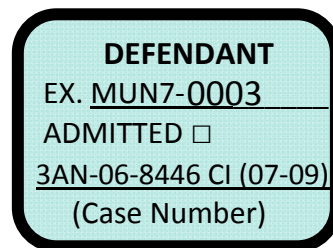


**REPORT RELATING TO THE  
ASSESSED VALUATION OF  
TRANS ALASKA PIPELINE SYSTEM  
FOR 2007, 2008 AND 2009**

By  
**BROWN, WILLIAMS, MOORHEAD & QUINN, Inc.**  
February 1, 2011



**Introduction**

This Report was prepared by John F. Brown and Barry E. Sullivan, who are the Chairman and the President, respectively, of the consulting firm Brown, Williams, Moorhead & Quinn Inc. (“BWMQ”). The report is prepared in connection with appeals by the Owners of the Trans Alaska Pipeline System (“TAPS”), the Fairbanks North Star Borough, and the City of Valdez of the 2007, 2008, and 2009 assessments of TAPS by the Alaska State Assessment Review Board. This Report contains three primary sections.<sup>1</sup>

Section I of this Report provides information about the history of TAPS and includes information showing that TAPS is part of a vertically integrated system of companies that own businesses in the production, transportation, and refining of Alaskan North Slope (“ANS”) crude oil. The analysis of vertical integration across production, transportation, and refining in the 2009 BWMQ Report is updated using the most current data available.

Section II of this Report updates our findings on the competitive issues identified in the 2009 BWMQ Report. The report suggests that the three leading TAPS Owners, *i.e.* British Petroleum, ConocoPhillips, and ExxonMobil (the “Big Three”), continue to dominate production on the ANS and dominate ownership of TAPS. Access to TAPS by non-owners is difficult. Such a market structure discourages the exploration and production of ANS crude oil reserves by other independent oil companies. Also, the Big Three continued to set above-competitive rates

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<sup>1</sup> BWMQ prepared a similar report on April 9, 2009 (“2009 BWMQ Report”), based, in part, on 2006 oil production data.

on transportation, which had the effect of reducing the netback and tax and royalty basis on ANS crude oil. Given that the Big Three are vertically integrated across production, transportation, and refining, however, the lost profits of the affiliated production units due to the above-competitive rates charged on TAPS are recovered in each of the Big Three's affiliated transportation and refining operations. In addition, the excessive transportation rates, together with several control mechanisms over the operation of TAPS, serve to discourage entry into the Alaskan crude oil market and to pressure smaller producers to exit the market.

Section III of this Report sets forth various exceptions to traditional ratemaking standards, which were inherent during the period 1977 through 2004 when the TAPS Settlement Agreement (“TSA”),<sup>2</sup> which contained the TAPS Settlement Methodology (“TSM”) between the State of Alaska and the TAPS Owners, was utilized by the Carriers to develop their rates. As discussed below, several provisions in the TSM resulted in overstating TAPS transportation rates and tariff income for the TAPS Carriers from 1977 through 2004, and, in turn, understating TAPS tariff income today and in the future.

## **SECTION I—TAPS HISTORICAL FACTS**

In 1968, two of the original TAPS Owners discovered a vast reserve of crude oil in the Prudhoe Bay area of Alaska.<sup>3</sup> Initially, there was some thought that tankers could be used to transport the newly discovered oil from the North Slope; however that thought soon disappeared when a test was conducted using a specially fitted oil tanker that was unable to get through the icy waters off the shore of Northern Alaska.<sup>4</sup> The Owners then decided upon the construction of

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<sup>2</sup> Six of the original TAPS Carriers adopted the TSA in mid 1985, and the TSA was approved by the FERC with respect to those six Carriers on October 23, 1985, Order Approving Settlement as to Settling Parties, Granting Application and Remanding Proceedings as to Non-Settling Parties, 33 FERC ¶ 61,064. The remaining two Carriers (*i.e.*, the non-settling parties, SOHIO and Amerada Hess) entered into the TSA in 1986, and the FERC approved such entries on June 27, 1986, 35, FERC ¶ 61, 425.

<sup>3</sup> [www.alyeska-pipe.com.html](http://www.alyeska-pipe.com.html), “Pipeline Facts/Chronology of Major Pipeline Events,” (Exhibit 1 at 1).

<sup>4</sup> [www.wikipedia.com/Trans-Alaska/MainArticle](http://www.wikipedia.com/Trans-Alaska/MainArticle): *Prudhoe Bay oil field* (Exhibit 2 at 3).

TAPS to move their oil from the North Slope. In 1970, eight Owners of TAPS incorporated Alyeska Pipeline Service Company (“Alyeska”) to design, construct, operate and maintain TAPS. According to Alyeska, “{a} consortium of oil companies planning to produce the oil (from the Prudhoe Bay area on the Alaskan North Slope (“ANS”)) determined that a pipeline offered the best means to transport crude oil from the ANS to a navigable port in southern Alaska where it could be shipped by tanker to refineries in the continental United States.”<sup>5</sup> The construction of TAPS commenced in 1974, was completed in May 1977, and first oil from the ANS moved through the pipeline on June 20, 1977.<sup>6</sup>

The actual Owners of TAPS were big oil companies.<sup>7</sup> With the exception of ExxonMobil, the other big oil companies designated shell companies to be the “owners” of TAPS. ExxonMobil designated an existing subsidiary company, ExxonMobil Pipeline Company, to be its “owner” of TAPS. Shell companies are companies that have no employees or independent financial capacity.

Shortly before the construction of TAPS was completed, each of the eight Owners filed tariffs with the Interstate Commerce Commission, which contained rates to be charged for transportation services from the Prudhoe Bay area to the Valdez Marine Terminal in southern Alaska. The rates were opposed by the State of Alaska and the U.S. Department of Justice on the basis that the filed rates were between 20 and 25 percent higher than they should have been. The Federal Energy Regulatory Commission (“FERC”) (formerly Federal Power Commission), was formed in September 1977 and had legal review of the filed TAPS rates. Hearings were

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<sup>5</sup> [www.alyeska-pipe.com/about.html](http://www.alyeska-pipe.com/about.html), “About Us,” (Exhibit 3).

