Presentation

Coal Valuation

What is Coal?

Coal itself is not a mineral, it is a rock. While most rocks are defined as aggregates of minerals, coal is an aggregate of minerals and organic material.

Coal is black or brownish-black, combustible, and the total aggregate must contain more than 50 percent carbonaceous material by weight with the remaining weight being water, rock and inorganic sulfur.

Coal is sedimentary in origin, forming from deposits of carbonaceous plant material. Depositional environments are oxygen free - the lack of oxygen prohibits decay of the plant's carbon content. One such environment would be near shoreline marine environments such as river deltas. Another such environment would be a non-marine environment such as a bog or a swamp, perhaps such as the Everglades in Florida or the Okefenokee Swamp of Georgia.

Coal is called a "fossil fuel" because it is composed of ancient plant debris that has undergone a fossilization process and because it burns in the presence of oxygen.

Coalification is a progressive process (bacterial decay and heat) that turns decayed plant material (peat) into the various ranks of coal. The first stage (peat to lignite) is decay and the remaining stages are thermal. The major byproducts are methane, carbon dioxide, and water.

Ranks of Coal

A common classification of coal is by carbon content and heating potential. Carbon content is measured as a percent aggregate of the coal. Heating potential is measured in British Thermal Units (Btu) per pound of coal. A Btu is defined as the amount of heat required to raise one pound of water one degree Fahrenheit.

Anthracite coal has the highest carbon content (86-98 percent) but not the highest heat content. Anthracite coal forms through subjection of the rock to extreme heat and pressure, resulting in a slight change in structure of rock (partial metamorphism), making the rock harder and more crystalline. Heating value is about 9,000 Btu/lb.

Bituminous coals are 75-85 percent carbon and have a heating value of 10,500 to 13,000 Btu/lb. Bituminous is the most widespread coal in the U.S. In Colorado, Utah, and New Mexico most of the bituminous coal mined was deposited during the Upper Cretaceous Period or around 70 million years before present time. The bituminous coals mined in the eastern U.S. were formed in the Pennsylvanian Period about 280 million years B.C..

Subbituminous coals have low carbon content and a heating value of 8,400-8,800 Btu/lb. Wyoming's subbituminous deposits date to the Paleocene or about 60 million years ago.

Lignite is the lowest rank of coal. Carbon content is low and heating value is about 6,300-7,000 Btu/lb. These deposits are the youngest in age. The North Dakota lignite deposits were laid down during the Lower Eocene epoch about 50 million years ago.

Coal Deposit Locations

This map opposite this page shows the coal fields of the United States. The only important economic occurrence of anthracite is in eastern Pennsylvania. The partial metamorphism is a result of the Appalachian mountain building. Most other eastern coals are bituminous or subbituminous. A characteristic of most eastern coals is their generally higher sulfur content, although some West Virginia coals do have a comparatively low sulfur content. Sulfur content is a concern in burning coal because sulfur dioxide emissions resulting from the burn are considered a pollutant.

Western coals are geologically younger. They tend to be lower in Btu and sulfur content. They are bituminous, subbituminous, and lignites for the most part.

The large Powder River Basin deposits in Wyoming contain enormous reserves of coal, much of it federally owned. The largest producing coal mines in the U.S. are found in the Powder River Basin with the Wyodak coal bed producing more coal then any other in the U.S.

Federal coal occurs in Alabama, Arkansas, Colorado, Kentucky, North Dakota, Montana, Oklahoma, Utah, Washington, and Wyoming. Indian coal is found in Arizona, New Mexico, and Montana.

Coal Mining Methods

Surface Mines (12.5% royalty rate)

Area surface mine: Usually found in flat terrain, area surface mining consists of a series of cuts 100' X 200' wide. The overburden from one cut is used to fill in the mined out area of the preceding cut (example: Powder River Basin mines). Reclamation techniques differ from those of the open pit method but are equally effective.

Mountain top removal: The mountain top is removed to expose the coal seam. Overburden is placed in the adjacent valley. Reclamation takes place by contouring the mountain top and filled-in valley (example: mines in West Virginia).

Contour or bench method: This is used where a seam(s) is located at a certain elevation or elevations through a mountain or hill. Contour mining allows for the extraction of coal from mountainous areas where it is not feasible to extract the entire seam using mountain top removal mining. Contour mining allows for the partial removal of the coal seam at the elevation of the coal seam. Contour mining is often utilized in more than one location on the same mountain.

Open Pit: Open pit operations occur where overburden and coal are removed in large stair-step configurations (called benches). Electrically powered shovels and draglines are the predominant digging equipment. Trucks are the most common method of transporting the coal out of the pit, although conveyors are gaining popularity. This mining method has been particularly effective in dealing with very large coal seams in the Powder River Basin, but most Wyoming surface mines use at least some open pit techniques. Reclamation of mined land is facilitated because dirt can be moved and placed fairly precisely with reclamation in mind, and reclamation and mining can take place simultaneously.

Underground (deep) mining (8% royalty rate)

Longwall mining: Excavates along the entire length of a "panel" and allows the panel's roof to collapse as mining progresses (example: Shoshone mine).

Room and pillar method: The mining advances by excavating rooms leaving pillars to support the roof of the mine. When the rooms have advanced to the economic limit the pillars are removed ("robbing pillars") upon retreat.

Highwall mining (no universal decision on royalty rate)

This entails auger mining into the highwall of a surface mine. We do not have a nationwide decision from BLM as to whether, for royalty purposes, this process is considered surface or underground (example San Juan mine).

Coal Mining, Preparation, and Marketing

- **Extraction,**
- **Haulage**
- **Processing**
  - **Crushing**
  - **Screening**
  - **Blending**
  - **Other treatment or additives**
- **Storage**
- **Loading**
- **Weighing**
- **Analyses**

Washed coal	**Run-of-Mine Coal (Crushed but Unwashed)**

FOB mine sale	**FOB destination sale**

Arm's-length contracts	**Non-arm's-length dispositions (N-A-L contract, internal consumption, no contract)**
Cash only purchase	**Cash and considerations**

Mine-mouth utility plant	**Utility plant distant from mine**

Captive (dedicated to single power plant)	**Non-captive**

The Coal Market

Ninety percent of the coal produced in the United States is used domestically. There are several major coal markets that use the vast majority of this coal:

- electric utility industry – steam coal
- industrial plants - steam coal
- metallurgical - coking coal
- specialty markets – stoker and lump coal
    - narrow gauge railroad
    - home/business space heating
- export – coking and steam coal

Any or all of these market segments may require special coal quality specifications depending upon what application the coal is being used for: cyclone boiler, fluidized bed combustion boiler, stoker furnace, or stove. For example, cyclone boilers require a high Btu content coal to operate efficiently.

Types of Coal

Steam Coal: This coal segment comprises about 80 percent of all domestic coal use. It is the use of coal in utility power plants to generate electricity, often referred to as co-gen plants.

Coal intended for utility power plants must be crushed so that it can be efficiently handled, loaded, unloaded, and stockpiled. Coal handling equipment for utility power plants usually require 2 x 0 coal (2 inches or below in size). Any coal from any mine can't be burned in just any boiler. Utilities modify their boiler configuration depending on the chemical composition and burn characteristics of the coal at hand. If the utility wishes to change its coal source, it performs a test burn of the new coal and may need to modify the boiler to burn that coal efficiently.

Coal from a different mine may also cause problems in the areas of handling and transportation, causing the utility to question its coal source's reliability. Utilities are very careful in choosing a coal source. Sulfur content is also an issue with the implementation of the Clean Air Act. Coal with less than 1.2 lb of S02 per mmBtu can usually be burned without scrubbers. However some plants with scrubbers require coal with a high sulfur content so the scrubber will work efficiently.

Metallurgical Coal: Also known as coking coal, metallurgical coal is the majority of coal exported from the U.S. It is coal that can be converted to coke, and must be low in ash and sulfur to form a coke that is strong enough to support the weight of iron ore and limestone in a blast furnace. The coke produces heat and the carbon acts as a reducing agent (separating metallic from non-metallic constituents such as sulfur).

Coke - A fuel produced by partially burning coal in a reduced oxygen atmosphere. This removes most of the gasses leaving a solid that burns at a higher temperature than coal.

There are two grades of coke:

- Chemical grade coke is a lower grade and is used for reducing phosphate rock in electric furnaces and in the production of calcium carbide.

- Metallurgical grade coke produces a much higher temperature and is used as the heat source in blast furnaces for making steel etc.

Stoker Coal: To keep burn characteristics stable, stoker coal must be received in a somewhat uniform size as the users do not crush the coal again before burning. Stoker coal is usually oiled to suppress dust and to aid gravity flow and handling characteristics.

Lump Coal: This is coal sold directly from the mine without crushing. It is used in small-scale applications such as home or office space heating. Lump coal has less dust and burns longer at a lower temperature.

Some mines provide free lump coal to their employees as a benefit. Even though no sale has taken place ***royalty is due***. Remember: royalty is due on all coal sold, used, or otherwise disposed of.

Royalty Due on Coal

Royalty is due on all coal produced, unless the coal is unavoidably lost, as determined by BLM. Unless BLM states that coal is unavoidably lost, any coal lost will be considered as avoidably lost and subject to royalty

Royalty is due on coal that the lessee or its affiliate:

- sells (either under arm's length or non-arm's length conditions)
- consumes internally (without benefit of a contract for sale); including coal used:
  - -- in a power plant
  - -- as feedstock in a beneficiation plant
  - -- as feedstock for gasification or liquefaction
  - -- to heat the mine or plant facilities
  - -- to dry washed or beneficiated coal
  - -- to dry run-of-mine coal
- loses avoidably
- loses unavoidably, if compensated by insurance or some other means
- recovers from waste piles (coal fines)

There is no general provision for royalty-free use of coal on or off the lease unless the lease specifically contains that provision.

Where is Production Quantity Determined for Royalty Measurement Purposes?

The production and sales quantity (tons) on which royalty is due is measured at the royalty determination (settlement) point determined jointly by BLM and MMS.

The royalty determination point is often the point of sale--typically at or near the mine--as specified in sales contracts. This point is often at a measurement point, such as; a weigh-in-motion rail scale, batch loading facility, truck scale, or belt scale.

Coal may be measured or weighed more than once. It may be weighed at the mine site, when loaded on trains and then again when offloaded at the customer's utility plant site or when coal is loaded onto vessels for overseas shipment.

Lessees that move coal to remote locations for storage or for trans-shipments may incur incidental losses often referred to as "shrinkage". (Shrinkage is the result of drying, wind loss, handling losses, scale differences, etc.) Excessive shrinkage may be royalty bearing if it is the result of negligence, mishandling or other disregard of controllable factors that the lessee could have employed.

Prior to establishing a point of royalty determination, consultation may occur between all concerned parties, including the lessee. However the final decision of a point of royalty determination is not delegable to the lessee. Where unusual selling arrangements exist, BLM and MMS may, at their discretion, assign any reasonable point as the point of royalty determination, including a location different from the point of sale, such as a scale en route to the sales destination or at the sales destination.

When is Royalty Due on Coal Production?

Typical lease terms require that royalty be paid no later than the end of the month following the month when production was sold or otherwise disposed of. The royalty obligation accrues with extraction (production). However, the royalty obligation is deferred until the lessee sells or otherwise finally disposes, consumes, or avoidably loses the coal. In the case of coal consumed as feedstock for beneficiation, royalty is due no later than the end of the month following the month the coal is diverted from the marketplace to the feedstock process. The timing of the beneficiated coal product sales does not control the due date for coal used as feedstock.

Some leases, particularly Indian leases, require that royalty be paid no later than 25 days after the end of the lease month when production was sold or otherwise disposed of.

Royalty is not due when coal is placed into inventory, regardless of whether storage is onsite or offsite (remote).

Royalty is not due when coal is unavoidably lost, such as coal lost in washing or screening operations. If the coal fines are subsequently recovered, royalty is due when the recovered coal is sold or otherwise utilized or consumed.

The royalty obligation for produced coal that is sold is unaffected by the buyer's payment practices for the coal purchased. The payor must remit royalty on the sales value no later than the end of the month following the month of sales regardless of whether the purchaser pays untimely or not at all.

Statutory Authority

Prior to 1920, coal mining rights on Federal lands were sold like salable minerals. The Mineral Leasing Act of 1920 allowed coal to be leased for the first time.

The Federal Coal Leasing Amendments Act of 1976 (FCLAA) changed the way coal was leased. Prior to FCLAA, acquiring a lease involved a:

- prospecting permit
- preference right lease application
- preference right lease
- cents-per-ton royalty rate in the lease terms

After the implementation of FCLAA, acquiring a lease involves:

- an exploration license (no special rights conferred)
- the bid for coal (must meet or exceed acceptable bid)
- competitive bonus bids
- an ad valorem royalty in the lease terms

In addition, FCLAA provides that a lessee will pay a royalty of 12.5 percent. It also states the Secretary of the Interior may determine a lesser royalty amount for underground mining (8 percent). FCLAA specifies that value is to be defined by regulations.

Regulatory Authority

Revised coal valuation regulations are found at 30 CFR § 206.250 through 206.265 and became effective March 1, 1989. The purpose of the regulations is to establish the value of coal produced for royalty purposes for all coal produced from Federal Coal Leases.

Please note that the March 1989 revised regulations did not change any of the valuation principles of the previous regulations. However, there are some slight differences in how the regulations are written for clarification, how non-arm's length value is determined, and how production fees and taxes are treated for royalty purposes.

Note: All royalty payments made to MMS are subject to later audit and adjustment.

Overriding Principles for Valuing Coal

Four principles dominate the valuation of coal for royalty purposes. They are:

- Under any selling arrangement, the minimum value on which royalty is based is the gross proceeds accruing to the seller or his affiliate.

- Value for royalty purposes is normally derived from transactions (contracts) in the open marketplace between unaffiliated parties.

  Ideally, value is best determined by free market forces; the lessee negotiates the best deal he can to further his own interests, while concurrently increasing revenues for the lessor (royalty owner).

