

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 8672

1031 SCOMM 28: JOINT GAS PIPELINE COMMITTEE. 1981-82

its profits in the state, forcing the company to discontinue its business there. Following the principle set forth in Alaska Fish Co. v. Smith, the Court upheld the Washington statute, saying,

If a contrary conclusion were reached in the present case, it could rest upon nothing more than the single premise that the amount of the tax is so excessive that it will bring about the destruction of appellant's business, a premise which, standing alone, this court heretofore has uniformly rejected as furnishing no juridical ground for striking down a taxing act.

Magnano, 292 U.S. at 47.

The principle of Alaska Fish Co. and Magnano was reaffirmed in City of Pittsburgh v. Alco Parking Corp., 417 U.S. 369 (1974). Alco complained that Pittsburgh's 20% tax on the gross receipts of private parking lots was destroying the profitability of those businesses. Nine of the fourteen private lots in the city were rendered unprofitable and the rest made only marginal profits as a result of the tax. Id., 417 U.S. at 372. The Supreme Court of Pennsylvania ruled that the tax was unreasonably high and violated the due process clause of the Fourteenth Amendment. Relying on Alaska Fish Co. and Magnano, the U.S. Supreme Court reversed saying,

The claim that a particular tax is so unreasonably high and unduly burdensome as to deny due process is both familiar and recurring, but the Court has consistently refused either to undertake the task of passing on the "reasonableness" of a tax that otherwise is within the power of Congress or of state legislative authorities, or to hold that a tax is unconstitutional because it renders a business unprofitable.

Id., 417 U.S. at 373.

Therefore, the taxpayers may not complain that the proposed reserves property tax violates the due process clause because it is oppressively high. The above cases demonstrate that the power to tax may well be exercised in such a way as to make a business entirely unprofitable without violating the due process clause. By comparison, the taxpayers cannot demonstrate that the proposed reserves property tax would drive them out of business. The oil industry in Alaska remains profitable despite payment of equivalent taxes under the Oil and Gas Corporate Income Tax. A due process challenge against the reserves property tax would be even less persuasive than the unsuccessful challenges in Alaska Fish Co., Magnano, and City of Pittsburgh.

d. Summary

The reserves property tax does not violate the due process clause of the Fourteenth Amendment on any of the other grounds that historically have been presented to the Supreme Court. The tax is not a special assessment and so is not held to any test of fair ratio between the benefit conferred on a taxpayer and the burden imposed. Carmichael v. Southern Coal & Coke Co., supra.

2. Excessive Assessment

The reserves property tax is to be assessed on the basis of the "full and true value" of the subject property interests. Sec. 43.58.021(a). This full and true value is

defined as the market price of the property's proven reserves, which the Department of Revenue shall determine after considering all factors affecting the value of the property, including the discounted present value of the expected future net income from the reserves. Sec. 43.58.051(b). If a taxpayer challenges the statutory discount rate, the bill provides that he bear the burden of showing that use of that discount rate would result in constructive fraud. Sec. 43.58.051(d). Each of these provisions is consistent with the United States Constitution and the Alaska Constitution and with the decisions of the respective Supreme Courts.

a. Property assessment and the
fourteenth amendment

There have been several cases decided by the U.S. Supreme Court in which the methods or the result of property assessment were challenged. Generally, the challenges are grounded in the Fourteenth Amendment, though it is not always clear whether the due process clause or the equal protection clause of that amendment is the basis of the Court's holding. In either case, the Court's formula for testing the constitutionality of property assessments has remained more or less consistent. As phrased by the Court in Chicago, Burlington & Quincy Ry. Co. v. Babcock, 204 U.S. 585, 596 (1907):

It is said that this valuation is absurd and due to misunderstanding of the table. But we have nothing to do with complaints of that nature, or with anything less than fraud, or a clear adoption of a fundamentally wrong principle.

So saying, the Court upheld Nebraska's method of assessing railroad property against a challenge founded on the Fourteenth Amendment. Nebraska's assessors had considered, among other things, the capitalization of the railroad's net earnings within the state.

In 1923, the Supreme Court considered a challenge to the assessment of a mine tailings dump. South Utah Mines & Smelters v. Beaver County, 262 U.S. 325 (1923). In that case the court found no constitutional fault with the statutory method of capitalizing the net income of a metal-liferous mine to estimate its present value:

The value of property bears a relation to the income which it affords. If it be property whose production is uniform and of indefinite duration the capitalization of the net income derived from it at the going rate of interest, in the absence of a more certain method, will furnish a reasonable measure of the value.

Id., 262 U.S. at 330. The Court said in dictum, however, that to use such a method on a tailings pile which, unlike an underground ore deposit, has no reserves hidden in the earth would result in "flagrant and palpable injustice" and would be of doubtful constitutionality. Id., 262 U.S. at 331. Presumably a flagrant and palpable injustice, is similar to "fraud or the clear adoption of a fundamentally wrong principle", the Fourteenth Amendment test in Chicago, Burlington & Quincy Ry. Co., though that case was not cited. South Utah Mines was decided on other grounds, that is by construing the Nebraska mine assessment statute such that it did not apply to the tailings pile. Id., 262 U.S. at 333.

The Utah legislature could constitutionally require that a fixed multiple of the net income of a mine be used to provide a "reasonable measure" of the property value, when the reserves were uncertain. Alaska proposes to use projected income figures to discount to present value oil reserves that are known to exist. This method too will produce a "reasonable measure" of the value of the reserves and is not "altogether fictitious" or a "flagrant and palpable injustice." South Utah Mines, 262 U.S. at 331.

In a second mineral valuation case, decided by the U.S. Supreme Court in 1931, petitioners claimed that the method of assessing their coal reserves violated the equal protection clause of the Fourteenth Amendment. Cumberland Coal Co. v. Board of Revision, 284 U.S. 23 (1931). The county assessors used a flat rate of \$260 per acre of coal land in assessing property values, notwithstanding the well-known fact that coal close to the river was worth much more and other reserves were worth less. The result was that some properties were assessed at 100% of the value of the coal reserves and others were assessed at as little as 25% of their actual value. Id., 284 U.S. at 30. The Court held that this "intentional, systematic undervaluation by state officials of taxable property of the same class" violated the equal protection clause of the Fourteenth Amendment. Id., 284 U.S. at 28 (emphasis added). The reserves property tax proposed by Alaska will be assessed only after consi-

deration of all factors which may be known by the Department to affect the taxable value of the property, thus avoiding the problem of intentional undervaluation which was found unconstitutional in Cumberland Coal Co..

While the Cumberland Court found intentional undervaluation of some (but not all) properties in a class to be a violation of the equal protection clause of the Fourteenth Amendment, the court in Great Northern Ry. v. Weeks, 297 U.S. 135 (1936) held that intentional or fraudulent over-assessment violates the due process clause of that same amendment. In Great Northern Ry. Co., the railroad company complained that North Dakota's method of assessment did not reflect the decline in property values that resulted from the Great Depression. The state's witness essentially admitted this, saying, "If all assessments had been reduced to conform to actual market value, the State and its subdivisions would have ceased to function, as the revenue would not even approximate necessary expenses." Id. 297 U.S. at 150.

Expanding on the importance of a finding of intent or fraud as part of the constitutional test, the Court said,

Courts decline to disturb assessments for taxation unless shown clearly to transgress reasonable limits. Overvaluation is not of itself sufficient to warrant injunction against any part of the taxes based on the challenged assessment; mere error of judgment is not enough; there must be something that in legal effect is the equivalent of inten-

tion or fraudulent purpose to overvalue the property and so to set at naught fundamental principles that safeguard the taxpayer's rights and property. Rowley v. Chicago & N.W. Ry., 293 U.S. 102, 109-111. The assessment is presumed to have been rightly made on the basis of actual value. Its validity must be tested upon consideration of the facts established by the evidence and of those of which judicial notice may be taken.

Id., 297 U.S. at 139. Because the assessors admittedly intended to overvalue the property, the Court found the evaluation was "grossly excessive" and in violation of the due process clause of the Fourteenth Amendment. Id., 297 U.S. at 152.

Great Northern Ry. Co. apparently is one of a very few cases in which the Supreme Court invoked "substantive due process" under the Fourteenth Amendment. See Southland Mall Inc. v. Garner, 455 F.2d 887, 890 n. 3 (6th Cir. 1972). Subsequent cases testing the constitutionality of assessment procedures rely on the equal protection test of Cumberland Coal Co., continuing to require the taxpayer to show intentional undervaluation of some but not all the taxed property in a single class. See Charleston Federal Savings & Loan Association v. Alderson, 324 U.S. 182 (1945); Southland Mall, Inc. v. Garner, 455 F.2d 887 (6th Cir. 1972) (both citing and applying the equal protection standard of Cumberland Coal Co.).

In summary, the Supreme Court tests the constitutionality of property assessments according to the following formula:

1. The Court will presume that the assessment has been correctly made on the basis of actual value (Great Northern Ry. Co.).

2. The aggrieved taxpayer bears the burden of proving either:

(a) that there has been a systematic undervaluation of other properties in the same class (equal protection problem of Cumberland Coal Co.); or

(b) that his property has been assessed at a value grossly in excess of its actual value (due process problem of Great Northern Ry. Co.), and

3. The taxpayer must prove that the problem in (2)(a) or (2)(b) above is not a mere overvaluation or error in judgment, caused by the choice of one assessment method over another, but rather was the result of intentional or fraudulent undervaluation or overvaluation or the clear adoption of a fundamentally wrong principle. (Chicago, B&O Ry. Co., Cumberland Coal Co., Great Northern Ry. Co., Charleston A'ssn., Southland Mall, Inc., supra and cases cited therein).