<sup>6</sup> [www.alyeska-pipe.com/PipelineFacts/PipelineQuickFacts](http://www.alyeska-pipe.com/PipelineFacts/PipelineQuickFacts), (Exhibit 4).

<sup>7</sup> The original Owners of TAPS included Atlantic Richfield Company (ARCO), Humble Oil and Refining Company (Exxon), Standard Oil of Ohio (SOHIO), British Petroleum (BP), Mobil Oil Company (Mobil), Unocal Oil of California (Unocal), and Phillips Petroleum Company (Phillips). Home Oil Company was an initial Owner; however, it subsequently assigned its ownership interest to other Owners.

held before a FERC Administrative Law Judge (“ALJ”), who issued his initial decision concerning the rates on February 1, 1980.<sup>8</sup>

From the time of the issuance of the ALJ’s initial decision until late 1984, the FERC did not issue an order with respect to the initial decision. As a result of this delay and without any information as to when the FERC might issue an order relating to the initial decision, the State of Alaska initiated discussions with ARCO to settle the issues in the rate proceeding. Those negotiations resulted in a settlement agreement, i.e., the TSA, which was entered into with the State, ARCO and five other Carriers. The Carriers filed a request with the FERC to approve the TSA in August 1985, which request was approved in October 1985.<sup>9</sup> The other two Carriers, i.e. the non-settling parties, adopted the TSA in 1986, and the FERC approved that action on June 28, 1986.<sup>10</sup>

The TSA contained a methodology, *i.e.* the TAPS Settlement Methodology (“TSM”), which the Carriers used to determine past rates for the period 1977 through 1985 and future rates to be charged by the TAPS Carriers for years beginning in 1986 and extending through 2011. A discussion of the TSA and the TSM, which contained numerous provisions that were extremely beneficial to the TAPS Owners, is contained in Section III below.

The TAPS Carriers entered into a Capacity Settlement Agreement at the start of the operations of TAPS. That agreement gave the Carriers control of the capacity of TAPS. In 1997, the TAPS Carriers entered into a new Capacity Settlement Agreement, which provided for various levels of capacity between 1996 through January 1, 2004, and each year thereafter. Again, by means of that agreement, the Carriers maintained control of the capacity on TAPS.

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<sup>8</sup> 10 FERC ¶ 63,026.

<sup>9</sup> 33 FERC ¶ 61,064.

<sup>10</sup> 35 FERC ¶ 61,425.

Exhibit C to the amended Capacity Settlement Agreement<sup>11</sup> contains the agreed capacity of TAPS. The capacity ranged from 1,420,000 Barrels per Day (“bpd”) in 1996, declining to 1,100,000 bpd beginning in 2004, and continuing thereafter. As shown in the Alyeska Pipeline Throughput table attached hereto,<sup>12</sup> the TAPS capacities set forth in the amended Capacity Settlement Agreement exceeded TAPS actual average per day throughput beginning in 1997 and continued each year thereafter.

In 1996 and 1997, the TAPS Carriers took four pump stations out of service and placed them in standby status.<sup>13</sup> In 2004, the TAPS Carriers filed a request with the RCA for approval to permanently abandon four of the existing pump stations it had placed in standby service in 1996 and 1997. That request was approved by the RCA on March 15, 2006.<sup>14</sup>

In 2001, Alyeska began studying the reconfiguration of four existing pump stations. Various alternatives were examined by a planning team and that initiative was complete in 2002.<sup>15</sup> In 2003, Alyeska submitted a request to the TAPS Owners to go forward with the reconfiguration project, which became known as the Strategic Reconfiguration (SR) project. Approval of the SR project in the amount of \$250 million was granted by the TAPS Owners in March 2004.<sup>16</sup> Several delays were encountered in the SR project, which substantially increased the initial \$250 million approved cost of the project. In the 2010 Alaska Superior Court Proceeding,<sup>17</sup> James Greeley, the State’s Petroleum Property Assessor, testified that “[i]n the

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<sup>11</sup> Amended and Restated Capacity Settlement Agreement, Page 16 of 21 (Exhibit 5 at 16).

<sup>12</sup> [www.alyeska-pipe.com/Pipeline.html](http://www.alyeska-pipe.com/Pipeline.html), “Pipeline Facts” (Exhibit 6).

<sup>13</sup> [www.alyeska-pipe.com.html](http://www.alyeska-pipe.com.html), “Pipeline Facts/Chronology of Major Pipeline Events,” (Exhibit 1 at 7).

<sup>14</sup> RCA Order Affirming Electronic Ruling and Bench Rulings, P-04-21, Order No. 5.

<sup>15</sup> Pipeline Configuration Project Overview, March 2004, (Exhibit 7 at 2).

<sup>16</sup> Alyeska Monthly Newsletter/Monthlynews/March 2004 (Exhibit 8).

<sup>17</sup> Superior Court proceeding in the Superior Court for the State of Alaska before Judge Gleason; and Decision Following Trial De Novo in the Superior Court for the State of Alaska, Third Judicial District at Anchorage, Case No. 3AN-06-8446 CI, May 24, 2010, (“2010 Superior Court Decision”). The issue in this proceeding centered on the State Assessment Review Board’s (“SARB’s) decision and the Department of Revenue’s 2006 assessment of TAPS for ad valorem tax purposes. The Court conducted a non-jury trial lasting over five weeks in the fall of 2009.

past few years, the TAPS Owners have spent over \$600 million on SR”.<sup>18</sup> Despite this large increase, the project has continued to be funded, and the final station of the four selected reconfigured stations is expected to be completed in 2011. ANR crude oil reserves continue to support a long life for the TAPS system. Superior Court Judge Gleason found that witness William Van Dyke persuasively demonstrated that:

... the current three largest ANS operators (BP, ExxonMobil, and ConocoPhillips) are projected to continue to produce a combined total of at least 88% of each year’s total ANS production every year through 2050.”<sup>19</sup>

The original large oil companies that owned TAPS and Alyeska also owned the ANS affiliated producers and affiliated refiners in the Lower 48. In addition, many of the tankers used to transport oil from Alaska to the affiliated refiners in the western United States were also owned by affiliated companies. Judge Gleason found:

The evidence demonstrates that TAPS is also a special-purpose property. TAPS is unique and was specifically designed, constructed and adapted to its particular use--to move affiliated crude oil from the ANS to Valdez.”<sup>20</sup>

That is, TAPS was constructed to move oil produced by the affiliated producers to Valdez where it would be loaded on tankers owned or leased by affiliated companies and shipped to Lower 48 affiliated refiners--all for the benefit of the large vertically integrated oil companies.

