AMERICAN INSTITUTE OF MINERALS APPRAISERS

NEWSLETTER

June 1997 Vol. 2, No. 3

AVAILABILITY OF USPAP

A proposal was presented in a prior issue of your Newsletter to increase membership dues to provide regular delivery of the Uniform Standards for Professional Appraisal Practice (USPAP) to each Member. The opinions were split, so your Executive Committee has decided not to force-feed you with the voluminous USPAP, but yet to make it available to our Members by (a) having the Institute take out one subscription and (b) copying and mailing the latest USPAP to Members upon request at $15 per report. This solution should work since there is only limited mention of mineral-specific material, and no copyright restrictions when full-source disclosure is made.

Therefore, when you need to get up-to-date and need to state that your appraisal report has been prepared under USPAP, please either subscribe individually from

The Appraisal Foundation
1029 Vermont Avenue N.W., Suite 900
Washington, DC 20005-3517
Tel. (202) 347-7722; Fax. (202) 347-7727

or, request a copy of the most recent USPAP version from AIMA by enclosing a $15 check. ☐

ELECTION RESULTS

Your Nominating Committee can be pleased, because the proposed slate of officers for 1997 was approved unanimously by the Members. We wish to thank Don Warnken who has served as Vice President from the Institute's founding in 1991 and who also contributed several times to your Newsletter. Don is now yielding the seat to Michael Cartwright who already has been helping with our inter-society matters. Thanks Don, and Welcome Aboard, Michael!
John B. Gustavson, 1997 President ☐

APPRAISAL STANDARDS and APPRAISAL QUALIFICATIONS BOARDS OF THE APPRAISAL FOUNDATION

by Michael R. Cartwright, CMA, ASA, RPG

The Appraisal Foundation is a not-for-profit private educational organization established in 1987 to promote uniformity and professionalism in appraising. The Financial Institutions Reform, Recovery and Enforcement Act (FIRREA) of 1989 endowed the Appraisal Foundation with authority to establish appraisal performance standards and appraiser qualification criteria. The Appraisal Foundation has two boards which should be of interest to minerals appraisers: the Appraisal Standards Board (ASB) and the Appraiser Qualifications Board (AQB). Both of these boards are appointed by the Board of Trustees of the Appraisal Foundation and both boards have five members serving staggered two year terms. ASB and AQB members are appointed without regard to previous employment or appraisal discipline and are expected to have extensive knowledge of appraising and sound appraisal practice and a concern for the public interest in matters involving appraisals. Because FIRREA only dealt with conventional real property most of the Appraisal Foundation’s board members are conventional real estate appraisers and most are Members of the Appraisal Institute, a Chicago-based society.

The ASB is responsible for the content and updating of the Uniform Standards of Professional Appraisal Practice (USPAP) which consists of Standards, Standards Rules, Statements on Appraisal Standards, Advisory Opinions, and areas dealing with ethics, competency, confidentiality, and definitions of terms. All of these items relate to the process of developing an appraisal and reporting the results of an appraisal. All items connected with adding, deleting, or otherwise changing USPAP are conducted in public and drafts of any changes are available for review and comment by any interested party. Meetings of the ASB are held bimonthly, usually in Washington, DC, and are open to the public.

(cont'd. on p. 3)

Three Case Histories of Mineral Valuation -- Continuation and Comments from Members

by L.T. Gregg, P.G., C.P.G., C.M.A.

We present here Gregg's two additional case histories -- as well as some reactions (right or wrong) to his first case history in Vol. 2. No. 2.

CASE HISTORY NO. 2

This was an inheritance tax case. A large, long-established industrial mineral producer was privately held. The value of a portion of the estate of a deceased shareholder was to be determined. To accomplish this, a senior industrial/commercial property appraiser was retained to value the mining company's property, plant, and equipment (PPE) and from this to estimate a dollars/share value. I was retained as secondary appraiser "to assist and educate the primary appraiser in valuing the minerals". The primary appraiser and I had an initial interview with officials of the mining company; he and I then quickly decided that the minerals should be valued separately from the PPE and that two separate reports would be prepared and submitted.[1] This approach was accepted by the client. In other words, the primary appraiser did what he knew how to do and I did what I knew how to do; neither of us had a clue about how to do the other's valuation, but we learned a lot from one another about the other's discipline.