- The lessee must place the coal in marketable condition for sale. If he doesn't, he must still value it as if he had.

- Value is typically based on an f.o.b. mine sales. Value includes all gross sales proceeds less transportation expenses, washing expenses, and any other payments that are deemed by MMS as not coal production.

Marketable Condition

The marketable condition requirement means that the coal producer is responsible for not only extracting the coal but also performing the minimum processing activities necessary to place production into a condition that meets the requirements of the marketplace. To place coal into marketable condition, the following processes are normally applied -- breaking (crushing) sizing (screening), dust allaying, treatment to prevent freezing, storage, and loading for shipment to market (see 30 CFR § 206.251).

Typical requirements to meet the marketable condition requirement for steam coal sales may include:

- Extraction activities, including stripping, drilling, blasting, and pit-loading (removal), or in the case of an underground mine, all activities necessary to bring coal to the surface.
- All preparation activities at the mine site such as haulage from one mine facility to another facility, for example from the crusher, to a blending site, and then to storage, followed by loading. This would include any treatments that do not change the chemistry of the coal, including blending, oiling, and freeze proofing.
- All mine loadout operations are considered part of the marketable condition requirement, including the use of precision loadout (topping off) equipment.
- Marketing the product, including finding buyers, negotiating contracts, and arranging for deliveries.
- Compliance costs such as reclamation or environmental costs.

Certain operations may or may not be necessary to place coal in marketable condition:

- Primary storage facilities and operations such as stacking tubes, silos and barns. Remote storage is usually considered secondary, and not part of the cost of marketable condition.
- Primary loadout facilities including rapid loadout equipment batch loadout, scales and sampling equipment. Loading at a remote facility is usually considered secondary, and not part of the cost of marketable condition.
- A rail loop at a mine site for loadout.

If coal is sold as stoker, lump coal, or to a beneficiation plant, it may be required to double size the product through the use of screens. The cost of screening cannot be deducted because, for that market segment, the minimum requirement is that the coal have both top and bottom limits.

The market sets the standard for what condition the mineral must be in to enter an established market. An individual sales contract does not define the marketplace. Therefore, under certain circumstances a contract, even at arm's length, may provide for the sale of coal that is not in marketable condition, even though that specific purchaser accepts coal in that condition.

Non-Royalty Bearing Processes: The following operations are not normally considered necessary to place coal in marketable condition and the cost of these processes can be deducted from gross proceeds:

- Surface and in-situ coal gasification or liquefaction operations.
- Any other operations involving the chemical alteration of coal. For example, if the operator adds sodium-based chemicals to the coal to increase the overall sodium content of the coal.
- Operations involving the physical processing of coal to a condition of quality beyond that normally attributed to coal marketed from the same area. This would typically be coal that is beneficiated to some form of synfuel.
- If the operator removes and disposes of ash from the utility and is compensated for that service.

Examples using the marketable condition principle: The following examples illustrate how and why a lessee may want to sell a product before he has placed it in marketable condition, and on what the royalty value will be based:

- The lessee does not want to incur the expense of having staff and owning primary crushing equipment to place lease coal in the marketable condition normally expected by purchasers in the region or purchasers who put the coal to a similar end-use (market segment). So, the lessee contracts to sell the coal in uncrushed run-of-mine condition with the understanding that the buyer will incur this expense.
  The royalty value of the coal will be based on the sales price plus the unit cost of the primary crushing. For example, if the selling price, including all reimbursements and adjustments under the sales contract, is $9/ton, and the purchasing utility's primary crushing expense is known to be $0.07/ton, then the value for royalty purposes will be $9.07/ton.
- A utility, through an affiliate, owns a mine that supplies the utility's power plant with coal. To increase production capacity, the utility lends the operator, interest free, funds to buy a dragline. The costs of the loan are absorbed by the utility and not reflected in any of the mine operation costs. Because the dragline is part of the mining operation, all costs associated with the dragline must be included in the mining component

of gross proceeds, including capital investment repayment costs (interest) even though the operator was not charged any.

- Coal sold to a certain market segment is not normally screened. Instead, the run-of-mine coal is passed through a crusher to reduce the size of large pieces. This results in prepared coal that can be accommodated by both the seller and buyers' coal handling facilities.
- In other market segments, coal fines present problems, and buyers require the operator to screen and eliminate coal fines. Because the coal can be sold into a market without screening, that marketable condition doesn't become the minimum marketable condition for all the coal sold. Thus, the costs associated with screening out coal fines may not be deducted from gross proceeds payments. At the same time, however, if some customers don't require screening for the elimination of fines, the lessee is not required to add screening costs to those sales where screening is not required.

Following is an example where payment for additional services is not considered a component of gross proceeds:

- A buyer requires you to add limestone to your delivered coal so the buyer's power plant flue gas can meet air quality requirements. Your coal sales price includes payment for the limestone. Because the addition of limestone to the coal is not a normal condition of placing the coal in marketable condition, you may deduct from gross proceeds the buyer's payment for the limestone and any other payment associated with the limestone, such as payment for blending the limestone with the delivered coal.

Reaching the marketable condition threshold: We can analyze the marketable condition requirement by asking some simple questions.

Is the seller including all purchaser-provided financing, equipment, and services in the coal sales price? Some lessees may add the value of the mine equipment provided by the purchaser to the invoice price when reporting royalties. However, we have found that lessees usually exclude something that should have been added to invoice price, or have made some other error that is not consistent with the accepted procedure to convert the non-cash benefit or service to a dollar per ton value.

For example: The lessee may have failed to add a return-on-investment factor to the value of equipment or may have reduced the annual depreciation amount by subtracting a salvage value for mine facilities. (Usually, at the end of a mine's life, a mine facility is a liability rather than an asset that can be salvaged, because the facility must be removed and the

land restored to original condition. This usually costs more than the salvage value of the facility.)

Can the seller changer purchasers without qualification? A buyer who supplied equipment or provided services usually doesn't want the seller using that equipment or services to sell coal to someone else without some sort of compensation. Usually there will be a provision in the coal sales agreement to take care of this situation if the need arises.

Gross Proceeds

We define gross proceeds as ALL payments and other consideration passing from buyer to seller. This includes subsequent adjustments to the price based on contract adjustment terms.

An important regulation is found at 206.257 (b)(5). This regulation says that MMS presumes all consideration passing from buyer to seller is for coal production. The regulation is worded so that MMS assumes any payment is part of gross proceeds unless the lessee proves to MMS' satisfaction the payment is not for production.

For any payment in question you should ask yourself the following question: Why would anyone pay money to a coal mine unless it is in some way related to coal production? Except in the most unusual situation, any payment is related to production.

Reimbursements: Reimbursement paid by the buyer to seller for production taxes and fees has been a topic of dispute for many years. For the period March 1, 1989 through September 30, 1990, coal valuation regulations allowed the cost of production fees and taxes - but not royalty - to be excluded from value. The amount excluded from value was the actual amount of the tax or fee paid.

Coal sales agreements usually have a section that reads something like "government impositions, taxes, and fees". Usually this section provides that the buyer will reimburse the seller for all production-related fees, royalties, and taxes (excluding income tax). These reimbursements are also sometimes called "pass throughs."

The price formula used to calculate the sales price is usually a complex equation with the taxes, fees, and royalty being the variables.

Non-cash considerations: The value of the following non-cash considerations are added to the sales price on a unit basis (cents/ton):

- Mining equipment/ facilities
- Marketable condition services/marketing services
- Discounted electricity rates
- Water rights
- Any other thing of value

MMS has seen all of these forms of consideration listed above in coal industry transactions. We may need to look beyond the coal sales agreement to find the contract or documentation setting out the terms and conditions for these forms of consideration.

Examples:

(1) The utility customer paid for about half of the mine equipment and mine facilities for a particular operator. The result was that the invoiced price, which was based on a "cost plus" pricing formula, was based on approximately half of the total cost.

(2) A company is affiliated with both the mine and the utility customer. They bought from the mine and resold the coal to the utility charging the utility a management fee for each ton sold. The operator erroneously omitted the management fee from the gross proceeds reported.

(3) The utility paid for the coal loadout facilities (also known as the "tipple"). However, the operator did not reflect the tipple non-cash benefit in the invoiced price. Gross proceeds are correctly calculated by adding the value of the tipple to the invoiced price.

Establishing a Dollar Equivalent Value for Non-Cash Proceeds:

Equipment or services supplied by the buyer must be converted to a cents per ton equivalent and added to the value of the coal for royalty purposes:

Add –

Operating and maintenance expenses (non-capitalized costs)
Annual depreciation (capitalized costs)
Return on investment (capitalized costs)

Divide by –

Total Federal and non-Federal tons of coal produced

Return on investment is calculated on the beginning of the year undepreciated capital investment. The ROI used is the actual rate of return realized by the party supplying the asset. If the actual ROI cannot be determined (e.g., a not-for-profit organization), then the Standard and Poor's BBB Industrial Bond Rate is used.

Gross proceeds vs. market value:

The following Interior Board of Land Appeals decision illustrates the application of regulations based on the premise that the open market sets a minimum value - ***but under no circumstance can value be less than gross proceeds***.

An operator sold coal under a non-arm's length contract to an affiliated power cooperative. The contract reimbursed the operator for the cost of mining. Mining costs were higher than the current market value. The valuation decision issued by MMS stated that the value for royalty purposes could not be less than gross proceeds. The operator argued that the value for royalty purposes should be based on the current market value.

Even though the current market price for coal of like quality in the area was selling for a lower price than the operator's gross proceeds, the actual value of that coal is what the power co-op was willing to pay for it. The coal must be worth at least what the buyer is willing to pay for it or it would find a different cheaper source of coal.

This case also illustrates that, although a non-arm's length sales price appears reasonable compared to the open market for like quality coal, gross proceeds must be determined before value can be correctly established.

Clarification of the Gross Proceeds Principle: The following chronology further defines/limits the gross proceeds definition:

The Clarification of the Gross Proceeds Principle

Prior to 1988

Virtually all payments royalty bearing when received

Diamond Shamrock Exploration Corporation v. Hodel, 853 F.2d 1159 (5th Cir. 1988)

No royalties are due on any payment received by a lessee in advance of delivery of production for which payment was made unless and until the production for which payment was made is actually severed from the lease.

↓

IPAA v. Babbitt, 92 F.3d at 1248 (D.C. Circuit 1996)

Royalties are not due on nonrecoupable settlement payments made to extinguish a purchaser's obligation to take volumes in the future and the original purchaser did not take production after the settlement. Also, royalties are not due on nonrecoupable settlement payments made for accrued but unpaid take-or-pay liabilities.

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Century Offshore Management Corp. v. United States, 111 F.3d 443 (6th Cir. 1997) cert. denied, 66 U.S. L. W. 3324 (U.S. January 26, 1998) (No. 97-706)

Royalties are due on contract settlement payments that are made to reduce the price to be paid for future production when that production is subsequently taken by the original purchaser under an amended or successor contract.

↓

Black Butte Coal Co. v. United States, (U.S. District Court, District of Wyoming 1999)

The deferral payments that Black Butte received from the purchaser are functionally indistinguishable from those in Diamond Shamrock and IPAA. As in those cases, the deferral payments were never recouped or credited against the future purchase of coal..

↓

Colowyo Coal Co., LP v. United States Department of the Interior, (U.S. District Court for D.C. 1999)

DOI cannot rest on a mere presumption, without substantial evidence, that all consideration Colowyo received from Colorado-Ute in 1997 and 1998 constituted payment for coal production. The weight of the evidence indicates that the deferral payments, which secured future recoupment rights, were distinct from its spot market purchase of coal at fair market price.

↓

Chevron USA Production Co. v. U.S. Department of Interior, (U.S. District Court for District of Columbia 2003)

When determining whether buyout payments are royalty bearing:

1. A nexus must be established between the buyout settlement payment and current or future production.
2. Royalty assessments are limited to:
   - Product sold to the original purchaser,
   - Limited to units of product in the original contract,
   - Limited to the time period of the original contract.

Arm's Length Contract

A contract must meet <u>both</u> of the following conditions to be arm's-length:

- The contract must be between independent, non-affiliated persons
- The parties must have opposing economic interests

Affiliation is determined by control. Control may be found where persons control one another or where both persons are under common control with another person.

Control is based on ownership of voting securities or other forms of ownership. This could include convertible debentures, stock options, and agreements to merge. "A sales at arm's length connotes a sale between parties with adverse economic interests and to determine whether a sale between two companies is at arm's length, it is necessary to look at the stockholders behind the corporate structure" *Campana Corporation v. Harrison, 114 F.2d 400 (7th Cir., 1940)*:

-- Ownership of voting securities in excess of 50 percent constitutes nonrebuttable control.

-- Ownership of voting securities from 10 to 50 percent constitutes presumptive control that may be rebutted by the lessee. The courts require an additional showing that there exists a capability for the minority owner to commit the financial or real property assets or working resources of the company *NMA v. United States Department of the Interior (1999 WL 335364 (D.C. Cir, 1999)*

-- Ownership of less than 10 percent of the voting securities constitutes presumptive noncontrol that MMS may rebut if actual or legal control is shown.

Legal or actual control of a company voids any arm's length status regardless of the ownership percentage. As well, parties to a contract may be unaffiliated but may not have opposing economic interests; this will also void their arm's length status. Contracts between persons related by blood or marriage are not arm's length.

<u>Exceptions to using a valid arm's length contract:</u>

Arm's length contracts are almost always accepted by MMS as establishing the basis for coal valuation. However, there are several exceptions to this normal policy:

- If the contract doesn't contain the complete and whole transaction between the seller and buyer, that is, if other consideration accrues

to the seller from the buyer outside of the four corners of the arm's length contract, then either:

- value production using the non-arm's length criteria, or
- augment the arm's length contract's gross to reflect the additional consideration accruing outside the arm's length contract

- If the arm's length contract doesn't contain a reasonable value because of misconduct or because product was not marketed for the mutual benefit of both the lessor and lessee.