Adopting this constitutional standard, Alaska's reserves property tax contains a presumption that the statutory discount rate is appropriate. 43.58.051(d). The taxpayers may upset this presumption by proving, through "clear and convincing evidence that the use of the statutory discount rate would result in constructive fraud." Id.

b. State court review of
assessments in other states

At least three states have applied the U.S. Supreme Court's test or a very similar test in cases challenging the assessments of oil properties. In People v. Coen, 112 N.E.2d 119 (Ill. 1953), a landowner with a one-eighth royalty interest in the underlying oil reserves protested the assessed valuation of that interest. The assessor considered present production, the nature of the oil-bearing formation, and the life expectancy of the field. He did not actually visit the property in question. The Illinois Supreme Court upheld the assessment saying,

The law presumes that in fixing the value of property the taxing authorities have properly discharged their duties and that the tax is just. One objecting to the valuation has the burden of proving, by clear and convincing evidence, that an excessive valuation was made as the result of some improper, corrupt or illegal motive on the part of the assessing authorities, or that the valuation is so grossly excessive as to create a constructive fraud.

Id., 112 N.E. 2d at 121-22.

In Red Bluff Developers v. County of Tehama, 66 Cal. Rptr. 229 (Ct. App. 1968) plaintiff protested the county's valuation of his reserved rights to oil and gas beneath a residential subdivision, claiming that they had no known market value. It appeared that the county assessor had set a tax which represented his cost of paperwork; making the assessment that there was no known market value for the

mineral estate. The Court of Appeals upheld the assessor, quoting the test set out by the Supreme Court of California:

It is the rule applicable to assessors and to boards having assessing powers that it is presumed that the assessing officers have properly performed the duties entrusted to them and, consequently, that the assessments are both regularly and correctly made. (Utah Construction Co. v. Richardson, supra, 187 Cal. at p.654.)

. . .

Thus, before taxes can be set aside where they are claimed to be excessive, there must be evidence to show that the assessments were fraudulently or mistakenly made, or that an improper method of valuation was pursued. (Utah Construction Co. v. Richardson, supra, 187 Cal. at p.655; Miller & Lux v. Richardson, 182 Cal. 115, 128.)

Id., 66 Cal. Rptr. at 233.

Finally, in Mobil Pipeline v. Rohmiller, 522 P.2d 923 (Kan. 1974), plaintiff protested the assessed value of his oil pipeline, arguing that the assessor neglected to make certain deductions before capitalizing the operating income of the pipeline. The Court upheld the assessor's finding saying that it would not interfere with the assessor's ruling unless it were shown that the assessor had neglected the instructions of the legislature as to assessment methods or had been arbitrary and capricious, amounting to constructive fraud.

To avoid confusion with regard to the judicial standard of review to be applied, it may help to contrast the problems of a legislative classification which intentionally

taxes certain properties at different rates, with intentionally unequal assessment practices. The former is constitutional, the latter is not. As explained elsewhere in this report, a state legislature may classify taxpayers according to any system which has "a reasonable relation to some permitted end of governmental action. . . ." Heisler v. Thomas Colliery Co., 260 U.S. 245, 255 (1922). The Supreme Court has upheld classifications distinguishing between producers of anthracite coal and bituminous coal, between personal property owned by corporations and individuals, and between mining property and quarries, forests, and other properties (see section on Equal Protection for citations). There is no doubt that Alaska may constitutionally choose to impose a property tax on oil reserves and not on other properties. However, once the subject class is defined by legislation, the state assessors may not intentionally or fraudulently assess some members of the class at a higher percentage of true value than others. This is the teaching of Cumberland Coal Co. and the other cases cited in this section.

Thus, for example, the Pennsylvania legislature could have classified coal reserves adjacent to a river for higher taxation than coal some miles away, for the purpose of encouraging the development of the less accessible coal, or to prevent the water pollution problems caused by coal mining next to rivers. However, so long as the two coal deposits are categorized in the same class, the tax assessors may not

intentionally or fraudulently assess some properties at 100% of true value while assessing others at only 25% of true value.

c. Review of assessments
in Alaska

Article IX, § 3 of the Alaska Constitution states:

Standards for appraisal of all property
assessed by the State or its political sub-
divisions shall be prescribed by law.

Pursuant to this requirement, SSHB 200 prescribes that the subject property shall be assessed at its "full and true value" and lists certain factors to be included and others to be excluded by the assessor in estimating the true value.

As discussed in the Equal Protection section of this report, Alaska's Constitution, unlike certain other states, does not require that all property be taxed at the same rate. Alaska's choice of property tax and assessment methods is constrained only by the Fourteenth Amendment of the U.S. Constitution and the equal protection clause of Article I, § 1 of the Alaska Constitution.

In Twentieth Century Investment Co. v. City of Juneau, 359 P.2d 783 (Alaska 1961), the Supreme Court of Alaska interpreted the Fourteenth Amendment as it applies to tax laws and assessment procedures in Alaska. The Court adopted the language of the U.S. Supreme Court discussed earlier in this section. In response to the taxpayer's claim that his theater building was assessed by a different method than a similar theater nearby, the Court said:

The equal protection clause [of the Fourteenth Amendment] does not prohibit inequality in taxation which is not shown to be the result of an intentional or systematic undervaluation of some but not all of the taxed property in a single class.

Id. 359 P.2d at 785. The Court held that the theater owner had failed to show that the assessor adopted a different method of assessment with the purpose of either overvaluing plaintiff's theater or undervaluing his competitor's theater. The bare fact that the assessor used different reconstruction cost rates for the two theaters was not proof of intentional discrimination, because plaintiff failed to prove that there was no "conceivable basis that would sustain the different valuations of the two buildings." Id., 359 P.2d at 786.

The plaintiff also alleged that the assessed value of a certain portion of his theater so greatly exceeded the full and true value of that portion as to amount to a confiscation of his property, violating the due process clause of the Fourteenth Amendment. To this contention the Court replied:

The valuation and assessment of property for taxes does not contravene the due process clause of the Fourteenth Amendment unless it is plainly demonstrated that there is involved, not the exercise of the taxing power, but the exertion of a different and forbidden power, such as the confiscation of property. Such a demonstration is not made simply by showing overvaluation; there must be something which, in legal effect, is equivalent to an intention or fraudulent purpose to place an excessive valuation on property, and thus violate fundamental principles that safeguard the taxpayer's property rights.

Id., 359 P.2d at 787 (citing Great Northern Ry. Co. v. Weeks, supra). The Court held that the assessor was justified in not considering the functional obsolescence or the capitalized income of the theater because these procedures would have been burdensome and expensive, and that this was not arbitrary or fraudulent treatment of the taxpayer. Id., 359 P.2d at 788.

Finally as to the assessor's choice of an assessment method, the Court said,

The City was not bound by any particular formula, rule or method, either by statute or otherwise. Its choice of one recognized method of valuation over another was simply the exercise of a discretion committed to it by law. Whether or not it exercised a wise judgment is not our concern. This court has nothing to do with complaints of that nature. It will not substitute its judgment for the judgment of those upon whom the law confers the authority and duty to assess and levy taxes. This court is concerned with nothing less than fraud or the clear adoption of a fundamentally wrong principle of valuation. Neither has been shown here.

Id., 359 P.2d 788 (citing Great Northern Ry. Co. and Chicago, B&Q Ry. Co., supra).

In summary, the Alaska Supreme Court has followed the U.S. Supreme Court closely in testing the constitutionality of property tax assessments. Consistent with the Alaska Court's decision in Twentieth Century Investment Co. (repeated and applied in Hoblitt v. Greater Anchorage Area Borough, 473 P.2d. 630 (Alaska 1970)), the State may adopt any method of property valuation it chooses, so long as there is no fraud or clear adoption of a fundamentally wrong principle

of valuation.

The reserves property tax specifies a procedure for estimating the full and true value of oil reserves in the State of Alaska. The assessor is to consider several factors, including future net income discounted at a rate of ten percentage points above the inflation rate. In accordance with the Alaska Supreme Court's decisions in Twentieth Century Investment Co. and Hoblit, any taxpayer seeking to overturn the assessor's findings will bear the burden of proving intentional or fraudulent discrimination on the part of the assessor in either overvaluing the taxpayer's property or systematically undervaluing the property of others.

V. CONCLUSION

As a result of our analysis and the work of others, we have concluded that the backstop legislation, as embodied in SSHB 200, is a sound strategy and best available option for protecting Alaska's oil and gas revenues.

**PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED
AS A UNIT IN THE ORIGINAL DOCUMENT**

ALASKA
STATE LEGISLATURE
MEMORANDUM

To: Jt. Gas Pipeline Committee Members

Attached is a report prepared for the Committee which discusses the options available to the State for implementing the goals established in the Joint Statement on Oil Taxes issued by the Governor and the legislative leadership on March 18, 1981. The report, entitled, "Alaska Oil and Gas Income Taxation: A Review of the State's Options," was prepared under the direction of Anchorage attorney John Messenger.

ALASKA OIL AND GAS INCOME TAXATION
A Review of the State's Current Options

prepared for

The Alaska State Legislature
Joint Gas Pipeline Committee

By

PRESTON, THORGRIMSON, ELLIS & HOLMAN

John R. Messenger

GREGG ERICKSON AND ASSOCIATES

Gregg K. Erickson
Lawrence C. Eppenbach

April 15, 1981

CONTENTS

	<u>Page</u>
FORWARD	ii
PART I -- OVERVIEW	i
PART II -- BACKSTOP CRITERIA	7
PART III -- TAX TYPES	12
PART IV -- BACKSTOP MECHANISMS	20
PART V -- CONCLUSIONS AND RECOMMENDATIONS	28
APPENDIX A -- JOINT STATEMENT ON OIL TAXES	31
APPENDIX B -- A NOTE ON RESERVOIR VALUATION METHODOLOGY	33
APPENDIX C -- A NOTE ON DATA SOURCES	37
THE AUTHORS	37

LIST OF TABLES

	<u>Page</u>
TABLE I -- Estimated Chapter 21 Collections By Fiscal Years	1
TABLE II -- Oil Production Tax Estimates At Current Tax Rates	13
TABLE III -- Analysis of Oil Production Tax Rates . .	14
TABLE IV -- Needed Increases In Oil Production Tax Rate To Offset Chapter 21 Revenues By Years	14
TABLE V -- Reserves Tax Rates Required To Raise Chapter 21 Revenues	17
TABLE VI -- Prudhoe Bay Preliminary Field Valuation Results	18
TABLE VII -- Revenue Estimates For Recommended Options	30

FOREWARD

This study was prepared under a contract with the Legislative Affairs Agency of the Alaska State Legislature. The agreement directed us to

. . . review and report on the options available for implementing the goals established in the Joint Statement on Oil Taxes issued by the Governor, the President of the Senate, the Speaker of the House, the Finance Chairmen of their respective houses and other legislative leaders on March 18, 1981.