In a subsequent interview with the mining company I obtained detailed annual production and financial data for the seven years preceding the effective date of the valuation: production rate, gross revenues, operating costs, capital expenditures, effective tax rates, costs of debt and equity capital, and all the other financial impedimenta needed to construct a Net After-tax Cash Flow (NATCF) spreadsheet. The mining company's cooperation was remarkable. After pondering the data, I calculated averages for each parameter. This formed the production/financial base for the NATCF model. I then assumed conservative (but attainable) growth rates per year for production and other relevant parameters, given the mining company's competitive position in the industry and some prognostications about growth of the industry itself for the next 20+ years. I assumed a discount rate which was the seven-year average of the company's WACC.[2] Again, I used continuous compounding.

The spreadsheet calculated the NPV of the NATCF for a 20+ year forward period. This value of the minerals was what I submitted in the report to the client. The case was eventually settled. Note that this was an almost "ideal" project for DCF/NPV analysis: historical production and financial data were abundant and cheerfully furnished, the regional industry had been extensively analyzed, and the objective of the valuation was non-adversarial. Good for me!

[1]I would be interested in receiving comments from AIMA members on the pros and cons of this approach.

[2]In retrospect, I probably should have used a discount rate like the one described in Case History No. 3, below, rather than WACC of the mining company. Comments by AIMA members are solicited on this point.

CASE HISTORY NO. 3

This case was somewhat of a legal oddity. A large and long-established industrial minerals producer was a lessee co-tenant with the lessor on some of the property and was also fee simple owner (including the mineral rights) of other parts of the property. The ownership situation was complex, but decipherable. The objective of the valuation was to value the unrecovered in-place minerals for the entire property (about 3,000 acres) and then apportion this value among the co-tenants.

An experienced jurist was appointed as Special Master (S.M.). He retained three senior geologists as independent mineral appraisers, the idea being that the S.M. would receive three independent values which he could then average. After several meetings and field trips, the three appraisers convinced the S.M. that they should work cooperatively, due in part to the complexity of the geology, the mining plan, and the proven reserves.

We then looked at royalty income. Because of the legal circumstances this was the only revenue source or stream that could be valued. Since the existing lease did not reflect current royalty conditions, a royalty rate was estimated based on a comprehensive survey of relatively recently-executed leases for the mineral of interest. Based on published as well as unpublished geological data, including some relatively limited but highly useful core drilling results, we estimated which parts of the total property contained:

- Drill-indicated reserves;
- Speculative resources; and
- Barren mineral potential.

An annual future production model was then prepared, based on historical production data as well as conservative assumptions about future production growth. The annual future production model was applied, needless to say, only to drill-indicated reserves, and actually to only a portion of them since our reserve estimate was more than adequate to sustain our production model for the indicated future time frame.

As a discount rate for use in the NPV calculations, we assumed a rate with two components:

- A so-called "safe rate", which approximated the then-current annual interest rate on government securities; and
- A so-called "risk rate" which represented the risk (i.e., the additional investment return which a prudent investor would require above the "safe rate") associated with mining in general and operations by this producer in particular.

The spreadsheet calculated the NPV of continuously-compounded royalty income for a 20+ year forward period. The valuation report was submitted and the case was settled.

(cont'd. on p. 3)

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CLOSING REMARKS

I hope these case histories will be of interest to AIMA Members. Each presented a different and stimulating set of challenges. As is usually the case, most of the time spent was consumed in pondering what needed to be in the production/financial model and then tweaking and fine-tuning it prior to actually running the spreadsheet. ☐

READER'S COMMENTS

First, I give Gregg an "A" for enthusiasm and for effort. Thanks for sharing with us your case histories and for your frank invitations of criticism. Other Members will comment on your Case History No. 1 in the next issue. I will lead off on No. 2 (published above).