- If an arm's length contract provides for the sale of production that is not in marketable condition, the contract would still be used but MMS would add to the contract proceeds those costs necessary to place production into marketable condition.

Non-Arm's Length Valuation Procedures

If a lessee internally consumes lease coal or sells it under non-arm's length conditions, he must compute the royalty value using a set of sequenced benchmarks. The first applicable benchmark is the one that must be used to value the coal.

First Valuation Benchmark

Gross proceeds accruing under the contract are acceptable if…

If . . .	**And . . .**	**Then . . .**
The gross proceeds received for the sale of coal are within the range of sale prices for comparable arm's-length contracts;	The contracts used for comparison do not include any of the parties involved with the lease (this includes the seller, buyer, and affiliates); and The comparable contracts used are for sales: • Of like-quality coal produced in the area; • Executed during the same time period; • Into similar markets; • Having similar contract terms, such as delivered coal tonnages or duration; and The production is not resold by the affiliate for a higher price;	Value production sold under the non-arm's length contract price.

Second Valuation Benchmark

If coal is consumed internally (through a parent utility), or sold to an affiliate utility, use the coal price (fuel cost) the utility reports to a public utility commission (PUC):

If . . .	**And . . .**	**Then…**
The first benchmark cannot be used because a contract to sell the coal doesn't exist, the gross proceeds don't fall within the range of comparable contracts, or comparable contracts are not available;	The buyer (an affiliate) is an electric utility that reports its power generation activities to a PUC	Use the utility's PUC-reported and regulated coal price (fuel cost) if the PUC accepts the fuel cost for inclusion in the price the utility is permitted to charge for its electricity.

In some cases the fuel cost reflects a delivered cost, which may include the cost for washing the coal or transporting it to a remote power plant. If it does, coal washing and transportation allowances are warranted, just as they would be if the coal was sold under arm's-length conditions.

Third Valuation Benchmark

The price of delivered coal is reported to the Department of Energy, Energy Information Administration:

If . . .	And . . .	Then…
The first two benchmarks do not apply - for example, if the parent utility is a cooperative and doesn't report to a PUC;	The purchaser is an affiliated electric utility having fossil fuel power plants with a total generation nameplate capacity of 50 or more megawatts and is therefore required to report fuel purchases to FERC using FERC Form 423;	Use the delivered cost of coal reported to the Federal Energy Regulatory Commission (FERC) and collected by the Energy Information Administration.

The coal prices the utility reports on FERC Form 423 are accepted for royalty purposes because these prices are intended to reflect the price the utility pays for fuel it consumes for electric power generation. Other utility-reported fuel costs may be used if necessary, including, for example, FERC Form No. 1 or Rural Electric Administration Form 7 or 12a through 12i, if they can be used to determine delivered fuel costs.

Fourth Valuation Benchmark

Using other relevant matters to value coal:

If . . .	And . . .	Then…
The first three benchmarks cannot be used;	Justification exists to use other relevant matters that reflect a market-based value;	Value the coal taking into account other relevant matters as detailed below.

Other relevant matters may include:

- Spot market prices of other unaffiliated producers, providing the contract is comparable in all relevant respects

- The weighted monthly average of comparable arm's length sales from the mine

- Cost of mining plus a reasonable return on investment

- The weighted monthly average arm's length prices the affiliated utility pays to non-affiliated suppliers for similar quality coal, even though the contracts are not comparable

In all cases where arm's length contracts are used to value non-arm's length sales, the contracts must:

- be comparable
- contain like-quality coal produced in the area
- be executed during the same time period
- have sales in similar markets
- contain similar contract terms, such as deliverable tonnages

Spot market prices cannot be used to establish value of long-term non-arm's length sales. (Spot sale deliveries usually occur over less than one year.) Coal sales between affiliates may occur over extended periods, usually over the life of the mine or the electric power plant.

Quoted or unsuccessful bid prices cannot be used as the sole source to support the value contained in a non-arm's length sales contract. Similarly, market analyses or studies cannot be relied on to demonstrate non-arm's length contract comparability to the open marketplace.

As with any non-arm's length sale, do not base royalty on a value less than the gross proceeds received under the non-arm's length transaction.

Fifth Valuation Benchmark

The net back valuation method:

If . . .	Then…
The previous four benchmarks cannot be applied in a manner that develops a reasonable value,	Use a net back method or any other reasonable method following RVD consultation.

Net out all downstream costs past the point of marketable condition to arrive at a calculated f.o.b. mine price. As an example, assume lease production is consumed for the generation of electric power in an area where no arm's length sales are occurring from which to establish a representative value. Further assume that 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. In this situation, one possible valuation approach could be the gross proceeds for the sale of electricity less the various downstream expenses involved in converting the coal BTUs to megawatts of electricity.

Transportation and Washing Allowances

An allowance is a deduction taken by subtracting certain costs from the gross proceeds. The payor is entitled to an allowance for the reasonable actual costs to either wash or transport coal. A washing allowance generally applies to coal washed prior to sale. Transportation allowances apply to transporting coal to a coal wash plant that is remote from the mine, or selling coal at a point that is remote from the mine.

Arm's length and non-arm's length transportation or washing:

All allowances are based on actual costs. A washing or transportation allowance may be claimed whether the payor pays someone else for the washing or transportation service (arm's length) or washes and transports the coal himself (non-arm's length).

Arm's length –

- Base arm's length allowances on out-of-pocket costs.

- The basis for the allowance will be the arm's length transportation contract's terms and conditions.

Non-arm's length –

- Base allowance on the sum of several factors:
  - -- Plant depreciation
  - -- Return on investment on the book value of the capital investment in the washing or transportation equipment or facility **or**
  - -- Return on initial investment without depreciation expenses
  - -- Actual operating, maintenance, and overhead

Transportation Allowances: If a lessee incurs expenses to transport coal to a point of sale or to a wash plant that is remote from both the lease and mine, he may claim a transportation allowance. However, the allowance cannot reduce the royalty to zero. As a practical limit, the allowance cannot reduce the royalty value by more than 99 percent of gross proceeds. (If both transportation and washing allowances are claimed, the sum of both allowances may not reduce the royalty value by more than 99 percent of gross proceeds.)

Cost items that may be included in transportation allowances: A transportation allowance may include in the cost basis a variety of payments for different services, all of which have occurred downstream from the mine.

For example, in the case of an export sale where coal is moved from the mine to the port prior to sale, include in the cost basis charges you incurred for:

- rail (freight to port)
- stacker/reclaimer charges
- port and dock charges
- vessel loading costs (loading and trimming)
- demmurage incurred for circumstances not within lessee's control
- vessel survey (volume/weight determination)

Cost items that may <u>not</u> be included in transportation allowances:

- quality assurance analysis charges
- product reconditioning costs
- foreign currency exchange expenses
- demurrage, in the area of origin, if within your control
- all sales costs, including sales commissions.

In most cases eligibility to claim transportation allowance is apparent. For example, a mine in Wyoming sells coal f.o.b. destination to an electric utility plant in Kansas. The utility pays a delivered price and the lessee pays the railroad for the transportation charges from the mine loadout to the utility's plant. In this case the lessee may claim a transportation allowance for actual transportation cost.

Under normal mining conditions, the lessee is responsible for all transportation occurring prior to an f.o.b. mine sales point. However, unusual situations may require him to incur transportation costs that are uncommon. In such cases, MMS may approve a transportation allowance.

If a lessee is uncertain about eligibility for a transportation allowance, he should request a determination from MMS. The request should include a written narrative describing the transportation operation and provide any other information relevant to the transportation allowance determination including mine maps showing the lease boundaries, location of mine facilities, and transportation route.

Sometimes it is not so obvious if transportation is eligible for an allowance. For example, the sales point or wash plant may be relatively near the mine. For these cases MMS developed four questions to evaluate transportation allowance eligibility. Taken alone, each answer is not the final solution to eligibility. All four of the questions must be answered and taken into account together to arrive at the correct eligibility determination. If any of the first three questions can be answered "yes", a transportation allowance is probably not appropriate.

Question #1: *Does coal transportation occur in what could reasonably be considered the vicinity of the mine, lease, etc., which is defined by some administrative boundary or definition?*

Transportation within the mine permit boundary or in the vicinity of the mine or lease is considered mine haulage and is not eligible for a transportation allowance. A certain amount of coal handling and coal movement is necessary at all mining operations to place coal in marketable condition ready for transfer to the buyer. This may include movement of coal off the lease some distance to crushing, storage, and loadout facilities, because placing these facilities near the excavation may inhibit mining operations. Topography or other geographic obstacles, such as highways or pipelines, may also limit mine facility placement.

Rather than use absolute distance measurement from the mine permit boundary or lease boundary to determine if the coal movement is in the vicinity of the mine or lease, MMS established a more relevant standard based on comparison of the distance coal moves away from the mine or lease boundary to the distance moved within the mine or lease boundary. If the movement within the mine permit area is a greater distance than the distance coal moves away from the permit area the movement is considered within the vicinity of the mine and is not eligible for an allowance.

For example, coal is hauled 4 miles within the mine permit area from the surface pit to crushing and storage facilities. The coal is then loaded into trucks and hauled 2 miles away from the mine permit boundary to a train loadout facility. The haul from the surface pit to the crushing and storage facilities is clearly not eligible for an allowance, because it occurs within the mine permit area. The truck haul from the storage facility is also not eligible for an allowance because the ratio of off-mine haulage to within-mine haulage is 1:2. Off-mine haulage would have to be at least 4 miles, or the ratio greater than 1:1, before this segment of coal movement may be considered not in the vicinity of the mine.

Question #2: *Is the coal transportation considered a part of the normal mining operation?*

Haulage recognized as necessary to normal day-to-day mine operations does not qualify for a transportation allowance. This includes moving coal from the point of severance to and between typical mine facilities including, but not limited to, crushers, surge piles, stock piles, storage facilities, screening facilities, and loadout facilities.

For example, moving coal on an overland conveyor from the mine's crushing facility to a storage or stockpile area is recognized as a necessary mining operation and is not eligible for an allowance.

Question #3: *Does the transportation of coal occur prior to the first point where production can reasonably be marketed?*

The first point where coal may be marketed is the point where title, possession, and liability for loss can transfer from you to the buyer. This point is usually the mine loadout facility. If the transportation segment in question is prior to the first point where production can reasonably be marketed, then usually the transportation does not qualify for an allowance.

For example, the lessee has a 6 million ton per year production capacity mine and moves coal on an overland conveyor from the stockpile area to a train loadout facility. Although it may be possible for a front-end loader to load trucks at the stockpile area, it would be impractical to sell all 6 million tons per year using truck transport due to the limited coal market area. Rail access is absolutely necessary in order to expand the market area and market all production. In this case, the overland conveyor transportation segment is prior to the point the coal can be reasonably marketed.

Question #4: *Are there any extraordinary or exceptional circumstances involving coal transportation that should be considered as relevant factors or that could render other transportation allowance criteria invalid?*

There may be cases where, even though one or more of the first three answers to the transportation allowance eligibility questions indicate that the transportation segment is not eligible for an allowance, extraordinary or exceptional circumstances may render these other criteria invalid and an allowance would be proper.

For example, a lessee loads coal into highway trucks in the pit and transports the coal 17 miles directly to a power plant. The coal is unloaded and crushed at the power plant site. The power plant is the mine's only customer because there is no access to rail except near the power plant.

Applying the 4 transportation eligibility questions:

-- The answer to question 1 is the transportation does not occur in the vicinity of the mine.

-- The answer to question 2 is the transportation is a normal mining operation because it is between mining facilities, i.e., the excavation and the crushing facility.

-- The answer to question 3 is that the transportation occurs prior to the first point the coal could reasonably be marketed.

Thus, the transportation would qualify for an allowance under question 1 but not under questions 2 and 3. Transportation distances between other mine facilities in the area are usually less than 5 miles. Analysis of question 4 reveals that the haul distance is an extraordinary distance. Even though the transportation is not eligible for an allowance due to questions 2 and 3, an allowance is appropriate in this case due to the extraordinary distance of the truck haul.

Washing Allowances

If the lessee incurs out of pocket expenses to wash coal prior to the royalty determination point, he may claim a washing allowance. The claimed allowance cannot reduce the value for royalty purposes to zero. Further, the lessee cannot disproportionately allocate washing costs to Federal leases.

Example: A Utah mine, which includes both Federal and non-Federal coal, sells all produced coal f.o.b. mine to an electric utility power plant. The quality requirements of the coal supply agreement require the coal must be washed to remove rock from a parting in the coal seam. The lessee washes the coal in his own facility. The utility pays a sales price based on the quantity of cleaned coal delivered. In this case the lessee may claim a washing allowance.