With regard to the large vertically integrated oil companies, there are numerous acknowledgements that the real Owners of TAPS are integrated companies. In that regard, Mr. Charles Coulson, the President of BP Pipelines (Alaska) Inc., referred to “integrated

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Thousands of pages of exhibits and several depositions were admitted at the trial, together with testimony of the parties’ witnesses, including the property owners and the several municipal governments. *2010 Superior Court Decision* at PP 1-4. Both Mr. Sullivan and Mr. Brown were witnesses for the appealing Municipalities.

<sup>18</sup> *Id.* at P 116.

<sup>19</sup> *Id.* at P 104.

<sup>20</sup> *Id.* at P 106.

corporate economics” in his testimony in FERC Docket IS09-348-000, *et al.*<sup>21</sup> In that testimony, he described the benefits of an upstream affiliate paying a published tariff to the pipeline affiliate with the result that no money leaves the affiliated group. He also was deposed in the instant proceeding, and in his deposition he discussed integrated corporate economics and integrated advantages<sup>22</sup> as those items are beneficial to a vertically integrated group of companies.

With regard to other statements that the TAPS owners are integrated companies, Judge Gleason found that TAPS:

...is an integrated property with its Owners’ affiliates.”<sup>23</sup>

The Owners each have an undivided interest in TAPS...an ownership structure that is unique in that it is specifically adapted to accommodate the use of TAPS by its individual owners as part of their vertically integrated business operations. (Emphasis added).<sup>24</sup>

Judge Gleason also referred to the testimony of Dr. Jaffe, a prominent economic expert who testified on behalf of the TAPS Owners before the FERC. In that testimony, Dr. Jaffe stated that “the movement of petroleum through TAPS is dominated by shipments in which the shipper is among the corporate affiliates of the Carriers” and “TAPS is largely a closed system in which the vast majority of business is transacted among affiliated buyers and sellers.”<sup>25</sup> Finally, ConocoPhillips, one of the Big Three, states on its web site that it is the “third largest integrated energy company in the U.S....”<sup>26</sup>

Table 1 (attached to this Report) lists the current Owners of the affiliated companies, their parent Owners, and their Alaskan production. Currently there are five TAPS Owners. As

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<sup>21</sup> Prepared Direct Testimony of Charles J. Coulson on behalf of BP Pipelines (Alaska) Inc., BPP-1, Page 21.

<sup>22</sup> Deposition of Charles J. Coulson, December 8, 2010, In re The Superior Court of the State of Alaska, Third Judicial District, Case No. 3AN-06-8446, pages 193 and 195.

<sup>23</sup> *Id.* at P 74.

<sup>24</sup> *Id.* at P 97, citing, in part, Sullivan Tr. 1875 and Brown Tr. 1982-83.

<sup>25</sup> *Id.* at P 103.

<sup>26</sup> [www.conocophillips.com/AboutUS/WhoWeAre](http://www.conocophillips.com/AboutUS/WhoWeAre).

can be seen from Table 1, the Big Three Owners (BP, ConocoPhillips, and ExxonMobil) hold a 96 percent ownership interest in TAPS. This is the exact same ownership that was reported in the 2009 BWMQ Report. The Big Three also own the major transit feeder pipelines which connect production areas on the North Slope to TAPS. Table 2 (attached to this Report) shows that the combined market share of the Big Three in seven of the eight major fields on the ANS is 78 percent or more. In six of the eight fields, the Big Three's combined market share is 99 percent or higher. In the largest field, Prudhoe Bay, the Big Three's combined market share is 98.8 percent. These market shares are virtually the same as those found in the 2009 BWMQ Report.<sup>27</sup> In addition, the Big Three continue to own substantial refining capacity in the continental U.S. (see Table 1), including affiliated refineries on the West Coast.

Section II below contains a more complete discussion of the effect of the control held by the large oil companies that own the several affiliated companies, including TAPS. Those ownerships include the production of oil on the ANS, the transportation of ANS oil, and the transit lines that extend from the ANS production points to TAPS.

## **SECTION II—COMPETITIVE ISSUES**

### **Market Structure**

Crude oil is produced in the ANS, the crude oil is transported from the ANS to the navigable port of Valdez, Alaska, and shipped by tanker to refineries in the continental U.S. To understand the competitive issues related to TAPS requires an understanding of the extent of competition in the upstream market for ANS production, in the origin market for transportation out of Prudhoe Bay, and in the downstream market for refining.

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<sup>27</sup> The market shares differ by less than one percentage point. The Oooguruk oil field was not reported in the 2009 BWMQ Report because of the lack of data.



As explained in the 2009 BWMQ Report, the origin market for transportation out of Prudhoe Bay is served by only one transportation provider, namely TAPS. The Big Three Owners are BP, ConocoPhillips, and ExxonMobil. In the 2009 BWMQ Report, the market shares of BP, ConocoPhillips, and ExxonMobil were 46.93 percent, 28.29 percent, and 20.34 percent, respectively.<sup>28</sup> As shown in Table 1, the Big Three have been able to maintain these same market shares. In fact, as of January 1, 2006, Judge Gleason also found the exact same market shares.<sup>29</sup> The current 95.56 percent combined market share of the Big Three suggests that the market continues to be highly concentrated. Using the market shares of all five TAPS Owners, including minimal market shares held by Unocal and Koch, the corresponding Herfindahl-Hirschman Index (“HHI”) is 3428. (See Table 1.) An HHI of 3428 is above the 2500 threshold HHI used by the FERC to indicate a possible market power concern. Entry into this market is not easy. Absent other mitigating factors, it appears that TAPS Owners can act together to exercise market power. The TSM, for example, includes a number of provisions that impose additional costs on ANS producers who are non-owners of TAPS and on TAPS Owners other than the Big Three.<sup>30</sup>

The market structure of the ANS crude oil market continues to be remarkably similar to the market structure of the Prudhoe Bay transportation market. For the most recent 12-month period,<sup>31</sup> the North Slope crude oil production market shares of ConocoPhillips, BP, and ExxonMobil are 40.67 percent, 31.29 percent and 22.06 percent, respectively. Their combined market share is 94.02 percent, which is nearly the same as the 94.71 percent reported in the 2009 BWMQ Report. The corresponding HHI is 3112, which remains above the Commission’s 2500

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<sup>28</sup> 2009 BWMQ Report, Table 1, p. 15.