I would not call an inheritance tax case "non-adversarial" as you do. I think the tax man is the adversary of the heirs in your case. And, I think your approach of two separate reports, while convenient, may have led to a higher FMV than necessary.

I would have taken the approach of determining the "dominant estate" (either the surface or the mineral, as the case might be) and then estimated its FMV. This would then be modified by the contribution made to the dominant estate by the existence of the subjugated estate.

In short, rather than "two-plus-two-equals-four" (pure addition of equally recognized sticks of the bundle), I would look at "two-plus-whatever-value increment- equals-three", following the Unit Rule. The value of the bundle is rarely equal to the sum of the values of the individual sticks.

My personal opinion is therefore that a primary appraiser needs to appraise the entire bundle, supported where needed by secondary appraiser(s). I agree with you that your Case History No. 2 is a great subject for appraisal by the DCF or income approach. After all, you describe the property as being fully developed and producing income. Ergo, the income approach should also be used (preferably together with comparable sales approaches!).

I think your discount rate was too low as you also surmise, thereby rendering too high a value. Think of it this way: If everything goes exactly as predicted (production <u>rate</u>, <u>price</u> and <u>cost</u> to name the most important) then the internal rate of return for that industrial mining operation will only approximate the Weighted Average Cost of Capital (you just got the money back at the rate you paid for it!). What about the profit motive (to get rewarded for having taken the risk)? For industrial minerals I can defend a 4 to 6 percent increase over WACC. And be careful with the WACC <u>before</u> vs. <u>after</u> federal income taxes as applied to your DFC analysis (BFIT vs. AFIT); the difference is about three percentage points.

John B. Gustavson ☐

TECHNIQUES FOR VALUING ACREAGE WITH UNPROVED OIL AND GAS POTENTIAL

by Edwin C. Moritz, CMA

<u>Abstract</u>

The purchase and sale of petroleum assets frequently involve unproved acreage that is rank-to-prospective in nature. The buyer and seller are faced with estimating a value for this acreage, which cannot easily be accomplished with a heavily risked oil and gas production forecast. This paper presents alternative techniques for valuing unproved or speculative acreage, since limited discussion of this subject exists in the literature. The techniques described in this paper are based on appraisal methods developed by the real estate profession and are commonly referred to as the Market, Income and Cost Approaches.

When appraising speculative acreage, the critical first steps in valuation are (a) defining the rights being apprised, and (b) establishing the highest and best use of the property. It is also important to (c) characterize the oil and gas potential subject in order to establish guidelines for finding comparable sales in the market. Market data can be obtained from lease sales, county courthouse records, oil and gas auctions, and form publicly-reported corporate financial statements. In addition, exploration costs are considered as an occasionally applicable cost approach to appraisal.

The relevant market data are then analyzed in detail and used in the various appraisal methods. These methods provide <u>estimates</u> of value, which are then <u>reconciled</u> for the final opinion of value. Examples of the types of data obtained and analyses performed are presented in a paper recently presented at the Society of Petroleum Engineers, Denver, Colorado, August, 1996 (SPE reprint 37950), available from SPE, Fax. (214) 952-9425 at a nominal cost, or from your AIMA offices at cost of copying and mailing.

APPRAISAL STANDARDS AND APPRAISAL QUALIFICATIONS BOARDS OF THE APPRAISAL FOUNDATION

(cont'd. from p. 1)

The AQB is responsible for the establishment of education, experience, and other criteria for licensing, certification, and recertification of qualified appraisers, the dissemination of such qualification criteria to States, governmental entities and others and assisting them in establishing and maintaining an appropriate system of licensing, certification, and re-certification of qualified appraisers, including developing or assisting in developing appropriate examinations for qualified appraisers.

Documents relating to changes in appraiser qualification criteria are exposed in draft form for public review and comment. At this time qualification criteria exist only for conventional residential and commercial real estate appraisers. Some limited progress is being made on the establishment of appraiser qualification criteria for personal property appraisers and business valuation specialists.