The unit amount of this non-arm's length allowance (allowance rate, expressed as $/ton) is determined by:

The non-arm's length allowance amount (based on operating costs, depreciation, and a return on investment)
-divided by-
The entire tonnage of clean coal exiting the wash plant

The allowance (in dollars) is equal to:

(tons delivered from the Federal lease)x(the allowance rate)x(the royalty rate)

Introduction to Coal Royalty Valuation

Presented by:
Glenn W. Kepler, Sr., Anne Allen, and Herb Black

February/March

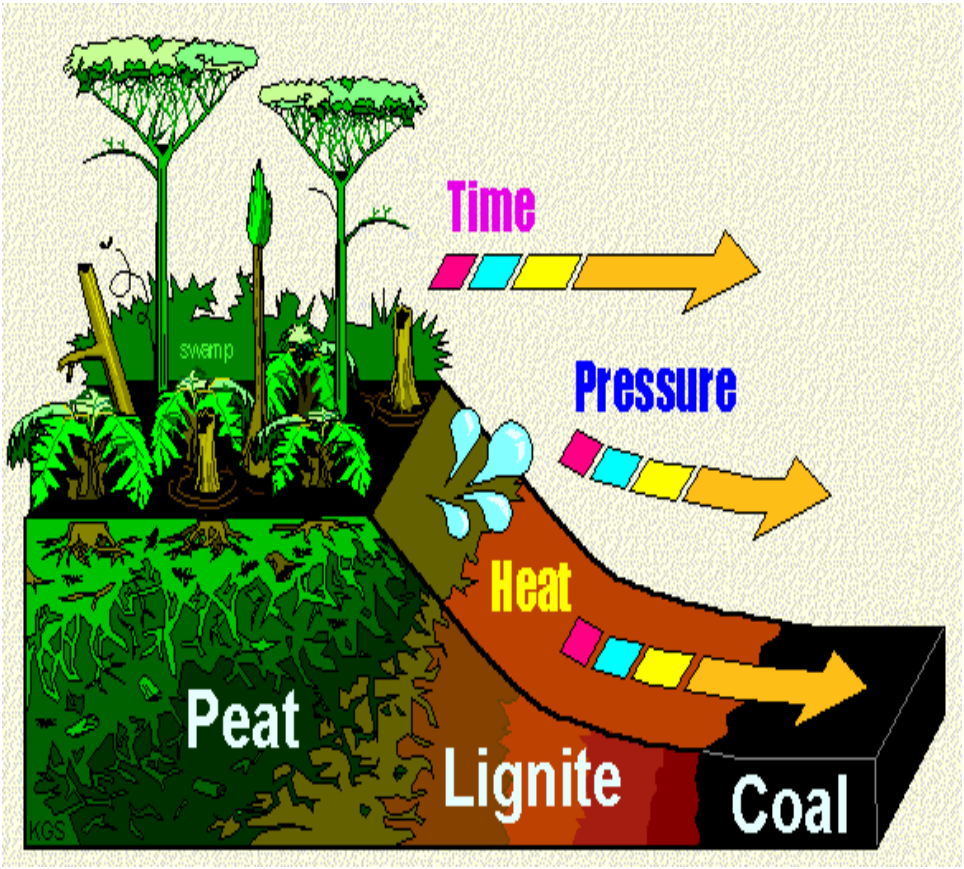
2004

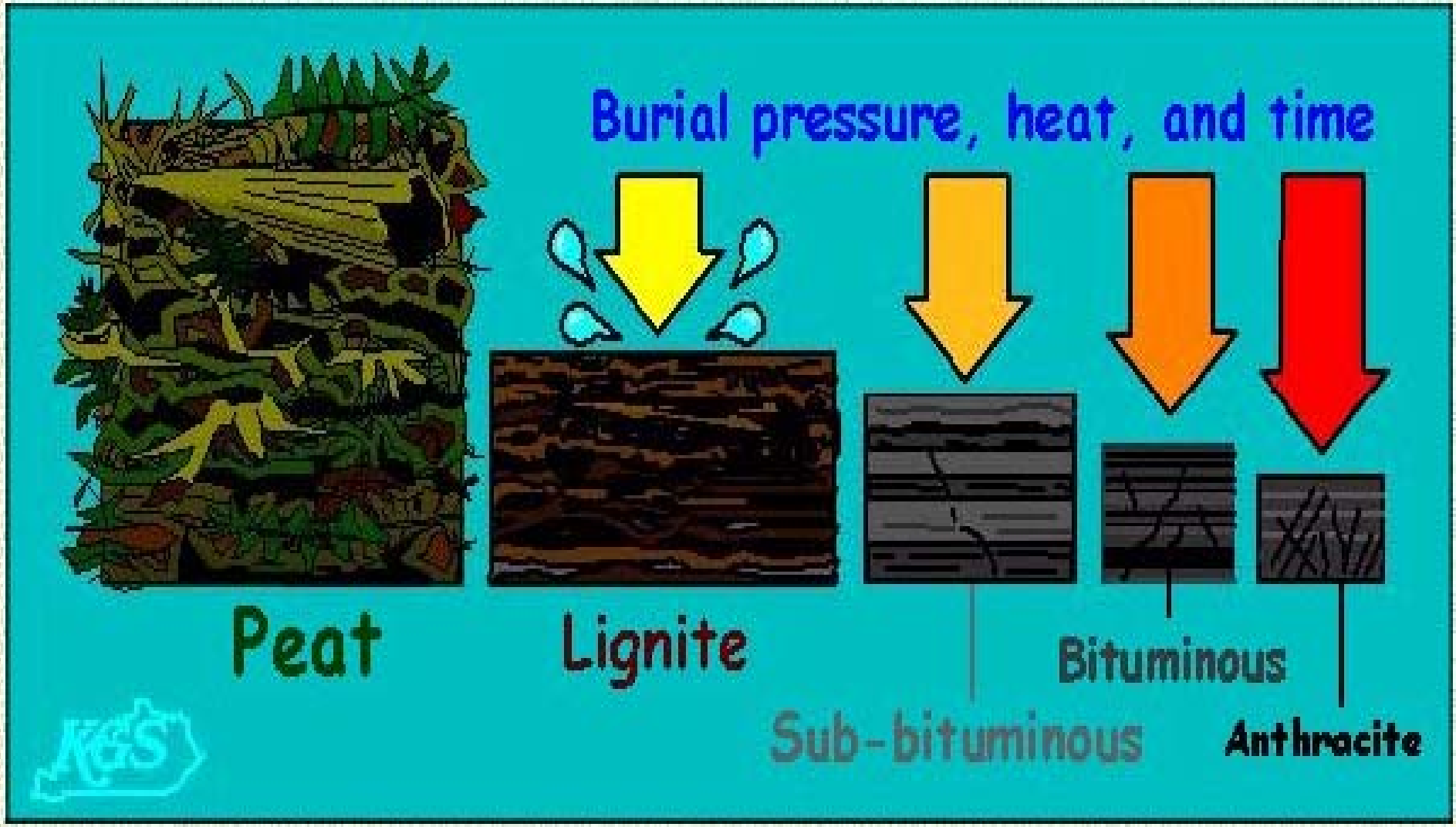
Coal Valuation Agenda

- What is coal?
- Mining operations
- Markets
- Statutory and regulatory authority
- When royalty payment is due
- Point of royalty measurement
- Marketable condition
- Gross proceeds
- Valuing under A/L conditions
- Valuing under N/A/L conditions
- Transportation and washing allowances

What is Coal?

- A rock composed of fossilized plant life and minerals
- More than 50 percent carbonaceous material
- Fossilized plant debris
- Fossil fuel

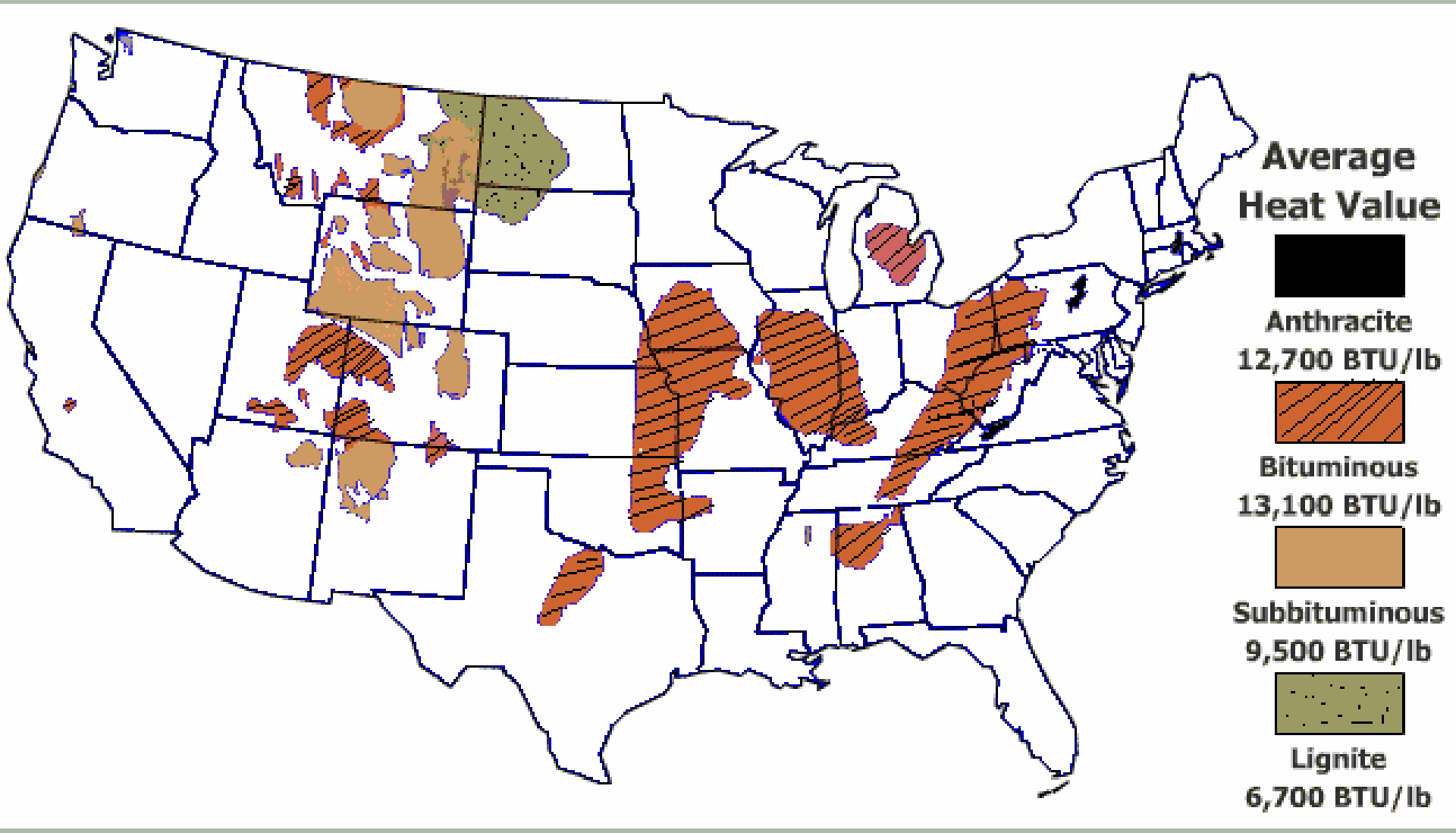




Types of Coal

Types of Coal

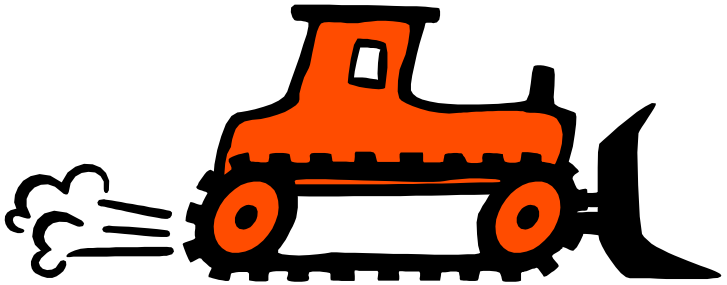
- Coal is classified into four general categories, or "ranks:"
  - **Anthracite**
    - (Btu avg. = 12,700 Btu/lb, Carbon = 86 to 98%)
  - **Bituminous**
    - (Btu avg. = 13,100 Btu/lb, Carbon = 45 to 86%)
  - **Subbituminous**
    - (Btu avg. = 9,500 Btu/lb, Carbon = 35 to 45%)
  - **Lignite**
    - (Btu avg. = 6,700 Btu/lb, Carbon=25 to 35%)