It was specified that our report should include

legal, economic and fiscal analysis of the various options identified . . . to enable an informed choice of options for further consideration. . . [and our] recommendations as to the identified options.

Although the time allowed to fulfill this assignment was extremely limited (13 days), we have prepared a reasonably comprehensive survey of the State's options. However, the analysis here is not sufficiently detailed to support any final decision on the form of a new oil tax structure, be it temporary or permanent. We do see this document, and the work by others now underway, as useful and perhaps crucial to narrowing the focus of efforts in the immediate future if it is decided to proceed.

The report which follows is the joint product of the three authors. The supporting revenue and economic studies were the responsibility of Mr. Eppenbach and Mr. Erickson. The necessary legal analysis was carried out by Mr. Messenger, who also served as project manager.

We wish to thank the many individuals who, often on very short notice, generously made themselves available to

answer our questions and who provided us with much useful data. Personnel of the Department of Revenue must lead this list--Commissioner Thomas Williams, Deputy Commissioner Joseph Donohue, Director of Petroleum Revenue Robert Johnson, Jerry Heier, Lou Nelson, and especially Charles Logsdon. Mark Wittow and Kevin McCarthy of the legislative staff also provided important information, as did Milt Barker of the Legislative Finance Division. The use of data processing facilities at the House Research Agency was crucial to producing this study within the specified time.

I

OVERVIEW

A major part of the revenues expected to accrue from Alaska's oil and gas resources have been put at risk by a lawsuit challenging A.S. 43.21, the State's oil and gas corporate income tax (hereinafter "Ch. 21"). If the litigation is finally resolved in late 1985, the State could--in the worst case--be required to return up to \$9 billion to the corporate taxpayers (see Table I).

TABLE I

ESTIMATED CH. 21 (PETROLEUM INCOME TAX)
COLLECTIONS BY FISCAL YEARS
(Millions of Dollars)

<u>Fiscal Year</u>	<u>Annual Collections</u>
1979	233 (actual)
1980	548 (actual)
1981	808
1982	1303
1983	1541
1984	1783
1985	<u>2141</u>
Total for period	8357

In a March 18, 1981 Joint Statement, the legislative leadership and the administration (see Appendix A) announced Alaska's position with respect to this risk: The current share of oil revenues between the producers, the federal government, and the State is fair; it should be preserved in

the future as a model of stability and restraint for other petroleum producing jurisdictions. These goals--and Alaska's established revenue share--will be seriously compromised if the plaintiffs win.

Although legal opinions differ on the State's chances of prevailing in the current lawsuit, no one has suggested that it is free from risk. The large sums involved make even a small victory by the litigants (or a small probability of a big victory) a matter of serious concern.

If the litigation result is a relatively small loss (say \$1 billion in 1985), it could be recouped over a few years with increased petroleum taxes. A loss of any larger magnitude would place the State in financial extremis. One option to deal with this problem is to await the outcome of the lawsuit before taking action. There are, however, real economic, legal and political restraints on recouping a substantial portion of lost Ch. 21 revenues under this option.

One way of implementing this option would be to attempt to collect the lost revenues prospectively. The State's oil and gas resources and the oil and gas tax base whether measured by gross production revenues, income streams, or reserves valuation, is depleting. The ability to offset this depletion by raising the tax rates has economic limits. This is especially true if one is attempting to cover lost revenues and also provide for the then current needs. In addition, there are real--albeit poorly defined--political and constitutional limits to the tax rates that would be

required to cover both past lost revenues and future needs. The legal challenge of Montana's 30 percent severance tax (now before the U.S. Supreme Court) and congressional proposals to limit state severance and income taxes are some examples.

Alternatively, in the event of an unfavorable decision, the State could attempt to make up the loss by making tax changes retroactively to 1978. A serious constitutional question would be raised by such a retroactive imposition. States have some latitude in imposing taxes retroactively, but not without limit. Taxes made retroactive to the beginning of a current tax year or applied to recent transactions have been upheld. Similarly, curative statutes which cure invalid tax proceedings or administrative action retroactively have been sanctioned. On the other hand, some other retroactive impositions such as gift and death tax changes have been struck down on the ground that the nature or amount of the tax could not reasonably have been anticipated at the time of the transaction which was later made taxable. Although not entirely clear, tax changes in 1985 of the magnitude needed to cover a loss of Ch. 21 revenues and the period of retroactivity (seven years to 1978) would at least carry a serious legal risk.

Since waiting out the law suit would still leave State revenues at risk, we believe that a decision to do nothing other than litigate the suit will not constitute, in the language of the Joint Statement, "a sound strategy for

protecting oil and gas revenues."

This does not mean that an aggressive effort to win the current litigation is unimportant. Indeed, we consider it an essential part of any plan for protecting the State's revenues. Even if the current oil and gas corporate tax, A.S. 43.21 were repealed this session and replaced by some other tax that raised as much revenue, the result would be to leave in excess of \$1 billion already collected by the State at risk.

This billion dollar "overhang" has important implications for the State's efforts to achieve the objectives outlined in the joint statement. Because of the overhang, any new tax designed to replace Ch. 21, or any attempt to create a "saftey net" tax to backstop Ch. 21 (which was enacted in 1978), must either be retroactive to 1978, or otherwise protect more money than the oil and gas corporate tax will collect in future. As we shall show later, this constraint limits the options available to the legislature.

Whether to replace Ch. 21 with a new permanent tax, or to simply protect its revenues with a backstop of some sort is a decision that turns on the degree and range of certainty required with respect to policy, fiscal and legal issues.

On the one hand, to fashion a workable backstop the legislature need mainly be concerned with fiscal effects as they unfold over a limited time span, between now and whenever the litigation is finally resolved, say 1985. Further, the basic criteria that a backstop must satisfy are rela-

tively simple. First, it must have sufficient fiscal horsepower to cover the exposed Ch. 21 revenues. Second, it must be legally (and politically, with respect to the federal government) secure.

Before adopting a permanent substitute for Ch. 21, we expect that the legislature will wish to give it a far more searching examination than would be necessary under the backstop approach. For example, the fiscal effects of a new permanent tax should be examined under a larger set of possible circumstances, and over a longer time frame. Its effects on future exploration and development, for example, would need to be forecast under a similarly wide range of alternative assumptions, as would its effects on differently situated oil and gas producers, and pipeline operators. Most of all, the legal and fiscal security of a replacement must be close to absolute, since a new tax is not the second and reinforcing line of defense that would be created by a backstop; it is a new first line of defense which must stand alone.

In all candor, we doubt that these conditions can be met in the time remaining in this session. Our experience with this type of legislation, going back to 1972, leads us to believe that consensus on the issues raised by a whole new permanent petroleum income tax will require substantial work to achieve. This was certainly the case in 1978, when Ch. 21 was enacted. Numerous concepts for revising the tax were introduced by different legislators and the administra-

tion over the three years preceeding enactment of Ch. 21. Two interim committees approached the task and arrived at very different policy recommendations. After a general consensus had been reached, it took six weeks of very intensive effort to embody the concept in an act that everyone could be reasonably confident would do what was expected of it.

Much of the work done over the 1975-1978 period is and would be relevant to recasting the tax now; but even so, the policy differences are likely to remain. For example, some will claim that two corporations with exactly the same Alaska assets, activities and profits will be taxed differently, and therefore inequitably under any apportionment formula. Others will argue that apportionment is the most appropriate way to tax a unitary business. Similarly, resolving legal questions and revenue projections with reasonable degrees of certainty would surely require much further analysis. Resolving issues of this sort, if they are resolvable, will take time.

II

BACKSTOP CRITERIA

A backstop is much more likely to be achievable within the six weeks or so remaining in this session, but even so, developing a backstop tax will not be a simple task. To serve its purpose a backstop measure must (1) have sufficient fiscal horsepower to cover the revenues at risk, and (2) be legally and politically secure. Some tax bases are probably not large enough to achieve both of these objectives in an absolute sense. As a result, a marginal increment of revenue security would need to be given up to achieve the highest possible legal security (or vice versa). For example, as we note below, any apportionment formula that raises as much revenue as Ch. 21 will almost certainly be challenged and will carry some legal risk.

These matters, and the question of tradeoffs, are addressed below in the context of specific taxes. However, in order to assess these, it is necessary to discuss the other secondary goals which the legislature will probably consider relevant. These are, in no particular order, the following:

Minimize Adverse Effects on the Current Lawsuit. For example, a backstop tax which made use of the three factor apportionment formula which the oil company plaintiffs are arguing for in their suit could be construed as giving them at least moral support in their assertions, and raise questions about the State's own confidence in that part of its

case. The same could be said about any backstop tax, but a specific use of the plaintiffs' favored approach could be especially difficult to explain.

Administrative Convenience. In the context of the large sums we are discussing here the extra costs of administering even the most difficult tax are not very significant. Moreover, the assertions made to previous legislatures by the petroleum industry that the 1975 reserves tax and the 1978 corporate tax proposal would create an "administrative nightmare" and "a huge revenue bureaucracy" have not been validated by actual experience with those taxes.

On the other hand, the fact that some taxes are easier to administer than others is not irrelevant. For example, the very simple reserves tax requires, in the assessment process, substantial technical skill and high levels of administrative integrity. The fact that the Alaska Department of Revenue managed this tax quite well for the two years it was in effect probably does not entirely mitigate the importance of administrative convenience.

Simplicity. By this we mean that the tax should be known and understandable. Taxes which the legislature has already dealt with in the past are to be preferred, other things being equal, to those that are relatively untried or complex in their workings. The severance tax, the reserves tax and the existing apportioned income tax in Ch. 20 all score high in this regard.

Overcollecting. It is important that Alaska not reach

beyond its stated goal of protecting its current share of petroleum revenues. This does not mean that a backstop tax or mechanism need collect or cover collections of exactly the same revenues as will be raised by Ch. 21, which in any event are uncertain. It does mean, however, that the collections should be comparable.

