(5.70) + (300,000)(5.40))/675,000 = $5.54/ton.¶

¶

However, as the Eiffel Sales price is within the range of acceptable coal prices, $5.50 may be used for royalty valuation purposes.¶

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Example 11

## Coal

Fifth Benchmark:

- § A net-back or any other reasonable method
- § Calculate value by subtracting from the ultimate sale (including the sale of electricity) any cost incurred or value added to arrive at an fob mine price
- § *"The valuation procedure of last resort"*

Example:

Magda Coal sells all of its production to an electric power plant in an area where no arm's length sales are occurring from which to establish a representative value. The electric power is sold into the deregulated marketplace and therefore neither a State Public Utility Commission nor the Federal Energy Regulatory Commission would have jurisdiction on fuel prices. Under the fifth benchmark Magda Coal could establish a royalty valuation approach as the gross proceeds for the sale of electricity less the various upstream expenses involved in converting the coal Btus to megawatts of electricity.

Or we could use a spot price published by Coal Daily or some other publication.

# Sale of Unprocessed Gas under a Non-Arm's-Length (NAL) Contract

## Example 1

### Application of Benchmark: 1

**Situation I**
Lessee's price is equivalent to prices paid under a comparable arm's-length (AL) contract. .

Lone Star Field.
During December 2000, KB Energy (Lessee) sells 210,000 MMBtu of gas at the lease under a NAL contract to KB Trading Inc. for $ 4.95/MMBtu. In turn the KB Trading Inc. sells the gas to Blue Sky Gas Co. in the same field at $ 5.27/MMBtu.
Additional Information: KB energy's AL contracts in the same field. All gas is like quality.

| Seller | MMBtu/Term | | Contract | Price ($/MMBtu) |
|---|---|---|---|---|
| Sun Energy | 325,000 | 5 yr | AL | $ 4.99 |
| Northern Gas | 250,000 | 5 yr | AL | $ 5.19 |
| Star Energy | 210,000 | monthly | AL | $ 4.95 |
| Renewable Energy | 215,000 | 5 yr | AL | $ 4.95 |
| KB Trading Inc. | 210,000 | 6 months | AL | $ 5.27 |

<u>What should be the value for royalty purposes?</u>

# Solution

## Example 1

Application of Benchmark 1.
**Situation I**

There are three comparable contracts in Lone Star Field. The Star Energy and KB Trading Inc. contracts are not comparable contracts because they are monthly and short term contracts respectively. The Sun Energy, the Northern Gas and the Renewable Energy contracts are comparable contracts in the field or area. The KB Energy's price of $ 4.95/MMBtu is within the range of the gross proceeds derived from or paid under comparable AL contracts.

Therefore, KB Energy's gross proceeds based on $ 4.95/MMBtu are acceptable for value under benchmark 1.

Gross Proceeds = 210,000 x  $ 4.95 =  **$ 1,039,500..**

Note* The Renewable Energy's contract is the most comparable contract because of term and the price.

# Example 2

Application of Benchmark 1

<u>**Situation II**</u>: Lessee's contract meets both comparability and equivalency test.

During December 2000, KB Energy (Lessee) sells 210,000 MMBtu of gas to R & R Interstate Gas Co under a NAL spot sales contract from Buck Draw field. Sales point: KB Energy's pipeline interconnect at Buck Draw field, Western Colorado..
In the same field Premium Gas Co. sells 240,000 MMBtu of gas to R & R Interstate Gas Co. under an AL spot sales contract. Sales point is Premium Gas's pipeline interconnect in the same field.

<u>Price</u>: The price under both contracts is Westernstate Pipeline's price for deliveries to pipelines in Western Colorado. Both contracts are effective 6/1/2000 through 5/31/2001.

<u>Assignment:</u> Is the NAL price between KB and R & R an acceptable value for royalty purpose under Benchmark 1.

# Solution

## Example 2

Application of Benchmark 1

**Situation II**

KB Energy's price is equivalent to the price paid under Premium Gas Co's contract. Therefore, KB Energy's gross proceeds under its NAL contract represent an acceptable value for royalty purposes.

Note: KB Energy may deduct a transportation allowance from the value for the costs of moving the gas from the lease to the sales point. Premium Gas Co.'s AL contract is comparable.

# Example 3

Application of Benchmark 1

**Situation III** -_ Lessee's NAL contract is comparable to another AL contract in the filed or area.

Brite Star Field
During February 2003, KB Petroleum sold 50,000 MMBtu of gas to KB Refining Co. under a NAL contract. The contract term: 1/1/03 through 12/31/03. Price term: Index price for spot gas delivered in SW Wyoming as reported in the first monthly issue of Inside FERC's Gas Market Report for Trunkline Pipeline plus $0.07 per MMBtu.