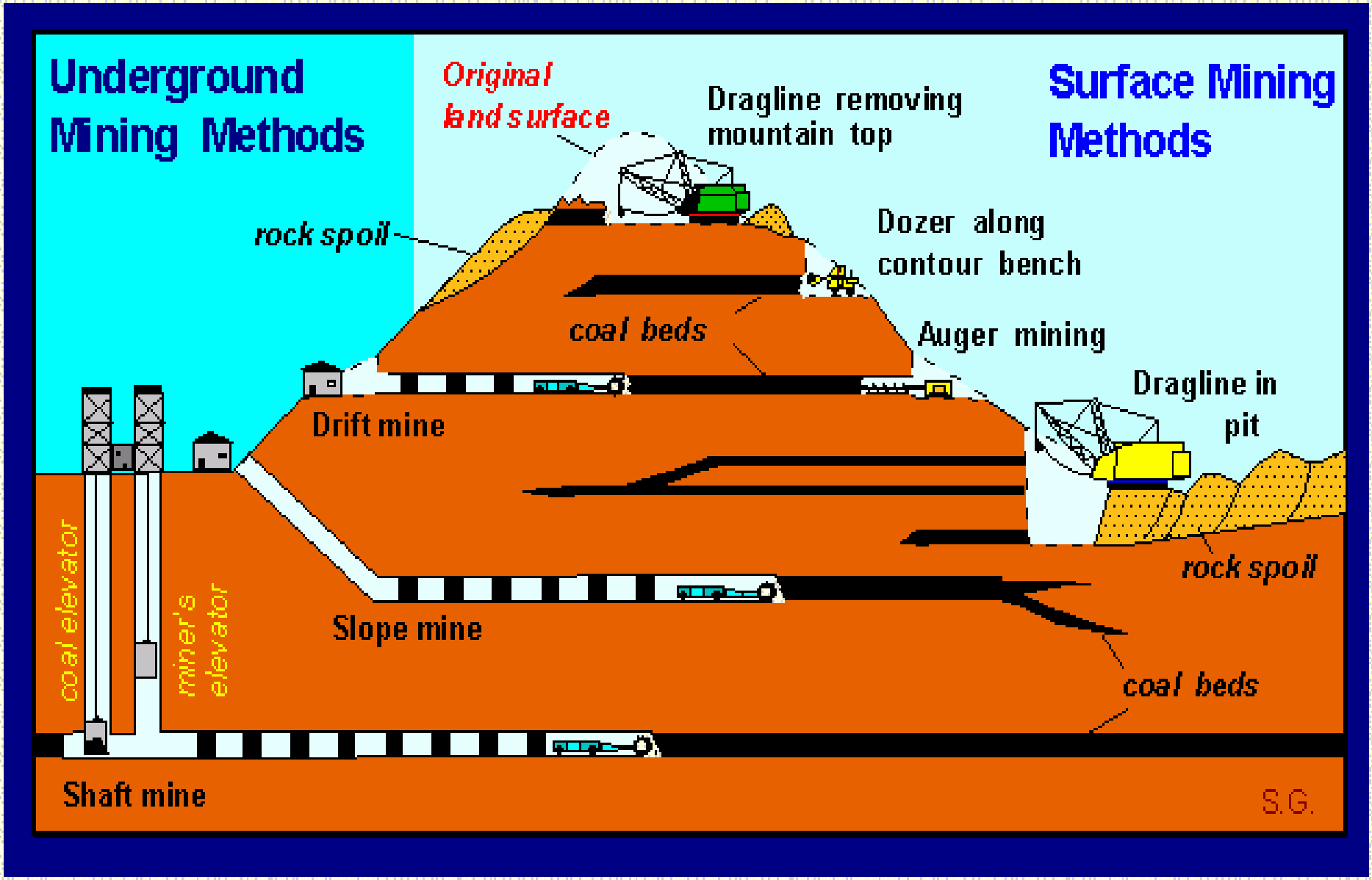


Coal fields of the continental United States

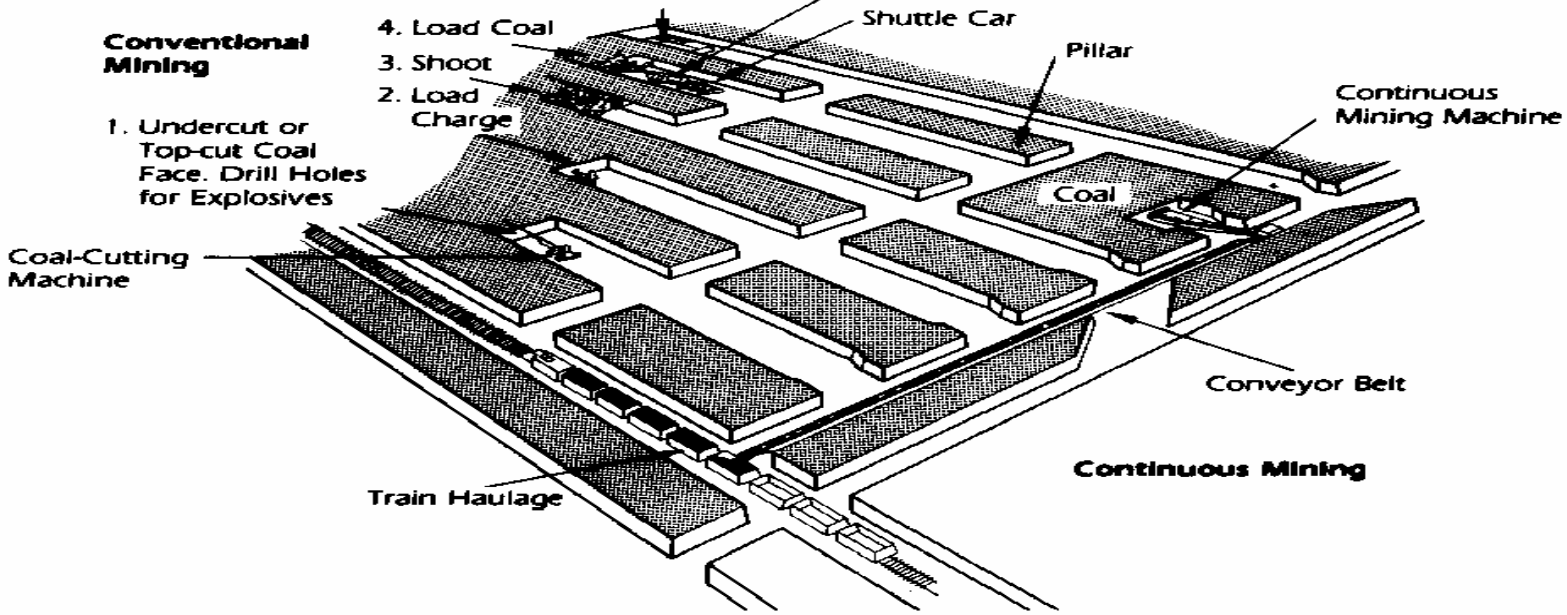
Mining Methods

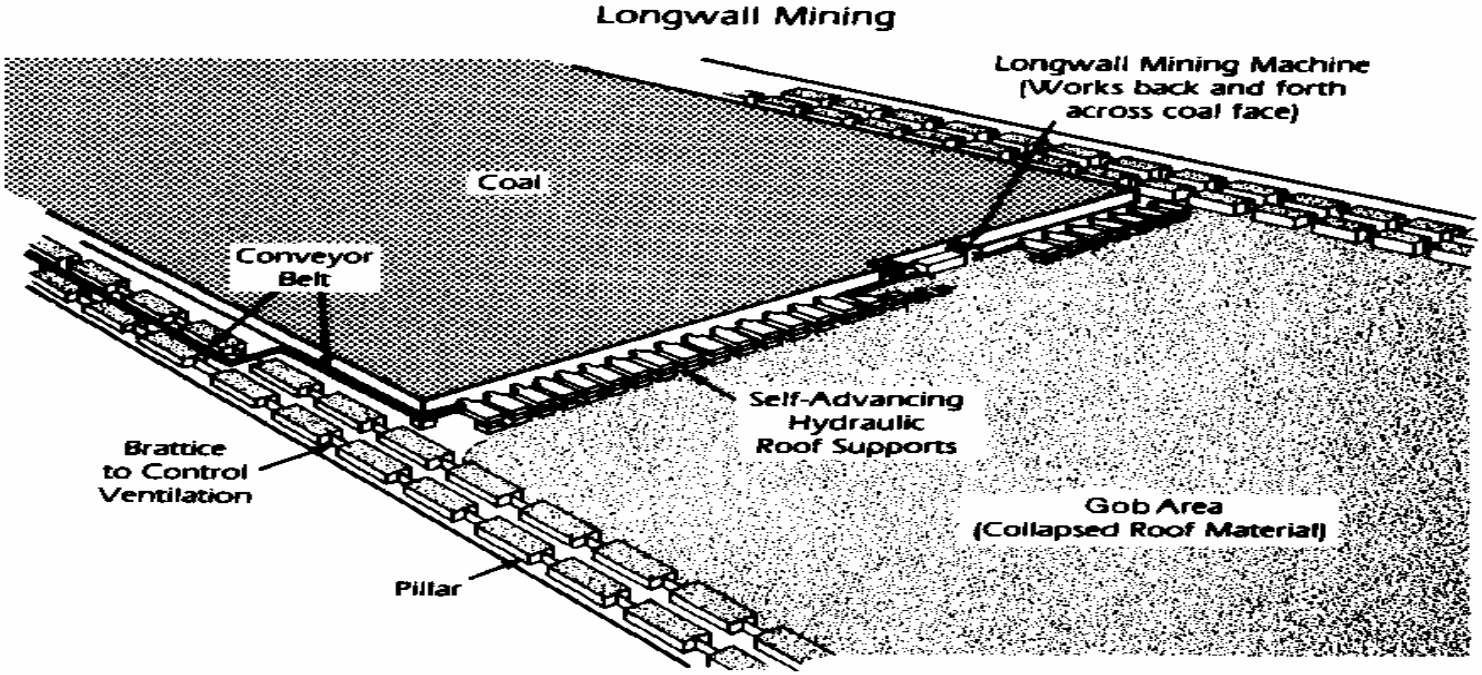
- SURFACE (12.5 percent royalty rate)
  - Area Surface Mining (Strip Mining)
  - Mountain top removal (Bench or Contour Mining)
  - Open Pit Mining (Strip Mining)
- UNDERGROUND (8 percent royalty rate)
  - Longwall
  - Room and pillar: Conventional and Continuous Mining
- HIGHWALL
  - (no decision on royalty rate)



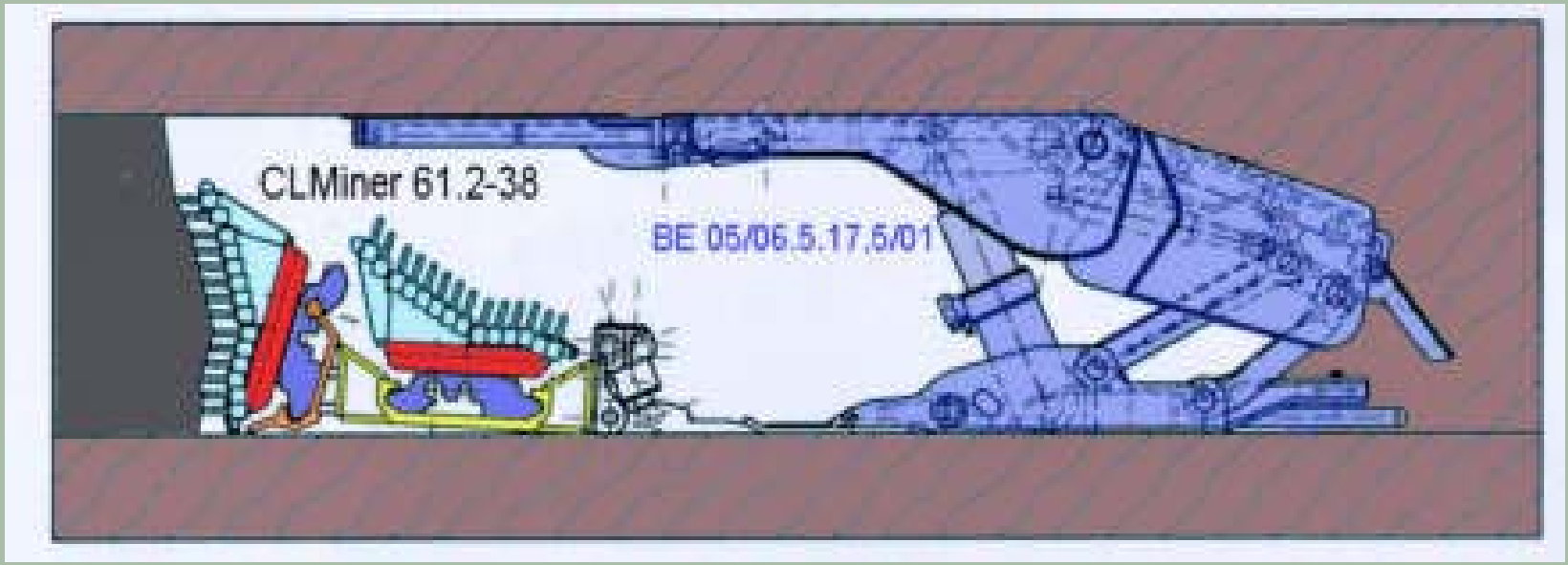


Mining Methods





Room-and-pillar mining is the most common way to mine coal underground. Longwall mining is used to mine large blocks of coal where the bed is relatively flat and thick. A continuous mining operation includes roof bolting equipment and can use a coal-loading machine and shuttle cars (not shown) instead of a conveyor belt.



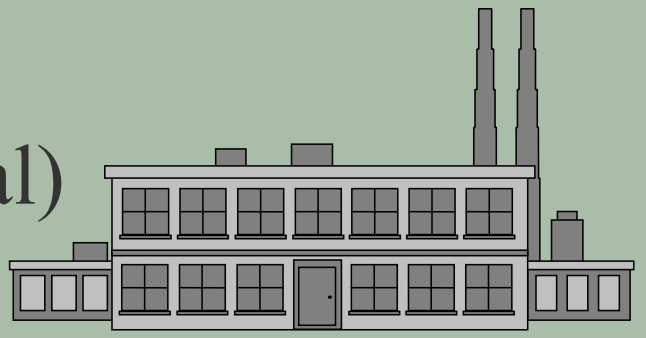
Longwall Miner

Coal Mining, Preparation, and Marketing

Extraction, haulage, processing (crushing, screening, blending, other treatment or additives), storage, loading, weighing, and analyses.	
Washed coal	**Unwashed coal**
FOB mine sale	**FOB destination sale**
Arm's length contracts	**Non-arm's-length dispositions (internal use or consumption, sales to affiliates)**
Cash only purchase	**Cash and considerations**
Mine-mouth utility plant	**Utility plant distant from mine**
Captive (dedicated to single power plant)	**Non-captive**

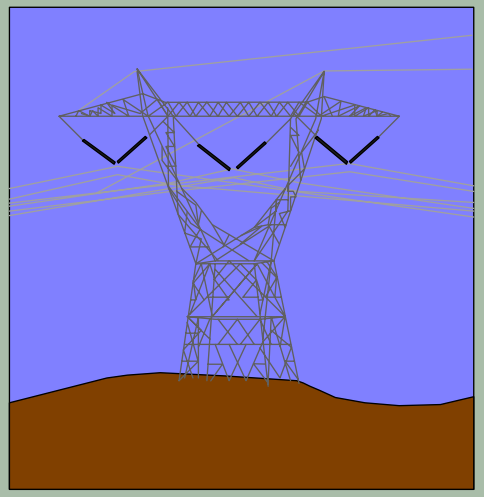
The Coal Market

- Electric utility industry (steam coal)
- Industrial plants (steam coal)
- Metallurgical (coking coal)
- Stoker
- Specialty markets (steam locomotives, home heating (lump))
- Exports (met coal/steam coal)



Steam Coal

- Coal typically sized to 2x0 or 3x0 for handling (belt conveyors) and transportation
- Chemical makeup matched to boiler specifications
- Compliance coal must normally be less than 1.2 lb. SO_2/mmBtu
- Industrial coal - Used to generate electricity or for heat generation in industrial processing



Metallurgical Coal

- Coking coal
- Used to make steel

Stoker Coal

- Double screened to produce upper and lower size limits, i.e., 2x1 inch
- Fines are eliminated to facilitate gravity flow and consistent burn characteristics within boilers

Specialty Markets

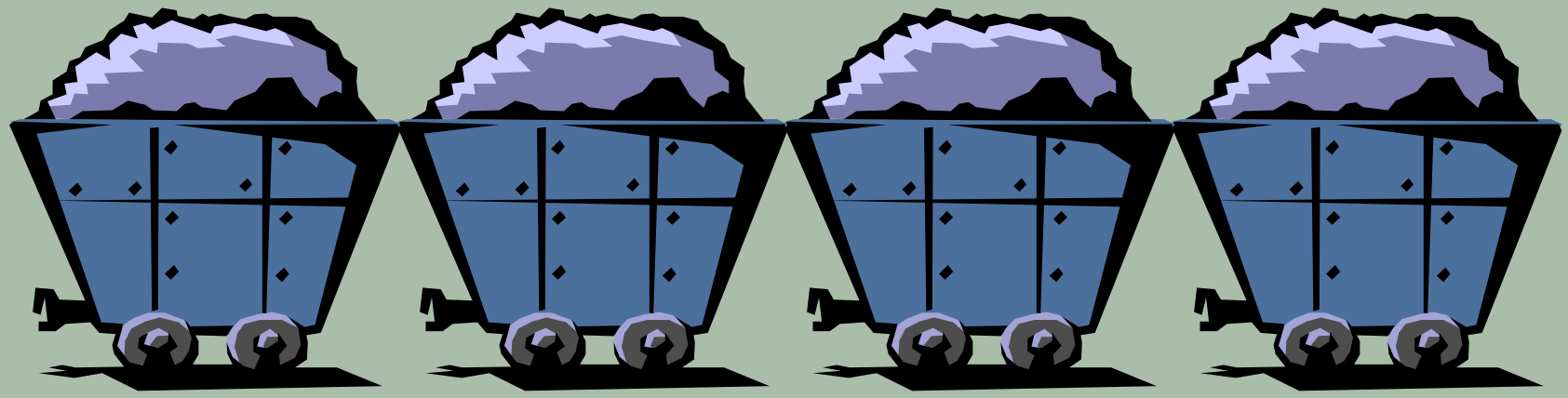
- Home heating and other small scale applications (lump)
- Steam Locomotive double screened to specified size

Royalty Is Due On Coal That Is...