<sup>29</sup> 2010 Superior Court Decision at P 96.

<sup>30</sup> 2009 BWMQ Report at 8.

<sup>31</sup> The production data in Tables 1 and 2 are based on the 12-month period beginning December 2009 and ending November 2010.

threshold HHI. See, Table 1. As we reported in the 2009 BWMQ Report, entry into this market is not easy. In fact, several large oil companies have exited this market.<sup>32</sup>

The persistent high concentration in both the transportation and crude oil markets suggests that the Big Three can continue to act together to control the exploration and production of the crude oil market on the ANS and to use their control over the transportation market to discourage (or “block”) entry by new producers and to pressure competing producers to exit the market. In the *2010 Superior Court Decision*, Judge Gleason found:

The affiliated producers of the Owners typically nominate their ANS production to their affiliated TAPS Owner; and typically do not sell their ANS production to a third party at any point upstream of TAPS that would permit a third-party purchaser to nominate to a nonaffiliated TAPS Owner.<sup>33</sup>

The record demonstrates that when ANS production is sold to a third-party purchaser, the sale may be on a delivered basis, typically to destinations outside of Alaska. Under the terms of such a sale, each TAPS Owner maintains control of the transportation of its ANS production from the point of production to the point of delivery on the West Coast.<sup>34</sup>

The extent of vertical integration across the production, transportation and refining stages of production by the Big Three enables the Big Three to continue to control crude oil exploration and production on the North Slope, to potentially increase competitor costs, to discourage entry by new competitors, and to take monopoly profits in their downstream operations.

As explained in the 2009 BWMQ Report, this shifting of profits from production to downstream operations is a response, in part, to the royalty payments and severance taxes imposed by the State of Alaska on the value of North Slope crude oil. Consequently, the Big Three have an incentive to minimize the value of North Slope crude oil. The value of crude oil

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<sup>32</sup> 2009 BWMQ Report, pp. 9-10.

<sup>33</sup> *2010 Superior Court Decision* at P 107.

<sup>34</sup> *Id.* at P 108.

can be reduced by setting high transportation rates on TAPS. Although the high transportation rates reduce the netbacks to all producers, the Big Three can recover their lost profits in crude oil production (due to the high transportation rates) in their downstream transportation and refinery operations. More specifically, the lost profits in crude oil can be recovered in higher rates on TAPS and in lower costs of crude oil feedstocks delivered to affiliated refineries.

Another implication of our analysis is that the TAPS business cannot be analyzed independently of the other vertically integrated business operations of the TAPS Owners. The concentration of the TAPS ownership structure in the Big Three allows the Big Three to protect its interests in ANS production. Entry into ANS production is not easy, in part, because of the high costs of using TAPS and the limited access to TAPS by non-owners. Thus, the value of TAPS is to enable the TAPS Owners to move their ANS production to their affiliated refinery operations. Consequently, the income produced by TAPS cannot be used to estimate the market value of TAPS. Judge Gleason agrees:

As SARB has held, and as this Court has previously discussed in these findings, TAPS was built and is operated to monetize the vast ANS reserves of the producer oil companies by bringing those reserves to market. It was not constructed, and is not maintained, in order to realize tariff income.<sup>35</sup>

As several witnesses noted, tariff income is a regulatory, not an economic[,] construct that has little place in determining the economic value of a pipeline used primarily for affiliated transportation.<sup>36</sup>

### **SECTION III—TSM EXCEPTIONS TO TRADITIONAL RATEMAKING STANDARDS**

As discussed in Section I above, the TSA/TSM, *i.e.*, the method used to determine TAPS rates for the period 1977 through 2004, contained a number of exceptions to traditional just and reasonable ratemaking standards, which enabled TAPS Carriers to charge significantly higher

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<sup>35</sup> *Id.* at P 471.

<sup>36</sup> *Id.* at P 482.

transportation rates. The TAPS Carriers also used the TSM to compute rate filings for 2005, 2006, 2007, and 2008. However, the FERC issued Opinion No. 502<sup>37</sup> on June 28, 2008, which rejected the use of the TSM for determining TAPS rates for each of the years 2005 through 2008 and directed that the methodology set forth in Opinion 502 was to be used to develop rates for future years.

Judge Gleason found access issues with the Owner's terms and conditions:

The Owners' terms and conditions of providing transportation service on TAPS give "Regular Shippers" (i.e., the Owners' affiliated producers) priority in accessing TAPS capacity, which serves to support affiliated dominance of TAPS.<sup>38</sup>

A number of the individual provisions of the TSM are inconsistent with accepted just and reasonable ratemaking standards. First, TSM provided for a very rapid recovery of pipeline plant investment through the use of a factored unit-of-throughput depreciation methodology. This accelerated depreciation permitted the TAPS Carriers to recover more than 80 percent of their initial plant investment by the end of 1989 and approximately 97 percent of their initial plant investment by the end of 2004.<sup>39</sup>

Second, the TAPS Carriers recovered through the end of 2004 more than \$1.5 billion for the dismantlement, removal, and restoration ("DR&R") of the pipeline and rights-of-way. Despite this recovery, TAPS witnesses in the hearing before the FERC at Docket No. IS05-82-02, *et al.*, mentioned above, denied there was any fund for the DR&R. For example, in the Prepared Answering Testimony of Joseph P. Kalt, who testified on behalf of all TAPS Carriers,

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<sup>37</sup> 125 FERC ¶ 61,287.

