

Statement of API Chairman J. Larry Nichols on behalf of the American Petroleum Institute at the House Natural Resources Committee Hearing on Offshore Development

February 25, 2009

I am J. Larry Nichols, Chairman and Chief Executive Officer of Devon Energy Corporation and Chairman of the American Petroleum Institute.

Devon Energy is the largest U.S. “independent” or natural gas and oil exploration-and-production company. That means that our sole focus is on finding and producing these energy sources – not refining and marketing. Most recently, our search for hydrocarbons has extended to the deepest offshore waters.

API represents nearly 400 companies involved in all aspects of the U.S. natural gas and oil industry, including exploration and production, refining, marketing and transportation, as well as the service companies that support the industry. We welcome this opportunity to present the industry’s views on the role of offshore natural gas and oil development in meeting the nation’s economic and energy needs.

In addition to API, this statement is supported by the American Exploration & Production Council, Independent Petroleum Association of America, International Association of Drilling Contractors, National Ocean Industries Association, Petroleum Equipment Suppliers Association, and the US Oil & Gas Association.

I. Introduction

Developing the untapped resources of natural gas and oil off our coasts can help put our nation on the road to economic recovery, providing jobs, higher incomes, economic growth, greater government revenues and global competitiveness. The economic downturn has significantly reduced energy demand in recent months, and some companies have reduced drilling accordingly. However, when our nation recovers from this crisis, we need to be prepared to meet its increased demand for energy.

The Outer Continental Shelf (OCS) has a central role to play in meeting our economic and energy needs. The OCS contains vast, untapped resources of natural gas and oil that can keep our economy strong and provide jobs, higher incomes, economic growth, and global competitiveness. The U.S. natural gas and oil industry’s advanced technology has enabled it to find and develop natural gas and oil in remote, previously inaccessible offshore areas in an efficient and environmentally safe way.

Our approach to offshore natural gas and oil development -- and to all domestic energy development -- must be based on the economic and energy realities facing our nation. Every respected energy study on future demand comes to the same conclusion about the next several decades: we need all the energy we can produce in an environmentally responsible manner. U.S. energy policy needs to encourage development of all domestic energy sources: natural gas, oil, and alternatives like solar, wind and geothermal. We cannot afford to focus on just one energy source, to the exclusions of others. Nor can we depend upon sources that are neither fully developed nor ready to compete in the energy marketplace.

The Energy Information Administration (EIA) estimates that total U.S. energy consumption will grow by 11 percent between 2007 and 2030. Although the share of non-fossil fuels is growing rapidly, natural gas and oil will continue to play leading roles through 2030. EIA estimates that natural gas and oil will continue to meet over half of U.S. energy consumption in 2030. Such demand will be there even with any new climate policy -- and in the case of clean-burning natural gas, demand may even be much greater than projected. Natural gas is a major component in efforts to address climate change. Demand for natural gas in recent years has been driven by its clean-burning nature, making it an ideal means of reducing greenhouse gas emissions. It is one of the few lower-emission power generation sources available.

EIA also estimates that just 6 percent of the nation's energy needs were supplied by renewables -- including ethanol, hydropower, and biomass -- in 2007, with their share expected to grow rapidly. Despite their rapid growth and because they are starting from such a small base, EIA estimates that renewables will supply only about 10 percent of the nation's energy needs by 2030.

Much of the domestic energy we need can be found offshore. All areas of the Outer Continental Shelf (OCS) should be available for leasing and development of natural gas and oil resources. We are delighted that moratoria have been lifted from most of our coasts and hope there will be similar action in the Eastern Gulf of Mexico.

In those areas now technically open, we urge expeditious -- not further delayed -- consideration of the Minerals Management Service's (MMS) Five-Year Leasing Program so that opportunities can be anticipated by companies like ours. That will encourage private investment in the geosciences that companies and the MMS needs in order to better estimate the extent of our offshore resources in previous moratoria areas.

Our nation is at a historic turning point for our country and its energy needs. We have a rare opportunity to significantly change our direction on energy and adopt policies that will help put America on the road to economic recovery. Record high gasoline prices in 2008 focused public attention on energy in a way not seen since the 1970s. Energy was a major issue during the presidential campaign. Public attitudes have changed dramatically. Polls have repeatedly shown strong support for increased domestic energy development.