Minimize the Likelihood of Adverse Federal Reaction.

Much has been said about the risks of congressional reaction to Alaska's attempts at securing what it considers its fair share of resource revenues. Consuming states have shown increased willingness to use political and judicial tools to limit that share to what they consider fair. The suit against Montana's 30 percent coal severance tax is an example.* Additionally, there have been several congressional proposals which would limit state severance and income taxes.** Although none of these proposals have become law, they can not be dismissed. Action which Alaska might take could have an effect on such proposals.

Symmetry. The taxpayers affected by a backstop, and the tax burdens it currently or prospectively creates should correspond as nearly as possible with Ch. 21, in order that the backstop not disturb the policy judgments already made by the legislature.

* Commonwealth Edison Co. v. State, 615, P.2d. 847 (Mont. 1980).

** Just some of these proposals include S.1778 96th Cong. 1st Sess. (1979); H.R. 1983 97th Cong. 1st Sess. (1981); S.655 97th Cong. 1st Sess. (1981); H.R. 5076 96th Cong. 1st Sess. (1979); S.1688 96th Cong. 1st Sess. (1979).

Obviously, perfect symmetry in this sense is not possible without knowing each taxpayer's particular tax position. Although it might be desirable from a policy standpoint, achieving that perfect symmetry would carry some additional legal risks. For example, suppose A.S. 43.21 were found invalid, but through the adoption of a backstop mechanism each taxpayer was still required to pay exactly the same amount. An argument could be made that the legislature was simply enforcing an otherwise invalid tax under the guise of a new tax.

Certainty of Revenue Effects. Those of us who have had responsibility for forecasting revenues have an acute sense of how important this criterion is. On one level, certainty of revenue effect means you are much less likely to find yourself mercilessly criticized for missing the mark on your revenue estimate. Beyond that, certainty of revenue effect means that State fiscal planning can be made with more confidence.

No tax can be forecast with complete certainty. Oil and gas taxes are difficult because they are extremely sensitive to world oil prices and to production. Some oil and gas taxes, however, are much more difficult than others. A flat cents-per-barrel tax is easy since there is only one variable to worry about. A corporate income tax using the apportionment formula is more difficult to forecast, since it depends on the entire world wide tax position of each taxpayer which may change from year to year.

Although legislators themselves are not likely to make the actual estimates, they have the same problem. A backstop tax which turns out to have protected less revenue than expected could be difficult to explain to those who, rightly, could care less about the technical problems of forecasting.

Minimize Spillover Effects. Spillovers include all the effects of a tax that were not intended. With respect to the taxes under consideration here, they can range from increased gas rates in Anchorage if a gas severance tax were part of a backstop mechanism, to effects on future exploration and development. Some spillovers may be positive: Some have suggested that earlier construction of the Northwest Gas Pipeline could conceivably result from including a gas reserves tax in a backstop arrangement.

A full analysis of just those spillovers that we consider likely would take as much space as this entire study. Fortunately, most of these will probably not be very significant because the backstop tax will be temporary and the backstop mechanism can mitigate spillover effects to some extent. Where spillover effects may have political or especially significant economic repercussions, they have been identified in the discussion of the individual tax or backstop mechanism that could cause them.

III

TAX TYPES

In our analysis of the backstop approach, we have found it useful, at least initially, to separate the consideration of taxes, per se, from the mechanisms by which they would be made to protect the State's Ch. 21 revenues. For example, enacting a new tax and escrowing Ch. 21 revenues is one mechanism. Allowing Ch. 21 payments to be credited against the new tax is another. Either mechanism could be applied to any of the possible backstop taxes considered here.

A large set of possible taxes was considered in this survey, but all can be adequately described under three basic headings categorized by whether the tax base is (1) the gross revenues from the production stream of oil and gas, (2) the profits derived from that stream, or (3) the value of the property (including reserves) that makes the production possible.

The greater part of our analysis has been devoted to determining with as much certainty as possible the amount of what we have called fiscal horsepower inherent in each of these tax bases, as well as the political and legal constraints on Alaska's ability to achieve that horsepower.

These tradeoffs, horsepower against security, are discussed below in the context of the three specific tax types.

Production or Severance Taxes have several important advantages. They are generally easy to assess, and are a traditional means of raising revenue from the petroleum

industry. Most importantly in this context, a production tax has an inherently large potential for fiscal horsepower, as shown in Table II:

TABLE II
OIL PRODUCTION TAX ESTIMATES
AT CURRENT TAX RATES
(Millions of Dollars)

<u>Fiscal Year</u>	<u>North Slope Production</u>	<u>Cook Inlet</u>	<u>Total</u>
1981	1137	22	1159
1982	1592	36	1628
1983	1956	33	1989
1984	2281	32	2313
1985	2533	25	2558

A change in the nominal rate under the existing severance tax from 12.25 percent to about 22 percent would raise sufficient revenue to cover Ch. 21 revenues.

The current severance tax formula allows for a tax rate modification based roughly on the marginal costs of production (see Table III). If this were eliminated, leaving a flat percentage of value severance tax, the required percentage of value would be between 20 and 18 percent, falling to the lower level in the last year of the backstop period (see Table IV). The fact that the power of a flat rate severance tax (no economic limit factor) grows over the backstop period is an important characteristic that could make it very useful in combination with a property tax on reserves, which shows the opposite tendency.

TABLE III

ANALYSIS OF OIL PRODUCTION TAX RATES

<u>Fiscal Year</u>	<u>Nominal Tax Rate</u>	<u>North Slope</u>		<u>Cook Inlet</u>	
		<u>Estimated Effective Rates</u>	<u>Indicated Economic Limit Factor</u>	<u>Estimated Effective Rates</u>	<u>Indicated Economic Limit Factor</u>
1981	12.25%	11.74%	.96	4.75%	.39
1982	12.25	10.79	.88	4.13	.34
1983	12.25	10.57	.86	3.98	.32
1984	12.25	10.46	.85	3.81	.31
1985	12.25	10.13	.83	2.89	.24

Note: The economic limit factor reduces the tax variably to take account of differing costs. See A.S. 43.55.

TABLE IV

NEEDED INCREASES IN OIL PRODUCTION TAX RATE
TO OFFSET CH. 21 REVENUES
BY YEARS
(Dollar Figures in Millions)

<u>Fiscal Year</u>	<u>Est. Ch.21 Revenues</u>	<u>Total Oil Production Tax Revenues</u>	<u>Required Nominal Rate With E.L.F.</u>	<u>Required Effective Rate</u>
1982	1303	1627	22.05%	19.73%
1983	1541	1989	21.68	19.07
1984	1783	2313	21.68	18.58
1985	2141	2558	22.54	18.10

The principal problems with using the severance tax as a stand alone backstop are the potential political and legal liabilities associated with rates this high, and the potential spillover effects, mainly related to what has been termed the premature shutdown effect. A severance tax of 19 percent (effective rate) combined with a 12.5 percent royalty would mean that any production not earning over 68.5 percent of its cost would be shut down. These difficulties are much less significant at the lower rates possible if the severance tax were used in combination with another tax.

There are several variations on the severance tax which we have also considered. One of these, a state windfall profits tax modeled on the federal tax of the same name, would tax, say, 15 percent of the value of each barrel that exceeds a base price, which escalates with inflation. If the price of oil and the general price level were frozen at today's levels, a state windfall tax of 15 percent would be identical to a flat rate severance of about 6 percent.

The difficulty with a state windfall tax would come if oil prices don't rise as fast as general inflation. The high leverage of the tax would mean a rapid fall in tax revenues. In any event, certainty of effect is clearly a problem with the tax.

A State windfall profits tax might be considered by a court or Congress as simply a severance tax increase, and therefore might carry the same legal and political risks as a high severance tax rate. Additionally, it should be de-

terminated whether an argument might be raised that the states are preempted by Congress from enacting a windfall profits tax.

Income Tax. The use of a new income tax to backstop Ch. 21 would probably require a return to some sort of apportionment formula. If that formula were the three factor one contained in A.S. 43.20, which the plaintiffs assert is the only correct one to use, the result is an evident lack of fiscal horsepower. Some have suggested that a roughly accurate rule of thumb is that the traditional three factor formula would raise about one seventh the revenues of Ch. 21.

The collections of any apportioned income tax depend on factors beyond the borders of Alaska, and would vary widely among producers who have very similar holdings in Alaska, depending on the vicissitudes of their business activities outside the State. This is why "rules of thumb" are so frequently used in estimating income tax revenues from apportionment taxes. Clearly, the apportionment taxes are not the best with respect to certainty of effect.

Using a non-traditional apportionment formula such as a one or two factor formula can increase the percentage of Ch. 21 revenue that might be raised, but in no case that we have seen proposed has the level exceeded 50 percent, assuming the same tax rate.

All of these non-traditional apportionment systems would probably be challenged by those who are now litigating

Ch. 21 on many of the same grounds and would carry some legal risk. Although an Iowa one factor formula was recently sustained by the U.S. Supreme Court the court was closely divided.* As a result, the state cannot take complete comfort in a non-traditional apportionment formula.

A property tax on reserves has almost enough fiscal horsepower by itself to cover Ch. 21 revenues. Table V shows the tax rate that would be required to protect current Ch. 21 revenues.

TABLE V

RESERVES TAX RATES REQUIRED
TO RAISE CH. 21 REVENUES

<u>Fiscal Year</u>	<u>Ch. 21 Revenues</u>	<u>Prudhoe Field Valuation Base Case (Billions)</u>	<u>Required Tax Rate</u>
1982	1303	48.6	2.68%
1983	1541	47.5	3.24
1984	1783	45.6	3.91
1985	2141	44.5	4.81

Base Case Assumptions:

1. Discount Rate = 19%
2. Federal Windfall Profits Tax continues in effect until December 31, 1991.
3. Other assumptions consistent with revenue estimates.
4. Prudhoe field only.

We feel confident that the higher tax rates would be legally sustained, but believe it appropriate to avoid going beyond

* Moorman Manufacturing Co. v. Bair, 437 U.S. 267 (1978).

the usual range of property tax rates in the United States.