- Produced and sold
- Consumed internally
- Avoidably lost (including at remote storage)
- Unavoidably lost and compensated
- Recovered from waste piles
- Feedstock for enhanced coal (beneficiation)

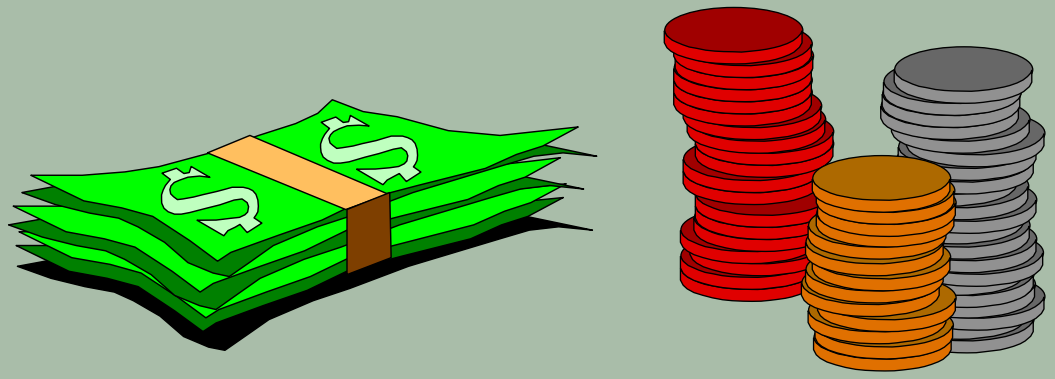
Point of Royalty Measurement

- Determined jointly by BLM and MMS
- The point where value for royalty purposes is normally determined.



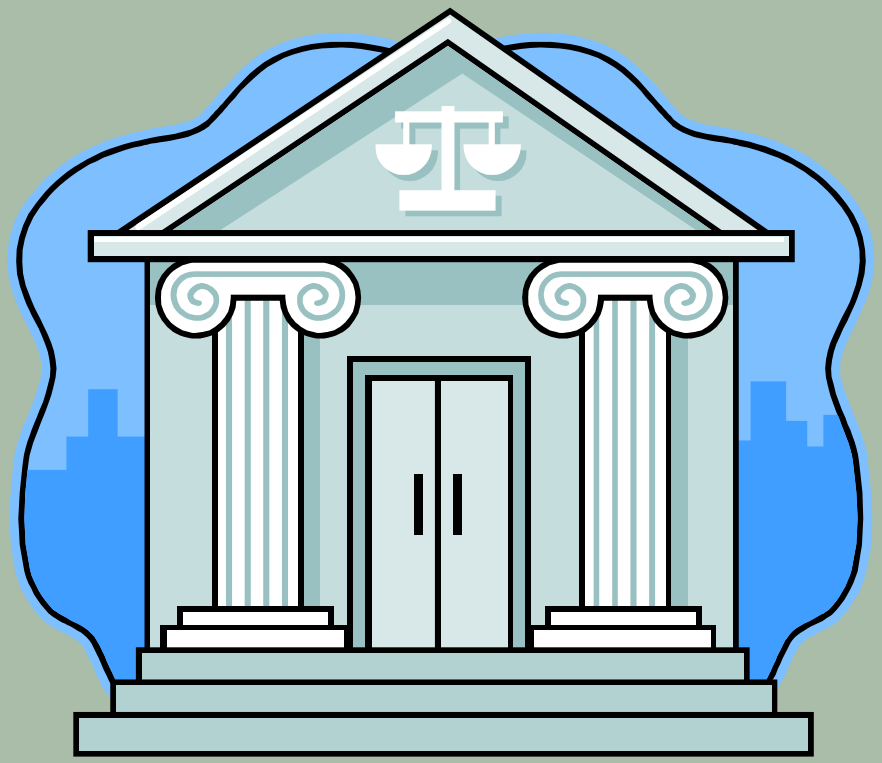
When Is Royalty Due?

- Federal -EOM following the sales month
- Indian – 25th of month following the sales month
- Not influenced by purchaser's payment



Statutory Authority

- Mineral Leasing Act of 1920
- Federal Coal Leasing Amendments Act of August 4, 1976 (FCLAA)



Regulatory Authority
30 CFR Part 206
Product Valuation

- Subpart F - Federal Coal:

  Title 30 CFR §206.250 - 206.265

  Effective March 1, 1989
- Subpart J – Indian Coal:

  Title 30 CFR §206.450 – 206.464

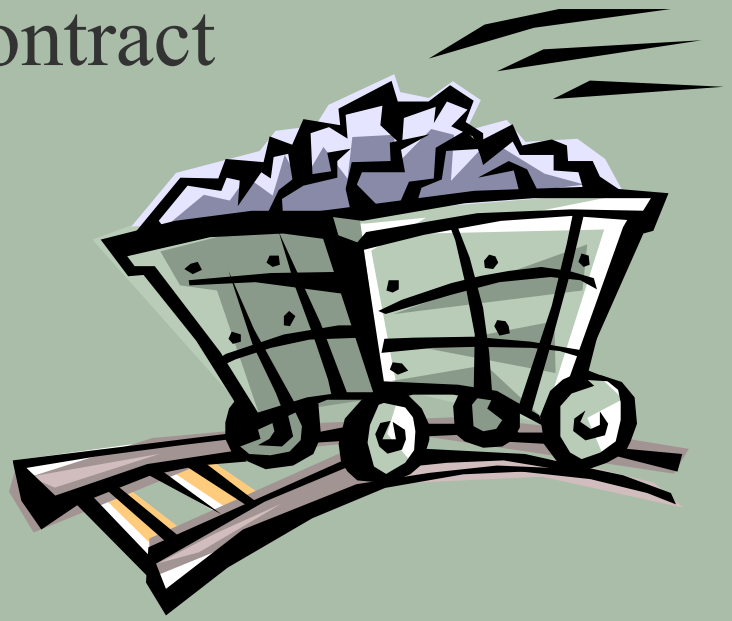
  Effective February 12, 1996

Valuing coal for royalty purposes…
…the overriding principles

1. **Coal must be placed in marketable condition prior to sale**
2. **Total (gross) proceeds is the minimum value**
3. **Based on whether the transaction is considered to be arm's length or non arm's length**
4. **Typically based on f.o.b. mine sale (MMS approves allowances for transportation and washing)**

Marketable Condition-definition

- ...”coal that is sufficiently free from impurities and otherwise in a condition that it will be accepted by a purchaser under a sales contract typical for that area.”



Marketable Condition - costs

The lessee is required to place coal in marketable condition at no cost to the lessor. Normally, that point is F.O.B. mine.

- The following are <u>always</u> considered costs of placing coal in marketable condition:
  - **Mining**
  - **Haulage within the mine**
  - **Primary crushing**
  - **Marketing**
  - **Loadout**
  - **Reclamation**

Marketable Condition-costs

- To the extent these processes are necessary for the sale, the following are considered costs of placing coal in marketable condition:
  - Screening/sizing
  - Blending operations
  - Oiling
  - Freeze proofing

Exceeding Marketable Condition Costs

- Gasification or liquefaction operations
- Beneficiation-above marketable condition
- Lime supply/haulage
- Ash disposal
- Addition of chemicals (soda ash)

Marketable Condition - standards

- We do not set the standard - the market sets the standard
- A contract between one buyer and one seller does not necessarily establish a market

Coal Market Standards

- Steam coal

  Run-of-mine crushed coal

- Metallurgical Coal

  Washed and screened to remove partings and sulfur (pyrite)

- Stoker coal

  Double screened run-of-mine

  Oiled (suppresses dust and aid gravity flow)

Coal Market Standards

- Specialty Markets

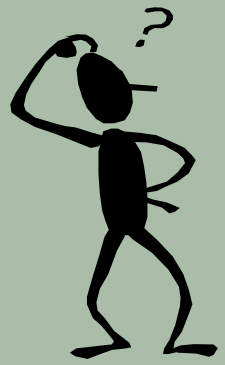
  Washed, screened, and/or blended product (Customized for buyer's requirements)

- All markets demand clean coal.

  Washing may be required to meet this standard.

Quiz Time

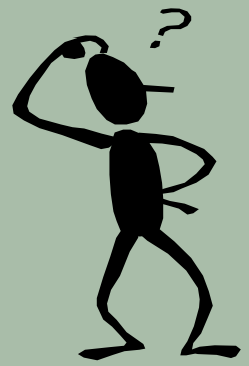
I sell coal in unprocessed form (that's not in marketable condition) to a completely unaffiliated buyer who processes the coal to marketable condition and then resells the coal. Is this cost to place it in marketable condition added to the sales price?



Quiz Time

I sell coal in unprocessed form (that's not in marketable condition) to a completely unaffiliated buyer who processes the coal to marketable condition and then resells the coal. Is this cost to place it in marketable condition added to the sales price?

Yes, this cost must be added to sales price.



Gross Proceeds - definition

- "…the total monies and other consideration accruing to a coal lessee for the production and disposal of the coal produced."

Gross Proceeds

- Includes all consideration (including non-cash) received by the lessee, unless the lessee shows to MMS' satisfaction the payment is not related to coal production

- Under no circumstances can the value for royalty purposes be less than gross proceeds accruing to the lessee from the sale of coal

Gross Proceeds

- Includes payments for:
  - Sales proceeds (including contract entitlements not collected)
  - Price adjustments
  - Crushing/Sizing/Screening
  - Storing
  - Mixing
  - Hauling and Loadout
  - Treatment with substances including chemicals and oils
  - Marketing services
  - Reclamation
  - Settlement payments
  - Reimbursements for taxes and fees
  - Non-cash considerations

Gross Proceeds

- Reimbursements for taxes and fees include:
  - severance taxes
  - black lung excise tax
  - abandoned mine lands reclamation fees
  - royalties
  - insurance premiums

Gross Proceeds

- Non-cash consideration includes:
  - mining equipment/facilities
  - marketable condition services
  - discounted electricity rates
  - water rights
  - anything else of value

A Marketable Condition/Gross Proceeds Test: The costs of placing the coal in marketable condition, who is paying?

- Does the purchaser provide mine financing or equipment/services normally associated with placing the coal in marketable condition?

AND…

- Is the seller *not* including this associated cost in the sales price?

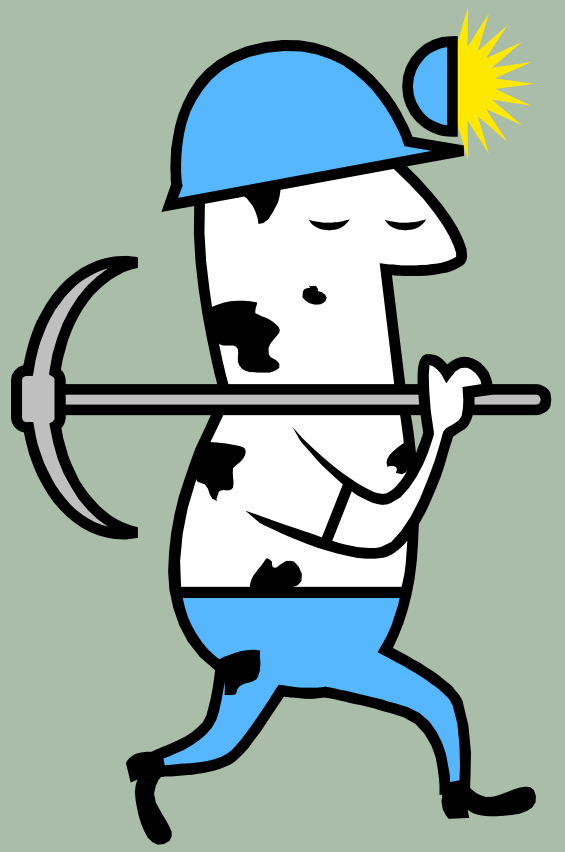
- If both answers are "yes," then the value of that consideration is part of gross proceeds.

Marketable Condition/Gross Proceeds Test

- A qualifying question: Can the seller change customers or acquire new customers without adding equipment/facilities or without reimbursing the current customer for the use of their equipment/services?
- If “no,” the buyer probably provided other consideration to the seller that needs to be included in gross proceeds.

Dollar Equivalent Value...

- Determine the dollar equivalent value of equipment and services provided by the buyer to place the coal in marketable condition



Dollar Equivalent Value...

- Determine total cost by summing operating and maintenance expenses, depreciation, and return on investment. Divide the summed costs by total tons to arrive at the unit value ($/ton) of the equipment or service.

Gross Proceeds

Does not include payments for:

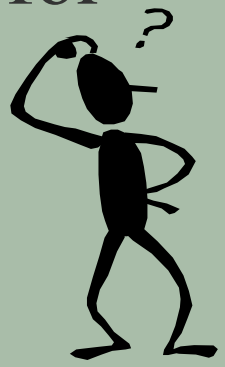
- Transportation costs off the mine site
- Washing
- Limestone haulage to power plant
- Ash haulage to pit
- Chemical alteration
- Beneficiation above marketable condition
- Force Majeure
- Liquidated damages (contract breach)
- Buyout

Clarification of the Gross Proceeds Principle

- Pre-1988: virtually all payments are royalty bearing when received.
- Diamond Shamrock Exploration Corp. v. Hodel
- IPAA v. Babbitt
- Century Offshore Management Corp. v. U.S.
- Black Butte Coal Co. v. U.S.
- Colowyo Coal Co., LP v. U.S. Dept. of Interior
- Chevron USA Production Co. v. U.S. D.O.I.

Quiz Time

You sell coal to a purchaser for $10.80/ton. You add two pounds of soda ash per ton to improve the coal's fluidity during combustion, and your purchaser pays you $0.20/ton for that service. Your total sales proceeds is $11/ton. What is the value for royalty purposes?



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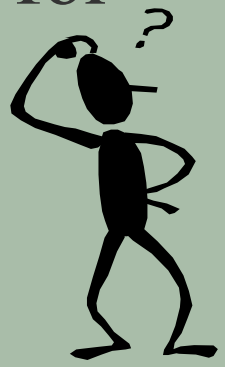
$11.00 - $0.20 = $10.80/ton



Quiz Time

The point of royalty determination and the point of sale may be different. Is this a problem? If so, what kind of problem?

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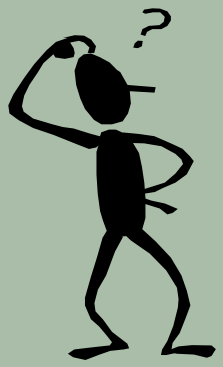
This is a concern if there is a significant difference in tonnage. If so, determine if any production was avoidably lost, as it is royalty bearing. As well, ensure that the coal is in marketable condition at the point of sale.



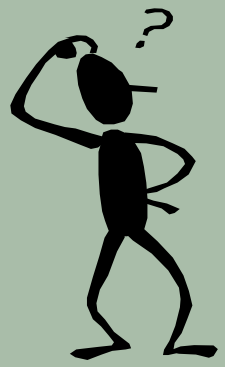
Quiz Time

You sell coal to a northern utility that requires freeze proofing of coal shipments from November through March. The sales price, including freeze proofing, is $5/ton. The freeze proofing cost is $0.05/ton of coal. What is the value for royalty purposes?

Quiz Time

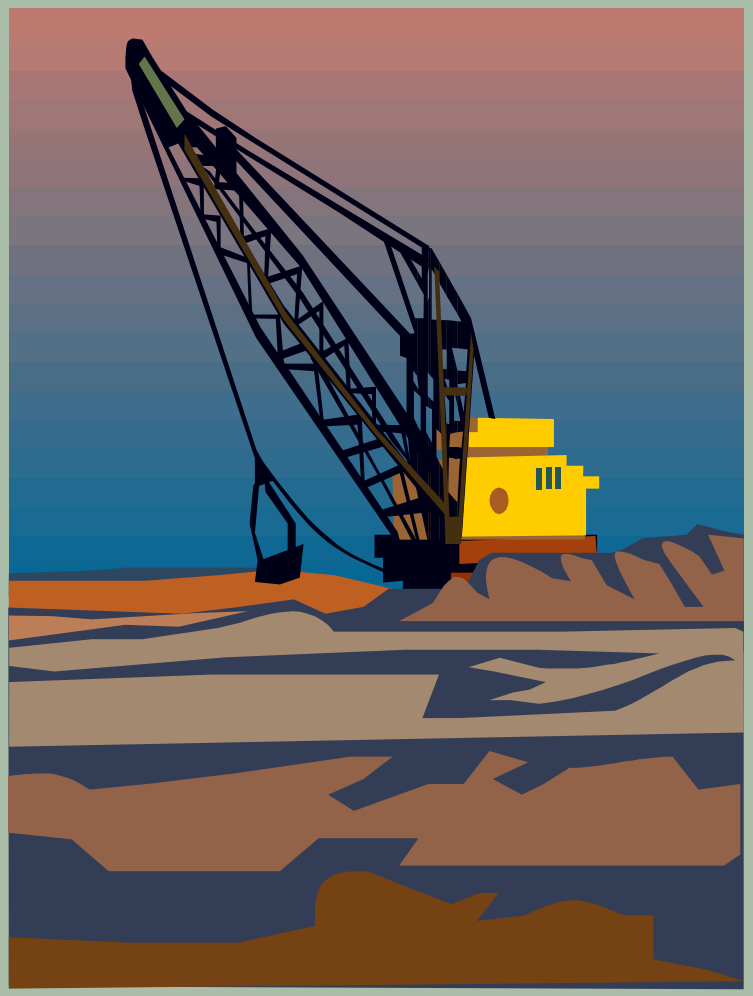
The value is $5/ton.

The $0.05/ton cannot be deducted as freeze proofing does not change the chemistry of the coal product, and the purchaser requires treatment as a condition of sale.



Quiz Time

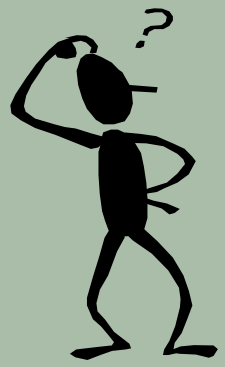
Extra Credit: **Can you claim the deduction if you apply the freeze proofing material to the rail car instead of the coal?**



Quiz Time

Extra Credit: Can you claim the deduction if you apply the freeze proofing material to the rail car instead of the coal?

NO - The treatment is applied to facilitate the sale and is fundamental to marketable condition.



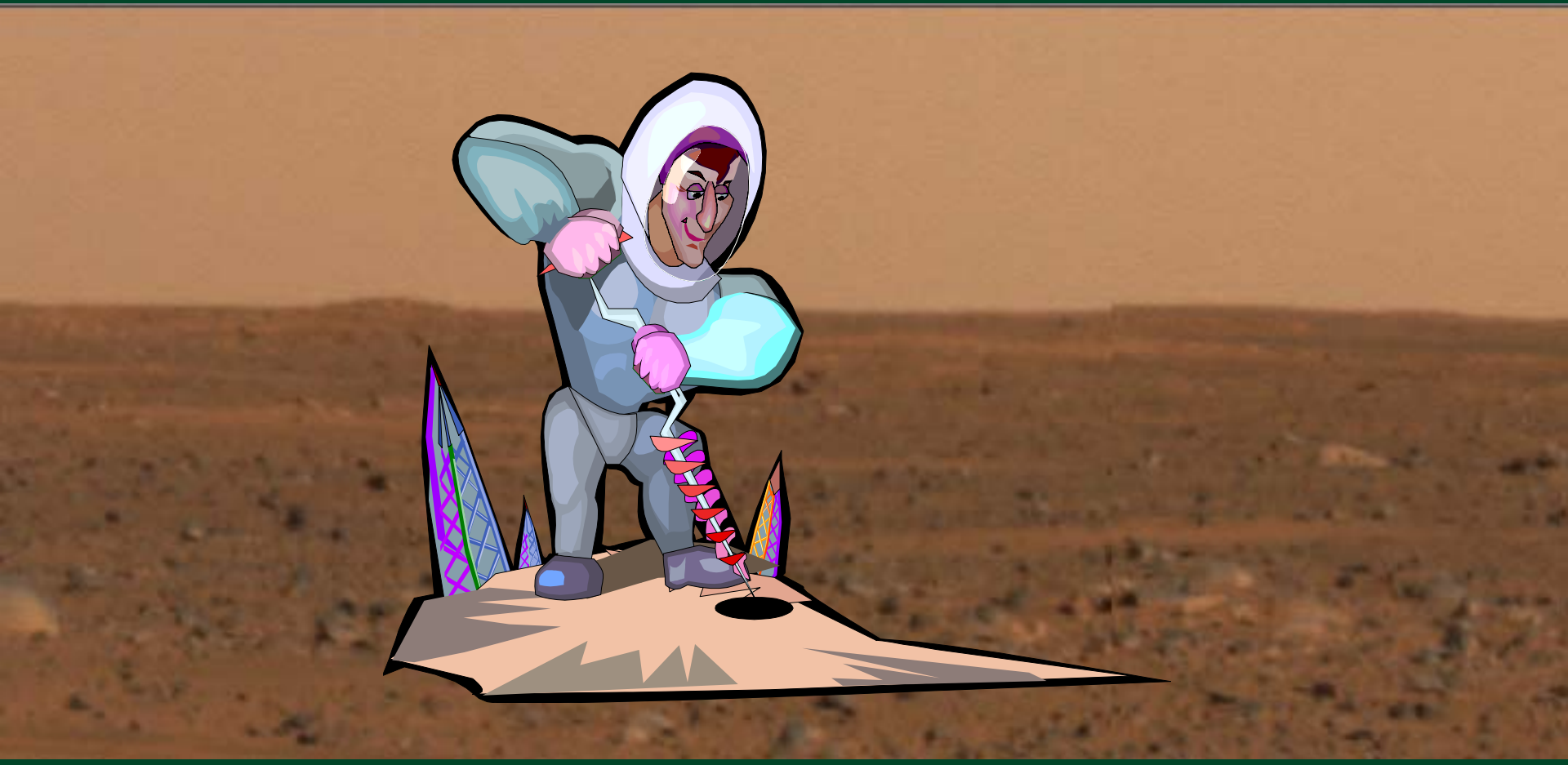
To Review…

- The point where value attaches is normally f.o.b. the mine's train or truck loadout facility

- Although the market determines what marketable condition is, coal is generally considered to be in marketable condition after it has undergone primary crushing.

Review (Cont.)

- Gross proceeds must be determined (whether the sale is arm's length or non-arm's length) to establish minimum value
- If the sales price includes expenses for transportation or washing, an allowance may be deducted



Mining on Mars?

Arm's Length Contract

- 30 CFR § 206.257
- Two part test
- Affiliation must not be controlling
- Parties must have opposing economic interest
- Contract must meet both of these conditions

Arm's-Length Valuation Normally Means Contract Gross Proceeds

Unless --

- Lease terms specify otherwise
- Total consideration is not in contract
- Coal is not in marketable condition
- There is misconduct
- Failure to market for mutual benefit exists
- Payments are not for production

Arm's Length Contract

- Indications that parties are not at arm's length include:
  - shared facilities
  - shared employees
  - shared/common financial or business investments and risk

Arm's Length Contract

- Affiliation is defined in terms of control
- Control is defined through instruments of ownership (for example: ownership of voting securities)

Legal Precedence

- Legal precedence comes from a 1940, 7th Circuit Court decision: (Campana Corp. v. Harrison)

  "A sale at arm's-length connotes a sale between parties with adverse economic interests and to determine whether a sale between two companies is at arm's-length, it is necessary to look at stockholders behind the cooperate structure."

Arm's Length Contract

Control is determined primarily (but not exclusively) in terms of ownership:

- <10% = no control
- 10% to 50% = presume control (rebuttable)
- >50% = control (nonrebuttable)

- 30 CFR § 206.257

Less than 10 % Ownership

- MMS may rebut if it can show actual or legal control exists
- Example: Although the 10 % is a minority holding, the block is larger than any other block.
- Example: Minority has the ability to formulate, determine, or veto basic business decisions and otherwise direct the use of company's resources and assets. (NMA v. DOI)

Arm's Length Contract

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NMA V. Department. of Interior

- When there is 10-50% ownership, there must exist the capability for the minority owner to:

  "... commit the financial or real property assets or working resources of an entity."

- MMS must demonstrate this existence

NMA V. Department. of Interior

NMA argued against an Office of Surface Mining Interim Final Rule (IFR) which said:

"Rebuttable Assumption" refers to a person who:

1. **Is an officer or director of the company**
2. **Operates the coal mining operation**
3. **Controls the assets**
4. **Is a general partner**
5. **Owns 10-50% of the entity**
6. **Owns or controls the coal**

- **Court ruled that # 1 and #5 were invalid**

Arm's Length Contract

Control is determined primarily (but not exclusively) in terms of ownership:

- **<10% = no control**
- **10% to 50% = presume control (rebuttable)**
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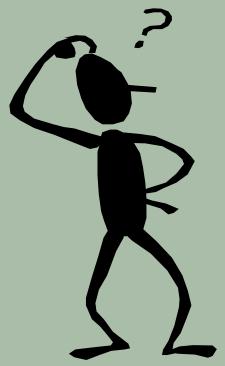
Quiz Time

I sell coal to my wholly-owned subsidiary under a contract that contains a "most favored nations" pricing provision that's tied to the market.

Is this an arm's length contract?

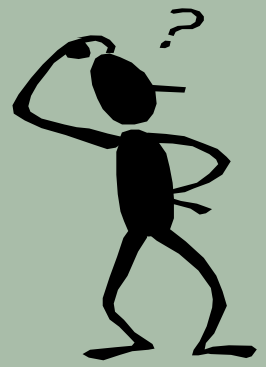


Quiz Time

I sell coal to my wholly-owned subsidiary under a contract that contains a "most favored nations" pricing provision that's tied to the market.