For example, in a poll this month, 61 percent of Americans said they supported greater access to offshore oil and natural gas resources; only 26 percent of those polled were against greater access. Exit polls in last November's election showed that two-thirds of voters supported offshore drilling in areas where it was banned.

II. General Offshore Issues

Offshore Potential

Offshore natural gas and oil resources are potentially vast. The size of offshore resources may, in fact, be much larger than even the most robust estimates we have today. That's because the more we explore, the more we know.

One thing is clear: It is a fallacy to claim that most of our offshore resources are in areas already leased. While the only good data we have on discovered and estimated resources is, obviously, in areas in which robust exploration has been allowed, we do not know what is in the previous moratoria areas until we have active and ongoing exploration programs there so that we and the Minerals Management Service (MMS) can learn from the results.

However, according to the MMS, the previous moratoria areas in the Atlantic and Pacific OCS contain an estimated undiscovered technically recoverable 55.3 trillion cubic feet of natural gas and 14.3 billion barrels of oil. In addition, most of the Eastern Gulf of Mexico remains off-limits, preventing development of an estimated undiscovered technically recoverable 21.5 trillion cubic feet of natural gas and 3.7 billion barrels of oil. According to MMS, there are multiple known fields with discovered natural gas and oil resources in the Eastern Gulf. For example, the Destin Dome, a discovery located 25 miles from shore off Pensacola, Florida, could produce anywhere from 110 billion to 165 billion cubic feet of natural gas a year for the next 20 years, according to exploration plans filed with the agency.

Our experience in the one area on the lower 48 offshore where we have been allowed to drill consistently illustrates how these estimates could be extremely low. In the Gulf of Mexico, we have now produced three times the early resource estimates – and the estimates now are that we have five times more. (See attached graph, *The More We Explore, The More We Know*.)

In another example, we don't have to rely on estimates to show how much natural gas we are foregoing because of policy rather than geology. In the Eastern Gulf of Mexico, there are trillions of cubic feet of discovered gas now locked away by drilling bans still in effect. This gas is along a pipeline that could be carrying more supply for Florida consumers immediately if production had been allowed. Even more important is the fact that additional drilling could see even more supply within a very few years. (See attached map, *Jurassic Norphlet Trend Eastern Gulf of Mexico*.)

Federal lands, including offshore areas, hold enough undiscovered recoverable natural gas to heat 60 million households for 160 years. They also hold enough undiscovered recoverable oil to produce gasoline for 65 million cars for 60 years.

Moreover, a recent ICF International study commissioned by API shows that developing the offshore areas that had been subject to Congressional moratoria, as well as the resources in Alaska's Arctic National Wildlife Refuge and a small portion of currently unavailable federal lands in the Rockies, could increase U.S. crude oil production by as much as 2 million barrels per day in 2030, offsetting nearly a fifth of the nation's oil imports. Natural gas production could increase by 5.34 billion cubic feet per day, or the equivalent of 61 percent of the expected natural gas imports in 2030.

Congress should not re-impose the moratoria or place other obstacles to the development of offshore resources. It should also open the off-limits areas of the Eastern Gulf.

Economic Benefits of Offshore Development

The ICF International study underscores how offshore natural gas and oil development benefits the economy. The study found that development of natural gas and oil resources that have been kept off-limits by Congress for decades, both offshore and onshore, could create more than 160,000 new jobs in 2030. Those new jobs would be in addition to the approximately 6 million jobs the U.S. natural gas and oil industry already supports – 1.8 million people directly employed by the industry and more than 4 million jobs indirectly tied to the industry. Many of these jobs are the “green jobs” our society desires. Moreover, the average salary of exploration and production jobs is more than twice the national average.

Increased natural gas and oil development not only creates more jobs and provides more energy, it also generates significant government revenues. In fact, in November 2008, the Department of the Interior reported that it accrued a record \$23.4 billion from 2008 energy production – double the previous year's revenue.

The ICF study found that development of offshore and onshore areas that had been kept off-limits to development for decades could generate more than \$1.7 trillion in government revenues that would help support vital programs and reduce pressure on American taxpayers. Moreover, these revenues could help fund government energy research and development of alternative energy sources. In addition, these revenues are particularly needed by states and communities facing budget shortfalls. These governments are being forced to lay off teachers, reduce police protection, limit repair of roads and bridges, and cut back on other important programs.

The ICF study also estimated that development of all U.S. natural gas and oil resources on federal lands could produce more than \$4 trillion in revenues over the life of the resources.

Industry Technology

Advanced technology has revolutionized the exploration and development process for natural gas and oil, increasing the safety and efficiency of offshore operations and helping shape the offshore industry's outstanding offshore environmental record. There is a very good chance we will advance our knowledge of offshore areas and make new discoveries if we are allowed to employ highly sophisticated and leading-edge advances such as 3D and 4D seismic technology and subsea production systems. Today's tools did not exist 30 years ago when the industry was drilling wells in the Atlantic and Pacific.

3D seismic survey technology improves the industry's ability to locate potential natural gas and oil resources with greater accuracy. Seismic surveys send high-energy sound waves into the ground and reflect information on underground rock layers back to the surface. Since sound travels at different speeds as it passes through various types of rocks, computers can use the seismic data to create a 3-D map of what lies below the surface. This is especially helpful as engineers plan the most efficient way to produce resources from a reservoir. More precision in locating these resources facilitates field development and the location of drilling sites and production facilities. These steps can help to reduce a project's environmental footprint.

Geophysicists and engineers also use 4-D seismic technology, which adds the dimension of time to the survey process. By combining several 3-D seismic surveys taken as the field is producing over time and arranging them in a sequence, they can create images that show where gas or oil deposits may remain. By using 4-D models, engineers and geologists can gauge how many wells a reservoir might need and where to place them. The "virtual drilling" can help protect the environment by reducing the number of wells for exploration and production while maximizing the ultimate recovery of natural gas and oil from the field.

The search for resources deep below the ocean has spurred additional technological innovation, including the ability to produce and transport these resources using equipment installed on the ocean floor and, thus, not visible from shore. Subsea production systems include a series of gathering lines that connect the production from multiple wells into a single processing hub, allowing the production from the wells to be transported to a platform, where the natural gas, oil and produced water are separated for transport to shore through pipelines.

The equipment on the seafloor is maintained using robots, known as Remote Operating Vehicles (ROVs), which are tethered to a vessel. ROVs serve as eyes underwater for these operations, and are designed to connect to the subsea equipment. These systems are being deployed at depths of nearly 10,000 feet of water in the Gulf of Mexico, where deepwater development plays a significant role in current and future energy production.

Just as we had no clue only a decade or so ago that the Barnett Shale in Texas would become the most prolific onshore natural gas play in the nation, we don't know what we

don't know about much of the offshore that has been under moratoria until we begin applying our new technology.

What we can say with certainty is that we can "see" better beneath the seabed, design better wells, and more efficiently and safely produce oil and natural gas than ever before if given the chance.

Offshore Environmental Record

The U.S. natural gas and oil industry has an outstanding offshore environmental record. According to the Minerals Management Service, offshore leases produce about 1.4 million barrels of oil per day. MMS calculates that since 1980 less than 0.001 percent of the oil produced in federal waters offshore has been spilled.

The environmental and safety performance of offshore production facilities was severely tested when Hurricanes Katrina and Rita roared through the heart of the Gulf of Mexico in 2005. Some 3,000 offshore platforms were in the direct path of the hurricanes. Some experienced five to six hours of sustained winds of 170 miles per hour with gusts of 200 miles per hour. Production was shut-in and some platforms destroyed. However, platforms were evacuated and production restarted without any loss of life. No significant spills were reported from production activities, according to the Minerals Management Service and Coast Guard, and not even a small spill reached shore.

Advanced technology allows our companies to explore safely while protecting our oceans. Specialized equipment, such as blowout preventers and subsurface safety valves, safeguard ocean waters. Moreover, industry standards are designed to ensure that both the design of the platform and the equipment protect the ocean waters. These design standards were strengthened again following Hurricanes Katrina and Rita.

The industry's offshore operations are among the most heavily regulated endeavors in the United States. Companies operating in federal offshore waters must obtain 17 major permits and must follow 90 sets of federal regulations. Federal agencies, including MMS and the Coast Guard, perform numerous drills and inspections throughout the year to test company responses to appropriate situations. Between 2000 and 2007, the number of spill drills and exercises has increased from 669 to 1,584.

Other Countries Are Developing Their Domestic Resources

Other countries are working pro-actively to develop their domestic natural gas and oil resources. Instead of placing areas off-limits to natural gas and oil development, these countries are moving ahead with development and some are offering incentives to encourage projects. Recent examples include:

- Argentina: Oil companies plan to spend \$300 million in oil and natural gas exploration in 2009 under the terms of two incentives programs which offer tax discounts and higher prices on sales of new output of natural gas and oil.

- Indonesia: The state oil firm Pertamina plans to invest 19 trillion rupiah (\$1.74 billion) in 2009, against 17 trillion rupiah in 2008. Indonesia has been offering new exploration rights and financial incentives for oil fields in a bid to step a steady decline in production.
- Ireland: The government has sought to develop Ireland's energy sector by attracting oil exploration companies with financial incentives and a recent series of offshore licensing rounds.
- Pakistan: The Pakistan Economic Coordination Council approved a 2009 petroleum policy envisaging incentives for natural gas and oil exploration. The bidding process for new gas fields has been revised; the entire bidding process would now be completed in two to three months.
- United Kingdom: The government proposed tax changes and incentives to help boost the recovery of the UK's remaining natural gas and oil reserves and slow the decline in output. The proposals include a value allowance to encourage marginal field development and changes to reduce or eliminate taxes on the change of use of North Sea infrastructure.

III. API Views on Specific Offshore Issues

Five-Year Plan

We were very disappointed by Secretary of the Interior Salazar's decision to delay the OCS Five-Year plan process, which was designed to address the critical energy concerns facing our nation. The draft plan already received more than 152,000 comments – a record number -- from states, environmental groups, industry, labor groups and members of the public – with 87,000 or 57 percent of those comments supporting expanded and expeditious development. The Secretary's decision overlooks the fact that more than two-thirds of the American people in polls have supported tapping our vast domestic resources for the benefit of the nation.

Secretary Salazar's announcement means that development of U.S. offshore resources could be stalled, depriving the nation of tens of thousands of new jobs, billions of dollars in revenues to federal, state and local governments, and greater energy security. We share Secretary Salazar's view that the nation needs a comprehensive energy policy that includes developing alternative energy sources. However, we should also be moving as quickly as possible to develop more of our offshore natural gas and oil resources to benefit all Americans.

Orderly development of offshore natural gas and oil resources under a predictable Five-Year Leasing Program, as mandated by Congress in the Outer Continental Shelf Lands Act, provides an effective, efficient mechanism for balancing the national interest objectives of identifying and developing OCS oil and natural gas resources in a timely manner, while protecting valuable coastal and marine natural resources.

Reliable, predictable and orderly continuation of an area-wide leasing and development schedule for the OCS, which equitably shares benefits of development and minimal environmental risks among the various OCS regions, is necessary to ensure the continued investment needed to meet the nation's natural gas and oil needs. It is also important to avoid such misguided actions as underfunding the offices that prepare environmental studies, management plans and drilling plans.

State Involvement

API believes that all federal OCS acreage should be available for leasing. States currently participate through the OCS Lands Act, the Five-Year Plan process, the Coastal Zone Management Act, and the National Environmental Policy Act (NEPA) process in decisions involving leasing and natural gas and oil development. These laws provide states with a real hand in decision-making, particularly through the Coastal Zone Management Act, which allows a state to block offshore activities that are inconsistent with its coastal zone management plan. That block can be removed only by the federal government through an arduous appeals process, which can be followed by litigation if the state disagrees with the federal government's decision.

Revenue-sharing

API recognizes the legitimate stake that states have, both onshore and offshore, in receiving direct compensation from the federal minerals program. We support federal revenue-sharing with states that support leasing, exploration and development activities off their coasts and within their borders provided that current royalties, bonus bids and rentals are not affected; current regulatory schemes don't change; additional regulatory burdens are not placed on industry; and opportunities for development are not affected. We support efforts to improve the federal OCS revenue-sharing program provided it is established only for coastal states that allow development off their coast and encourages states to open offshore lands for development.

Buffer Zones

All areas of the OCS should be available without buffer zones, since these areas can be developed in an environmentally safe manner with a minimal impact on coastal communities. Placing arbitrary limits on offshore leasing close to the coastline would significantly limit offshore energy development. In the Gulf of Mexico, where offshore production is the most developed in the U.S., important finds have been made both near-shore and far-shore. In the Pacific, most undiscovered technically recoverable resources are thought to be close to shore. About 92 percent of the natural gas resources and 91 percent of the oil resources are within 50 miles. In the Atlantic, we don't know for sure. We've done some exploration, but a lot more needs to be done for us to determine where the richest pockets of natural gas and oil are located.

Advances in drilling and production technology have allowed the industry to develop fields close to existing infrastructure without the installation of additional platforms. Off

the coast of California, this has allowed the industry to use a single platform to access supplies from four miles away, resulting in additional production of 10,000 barrels a day.

“Idle Leases”

While natural gas and oil companies are seeking to find and produce natural gas and oil in new offshore areas, they are also making the maximum effort to develop the leases they already have. If a lease is not producing, critics who don’t understand the exploration and production process say it is “idle” when, much more often than not, it is being actively explored and developed.

The purchase of a lease is always a gamble. Exploration is an essential part of the energy business. There is nothing “idle” about it. When a natural gas and oil company purchases a lease, it believes the lease may yield enough natural gas and oil to benefit consumers and become economically viable to develop. But until a company actually completes the exploration process, it does not know whether or not the millions of dollars spent on the lease were actually worth it.

Typically, exploration of a lease involves extensive analyses of geological and geophysical data, environmental studies that can be equally detailed, and a variety of government permits before drilling can occur. If drilling leads to the discovery of natural gas or oil in sufficient quantities to justify development, additional geological study often is required for planning field development. Additional engineering and design work, environmental studies and detailed permits likewise will be needed before complex production facilities can be installed and operations begun.

If the company finds there is no natural gas or oil underneath a lease, the company hands the lease back to the government, incurs the loss of invested money and moves on to more promising leases. Those who call for so-called “use-it-or-lose-it” requirements fail to recognize that such requirements are already in effect, with leases that are no longer being explored returned to the government.

Use of Litigation and Bureaucratic Action to Block Offshore Development

Legal challenges and bureaucratic delays are common with both offshore and onshore federal projects, and the consequences are often multi-year delays in the production and delivery of significant natural gas and oil resources to U.S. consumers. Even where a project has not been delayed or canceled, companies must carefully consider whether to risk further investment if litigation has been initiated, but not yet decided, in opposition to their project. Leases within projects that have been obstructed or canceled due to litigation or bureaucratic delays are often wrongly characterized as “nonproducing” by opponents of offshore development.

Examples of litigation that has delayed offshore development include the following:

- The Ninth Circuit Court of Appeals recently ordered a second halt to Shell’s exploration of the Beaufort Sea off the northern coast of Alaska, due to

environmental groups' claims that the Minerals Management Service did not properly account for environmental impacts on the lease sales under the National Environmental Policy Act (NEPA). Even if Shell ultimately finds reserves capable of production, the litigation will have delayed that oil coming to market by two years. Shell's expenses to date are understood to be well over \$100 million – with no return on investment and no increased supply to consumers. This is despite the fact that the government prepared a detailed 1,500 page environmental impact statement on leases in the area.

- The Ninth Circuit Court of Appeals also used the Coastal Zone Management Act to stop development of oil leases when it allowed California's Coastal Commission to review and veto lease renewals for 35 offshore leases. Offshore development under those leases has been halted since 2001.
- The Destin Dome, located off Pensacola, Florida, was believed to be one of the largest natural gas fields in the U.S., with 2.6 trillion cubic feet of natural gas, according to the Department of Energy. After drilling exploratory wells, Chevron submitted a development plan to the state and the Interior Department for review in 1996. Two years later, Florida objected to the application and Chevron appealed to the Department of Commerce, which delayed making a decision through the terms of two Presidents and multiple Secretaries of Commerce. After waiting years for a Commerce decision, Chevron sued the federal government in 2000, 14 years after Chevron and its partners paid for the rights to explore the Destin blocks. They were subsequently reimbursed the money they paid for the bonus bids and lease rentals. Meanwhile, U.S. consumers have been denied that natural gas to heat and cool their homes.

Royalties

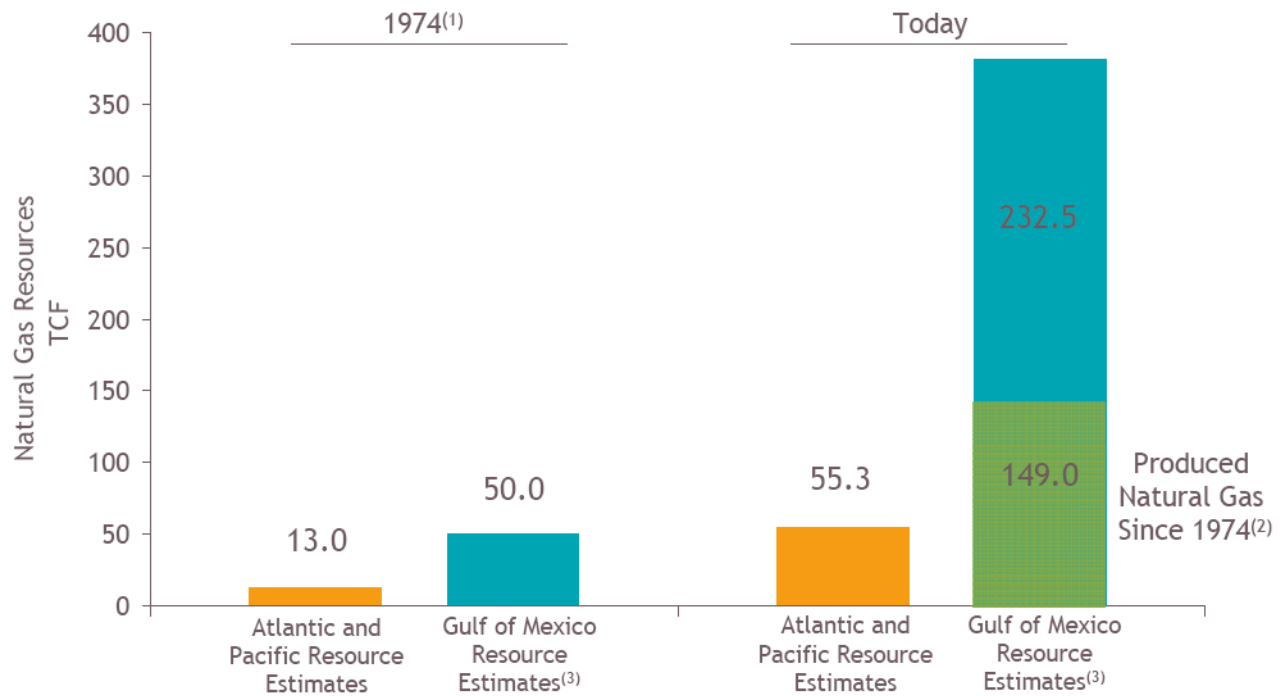
Natural gas and oil produced on government lands generates substantial revenues to the government in the form of royalties. Revenues from such development go to both the federal government and to states to help pay for vital programs. These royalties are one of the largest sources of income to the federal government; since 1982, the federal government has collected more than \$200 billion in bonus bids, royalties and rentals. In fiscal year 2008, the government collected and distributed \$23.4 billion from onshore and offshore energy production. This includes the more than \$10 billion paid by companies in bonus bids to lease tracts for offshore energy production on the Outer Continental Shelf in the Gulf of Mexico and Alaska as well as onshore leases.

Recently, the Fifth Circuit Court of Appeals issued a decision finding for Anadarko Petroleum in a case regarding royalty collection. The Fifth Circuit panel unanimously affirmed that Congress, when it passed the Deepwater Royalty Relief Act, provided royalty relief, based only on a volume limitation, not price. That Act was passed at a time of historically low crude oil prices as a means to increase production and sustain jobs in a struggling industry. It was enormously successful, helping to boost deepwater Gulf of Mexico production by 50 percent in less than a decade.

IV. Conclusion

What the nation needs is a policy that increases, not decreases, domestic energy production. Offshore development is a vital component of U.S. energy development. Barriers to offshore oil and natural gas production contribute to volatile energy prices, slower economic growth, lost American jobs and a weakened U.S. position in global markets. We need to find and develop our offshore oil and natural gas resources in an orderly, efficient, and environmentally sound way. By so doing, we can put America on the road to economic recovery and help ensure our nation's energy security for decades to come.

The More We Explore, The More We Know



(1) USGS - 1974

(2) MMS - Current (1974-2008)

(3) MMS - 2006 Revised Resource Estimates

Jurassic Norphlet Trend Eastern Gulf of Mexico