In addition to a relatively high horsepower, the property tax on reserves has the advantage of being simple in concept. Alaska had such a tax from 1975 to 1977, with both revenue officials and the reserves owners knowledgeable about how the tax would work. A property tax on reserves does have some disadvantages. As Table V clearly shows, it tends to loose fiscal horsepower as the years pass, and as the field is depleted. A tax rate that covers current Ch. 21 revenues quite comfortably in FY 1982 would fall far short in subsequent years.

Another problem with a tax on reserves is that its yield is very sensitive to decisions made in the assessment process. For example, an increase in the discount rate from 18 percent to 19 percent will, as shown in Table VI, reduce the valuation and the yield by almost 10 percent.

PRUDHOE BAY
PRELIMINARY FIELD VALUATION RESULTS

Current Severance Tax Rates
Windfall Profits Tax Continues through CY 1993

Appraisal Date	Fiscal Year Payment Date	RESERVE VALUE IN BILLIONS		
		20% Discount Rate	19% Discount Rate	18% Discount Rate
1/1/81	1982	41.8	45.9	50.7
1/1/82	1983	40.2	44.2	48.9
1/1/83	1984	37.9	41.8	46.2
1/1/84	1985	36.1	39.8	44.2
1/1/94	1995	8.3	9.8	11.7

The discount rate which we have used in our base case calculations is 19 percent, one percentage point higher than Alaska's assessors used in 1975. This is reasonably conservative, and is based in part on conversations with reserves assessment experts in Texas.

IV

BACKSTOP MECHANISMS

A backstop mechanism is the means by which a tax or combination of taxes discussed above will prevent tax revenues from falling below current desired levels in the event that Ch. 21 is declared invalid either in whole or in part.

Arguably, one backstop mechanism is already in place--A.S. 43.20 (The general corporate income tax). The same act which imposed the new corporate income tax (Ch. 110 SLA 1978) on oil and gas production and pipeline transportation corporations also removed the imposition of A.S. 43.20 on those same corporations. If a court struck down Ch. 21 in its entirety, A.S. 43.20 could be revived. Once revived, it could backstop at least some of the revenue loss.

The State's general savings clause--A.S. 01.10.100--does not cover this type of situation. So there is no certainty that A.S. 43.20 would be revived. There is, however, legal support for the proposition that if a repealing act is found invalid, the repealing section also falls and the repealed section is revived. This is especially held true if the invalidated act was a substitution for the repealed act. Using this analogy A.S. 43.20 would be revived as to Ch. 21 taxpayers if the court struck down Ch. 21 in its entirety. Whether the revived A.S. 43.20 could then be retroactively imposed would depend upon whether the retroactive imposition was constitutionally permissible and

whether the assessments would be barred by the State's statute of limitations on assessments. As analyzed under the court tests previously discussed, a defensible argument could be made to support the retroactive imposition and assessment.

A more difficult situation is presented if a court only strikes down a portion of Ch. 21. A.S. 43.20 probably would be revived only if it could be easily incorporated with the remaining portion of Ch. 21 without overlap, and if a court were to find a clear legislative intent for such revival. It is probably unlikely that a court would fashion a new tax by piecing together portions of the two taxes.

In any event, if a court were to invalidate Ch. 21, a revived A.S. 43.20 would only backstop a small portion of the lost revenues.

In connection with the primary criteria already discussed, the backstop mechanism must itself withstand legal challenge, and operate to protect current expected revenues under all possible litigation outcomes. The backstop mechanisms should also satisfy, to the extent possible, the secondary criteria, such as avoiding spillover effects and overcollecting revenues.

We have analyzed a number of possible backstop mechanisms. The following three general approaches which show the most promise are:

1. A new tax or combination of taxes could be imposed and collected concurrently with the oil and gas corporate

income tax. The money collected from such tax or taxes would be available to fund government programs at a level established in the Joint Statement. The proceeds from the oil and gas corporate income tax could then be appropriated to an escrow account until the validity of the oil and gas corporate income tax is finally determined.

2. A new tax or combination of taxes could be triggered into effect by some future event such as a final court determination that Ch. 21 is invalid.

3. A new tax or combination of taxes could be imposed currently with a credit allowance between Ch. 21 and the new tax so that there would be no cumulative collection of both taxes.

Escrow Option. The adoption of a new tax to raise currently expected revenues and the escrowing of Ch. 21 revenues until the validity of A.S. 43.21 is determined is one back-stop mechanism. Other variations of this option could be established such as escrowing the new tax rather than A.S. 43.21 revenues. The former approach, however, is probably more defensible since the new tax would have a clearly permissible public purpose--collecting revenues to fund State public programs. Similarly, the State could legitimately escrow tax monies which were under court challenge.*

* In speaking of escrowing Ch. 21 revenues, we don't mean to imply that the legislature could mandate the escrow of revenues and bind future legislatures. This could be argued as a dedication of revenues prohibited by Art. IX, §7 of the Alaska Constitution. Successive legislatures could, however, appropriate the revenues collected under Ch. 21 to an escrow account.

Depending upon the tax base or bases chosen, this mechanism could fully backstop Ch. 21 revenues at risk. Likewise, the use of this mechanism is legally defensible assuming that the new tax is levied for the legitimate purpose of obtaining revenue to fund State public programs. The State clearly has the authority to impose taxes necessary to fund public programs and is not required to spend funds which it might have to refund as a result of a court challenge.

This option is not without drawbacks under the criteria which have been identified. First, although this mechanism could provide a complete backstop for revenues that might be lost, it also has the potential of collecting revenue beyond currently desired levels. Under this mechanism, if Ch. 21 were invalidated in total, the State would be able to refund Ch. 21 taxes and still be able to fund State programs without overcollecting. On the other hand, if Ch. 21 totally withstands challenge or is invalidated only in part, the State may have exceeded its desired level of revenue collection.

Second, because the State would be collecting both the new tax and Ch. 21 revenues with the potential of collecting beyond the desired revenue level the overall tax burden would be increased. This increased tax burden could create spillover effects such as altering taxpayer decision making and effecting future exploration and development.

Triggering Option. Another mechanism available to

backstop A.S. 43.21 revenues is the enactment of a tax or combination of taxes with an effective date contingent upon some future event. For example, a tax could be enacted which would be imposed retroactively upon a final court decision invaliding Ch. 21. Other variations of this option could be designed all involving a tax which is triggered into existence upon the happening of a future event.

Depending upon the tax base or bases chosen, this mechanism is capable of backstopping the total amount of Ch. 21 revenues which are at risk. With regard to the legality of this option, it should first be observed that it is not uncommon for legislation to be made effective upon the happening of some future event. The retroactive operation of such an option, however, does raise legal questions. As discussed previously, there are limits to the authority of the legislature to impose taxes retroactively. A court could determine that the enactment of the contingent tax was sufficient notice to taxpayers that a tax might be imposed, to be within permissible limits of retroactivity. This result, however, is not free from doubt.

Like the escrow mechanism, this option also has the potential for overcollecting revenues beyond the State's revenue goals. This stems from the practical problem of drawing the triggering mechanism so as to cover all the potential outcomes of the lawsuit. If a court were to strike down Ch. 21 in its entirety, this backstop mechanism could become effective to collect the level of revenues

needed by the State. If, on the other hand, only a portion of Ch. 21 revenues are lost from an adverse decision, a full collection under the new tax might be automatically triggered. Some tailoring of the mechanism might be made which could accomodate various levels of revenue loss but precision to meet every circumstance is probably not possible.

Credit Option. A third mechanism which could be used to backstop Ch. 21 revenues would be the imposition of a new tax or taxes which would be creditable against Ch. 21 or a new tax or taxes to which Ch. 21 tax payments could be credited.

This tax mechanism could be used with any tax base and assuming that tax base had sufficient horsepower is capable of backstopping the total amount of Ch. 21 revenues at risk.

Adopting a new tax which is creditable against other taxes or for which other taxes can be credited is a legally defensible taxing system. First of all, the new tax or taxes could be enacted for the purpose of collecting revenues necessary to fund public programs. Additionally, the legislature could legitimately decide to allow a tax credit for the purpose of avoiding a double taxation effect from the imposition of both an income tax and another tax which might be imposed with respect to the same property or activities. The use of credits to avoid double taxation effects is a commonly accepted taxing practice.

Unlike the overcollection potentials of the other mechanisms, the use of credit system comes the closest to col-

lecting the amount of revenues put at risk while at the same time not overcollecting beyond the revenue goals established by the legislature. For example, if Ch. 21 revenues were allowed as a credit against a new tax, and a subsequent court decision invalidated Ch. 21 in whole or in part, the refund of A.S. 43.21 revenues would be offset by an increase in the new tax by reason of the reduced credit.

Because the credit system minimizes the possibility of overcollecting, the overall tax burden should remain relatively the same. That in turn will serve to minimize spillover effects that might accompany an overall increase in tax burden.

By imposing the new tax immediately with a credit you also avoid the potential retroactivity problems associated with a triggering mechanism.

It is conceivable that taxpayers would cry foul to the use of any backstop mechanism since it would mean tax changes enacted during the pendency of their challenge of Ch. 21. Presumably these taxpayers would claim that the tax changes were made to punish those who challenged Ch. 21. If such were the case, it would certainly raise a serious legal question. However, as we have stated, a backstop can be supported by a clearly permissible public purpose--raising revenue necessary to fund public programs. The legislature having made a policy decision as to the level of needed public programs has authority to enact taxes necessary to raise revenues to support those programs. In making

these decisions the legislature certainly has the right to take into account the certainty of its revenues and the debts that might reduce its revenues. The legislature can adjust its tax structure to ensure sufficient revenues to meet its public programs.

CONCLUSIONS AND RECOMMENDATIONS

The contract under which this study was carried out specified that we should identify "options for further consideration." This must, if only by omission, identify those that do not deserve further consideration. We are uncomfortable with this latter implication, since we are unprepared ourselves to rule out the possibility that policy concerns of which we are unaware, or new facts might cause us to change our minds. Nevertheless, we are reasonably confident that the options identified below will, after further work, prove to be those most likely to meet the objectives of the Joint Statement, and the criteria discussed above.