All gas is like quality.

KB Refining also purchases all gas at AL from other producers in the Brite Star Field for its Cheyenne, Wyoming gas processing plant. Price term is Index price for spot gas delivered in SW Wyoming as reported in the first monthly issue of Inside FERC's Gas Market Report for Trunkline Pipeline plus $0.07 per MMBtu.

Example 3

**Solution:**

Application of Benchmark:1

**Situation III**

KB Petroleum's price under its NAL contract is equivalent to the price paid under other AL contracts in the Brite Star field. Therefore, KB Petroleum's gross proceeds based on its NAL contract are acceptable under benchmark 1.

# Example 4

Application of Benchmark: 2

**Situation I.**

Lessee's price is not equivalent to prices under comparable AL contracts.

Premium Gas Trading Co buys like quality gas from producers in the Bronco Field under the following contacts.

| Seller | Volume/Term | | Contract | Price ($/MMBtu) |
|---|---|---|---|---|
| RR Energy | 7,500 | Spot | AL | $ 2.95 |
| Quality Gas | 8,900 | 6 yr | AL | $ 5.65 |
| Premium Gas Co | 5,000 | 1 yr | NAL | $ 3.95 |
| JR Gas Co. | 5,000 | 1 yr | AL | $ 5.68 |
| Rich Gas | 9,000 | 7 yr | AL | $ 5.67 |

How do you go about valuing Premium Gas Co production?

# Solution

## Example 4

Application of Benchmark: 2

**Situation I**

Lessee's price is not equivalent to prices under comparable AL contracts.

Premium Gas Co's gross proceeds based on $ 3.95/MMBtu are far less than the gross proceeds under AL contracts in the field. Thus, the Premium Gas Co's price is not equivalent to prices under comparable AL contracts. Benchmark 1 does not apply go to Benchmark 2. Under the second benchmark, Premium Gas Co must consider gross proceeds under AL contracts for like-quality gas in the same field (Bronco field) or area.

The most comparable contract in the filed is JR Gas Co. contract and Premium Gas Co must use this contract price to value its gas under benchmark 2.

Value = 5,000 MMBtu x $ 5.68 = $ 28,400.

# Example 5

Application of Benchmark 2.

**Situation II**

No Comparable AL contract exists in the field or area, and the affiliate resells the gas.

Pure Gas Field

During May 2002, Pure Gas E & P Inc. sold 10,000 Mcf of gas to Pure Gas Marketing & Trading Inc. at the wellhead. In turn Pure Gas Marketing and & Trading Inc. resold the gas to Green River Gas Co in the same field. The Pure Gas M & T is not a marketing affiliate.
Additional information follows.

| Seller | Volume | Btu | NGL % | Contract | Price ($/MMBtu) |
|---|---|---|---|---|---|
| AAA Gas Co. | 200,000 | 1281 | 20.26 | NAL | $ 5.59 |
| BBB Gas Co. | 300,000 | 1407 | 28.50 | NAL | $ 5.67 |
| XYZ Gas Co. | 500,000 | 1321 | 22.97 | NAL | $ 5.66 |
| Pure Gas E&P | 10,000 | 1033 | 2.53 | NAL | $ 4.18 |
| Pure Gas M & T | 10,000 | 1033 | 2.53 | AL | $ 4.25 |
| | | | | | |
| Spot Gas Purchasing | 95,000 | 1100 | 11.97 | Spot | $ 4.66 |

How do you value Pure Gas E & P Production?

# Solution

## Example 5

Application of Benchmark 2.
**Situation II**

No sales of like-quality gas under A/L contracts exist in the same field or nearby fields or areas.

Pure Gas E & P may use Spot Gas Purchasing's price to value its production under the 2nd benchmark. The price will need to be adjusted to reflect the different quality of the gas

Value = 10,000 x 1.033 x 4.66 = $ 48,137.8

Note:
Pure Gas M & T may argue that Spot Gas Purchasing's gas is not of the same quality and use the argument of salability of the lessee's gas in Pure Gas field.

The method chosen should closely reflect the circumstances surrounding the disposition of the Pure Gas E & P's production.

## Example 6

**Application of Benchmark 3**
Under this benchmark a net-back method or any other reasonable method is applied for valuing processed gas or gas plant products.

- Rarely used.
- Applied on a case by case basis.
- Lessees must notify MMS [30 CFR 206.152 § c(3) (2000)].
- AL contract prices in a distant field or area adjusted for quality and transportation may be used.