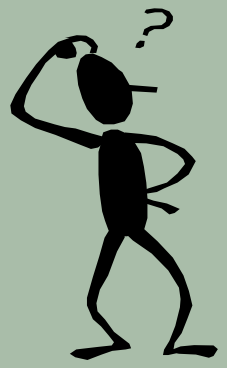
Is this an arm's length contract?

NO, but the prices MAY still be in the range of comparable arm's length sales.



Quiz Time

I sell coal to a joint venture (LLC) in which I have a 40% interest. The other three joint venturers each hold a 20% interest. Since I hold less than a controlling 50%, isn't this arm's length?



Quiz Time

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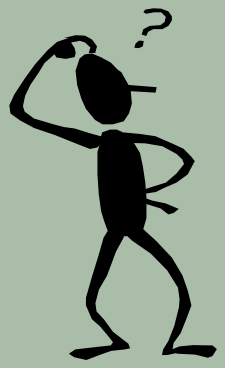
Requires more work- control is the issue and the 40% interest IS the largest block

Quiz Time

My purchaser doesn't own any of my firm's voting stock or any other similar instruments of control. However, my purchaser provided a loan for my working capital requirements and in return I provided a discount of $2/ton plus I repaid the loan principal and all interest. Is this an arm's length contract?



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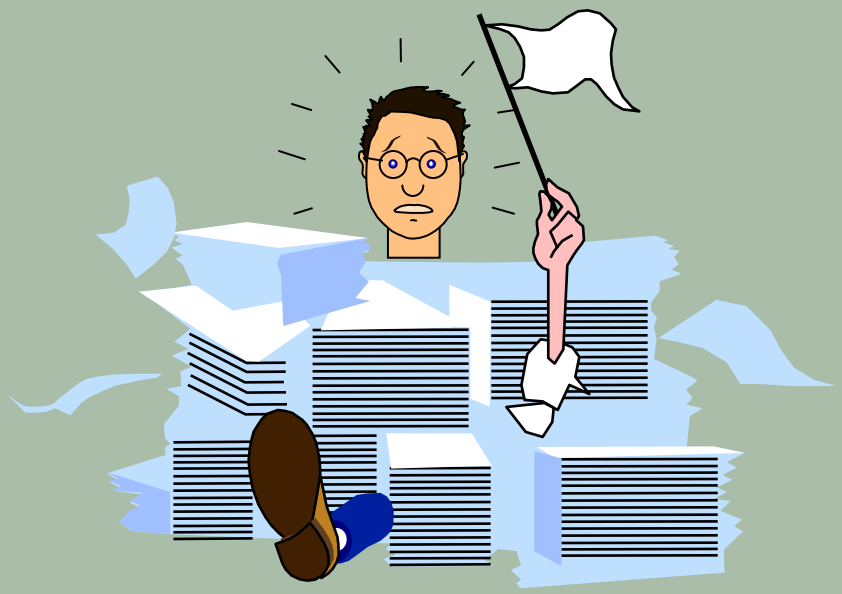
YES, but the $2.00/ton must be added back to determine gross proceeds.

Non-Arm's Length Valuation

- Regulations at 30 § CFR 206.257 allow the lessee to determine his own non-arm's length value (subject to MMS review), or ask for MMS assistance



Non-Arm's Length Valuation

- There are five benchmarks (criteria)
- Benchmarks must be applied sequentially
- Valuation is based on the ***first*** applicable benchmark
- Value is never based on less than gross proceeds
- Value is always based on coal in marketable condition

First Benchmark

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

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

Third Benchmark

- The price of delivered coal reported to the Department of Energy, Energy Information Administration
- FERC Form 423 or Form No.1
- Used by electric power cooperatives
- Transportation allowances usually apply
- Example-Western Fuels-Utah IBLA Decision, 1994

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

Fourth Benchmark

- Other relevant matters include:
- Spot market prices of other unaffiliated producers' with comparable contracts
- Weighted monthly average of comparable arm's length sales from the mine
- Cost of mining plus a reasonable ROI
- Weighted monthly average arm's length prices affiliated utility pays to unaffiliated suppliers for similar coal, even if not comparable contracts.

Fifth Benchmark

- A net-back or any other reasonable method, following consultation with MMS
- Calculate value by subtracting from the ultimate sale any cost incurred or value added to arrive at an f.o.b mine price
- *"The valuation procedure of last resort"*

Quiz Time

I sold 400,000 tons/yr for $14/ton to my parent firm who consumes it for metallurgical steel making. Arm's length sales from other producers into the met coal market were at prices between $18 - $20/ton. In the same year I sold at arm's-length 400,000 tons of the same coal to a utility for steam generation for $14/ton. What is the value of the coal (mentioned in the first sentence) for royalty purposes?

Quiz Time

$18/ton. Sales must be into the same market. The met coal market is not the steam coal market. The non-arm's length price must be raised to the range of arm's length prices.

Quiz Time

I sell coal to my affiliate using the same price found in comparable arm's length contracts. My affiliate resells that coal into the open marketplace with a 5% mark up. How do I value the coal sold under this arrangement?

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I sell coal to my affiliate using the same price found in comparable arm's length contracts. My affiliate resells that production into the open marketplace with a 5% mark up. How do I value production sold under this arrangement?

Per the recent Fina decision, you must use the benchmarks to determine royalty value.

Non-Arm's Length Valuation

- *Fina v Gale Norton, Sec. of DOI*, DC Circuit of Appeals # 025241, 6/2003
- Producer initially sold coal to a marketing firm it controls and then it sold coal to end users.
- Value for royalty purposes is at initial sale, not at resale as MMS had earlier ruled.

Transportation and Washing Allowance Cites

- Federal -- 30 CFR § 206.258-262
- Indian -- 30 CFR § 206.457-461

Transportation Allowances

- Normal point of valuation is f.o.b. mine
- A transportation allowance is allowed when coal is sold f.o.b. destination, and the lessee incurs an out-of-pocket expense
- Allowance cannot reduce royalty to zero

Transportation Allowances

- Allocate transportation allowance according to royalty-bearing lease percentage
- Non-arms length transportation deductions are calculated differently from arms-length, which are actual costs

Transportation Allowances

- Unit amount of non-arms length transportation allowance in $/ton = non-arms length allowance amount (based on operating costs, depreciation, and ROI)/entire tonnage transported from royalty-bearing lease(s)
- Allowance in $ = tons delivered from royalty-bearing lease(s) x allowance rate x royalty rate

Transportation Allowances

- Eligible Expenses: (all downstream from mine)
  - Rail fees
  - Stacker/reclaimer charges
  - Port and dock charges
  - Vessel loading cost
  - Demurrage charges out of your control
  - Vessel survey

Transportation Allowances

- Ineligible Expenses:
  - Haulage within the lease or within the vicinity of the mine
  - Haulage from one mine facility to another
  - Haulage prior to the first point where can reasonably be marketed
  - Quality assurance analysis
  - Demurrage within your control
  - Sales commissions and other sales costs

Transportation Allowances

- Sometimes it is not so obvious if transportation is eligible for an allowance. For example, the sales point or wash plant may be relatively near the mine.

Transportation Allowances

- For these cases MMS developed four questions to evaluate transportation allowance eligibility. Taken alone, each answer is not the final solution to eligibility. All four of the questions must be answered and taken into account together to arrive at the correct eligibility determination. If any of the first three questions can be answered "yes", a transportation allowance is probably not appropriate.

Transportation Allowances

- Eligibility Question #1:

  Does coal transportation occur in what could reasonably be considered the vicinity of the mine, lease, etc., which is defined by some administrative boundary or definition?

Transportation Allowances

Rather than use absolute distance measurement from the mine permit boundary or lease boundary to determine if the coal movement is in the vicinity of the mine or lease, MMS established a more relevant standard based on comparison of the distance coal moves away from the mine or lease boundary to the distance moved within the mine or lease boundary

Transportation Allowances

- For example, coal is hauled 4 miles within the mine permit area from the surface pit to crushing and storage facilities. The coal is then loaded into trucks and hauled 2 miles away from the mine permit boundary to a train loadout facility. The haul from the surface pit to the crushing and storage facilities is clearly not eligible for an allowance, because it occurs within the mine permit area. The truck haul from the storage facility is also not eligible for an allowance because the ratio of off-mine haulage to within-mine haulage is 1:2. Off-mine haulage would have to be at least 4 miles, or the ratio greater than 1:1, before this segment of coal movement may be considered not in the vicinity of the mine.

Transportation Allowances

- Eligibility Question #2:

  Is the coal transportation considered a part of the normal mining operation?

Transportation Allowances

- Haulage recognized as necessary to normal day-to-day mine operations does not qualify for a transportation allowance. This includes moving coal from the point of severance to and between typical mine facilities including, but not limited to, crushers, surge piles, stock piles, storage facilities, screening facilities, and loadout facilities.

Transportation Allowances

- Eligibility Question #3:

  Does the transportation of coal occur prior to the first point where production can reasonably be marketed?

Transportation Allowances

- The first point where coal may be marketed is the point where title, possession, and liability for loss can transfer from you to the buyer. This point is usually the mine loadout facility. If the transportation segment in question is prior to the first point where production can reasonably be marketed, then usually the transportation does not qualify for an allowance.

Transportation Allowances

- Eligibility question #4:

  Are there any extraordinary or exceptional circumstances involving coal transportation that should be considered as relevant factors or that could render other transportation allowance criteria invalid?

Transportation Allowances

There may be cases where, even though one or more of the first three answers to the transportation allowance eligibility questions indicate that the transportation segment is not eligible for an allowance, extraordinary or exceptional circumstances may render these other criteria invalid and an allowance would be proper.

Transportation Allowances Example

For example, a lessee loads coal into highway trucks in the pit and transports the coal 17 miles directly to a power plant. The coal is unloaded and crushed at the power plant site. The power plant is the mine's only customer because there is no access to rail except near the power plant.

Transportation Allowances Example (Cont.)

Applying the 4 transportation eligibility questions:

- -- The answer to question 1 is no, the transportation does not occur in the vicinity of the mine.
- -- The answer to question 2 is yes, the transportation is a normal mining operation because it is between mining facilities, i.e., the excavation and the crushing facility.
- -- The answer to question 3 is yes, the transportation occurs prior to the first point the coal could reasonably be marketed

Transportation Allowances Example (Cont.)

- Thus, the transportation would qualify for an allowance under question 1 but not under questions 2 and 3. Transportation distances between other mine facilities in the area are usually less than 5 miles. Analysis of question 4 reveals that the haul distance is an extraordinary distance. Even though the transportation is not eligible for an allowance due to questions 2 and 3, an allowance is appropriate in this case due to the extraordinary distance of the truck haul.

Transportation Allowances

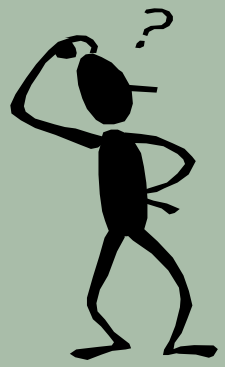
- If allowance eligibility is unclear…

  Lessee should request a determination from MMS - a written narrative should include:

  - operation description
  - mine maps
  - lease boundaries
  - mine facility locations
  - transportation route

Quiz Time

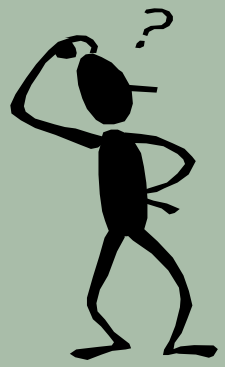
I sell coal on an f.o.b. destination basis to a buyer that's 1,500 miles from the mine and plant location; however, the buyer pays all transportation expenses and I have no out-of-pocket costs. Do I claim a transportation allowance?



Quiz Time

I sell coal on an f.o.b. destination basis to a buyer that's 1,500 miles from the mine and plant location; however, the buyer pays all transportation expenses and I have no out-of-pocket costs. Do I claim a transportation allowance?

NO



Quiz Time

I sell coal to an export buyer on a free alongside ship (f.a.s.) basis. I pay for rail freight, port handling, wharfage fees, vessel loading and trimming expenses, product quality assurance analysis costs, and a fee for currency conversion. Are all these costs included in the transportation allowance?

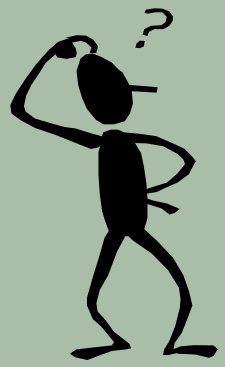
Quiz Time

NO.

Only those costs related to transportation - not the transaction - are deductible. Product quality analysis or currency conversion fees are not deductible.

Quiz Time

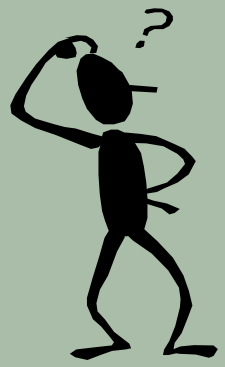
Should a transportation allowance be provided for all tons shipped from a mine if some tonnage is incidentally (unavoidably) lost in transit?



Quiz Time

Should a transportation allowance be provided for all tons shipped from a mine if some tonnage is incidentally (unavoidably) lost in transit?

YES



Transportation Allowances

Example: Warrington Coal ships 1000 tons of coal with associated rail charges of $2000. The total received and sold is 950 tons.

Warrington reports $2000 transportation costs on P&R even though 50 tons were lost.

Washing Allowances

- A washing allowance is allowed if the lessee incurs out of pocket expenses to wash coal prior to the royalty determination point
- The lessee must proportionately allocate washing costs to royalty-bearing leases
- The claimed allowance cannot reduce the royalty to zero

Washing Allowances

- Unit amount of non-arms length washing allowance in $/ton = non-arms length allowance amount (based on operating costs, depreciation, and ROI)/entire tonnage exiting wash plant.
- Allowance in $ = tons delivered from royalty-bearing lease(s) x allowance rate x royalty rate

End of
Coal Valuation...