1. The first issue is whether to seek a permanent replacement of Ch. 21 while the litigation challenging it is still pending, or to protect Ch. 21 revenues with a backstop, making revisions to Ch. 21 only in the event the State loses. We believe that the latter course is preferable because we have not identified any option which has the degree of revenue, legal and political security required to be a permanent replacement. As stated earlier, the fiscal and legal security of a replacement must be close to absolute, since a new tax is not the second and reinforcing line of defense that would be created by a backstop; it is a new first line of defense which must stand alone.

As stated succinctly by the Governor in his budget message:

"Motivation for [this] litigation centers more on fiscal principal than legal principal. . ."

Consequently, any attempt to collect the same level of revenue by other means will have the same result--a lawsuit.

A replacement for Ch. 21 might still be in order if it could be demonstrated that the replacement was more secure than the combination of Ch. 21 with a backstop. This demonstration has not been made. If it were to be made, legislators would need further to decide whether the policy issues opened up by consideration of a replacement (as opposed to a backstop) could be resolved in the time available.

2. The backstop tax that appears to best meet the goals of the Joint Statement is a combination of a new severance tax and a reserves tax or a reserves tax by itself. A 15 percent effective rate severance and a 2.5 percent reserves tax or a four percent reserves tax (as shown in Table VII), would have the necessary fiscal horsepower to cover current as well as past Ch. 21 revenues at risk. It also appears to minimize legal risks, potential congressional reaction, and spillover effects. We recommend that the fiscal and economic analysis of these options be refined, and that the proposals be put in more concrete form.

3. With respect to a backstop mechanism, we recommend that further attention be focused on the credit option. Our preliminary analysis indicates that this option will effectively backstop Ch. 21 revenues with the tax types recommended. It also appears to minimize the legal risk, over-

collection potential, and spillover effects.

If this option is chosen, analysis of variations on the credit mechanism and their effects would be appropriate.

TABLE VII

REVENUE ESTIMATES
FOR RECOMMENDED OPTIONS
(Millions of Dollars)

<u>Fiscal Year</u>	<u>Ch. 21 Revenue</u>	<u>4% Reserves Tax</u>	<u>15% Effective (16.67 Nominal) Plus 25 Mill Reserves Tax</u>
1982	1303	1944	1801
1983	1541	1900	1903
1984	1783	1824	1973
1985	<u>2141</u>	<u>1780</u>	<u>2033</u>
Total	6768	7448	7710

Notes: North Slope reserve property tax estimates v.
Cook Inlet valuations would increase these amounts.
North Slope valuation assumes 19% discount rate and
federal Windfall Profit Tax ending December, 1991.

APPENDIX A

JOINT STATEMENT ON OIL TAXES ISSUED BY THE STATE ADMINISTRATION AND THE LEGISLATIVE LEADERSHIP ON MARCH 18, 1981

Governor Jay Hammond and the leadership of both houses of the Legislature are united in an effort to arrive at the best course of action on pending oil and gas tax issues. Legal challenges by the oil industry have placed as much as one-third of the State's projected tax revenues in jeopardy.

Alaska's existing taxation and leasing policies currently provide significant incentives for petroleum exploration and development in the state. Hence, existing levels of taxation, stabilized since 1978, should remain stable at this time. On the other hand, any significant decreases in State oil and gas revenues appear both unwarranted and unsupported by the majority of Alaskans. The State's current level of taxation -- about one-sixth of the value of Prudhoe Bay production -- provides that both the oil companies and the federal government will receive greater shares of Alaska's wealth than will Alaskans. Accordingly, any greater percentage granted the former at the expense of the latter would be inequitable.

Both the Governor and the legislative leadership are determined that through their mutual efforts, a sound strategy for protecting oil and gas revenues will be found. All agree that any changes which would give large sums of money to the oil industry at the expense of the people of Alaska are unacceptable. The Prudhoe Bay bonanza will not last

forever. We must make use of those revenues now through investments such as hydroelectric power, renewable resource development, and permanent fund contributions which will provide for our future.

APPENDIX B

A NOTE ON RESEVOIR VALUATION METHODOLOGY

Reservoirs are generally appraised the same way as other income earning property; the possible future income from the reservoir is estimated and discounted back to the present at a rate that represents the return expectations of an hypothetical buyer. This was the method the State used to value the Prudhoe Bay field in 1975 and we used the same method in this study.

First, an appraiser needs a solid engineering estimate of the size, hydrocarbon content, and likely annual production rates of the field. For the Sadelrocheit Reservoir, we used the latest Alaska Oil and Gas Conservation Commission forecasts. For the Kuparuk and Lisburne fields, we relied on estimates provided by the Petroleum Revenue Division.

Next, we reviewed estimates of the future costs, both capital and operating, needed to purchase, build, install, and operate all of the equipment in the field. As the valuation method requires, we do not include past costs or financing expenses. Estimates of future costs were developed by H.K. VanPoolen Associates, Inc. in 1979, updated by us and the Legislative Finance Division to reflect recent changes and price increases.

A third major step is to forecast future prices for reservoir products and then net them back to the field. For these estimates, we relied heavily on the sophisticated

PETREV forecasting model operated by the Department of Revenue. In general, these estimates suggest little "real" price increase for oil in the world markets and an average rate of inflation of about 10 percent. Wellhead prices, however, are expected to increase rapidly as the TAPS line lowers its per-barrel tariffs. The current average wellhead price of about \$25.00 is expected to rise to about \$30.00 next year. For gas, given the uncertainty of its transportation and wellhead value, we assumed a flat \$1.00 per MCF real price and sales beginning in fiscal year 1988.

Finally, with these decisions in hand, we scheduled the annual cash flows of the field. Using a computer, we estimated all of the production values, costs and expenses, royalties, excise, property and production taxes, and wind-fall profits taxes. Since valuations are traditionally based on estimates of before tax income, we did not include a calculation of State or federal income taxes.

The appraisal value is the sum of these annual net cash flows to the producers discounted back to the present at a rate chosen to fairly represent the alternative uses of capital. The choice of the discount rate is critical as the valuation is greatly affected by it. See Table VI for the effect of various discount rates on our preliminary valuations.

We learned from a discussion with personnel of the Texas petroleum appraisal firm of Prichard & Abbott that

they are proposing a State-wide 18% discount rate this year for valuing reservoirs in Texas. They believe this is a fair rate even though short term lending rates have been higher at the beginning of the year.

We believe any discount rate in the range of 18 to 20 percent to be reasonable for Prudhoe Bay and have picked 19 percent for purposes of forecasting property tax revenue. Here are some of the factors we considered:

1. The State, with advice from Prichard & Abbott, used 18 percent to prepare the 1975 property tax valuation of Prudhoe Bay. Although inflation and interest rates have jumped since then, all of the startup risks of the field and pipeline are behind us now. These factors, thus, tend to cancel out.

2. Large fields typically receive lower rates than small fields because of the inherent diversification coming from multiple wells and collection facilities. The fact that once collected, Prudhoe oil must then flow in a single pipeline a great distance to tidewater effectively eliminates this diversification effect.

3. Alaska's North Slope is a generally hostile environment traditionally accorded higher than average rates to compensate for extraordinary risks.

We believe our valuation estimate of \$48.6 billion for the Prudhoe Bay field is sufficiently accurate for use in the context of comparing alternatives to Ch. 21. Errors in the range of ± 10 percent may still exist due to the diffi-

culties in getting all data on the same basis. Although the State's Producer Benefits Model (P.B.M.) was once on a calendar year basis, it has been converted along with its data to perform fiscal year studies. To establish a January 1 appraisal date, we elected not to reconstruct back to calendar year reporting as would have been theoretically required.

With respect to the other factors most affecting the field's value, such as oil prices, we used the assumptions contained in the P.B.M.

Of the remaining factors that affect the valuation, the most important is the federal windfall profits tax of 1980. Because of the significance of these tax payments, the available calculation of their likely size, provided by the Department of Revenue, was used and the results of the model adjusted accordingly. The federal windfall profits tax is so significant that even the uncertain termination date of the tax may vary the valuation of the field by \$7 billion in the first year.

APPENDIX C

A NOTE ON DATA SOURCES

The time available to undertake this analysis did not permit us to develop independent revenue and cost estimates. In part, we relied on published and unofficial working papers supplied by the Department of Revenue. After reviewing their assumptions and procedures, and working with their data continuously for the 10 days, we believe it the best available for this purpose.

Estimates contained in this study are, to the extent possible, consistent with the Department of Revenue's assumptions and forecasts contained in their report "Petroleum Production Revenue Forecast, Quarterly Report, March, 1981." The concerns expressed in that report about the fallibility of "single point" predictions certainly holds for our work as well. At best, these estimates are only a consistent guide for comparison purposes.

Occasionally, we used unpublished data supplied by the Department, but only on a basis consistent with the same March, 1981 assumptions. This was the case for Table I, the figures for which were derived from work sheets supplied by the Petroleum Revenue Division.

Data for Table II was derived from page 9 of the aforementioned March, 1981 quarterly report.

The biggest difficulty that we found with data was to understand and keep consistent the reporting timetables. To

the extent possible, we have attempted to present estimates on a fiscal year basis, when funds will actually accrue to the Treasury. This wasn't always easy. Ch. 21, for example, is on a calendar year basis but provides for quarterly prepayments three out of four of which are actually received in the following fiscal year. Another example is the production tax which taxes monthly oil and gas production. However, the physical production is accounted for by the companies more than a month later which may fall into a different calendar or fiscal year. As a result, estimating a tax receipt often required calculating "pseudo-variables" which create an artificial event that would have occurred if production, liability and payment were all simultaneous. Table III's estimates of effective production tax rates employ this technique to calculate effective rates using production and tax estimates contained in the March, 1981 report.

THE AUTHORS

John R. Messenger is an attorney practicing in Anchorage. From 1973 to 1979, he served successively as an Assistant Attorney General dealing with revenue matters, and as Deputy Commissioner of Revenue.

Gregg K. Erickson is an economic consultant in Juneau. He was Director of Research for the Alaska Legislature from 1975 to 1979. Before that he was on the staff of the U.S. Senate Energy Committee.