<sup>38</sup> *Superior Court Decision* at P 109.

<sup>39</sup> Prepared Reply Testimony of John F. Brown, Docket No. IS05-82, *et al.*, Exhibit AT-140, p. 34.

he referred to the \$1.5 billion actually collected by the Carriers for DR&R pursuant to the TSM as a non-existent “imagined fund.”<sup>40</sup>

Apart from the denial by Dr. Kalt of the existence of a DR&R fund, the accelerated recovery of DR&R by the Carriers was inconsistent with regulatory contexts when considering that such recovery was far in advance of the traditional method used by regulators. In the case of TAPS, the DR&R recovery began in 1977 and continued through 2004. However, the dismantlement of the major part of TAPS will not occur for many years in the future. Under these circumstances, the Owners of TAPS have obtained \$1.5 billion that was added to their coffers on a cost-free basis even though the dismantlement of the major part of TAPS will not occur for many years in the future.

Third, the TSM was based on an economic life for TAPS that ended in 2011. This economic end life is severely understated. William Van Dyke, who is an expert in oil production on the Alaska North Slope, testified in the proceeding leading up to the 2010 Superior Court Decision, and concluded that the economic life for TAPS was substantially longer than 2011. Judge Gleason agreed with Mr. Van Dyke:

He persuasively demonstrated that...the current three largest ANS operators (BP, ExxonMobil and ConocoPhillips) are projected to continue...ANS production every year through 2050.<sup>41</sup>

More recently, as shown in the testimony of Dudley Platt in the instant proceeding, the life of TAPS, based on current data regarding future throughput of TAPS, will exceed the year 2068.<sup>42</sup>

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<sup>40</sup> Prepared Answering Testimony of Joseph P. Kalt, Docket No. IS05-82, *et. al.*, Exhibit ATC-113, p. 5.

<sup>41</sup> *2010 Superior Court Decision* at P 104.

<sup>42</sup> Dudley Platt presently is employed by the North Slope Borough. Prior to that employment, he was employed by a number of organizations, including the State of Alaska, Department of Revenue, Oil and Gas Division.

Fourth, the TSM contained a true-up provision that allowed the total recovery of TAPS operation and maintenance costs. However, there was limited review of the costs collected by means of the true-up provision. For example, costs incurred in the clean-up of the oil spill caused by the Exxon Valdez tanker striking Bligh Reef in Prince William Sound were included in the Owners' rates by means of the TSM. There does not seem to be any basis for such costs to have been recovered under any circumstances, particularly since such costs were included in the rates without any scrutiny. In that regard, cost-based principles of regulation allow an opportunity, but not a guarantee, for the recovery of costs, including return on investment.

Another TSM provision that was inconsistent with accepted just and reasonable ratemaking standards was a non-cost based element designated as an allowance per barrel ("APB"). This APB was included in the TSM and used by the Carriers in the determination of their rates beginning with the year 1990.<sup>43</sup> As stated by a witness for the TAPS Carriers in the proceeding before the Regulatory Commission of Alaska in Docket No. P-97-4, the APB was needed because the Carriers previously had collected depreciation on a highly accelerated basis. According to the witness, the TAPS Carriers needed the APB to compensate for the lower rate base that resulted at the end of 1989 due to the earlier collection of the accelerated depreciation provided in the TSM.<sup>44</sup> In other words, the TAPS Carriers had collected more than 80 percent of their initial investment by the end of 1989 and then developed the idea that they needed to obtain a high return via the APB because a major part of their rate base was gone. It is no wonder that the RCA did not buy the witness's argument.

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<sup>43</sup> The APB, including related income taxes, amounted to slightly more than 32% of the total annual revenue requirement claimed by the Carriers of \$1,218 million in their 2005 rate filings. Prepared Direct Testimony of John F. Brown, Docket No. IS05-82, *et. al.*, Exhibit No. AT-3, p. 57.

<sup>44</sup> Supplemental Testimony of Jerome E. Haas dated August 14, 2000, Docket No. P-97-4 at 7 (Exhibit 23 at 2).

In summary, the TSM contained numerous exceptions to traditional ratemaking standards with the result that Carriers and their integrated Owners realized much higher returns than under traditional ratemaking standards. Moreover, the accelerated recovery of depreciation, the recovery of \$1.5 billion for DR&R, the recovery of out-of-period costs pursuant to the true-up provision, and the recovery of return and taxes based on a much shorter life of 2011 resulted in artificially high transportation rates during the period 1977 through 2004. On a going forward basis, due to the accelerated recovery of investment via depreciation, the Carriers' rates may result in lower future transportation rates because the costs (depreciation and return and taxes) associated with providing service on TAPS have largely been recovered from earlier rate payers.

### **CONCLUSION**

TAPS Carriers are part of vertically integrated groups of companies owned by large oil companies. This vertical integration has enabled the large oil companies, particularly the Big Three, to maintain significant market power in all phases of the exploration, production, and transportation of ANS crude oil. The vertical integration of such activities increased the profits of the integrated companies. Moreover, the going forward tariffs of the TAPS Carriers will not reflect the real economic value of TAPS due to the excessive tariffs already collected by the carriers.