Meetings of the AQB are also usually held in Washington, DC, and are open to the public. The 3 February 1997 meeting of the AQB, which John Gustavson attended, had an agenda item concerning a proposed interpretation regarding timber and mineral valuations.

LATEST NEWS REGARDING THE APPRAISER QUALIFICATIONS BOARD (AQB)

Dear Members, here is the article on the latest information for minerals for the AQB requirements.

The Appraiser Qualifications Board (AQB) of the Appraisal Foundation is charged with establishing mandatory education, experience and examination requirements for state licensing and certification of real estate/property appraisers. As part of this process the AQB also issues Interpretations of the Appraiser Qualification Criteria.

It is the intent of the AQB that these Interpretations provide uniformity throughout the states, territories, and possessions and assist the states in granting reciprocity. New appraiser qualification criteria will take effect on 1 January 1998.

All mineral property appraisers who wish to become state certified must meet the qualification criteria for the Certified General Real Property Appraiser category of licensing. In an exposure draft of the latest revision of the Interpretations, minerals appraiser experience was specifically mentioned as acceptable. The exact language follows:

III.A.3.b.5: "Real property appraisal experience should not be given for appraisals of, or quanitifications of, marketable minerals, timber, growing crops, or other severable interests, if predicted on an assumption that the buyer will sever the components form the land."

III.A.3.b.6: "Experience credit should be given for appraisers of properties that include marketable minerals, timber, growing crops, or other severable components if it: conforms to USPAP Standards 1 and 2, and includes either the severable component(s), together with the associated land, or, the associated land under an assumption that the severable component(s) have been severed to the extent precisely described in the appraisal report."

In a telephone conversation with the AQB staff it was learned that this wording was discussed at the 2 June 1997 AQB meeting but that no decision was rendered. It is expected that a final decision may involve making the language concerning minerals more general in that the wording may only refer to "severable interests" rather than to certain specific examples.

A teleconference among the AQB members is expected to occur at the end of June and the final copy of the Interpretations of the Appraiser Qualification Criteria should be available in July.

Michael R. Cartwright, CMA, ASA, RPG ☐

APPRAISAL COURSE REFRESHER FOR THE IRS

The University of Tulsa, Division of Continuing Education, has been retained by the Internal Revenue Service to provide a two-day refresher course on the *Appraisal of Oil and Gas Properties*. The course will be given as an in-house course at the IRS Engineering Group office in Houston.

The University is providing AIMA's president, John Gustavson, as instructor. In addition to fundamentals including *highest and best use* and *apportionment subsequent to unit rule application*, Mr. Gustavson will also discuss a number of case histories -- yes, some of them involving the IRS!

We hope that no confidentiality agreement will have to be signed by the Instructor, so that the AIMA Members may benefit from the reactions of the IRS folks in a future issue! ☐

AIMA VICE PRESIDENT APPOINTED TO USPAP PANEL

We are pleased to announce that Michael Cartwright, Certified Minerals Appraiser since 1992, and your newly elected 1997 Vice President of the AIMA, has been appointed to the USPAP Issues Resource Panel by the Appraisal Standards Board of The Appraisal Foundation.

The ongoing work of the ASB often presents situations which require research to obtain knowledge and expertise that may not be present among the ASB members.

The issues are challenging and may involve working with a diverse group of talented individuals or providing an individual view on an issue. The issues may be conceptual or very specific and highly technical. The individuals on the panel should already be recognized by colleagues or the public as experts in one or more areas of professional appraisal practice, appraisal education, or appraisal service related fields. ☐

DUES OVERDUE

A few Members have still not paid their 1997 dues. You will agree that our annual dues of $25 is a negligible amount, so please, take the time to drop the check in the mail.

We clearly need you as a Member, what with renewed pressure from State and Federal agencies also, we need help to resolve the complexities of appraisal and apportionment of mineral properties.

Trevor Ellis, 1997 Treasurer ☐

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