Lawrence C. Eppenbach is President of EPCO Design and formerly served as the State's Deputy Commissioner of Revenue. He currently resides in Newport Beach, California and Juneau.

**PLEASE NOTE: THE PRECEDING PAGES WERE TREATED
AS A UNIT IN THE ORIGINAL DOCUMENT.**

SCOMM

28:12

TO: John McMillan
President
Northwest Alaska Pipeline Company
Dear John:

We look forward to receiving your lease or permit application which will forward our joint goal of an early and successful completion of the Alaska Natural Gas Transportation System.

We know that you now understand the dilemma the application has posed for us. If the AGCF were in fact part of the Alaska Natural Gas Transportation System, it would be appropriate for the State to issue the lease under the pipeline right of way leasing statute. If it is not part of the system, a site lease would be the appropriate vehicle and that would be granted under different provisions of the Alaska statutes. We realize the answer to this question is inextricably related to resolution of the financing questions.

Also, our Washington counsel has informed us that an application by Northwest as operator under the D & E Board in the form proposed raises substantial questions whether it is ~~within~~ ^{beyond the} ~~authority~~ ^{authority} given the stated purpose and duration of the Design and Engineering Board. Mr. McKay has informed us of your intention to assign the lease, if awarded to Northwest, to a successor entity to avoid this problem. We appreciate that the application in its present form is a compromise vehicle

pending the resolution of questions of financing and inclusion of the plant within the system.

It must also be noted that, whichever way we proceed, the application must be processed under the existing procedures of the Alaska statutes and the regulations of ~~the Department of~~ ^{the Department of Natural} ~~Resources~~ ^{Resources}. Completing those procedures takes substantial time.

We propose that Northwest may proceed with its interest in a site lease for the AGCF. That site lease, under Alaska law, must be issued under the competitive procedures. We are particularly interested in your legal opinion that your application should fall under AS 38.05 rather than AS 38.35, which the State believes to be the determining law. However, given the issues that have been identified, the State feels that certain conditions subsequent or termination conditions should appropriately be included in the grant of any lease for the AGCF. Our present thinking is that the following conditions may be appropriate:

1. The lease would terminate absent the completion of a successful financing plan in 1981;
2. The lease would terminate if the project terminates;
3. The lease would terminate absent a determination that an appropriate share of conditioning costs are borne by

the transportation system. As we have indicated, the issue of conditioning cost responsibility is inextricably related to the successful financing of the Alaska Natural Gas Transportation System and, therefore, we expect that it will be resolved as part of the financing negotiations. At present, we think that an appropriate share would be the assumption of all of the conditioning costs by the transportation system, but we remain open to persuasion that some other sharing of the conditioning costs is proper and necessary to arrange a successful financing.

4. We reserve the right to impose other conditions, but the decision to increase any conditions, as well as their precise formulation, would occur during the procedure for issuing the competitive lease. One question that remains outstanding, for example, is the satisfaction of the State's concerns with respect to socio-economic costs created by both the pipeline and the conditioning plant.

We repeat our intention not to delay the project and we reiterate our offer to proceed with special land use permits to permit those activities that must be conducted this spring and summer. We also repeat our intention to abide by State procedures in granting a lease under the appropriate statute. Finally, I must emphasize that we are all aware of the state of progress with respect to ANGTS. It is for that

reason that we insist that the State not be singled out for causing a year's delay in the scheduled completion date of the system when we all know that there are many causes for such delay if it should occur.

Sincerely,

Jay S. Hammond
Governor
State of Alaska

**PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED
AS A UNIT IN THE ORIGINAL DOCUMENT**

9/5/80

COMMISSIONER'S FINDINGS

Under the authority invested through AS 38.05.020(b)(2), the Commissioner of Natural Resources may enter into agreements he considers necessary to carry out the purposes of the Public Lands chapter. In September , 1980, and after an extensive public process to be described hereinafter, the State of Alaska, acting through its Commissioner of Natural Resources, and Dow Chemical U.S.A. and/or Shell Chemical Company, together with "Participants" Alaska Interstate Company, Asahi-Dow, Ltd., Doyon, Ltd., E.I. duPont de Nemours, Earth Resources Company of Alaska, Mitsubishi Chemical Industries, Ltd. and Mitsubishi Corporation, and "Affiliate" Alaska Interior Resources Company will enter a Memorandum of Understanding and Intent. All the companies together, operating as the Dow-Shell Group (DSG), agreed to take certain actions toward the ultimate goal of establishing, if feasible, an in-state industry using natural gas liquids from Prudhoe Bay. A copy of the agreement is attached.

The State has demonstrated a long term interest in maintaining options and improving opportunities for future petrochemical manufacturing in Alaska. The State's Prudhoe Bay oil and gas leases require that one-eighth of all oil and gas produced under lease be granted to the State as royalty. As a matter of both law and policy, the State's foremost priority is

that its royalty hydrocarbons be processed inside the State and that the products be distributed first within the State before product or raw material export takes place. Prudhoe Bay gas production is scheduled to commence within the next decade, probably by 1986. Approximately 2 billion cubic feet per day of sales gas will be produced for the 2-to-25 year life of the field, with the State's royalty share averaging 250 million cubic feet per day. On this date, no disposition of the State's royalty gas (methane) or royalty gas liquids, including ethane, from the Prudhoe Bay field unit, remains in effect.

The State has long supported making natural gas liquids available as feedstock for petrochemical manufacturing in Alaska. The State's attorneys, for example, have attempted to keep petrochemical development options open during the ongoing Federal Energy Regulatory Commission (FERC) hearings on gas pipeline issues. The State has consistently argued, in addition, that piecemeal disposition of the issues affecting availability of natural gas liquids is counterproductive and that the pipeline pressure issue should have been considered simultaneously with the issues of CO₂ level and butane disposal.

On August 6, 1979, FERC issued its Order Approving Alaska Segment Design Specifications and Initial System Capacity.

In response to widespread concern about the implications of FERC's action, the Governor appointed a Working Group on Natural Gas Conditioning, with membership from the Administration, the Legislature and the municipalities. After a series of meetings in August and September at which the group identified issues surrounding instate use of royalty gas and royalty gas liquids, and development of an instate petrochemical industry, the Governor's Working Group resolved the following at its September 21 meeting: (1) the subcommittee's reports, as approved by the full Working Group, be transmitted to the Governor as the preliminary report; (2) the Governor be requested to determine the present day feasibility of an instate petrochemical industry, particularly by actively contacting and soliciting the interest of major petrochemical companies with regard to the feasibility of such development; and (3) the Governor be requested to preserve the State's options by requesting the FERC to re-open for hearing the project's size and pressure issue and, failing that, filing an appeal of the FERC size and pressure order in federal court no later than October 5, 1979. The Working Group's September 21 resolution was accompanied by another asking the Governor to continue the Working Group by allowing its members to serve as ex officio members of the Legislature's Joint Gas Pipeline Committee.

The Administration responded to the recommendations of the Governor's Working Group by authorizing the State's attorneys to file suit in U. S. District Court to overturn the FERC

size and pressure order issued August 6. In addition, in late October and early November, 1979, Administration representatives and members of the Legislature met with North Slope gas producers, petrochemical firms, Northwest's investment advisors, congressional members and federal agency representatives to discuss the gas pipeline project and potential petrochemical development.

FERC public hearings on the Draft Environmental Impact Statement for the Prudhoe Bay project gave Alaska citizens and officials the opportunity to comment publicly on September 4 and 5, 1979, on the petrochemical development issues, such as location of the gas conditioning plant and availability of natural gas liquids. At issue were the conclusions and much of the content of FERC's Draft Environmental Impact Statement released July 27, 1979.

At the November 21, 1979 meeting of the Legislature's Joint Gas Pipeline Committee, Attorney General Avrum Gross announced the State's intention to seek formal proposals for petrochemical development. The Committee, with the Governor's Working Group, endorsed a resolution concerning Alaska's securing gas liquids for use in an Alaska petrochemical industry, and also endorsed a proposed schedule for further administrative action for acquisition and delivery of gas liquids and development of a related industry. Copies are attached.

The four Alaska mayors also reiterated their position on potential petrochemical development and State participation in the gas pipeline project. First, they supported maximum instate use of gas liquids. Second, they believed acquisition of liquids is the only basis for state financing of the gas pipeline. And, third, they urged the State to take the lead in purchasing negotiations of the producers' liquids.

In response, the Administration continued its conversations with producers concerning the possibility of an option to purchase, or an outright purchase, of all or a part of the producers' processing rights to Prudhoe Bay gas. By June of 1980, the State had received formal replies from the three major Prudhoe Bay gas producers (Exxon, Atlantic Richfield, and Sohio-BP), which indicated their willingness, under certain conditions, to enter into good faith negotiations with a financially responsible major petrochemical concern sponsored by the State of Alaska (copies attached). Exxon Chemical Company later indicated its intention of completing a major feasibility study to determine the economics of a gas based petrochemical industry in Alaska.

In January, 1980, Governor Hammond reconstituted the working group as the Alaska Natural Gas Task Force. Lt. Governor Terry Miller was named to chair the Task Force whose membership included the Commissioners of Revenue, Natural Resources,

and Commerce, the Attorney General, four legislators and five mayors. At that time the State anticipated that the Phase I Letter of Intent for the Northwest Gas Pipeline Project would be signed by the Northwest partnership and the producers by February 1.

The role of the Task Force was to evaluate and monitor the developing plans for the Phase I design of the gas pipeline, particularly with respect to its impact on potential development of instate petrochemical facilities. Negotiations for the Phase I Letter of Intent, however, were slower than originally anticipated, with the parties signing the document on June 20, 1980. Accordingly, the role of the Governor's Task Force became focused on the State's solicitations for gas liquids development and selection of a company or companies to receive the State's backing for a feasibility study of petrochemical development.

On February 4, 1980, the Governor issued a "Solicitation of Interest" to more than seven hundred firms potentially interested in development projects using Prudhoe Bay gas liquids. Firms were to respond to the initial solicitation by February 15; the deadline was later extended to March 30 at the request of several companies.