**TABLE 1  
VERTICAL INTEGRATION OF TAPS OWNERS**

**I. TRANSPORTATION: Ownership of Trans Alaska Pipeline System**

<u>TAPS Owners</u>	<u>Parent Company</u>	<u>Market Share*</u>	<u>Market Share Squared</u>
BP Pipelines (Alaska) Inc.	BP PLC	46.93%	2202
ConocoPhillips Transportation Alaska, Inc.	ConocoPhillips Company	28.29%	800
ExxonMobil Pipeline Company	ExxonMobil Corporation	20.34%	414
Unocal Pipeline Company (acquired by Chevron 2005)	Chevron Corporation	1.36%	2
Koch Alaska Pipeline Company, L.L.C.	Koch Industries, Inc.	3.08%	9
	total	100.00%	<b>3428</b>

**HHI**

\* Joint Pipeline Office & TAPS: <http://www/jpo.doi.gov/TAPS/TAPS.htm>

**II. PRODUCTION: North Slope of Alaska Producing Oil Fields**

<u>TAPS Owner Affiliates</u>	<u>Oil Production 2010*</u> (barrels per year)	<u>Market Share</u>	<u>Market Share Squared</u>
ConocoPhillips	89,533,596	40.67%	1635
BP Exploration	68,883,478	31.29%	979
ExxonMobil	48,565,561	22.06%	487
Unocal/Chevron	4,125,456	1.87%	3
Koch Industries, Inc.	0	0.00%	0
<b>TAPS Non Owners</b>			
Anadarko Petroleum	5,348,082	2.43%	6
Pioneer	2,534,316	1.15%	1
ENI Petroleum US	1,086,135	0.49%	0
Kerr-McGee	58,420	0.03%	0
NANA Regional Corp	18,041	0.01%	0
Doyon Ltd.	6,022	0.00%	0
P Hunt LLC	1,258	0.00%	0
<b>TOTAL</b>	<b>totals</b>	<b>100.00%</b>	<b>3112</b>

**HHI**

\* December 2009 - November 2010; Source: Table 2

**III. REFINING**

<u>U. S. Refining Capacity*</u> (barrels per day)
ExxonMobil Corporation
ConocoPhillips Company
BP PLC
Chevron Corporation
Koch Industries, Inc.
1,857,740
1,787,000
1,344,860
1,019,771
790,078

\* EIA Refinery Capacity Report 2010, Table 5



**TABLE 2**  
**NORTH SLOPE of ALASKA PRODUCING OIL FIELDS**  
**(December 2009 - November 2010)**

<u>Field Name</u>	<u>Producing Company</u>	<u>Working Interest Ownership**</u> <u>by field</u>	<u>Market Share</u> <u>by field</u>
Badami	BP Exploration	34,823 subtotal	100%
Colville River	Conoco Phillips <i>Anadarko Petroleum *</i> <i>P Hunt LLC*</i>	18,960,122 5,348,082 1,258 subtotal	77.99% 22.00% 0% 100.00%
Duck Island	BP Exploration ExxonMobil Unocal <i>NANA Regional Corp *</i> ConocoPhillips <i>Doyon Ltd. *</i>	3,240,870 932,379 466,492 18,041 1,059 6,022 subtotal	69.47% 19.99% 10.00% 0% 0% 0% 100.00%
Kuparuk River	ConocoPhillips BP Exploration Unocal/Chevron ExxonMobil	23,925,256 16,967,594 2,157,181 520,809 subtotal	55.04% 39.03% 4.95% 0.98% 100.00%
Milne Point	BP Exploration <i>Kerr-McGee*</i>	9,697,534 58,420 subtotal	99.40% 0.60% 100.00%
Northstar	BP Exploration	4,835,487 subtotal	100.00%
Oooguruk	<i>ENI Petroleum US*</i> <i>Pioneer*</i>	1,086,135 2,534,316 subtotal	30.00% 70.00% 100.00%
Prudhoe Bay	ExxonMobil ConocoPhillips BP Exploration Chevron (Unocal)	47,112,373 46,647,159 34,107,170 1,501,783 subtotal	36.42% 36.06% 26.36% 1.16% 100.00%
<b>TAPS Owners Production</b>		<b>212,195,484</b>	<b>96.38%</b>
<b>* TAPS Non Owner</b>		<b>7,964,881</b> total	<b>3.62%</b> 220,160,365

\*\* barrels per year

Source: State of Alaska, Department of Natural Resources, Division of Oil and Gas Summary of Royalties, North Slope Oil Production, by Month

CURRICULUM VITAE

NAME : Barry E. Sullivan

HOME ADDRESS : 2548 Lavall Court  
Davidsonville, MD 21035

EDUCATION : Bachelor of Arts Degree in Economics  
University of Massachusetts at Boston  
Graduate Work at University of York, England

PRESENT POSITION : President  
Brown, Williams, Moorhead & Quinn, Inc.  
1155 15<sup>th</sup> Street N.W., Suite 400  
Washington, D.C. 20005

NATURE OF WORK PERFORMED WITH FIRM : Mr. Sullivan joined the firm in September 2005. He was elected President of BWMQ in April 2006. Since joining BWMQ, Mr. Sullivan has filed expert witness testimony in a number of natural gas and oil pipeline rate case proceedings (See Attachment B). Mr. Sullivan has over 31 years of experience in the natural gas pipeline, oil pipeline and electric utility industries. His areas of expertise include formal market power analysis and all facets of natural gas, and oil pipeline ratemaking.

PREVIOUS EMPLOYMENT : Mr. Sullivan was employed by the Federal Energy Regulatory Commission from March 1979 to September 2005. He retired as a Supervisor in the Technical Analysis Division of the Office of Administrative Litigation. Mr. Sullivan was a technical expert for the entire 26 years he was at the Commission and provided testimony in many formal proceedings. The areas of his expertise included: formal market power analysis, market based rates, cost allocation and rate design, oil pipeline regulation, electric utility regulation, depreciation, Mcf/mileage studies, refunctionalization studies, offshore regulation, negotiated rates, discount studies, and other regulatory issues. Mr. Sullivan has applied his expertise relating to natural gas pipeline, oil pipeline and electric utility issues in a wide range of formal proceedings at the Commission. He has developed many creative and innovative approaches to deal

**DEFENDANT**  
EX. MUN7- **0067**  
ADMITTED   
3AN-06-8446 CI (07-09)  
(Case Number)

with these and related issues in administrative proceedings at the Commission.

As a Supervisor in the Office of Administrative Litigation, Mr. Sullivan supervised, initiated, directed and coordinated the preparation and presentation of the Commission's technical Trial Staff's settlement and testimony position on all matters set for formal hearing in natural gas pipeline, oil pipeline and electric utility proceedings. These issues include formal market power analysis, market based rates, rate design; seasonal rates; distance based rates; separation of services (unbundling); discounting; capacity release; capacity assignments; interruptible transportation rates; storage rate design; refunctionalization studies; stranded costs; restructuring issues; incremental versus rolled-in rates; depreciation and negative salvage; cost of service and rate base issues; oil pipeline rates; tariffs and operational issues; and the resolution of contract disputes.

Mr. Sullivan has testified as an expert witness on market power and market based rates, cost classification, allocation and rate design, billing determinants, depreciation, and other rate related issues in numerous natural gas rate proceedings, oil pipeline proceedings and electric proceedings. He has been responsible for various presentations to FERC Commissioners on such topics as Offshore Gathering Policy, Negotiated Rates and Discounting, Enron and Manipulation of the Western Energy Markets in 2000-2001, and Section 5 rate case proceedings.

A list of the cases that Mr. Sullivan supervised while at the Commission is attached in Appendix B. A list of the cases in which Mr. Sullivan provided testimony and/or testified is also attached to Appendix B.

## Formal Proceedings Supervised by Mr. Sullivan

<b>Applicant Name</b>	<b>Docket Number</b>	<b>Role</b>	<b>Case Type</b>
AES OCEAN EXPRESS V FGT	RP04-249	Sponsor	Complaint Gas Quality on FGT
ALPINE TRANSPORTATION COMPANY	IS01-0033-000	Sponsor	Oil Pipeline Cost Based Rates
ANR PIPELINE COMPANY	CP00-0391-000	Sponsor	Gas Section 7 Certificate Proceeding
ANR PIPELINE COMPANY	RP02-0335-000	Sponsor	Gas Section 5 Cost Based Rates
ANR PIPELINE COMPANY	RP04-435-000	Sponsor	Complaint on Gas Quality Hydrocarbon Dew Point
ARCO PRODUCTS	OR96-2-000	Sponsor	Oil Pipeline Cost Based Rates
BIG WEST OIL CO v. ANSCHUTZ RANCH EAST	OR01-0003-002	Sponsor	Complaint Oil
BIG WEST OIL CO v. FRONTIER PIPELINE CO	OR01-0002-002	Sponsor	Complaint Oil
BOSTON EDISON COMPANY	EL02-0123-000	Sponsor	Complaint/Electric Transmission Rates, losses, Transmission Upgrades
BP TRANSPORTATION (ALASKA) INC	IS01-0504-000	Sponsor	Oil Pipeline Cost Based Rates
CANYON CREEK COMPRESSION COMPANY	RP02-0356-000	Sponsor	Gas Section 4 Cost Based Rates
CINERGY SERVICES INC.	FR01-0200-000	Sponsor	Electric Contractual Dispute
CITY OF DETROIT, MICHIGAN v. DETROIT EDI	EL00-0071-000	Sponsor	Electric Contractual Dispute
COLORADO INTERSTATE GAS COMPANY	RP01-0350-000	Sponsor	Gas Section 4 Cost Based Rates
CONOCO PIPE LINE COMPANY	IS01-0444-000	Sponsor	Oil Pipeline Cost Based Rates
CONOCO PIPE LINE COMPANY	IS01-0445-005	Sponsor	Oil Pipeline Cost Based Rates
EASTERN SHORE NATURAL GAS COMPANY	RP02-0034-000	Sponsor	Gas Section 4 Cost Based Rates
ENRON POWER MARKETING INC.	EL03-180 et al.	Sponsor	Western Market Show Cause Proceeding
ENRON AFFILIATED QP'S (INVESTIGATION OF)	EL03-0047-000	Sponsor	Complaint/Electric - Not Otherwise Categorized
ENTERGY OPERATING COMPANIES	ER99-3084-000	Team Leader	Electric Transmission Rate, Ancillary Services and/or Terms and Conditions
ENTERGY SERVICES, INC.	ER05-696	Sponsor	Electric Transmission Rate, Ancillary Services and/or Terms and Conditions
EQUITRANS	RP05-164	Sponsor	Gas Section 4 Cost Based Rates
EXPRESS PIPELINE LLC	IS02-0081-000	Sponsor	Oil Pipeline Cost Based Rates
EXXON-MOBILE PIPELINE COMPANY	IS00-0221-000	Sponsor	Oil Pipeline Cost Based Rates
FRENCH BROAD ELECTRIC MEMBERSHIP CORP V.	EL00-0076-000	Sponsor	Electric Contractual Dispute
HIGH ISLAND OFFSHORE SYSTEM	RP03-221	Sponsor	Gas Section 4 Cost Based Rates
KERN RIVER GAS TRANSMISSION	RP04-274	Sponsor	Gas Section 4 Cost Based Rates
KINDER MORGAN OPERATING L.P.	IS02-0230-000	Sponsor	Oil Pipeline Cost Based Rates
MIDAMERICA OIL PIPELINE	IS05-216	Sponsor	Oil Pipeline Cost Based Rates
MILFORD POWER COMPANY, LLC	ER05-163	Sponsor	Electric Cost Based Rates RMR
NEW ENGLAND POWER COMPANY	ER01-0745-000	Sponsor	Electric Interconnection of Transmission Facilities
NATURAL GAS PIPELINE COMPNAV	RP01-503-002	Sponsor	Complaint on Gas Quality Hydrocarbon Dew Point
NORTHERN NATURAL GAS COMPANY	RP01-0395-000	Member	Fuel Adjustment Rates
NORTHERN NATURAL GAS COMPANY	RP98-0203-000	Member	Gas Section 4 Cost Based Rates
NSTAR SERVICES CO v. NEPOOL	EL00-0062-010	Sponsor	Complaint/Electric Transmission Rates, losses, Transmission Upgrades

PG&E GAS TRANSMISSION, NW CORPORATION	RP99-0518-019	Sponsor	Gas Market Based Rates
PINE NEEDLE LNG COMPANY, L.L.C.	RP02-0407-000	Sponsor	Gas Section 4 Cost Based Rates
PIONEER PIPE LINE COMPANY	IS01-0108-000	Sponsor	Oil Pipeline Cost Based Rates
PLATTE PIPE LINE COMPANY v. EXPRESS PIPE	IS02-0384-000	Sponsor	Oil Pipeline Cost Based Rates
PORTLAND NATURAL GAS TRANSMISSION SYSTEM	RP02-0013-000	Sponsor	Gas Section 4 Cost Based Rates
PSEG POWER CONNECTICUT, LLC	ER05-231	Sponsor	Electric Cost Based Rates RMR
PUB. UTIL. Comm. (CPUC) v. EL PASO NAT.	RP00-0241-006	Subject Expert	Gas Market Based Rates
PUB. UTIL. COMM. (CPUC) v. EL PASO NAT.	RP00-0241-000	Subject Expert	Complaint/Gas or Oil - Not Otherwise Categorized
SFPP, L.P. (PHASE I - MARKET POWER)	OR98-0011-000	Team Leader	Complaint/Gas or Oil - Not Otherwise Categorized
SFPP, L.P. (PHASE II - COST-OF-SERVICE)	OR98-0011-001	Sponsor	Complaint/Gas or Oil - Not Otherwise Categorized
SHELL OFFSHORE INC v. TRANSCO ET AL	RP02-0099-000	Member	Complaint/Gas or Oil - Not Otherwise Categorized
SOUTHERN LNG INC	RP02-0129-000	Sponsor	Gas Section 4 Cost Based Rates
SOUTHERN NATURAL GAS COMPANY	RP99-0496-000	Team Leader	Gas Section 4 Cost Based Rates
SOUTHERN NATURAL GAS COMPANY	RP04-523	Sponsor	Gas Section 4 Cost Based Rates
SUFFOLK COUNTY ELECTRICAL AGENCY	TX96-0004-000	Sponsor	Electric Transmission Rate, Ancillary Services and/or Terms and Conditions
SUMMIT POWER NW LLC, v. PORTLAND GENERAL	RP01-0433-000	Sponsor	Complaint/Gas or Oil - Not Otherwise Categorized
TEXAS GAS TRANSMISSION CORPORATION	RP00-0260-000	Subject Expert	Gas Section 4 Cost Based Rates
TRAILBLAZER PIPELINE COMPANY	RP03-0162-000	Sponsor	Gas Section 4 Cost Based Rates
TRANSCONTINENTAL GAS PIPELINE CORPORATION	RP01-0245-000	Sponsor	Gas Section 4 Cost Based Rates
TRANSWESTERN PIPELINE COMPANY	RP97-0288-009	Sponsor and Witness	Gas Section 4 Cost Based Rates
VENICE GATHERING SYSTEM, L.L.C.	RP01-0196-000	Sponsor	Gas Section 4 Cost Based Rates
VIKING GAS TRANSMISSION COMPANY	RP02-0132-000	Sponsor	Gas Section 4 Cost Based Rates
WEST TEXAS LPG PIPELINE LIMITED PARTNERS	IS02-0331-000	Sponsor	Oil
WESTERN RESOURCES, INC	EC97-0056-000	Member	Merger Proceeding
WILLISTON BASIN INTERSTATE PIPELINE COMPANY	RP00-107	Sponsor	Gas Section 4 Cost Based Rates

Formal Proceedings in Which Barry E. Sullivan Testified:

Docket No. CP79-80, Trailblazer Pipeline Company;  
Docket No. RP80-121, United Gas Pipeline Company;  
Docket Nos. RP80-97, and RP81-54, Tennessee Gas Pipeline Company;  
Docket Nos. RP81-17 and RP81-57, Midwestern Gas Transmission Company;  
Docket No. CP80-17, Trans Anadarko Pipeline System;  
Docket No. RP82-46, South Georgia Natural Gas Company;  
Docket No. RP85-39, Wyoming Interstate Company, Ltd.;  
Docket No. RP85-60, Overthrust Pipeline Company;  
Docket No. RP84-94, Trailblazer Pipeline Company;  
Docket Nos. IS85-9 and OR85-1, Kuparuk Transportation Company;  
Docket No. CP85-437 et al., Mojave Pipeline Company;  
Docket No. RP88-197-000, Williston Basin Interstate Pipeline Company;  
Docket No. RP90-109-000, Pacific Gas Transmission Company;  
Docket No. RP90-8-000, Transcontinental Gas Pipe Line Corporation;  
Docket No. RP90-119-000, Texas Eastern Transmission Corporation;  
Docket No. RP85-39-009, Wyoming Interstate Company, Ltd;  
Docket No. RP93-55-000, Trailblazer Pipeline Company;  
Docket No. RP94-72-000, Iroquois Gas Transmission System;  
Docket No. RP95-112-000, Tennessee Gas Pipeline Company;  
Docket No. RP95-364-000, Williston Basin Interstate Pipeline Company;  
Docket No. RP95-362-000, Koch Gateway Pipeline Company;  
Docket No. RP91-203-062, Tennessee Gas Pipeline Company;  
Docket No. RP97-126-000, Iroquois Gas Transmission System;  
Docket No. RP97-373-000, Koch Gateway Pipeline Company;  
Docket No. RP98-203-000, Northern Natural Gas Company;  
Docket No. OR98-11-000, SFPP, L.P.;  
Docket No. RP97-288-009 through 016, Transwestern Pipeline Company;  
Docket No. RP02-99-000, Shell Offshore Inc., v Williams Field Services;  
Docket No. EI.02-114-000, Portland General Electric Company,  
Docket No. EI.03-154 and EI.03-180, Enron Power Marketing, Incorporated;  
Docket No. RP06-407, Gas Transmission Northwest;  
Docket No. IS05-82, Anadarko/Tesoro versus TAPS Carriers Proceeding;  
Docket No. RP08-306, Portland Natural Gas Transmission System;  
Docket No. OR07-21, Mobil Pipeline Company;  
Docket No. RP08-426, El Paso Natural Gas Company;  
Docket No. RP09-427, Southern Natural Gas Company;  
Docket No. RP10-729, Portland Natural Gas Transmission System;  
Docket No. RP10-1398, El Paso Natural Gas Company; and  
Docket No. RP 11-1435, Columbia Gulf Transmission Company