Spring, 1980, activities included the approval by the Joint Gas Pipeline Committee of a proposed FY 81 budget for studies

and continued activities relating to the gas pipeline and petrochemical development. Administrative and legislative support was given to inclusion to the proposed funding in the State budget.

The Governor's Natural Gas Task Force continued its meetings, receiving updates on the Washington, D. C. gas pipeline project negotiations, firms' responses to the solicitation of interest, and proposed budget. In March, 1980, I issued a "Further Solicitation" to the firms that responded affirmatively to the initial solicitation.

In June, 1980, the State received several formal proposals in response to its "Solicitation" and "Further Solicitation." The firms and individual responding included Alaska Arctic Resources Group; Dow/Asahi-Dow, with Shell Petroleum; Earth Resources/Mitsubishi; Nissho-Iwai Group; Phillips Petroleum; Alaska Interior Resources; and Jerry McCutcheon. Exxon Chemical Company also indicated its intention of conducting its own independent examination of the feasibility of an Alaska petrochemical industry.

On July 18 and 19, 1980, the petrochemical firms made public presentations to the Governor's Task Force on their formal proposals. The public presentations were followed on August 7 by public hearings on the proposals in Fairbanks and Anchorage. Following the public hearings, a subcommittee of

the Task Force (Lt. Governor Terry Miller, Commissioner LeResche, and Mayor Carlson) entered into initial negotiations with the petrochemical groups. At an August 15, 1980 meeting of the Task Force, the group moved to continue negotiations with three of the proposers: Dow/Shell; Alaska Arctic Resources Group; and Phillips Petroleum. Further negotiations the week of August 18-25 led to Phillips Petroleum withdrawing from the selection process and negotiated "Letters of Understanding and Intent" drawn up between the State and the Dow/Shell Group, and the State and Alaska Arctic Resources. The Governor's Task Force met again on August 28 to review the proposed Letters of Intent and to again consider the basic proposals, and at that time, decided to recommend Dow/Shell to the Governor as the group the Task Force recommends to complete a feasibility study of an instate gas-based petrochemical industry.

PURPOSE AND FINDINGS

The purpose of the memorandum of understanding and intent is to facilitate the wise development of Alaska's royalty gas liquids by providing means and procedures calculated to promote private economic growth consistent with applicable environmental standards and public fiscal stability. Alaska statutes provide that, at an appropriate time, the State will take, if possible, its royalty gas liquids in kind rather than in value. Alaska statute further provides that the sale of royalty hydrocarbons be by competitive bid except when the Commissioner determines that the best interest of the State does not require it.

Certain unknowns make it impossible to prudently dispose of the State's Prudhoe Bay royalty gas and royalty gas liquids at this time. These unknowns include: the yet undetermined value of the gas liquids; the uncertain economic feasibility of a gas-based petrochemical industry in Alaska; the financial and operational impacts, if any, of gas-based petrochemical development on the gas pipeline project; the impacts, such as field fuel requirements and line routing requirements, of gas-based petrochemical development on the TAPS line; timing of gas sales and delivery through the gas pipeline; and ownership and operation/management of the Prudhoe Bay gas conditioning plant.

At the same time, however, that many unknowns make final disposition of the State's Prudhoe Bay royalty liquids unwise at this time, other factors make it vital that the State take decisive actions to maintain the possibility and maximizing the probability of future gas-based petrochemical development. The Phase I agreement between the producers and the Northwest Pipeline sponsors has provided the gas pipeline project with a significant step toward a speedier completion of pipeline engineering and design. A bid package for a contractor to prepare the Phase I design work has been prepared and distributed to bidders. The signing of the contract and initiation of design work for the gas pipeline, including the gas conditioning plant, is scheduled for October 1, 1980. Selection of a gas conditioning process is set for February 1, 1981, with bids prepared for major equipment purchases by June 1, 1981. In other words, the timeline for the natural gas pipeline project has been set; the decisions made within the next few months will have a determinative effect on the options of a gas-based petrochemical industry.

Industry representatives and others examining the potential for petrochemical development in Alaska have often stated that project economics may demand that the entire volume of Prudhoe Bay natural gas liquids be available for use in the project. Securing a sufficient quantity of natural gas

liquids, obtaining needed design changes on the gas conditioning plant to maximize liquids recovery, and obtaining design changes, if needed, on the gas pipeline itself will all require cooperative efforts by the producers, the Northwest partnership, the petrochemical firms and the State. Coordination of potential petrochemical development with gas pipeline and gas conditioning plant design, construction and operation is vital to resolving satisfactorily the issues of field fuel options, conditioning plant location, conditioning plant design, pipeline pressure and pipeline CO2 level. Linking the petrochemical feasibility studies with the on-going gas pipeline design work thus becomes a crucial factor in protecting the opportunities for instate petrochemical development.

A second major crucial factor is the ability of the petrochemical firms to negotiate with the producers to acquire producers' liquids, as there is common agreement that the State's royalty gas liquids alone are not sufficient feedstock for an economically sound petrochemical venture. The short critical timetable and the need for close cooperation and/or negotiations with the gas producers led the Task Force and myself to making a decision to recommend only one company to continue with a petrochemical feasibility study. The DSG has agreed to immediately negotiate contracts(s) with North Slope producers for the purchase of natural gas liquids. It

has also agreed to provide appropriate engineering expertise to the State during the conditioning plant and gas pipeline design process, and to the State's contractor for the liquids pipeline design/cost study. In addition, DSG has specifically committed to providing an analysis of the Selexsol gas conditioning process and the Sulfinol gas conditioning process during conditioning process during conditioning plant design.

Another factor in the decision to select only one company rather than to continue working with two or more companies was the position taken by the firms. The Alaska Arctic Resources Group stated that it would not be willing to continue its work in this area if more than one company were selected; the DSG maintained that it would continue, but on a reduced basis, its efforts at examining instate petrochemical feasibility, were more than are group chosen. The selection of only one group to continue with a petrochemical feasibility study, however, does not bind the State in any way to ultimately negotiate a royalty liquids sales agreement with that group. As is explicitly stated in the Memorandum of Understanding and Intent, the State reserves the right to determine after the submittal of the feasibility study if the DSG project is in the State's best interest and if the State's royalty gas liquids should be sold to DSG. The Memorandum also cites provisions which would be included in any sales agreement

for the State's royalty gas liquids, including pricing and instate use provisions. The memorandum also emphasizes that the State reserves the right to act in its best interests, require due diligence from DSG and prohibit DSG from assigning the memorandum without first obtaining the written consent of the State.

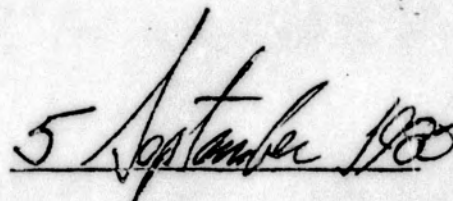
In making a final determination as to whether to negotiate a royalty gas liquids sales agreement between the State and DSG, I must consider the criteria cited in AS 38.06.070: the basic economic feasibility of the project; the revenue needs and projected fiscal condition of the State; the existence and extent of present and projected local and regional needs for gas products and by-products; the desirability of localized capital investment; increased payroll, secondary development and other possible effects of the sale, exchange or other disposition of royalty gas liquids; the projected social impacts; the projected additional costs and responsibilities which could be imposed upon the State and affected political subdivisions by the project; the projected positive and negative environmental effects; the projected effects of the project upon existing private commercial enterprise and patterns of investments; and the potential processing and sale of products instate. This consideration cannot be competently made without facts that will become available during the next 12-18 months, as a result of the feasibility

study, state studies, and work done by and decisions made by the Design and Engineering (Phase I) Board, the pipeline partnership, and the producers.

A large, stylized handwritten signature in dark ink, appearing to read 'Robert E. LeResche', written over a horizontal line.

Robert E. LeResche

Commissioner

A handwritten date in dark ink, '5 September 1980', written over a horizontal line.

Date

MEMORANDUM OF UNDERSTANDING AND INTENT

re: Dow-Shell
Retention
Feasibility Study
9/10/80

The State of Alaska (referred to in this memorandum as "State"), acting through its Commissioner of Natural Resources, pursuant to AS 38.05.020(a)(2), and Dow Chemical U.S.A. and/or Shell Chemical Company (a division of Shell Oil Company) as Sponsors ("Sponsors") and Alaska Interstate Company, Asahi-Dow, Ltd., Doyon, Ltd., E. I. duPont de Nemours, Earth Resources Company of Alaska, Mitsubishi Chemical Industries, Ltd. and Mitsubishi Corporation as Participants ("Participants"), and Alaska Interior Resources Company, Inc. as an Affiliate ("Affiliate"), all companies together operating as the Dow-Shell Group ("Dow-Shell Group"), agree to take certain actions toward the ultimate goal of establishing, if feasible, an in-state industry utilizing natural gas liquids from Prudhoe Bay. Nothing in this memorandum should be construed to require the Dow-Shell Group to establish such an industry or the State to sell royalty gas liquids to the Dow-Shell Group. Each party is required to take only the actions enumerated in this memorandum.

DOW-SHELL GROUP

1. Parties.

The State and the Dow-Shell Group understand that while the Participants and Affiliate may undertake certain responsi-

bilities pursuant to the terms of this memorandum, the full and complete responsibility for performance hereunder shall be undertaken by the Sponsors. Further, solely for the assistance of clarifying the anticipated responsibility roles of the companies comprising the Dow-Shell Group, the following is an identification of the roles of each company in the Dow-Shell Group.

2. Sponsors.

Dow Chemical U.S.A. and Shell Chemical Company are joint sponsors of and have overall responsibility for the feasibility study phase hereinafter described, including insuring that the study is completely integrated and every study responsibility is covered. For administrative and communications purposes, Dow is considered the project "leader" throughout the feasibility study. Dow and/or Shell will be the parties who would ultimately enter into an agreement with the State and Producers to purchase natural gas liquids. Dow and/or Shell would own and operate ethylene and derivatives plants in Alaska.

3. Participants.

The following companies will participate in the feasibility Study with a view to assuming the responsibilities outlined below: