

### ALASKA'S OIL AND GAS SECTOR: AN INTRODUCTION

A reinvigorated political leadership, aided by global energy trends, is moving the state to reach its full potential.

n 1959, years of devoted struggle by the people of Alaska came to fruition when more than 663,000 square miles of isolated wilderness on the lower fringe of the Arctic was integrated into the U.S. and became the 49th and largest state. Their struggle hinged on the argument that the



Dan Sullivan, commissioner of the Department of Natural Resources

development of Alaska's untapped natural resources would create an economic lifeline for its people. Fifty-two years later, their reasoning has proved to be well-founded. Home to North America's largest oilfields, Alaska has produced more than 15 billion barrels of oil, the revenues of which have helped the state achieve budget savings of over \$15 billion and a permanent fund that topped \$40 billion in June.

In recent years, however, a harsh truth has emerged. Production has hit a new low, and with 88% of the state's economy dependent on oil, Alaska now stands at a crossroads between painful decline or continued prosperity. Furthermore, as contention continues to heat up between nations over access to oil and gas plays in the Arctic Circle—estimated at 22% of global reserves—Alaska is eager to position itself on the front line. This report takes a look at a state facing an urgent choice, and how a reinvigorated political leadership, aided by global energy trends, is awakening Alaska to its full potential.

### Land ownership

Alaska's largest landowner is the federal

government, which owns 58.6% of state land, with the state itself in a distant second place, with 28.6%. Consisting of indigenous shareholders, Alaska's Native Corporations are the third-largest owner in the state, managing over 12.2% of state land. Each of the three landowners applies different rules and regulations to natural resource development. Unlike other states, in which oil development often occurs on private land, private ownership is almost nonexistent in Alaska (limited to 0.7%).

### Size and resource estimates

One Alaskan anecdote states that when the tide recedes, it exposes more territory

This report was prepared by Eugene Yukin and Vanessa Acuna of Global Business Reports. For more information, contact info@gbreports.com. than the size of Texas. Dan Sullivan, Alaska's commissioner of natural resources, proffers figures that are equally astonishing, but true. "The Alaska Department of Natural Resources (DNR) manages one of the largest portfolios of resources in the world. Our state is twice the size of Texas and we are larger than all but 18 sovereign nations. We have more coastline in Alaska than the rest of the U.S. combined. We are the size of the United Kingdom, Germany, France and Italy combined, and we remain the least densely populated state in the U.S."

Within that immense territory, Alaska has two chief oil and gas-producing basins: the North Slope, a seemingly endless and flat swampy plateau on the state's most northerly shores, and Cook Inlet, a shallow but massive body of water next to Anchorage, the state's largest city.

Counting federal, state and native lands, most recent estimates put North Slope resources at 40 billion barrels of undiscovered and technically recoverable conventional oil and 236 trillion cubic feet (Tcf) of gas. For Cook Inlet, the U.S. Geological Survey recently elevated its estimates to 599 million barrels of oil and 19 Tcf of gas. Alaska is also home to a number of oil and gas basins that have remained unexploited.

Despite such positive resource estimates, there has been only one exploration well drilled on the North Slope this year. While investors may fret over the underlying causes of such a low number, it underscores Alaska's remaining immense E&P potential. And, recent events and activities indicate that a new chapter has opened for oil and gas development in the state. This was most recently demonstrated in June, when the most successful lease sale in recent years occurred in Cook Inlet, with 110 bids placed, compared to 37 bids placed in 2010. The upcoming North Slope lease sale, set for December this vear, will offer an additional 14.7 million acres of onshore and offshore state territories. Companies are already getting ready to drill as many as 28 exploration wells in the 2011-2012 drilling season, making it Alaska's busiest in years.

## ALASKA'S OIL AND GAS SECTOR: INTERVIEW

# A Q&A With The Honorable Sean Parnell

Governor Parnell discusses the state's fiscal and regulatory approach to energy development.

**GBR** Governor, what are your guiding principles for Alaska's development as an energy rich state?

SP As governor, my guiding principle has to start with the Alaska Constitution, and part of that is Article 8, which speaks of Alaska's natural resources. It says that, "It is the policy of the state to encourage the settlement of its land and the development of its resources by making them available for maximum use consistent with the public interest." Alaska was from its beginning dependent on its natural resources for our economy. As governor, my job starts there. It's whatever I can do with those resources in the interest of the people.

**GBR** What are your most recent initiatives to elevate oil and gas production in the state?

SP I have set a new goal of reaching a million barrels per day of throughput within the next 10 years. Throughput today averages between 600,000 and 700,000 barrels per day. We are going to stem the decline and then turn it around and increase production as best we can to a million barrels. How do we do that? The tactics, policies and strategies that I intend to use are three-fold

Speaking of state lands specifically, we are working to reduce taxes, and you saw some of that this year with HB 110 primarily addressing the progressivity feature of our tax regime at high oil prices. We were told by experts at the time that the tax was designed for prices between \$70 to \$90 dollars per barrel. We think we are in a new day when we are in a \$100-plus-per barrel time, at least for some years ahead.

The second element would be more regulatory certainty. I asked all of our commissioners in my cabinet to look everywhere where Alaskans do business with our state government across the counter and find out how much time it takes for an Alaskan to



The Honorable Sean Parnell, Governor of Alaska

get serviced. The area of permitting is one of those areas, and I found that our permitting efforts need work. We have permit applications that have waited years for a decision, and that is wrong. Our Department of Natural Resources has begun restructuring, reorganizing, and addressing the permitting backlog and creating structures so that it doesn't happen again.

The third element of my plan has to do with working to provide better and lower cost access to state lands.

Lower taxes, regulatory certainty and better access to state lands form the core of my strategy to increase production. To get to that million barrels per day I am going to need to have a federal government that will allow access and exploration activity in the National Petroleum Reserve (NPRA) and in the Arctic offshore at minimum.

GBR What do you see as the time frame for

getting those laws passed?

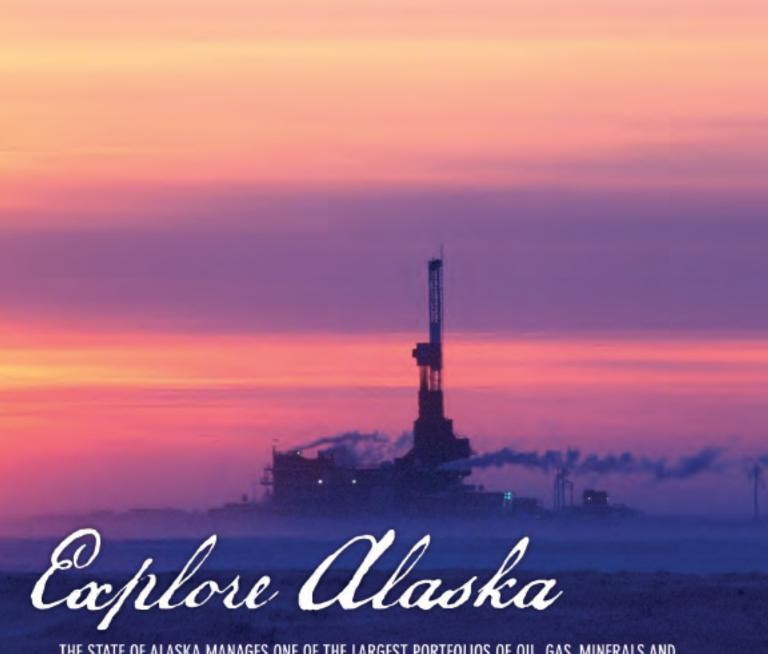
SP Sooner rather than later. I think the Senate majority failed to do its job for not addressing how Alaska can increase its production, bring more jobs to this area, and provide more domestic energy to our nation. Part of the reason our nation is on the ropes from an energy perspective is because we are so dependent upon foreign sources, which are uncertain right now, especially given what is happening across the Middle East and Africa.

**GBR** Do you sense federal attitudes toward oil and gas development in Alaska changing?

SP We work every day with the federal administration in some way or another, whether through the EPA, Department of Interior, in Alaska or in Washington D.C. What I think will turn the federal administration is an American people hurting for want of lower-cost energy. When Americans' price per gallon is going up at the pump and they have to choose whether they are going to drive to work or commute 40 to 50 miles away, that starts to hurt Americans' pocketbooks. Rising energy costs are hurting American wallets and there is no reason why we shouldn't be increasing our domestic supply of oil and gas.

GBR What are your final messages to our readers?

SP From the state's land perspective, investors here know they have an administration that is willing to work with companies to create the climate for investment and new jobs. When it comes to federal lands, they have the assurance that the state is working to remove barriers to investment and we will work to remove those barriers with the federal government. This administration is very supportive of maximizing our use of Alaska's resources for the benefit of our people, and that is a promise that I have made. •



THE STATE OF ALASKA MANAGES ONE OF THE LARGEST PORTFOLIOS OF OIL, GAS, MINERALS AND RENEWABLE RESOURCES IN THE WORLD.

- Alaska's massive hydrocarbon basin on the North Slope remains underexplored. The North Slope and outer continental shelf are estimated to hold undiscovered resources of 40 billion barrels of oil and 236 trillion cubic feet of gas.
- Alaska has developed incentives for exploration that are among the most attractive of any location worldwide and is committed
  to further improvements in the state's fiscal regime.
- Alaska is investing tens of millions of dollars to provide infrastructure access to promising oil and gas prospects. When
  appropriate, the state finances commercial development through private-public partnerships.
- Alaska is holding one of the largest oil and gas lease sales in the nation this year.

Alaska is focused on responsible resource development to provide a dependable, environmentally sound source of energy for the nation and the world, and the state is dedicated to developing partnerships with world-class companies.

LEARN MORE ABOUT OUR WORLD-CLASS RESOURCES AND LEASE SALE AT http://dnr.alaska.gov/SecureAlaskasFuture/

# **Uncharted Territory**

Legal and regulatory efforts are under way to combat declining production, which threatens the state's economic lifeline.

s the recent American political deadlock over the debt crisis has demonstrated, when a strict deadline exists, it takes enormous political will to achieve results in the final hour. In some ways, Alaska faces a similar deadline, which if passed would result in devastating economic effects. Unlike many resource-rich areas of the world that can afford to cushion the effects of oil and gas decline, Alaska's window of opportunity is severely limited, due to its energy infrastructure. The key to Alaska's success has been the Trans Alaska Pipeline System (TAPS), an 800-mile pipeline that carries North Slope oil to a terminal at Valdez, from which it is shipped by tanker to the Lower 48. Designed and built to carry oil from Prudhoe Bay, North America's largest oilfield, TAPS is an engineering masterpiece, without which there would be little alternative to carry Alaska's oil production to market.

When the pipeline was constructed in 1973, oil throughput was 700,000 barrels per day (bbl/d), but quickly rose to 2.1 million barrels of oil equivalent per day (BOE/d) in 1988. Current throughput averages around 620,000 BOE/d, but 5% to 7% declines have been reported for the past several years. Increasingly, this decline has been causing problems for the pipeline. While there is no "magic number" at which oil flow would cease, the pipeline's problems have been making many nervous.

"The decline has been ahead of all the projections of the state for the past several years," says Admiral Thomas Barrett, president of the Alyeska Pipeline Service Co., which operates TAPS. "What is significant about it is that every day we are in new territory. We are already below the throughput levels when the line was first started."

One recent incident that highlighted the danger of low flow occurred in January, when a leak in Pump Station #1 caused a shutdown of TAPS during the winter's coldest temperatures. Fears arose that freezing conditions would prohibit restarting the pipeline, instantly cutting off 11% of American domestic production, potentially until summer.

"As time goes on and the decline continues, if we have a similar shutdown, we have less time to restart before our problems increase," says Barrett. "In the winter, when there are freezing temperatures, it's not the oil that freezes, but it's the water that starts to freeze up and then goes into our strainers as ice. From an operational point of view, we are managing an increasingly complex set of variables as the flow declines. The simplest, easiest way to secure TAPS' future is to put more oil into it."

"TAPS will need to have significant investment for it to keep running," says Carl Portman, deputy director of Alaska's Resource Development Council (RDC). "Industry is willing to make major investments into that pipeline if they know that there will be sufficient production, but why make significant investments in the hundreds of millions of dollars if you don't have access to oil to put into the pipeline? That's a business decision. At the high prices we are seeing now, we should literally be booming along with the rest of the country in terms of oil and gas activity."

### **Entitlement state**

While there are a number of causes for the diminishing production, most Alaskans agree that the most significant of them has been a state "entitlement mentality" that has taken away motivation for further investment. By taxing the petroleum industry, the state became wealthy and formed a \$40billion permanent fund in the process, but has failed to see the benefit in pushing for increased production. "We had wells that would put out 21,000 barrels a day for close to 20 years, and that's unbelievable," says David Cruz, chief executive officer of Cruz Construction. "But when you have all this money coming in, people start wanting different things, so we built museums, auditoriums and schools and we spent and built like the money would never run out."

"If we could only get out of that entitlement mentality that seems prevalent in the state today and has existed for a long time," says Dave Matthews, vice president and Alaska area manager for Price Gregory. "We have had very successful congressional delegations bringing money to the state. Oil revenue funds the majority of our government, plus we pay no income tax while being paid to live here via the permanent fund. We have become overly dependent on these activities, which are proving nonsustainable."

The uncertainty surrounding TAPS has had the positive effect that many were hoping for. While it has compelled the state to seek increased investment, it has also given new E&P players the opportunity to put their own stamp on throughput in what has increasingly become an empty pipeline. As a loss of TAPS would be untenable, the only way forward has been figuring out how to arrest and reverse the oil-flow decline, and this has caused the state to take a hard look at the immediate causes of low throughput.

### **Crucial legal issues**

Most industry insiders would agree that

the biggest ailment affecting the state today is Alaska's Clear and Equitable Share law (ACES), which effectively raised taxes on oil and gas companies by 300% to 400%. When enacted in November 2007, under then-Governor Sarah Palin, prices of oil stood at around \$80, and oil companies were boasting record profits. Results were immediate. State revenue from oil and gas jumped to \$6.8 billion in 2008 from an average of \$2- to \$3 billion, while TAPS suffered 18,000 BOE/d declines. As state revenues from oil and gas continued to grow through 2010, TAPS throughput reached all-time declines of 48,000 BOE/d for the same year.

The results of the ACES tax in 2007 have also trickled down to the service industry. The Alaska Support Industry Alliance is a nonprofit trade organization identifying the concerns of its 40,000 members, most of whom hold oil and gas-related jobs. "In January, we went out to our membership and did a survey asking if they had a reduction in workforce since 2007, when ACES was enacted, and 56% of our members had reductions," says Rebecca Logan, general manager of the alliance.

Unlike the lower 48 states, where oil and gas jobs are easily transferable from one state to another, Alaska presents a different case. The danger of losing contractors is clear, according to Jason Brune, former executive director of the Resource Development Council. "The problem with Alaska is that we are very isolated. Unlike other states, contractors don't have the flexibility to go back and forth. Once we lose those contractors, it will be hard to get them back. That is why we had better do something quickly, or else they will be gone."

An example of one such contractor has been Lynden, one of Alaska's leading logistics carriers. "We went from being fully employed, with six planes, to needing to work desperately, which is why we moved one of our planes that was in Alaska to New Guinea to work on a project with Exxon-Mobil," explains Lynden chief executive officer Jim Jansen. "There is very little exploration or new production. This is why a lot of companies have started looking out of state for work and the companies that haven't are looking now."

### **Current efforts**

While the reforms that the industry has been calling for have not materialized as quickly as many had hoped, the E&P and service community believe that the state government under the leadership of Governor Sean Parnell has taken the issue seriously. However, not all elements of the



Dave Matthews, vice president and Alaska area manager, Price Gregory

ACES tax law are negative.

"The majority of debate has revolved around the 'progressivity' component of the production tax calculation," explains Ryan Moynagh, chief financial officer of Great Bear Petroleum. "I personally don't have a problem with paying more in good times, and less in bad times. That being said, the absence of tax brackets and the effective absence of a tax cap, does not create the proper risk/reward sharing between state and producer.... I would also welcome any efforts to simplify the administrative process. The move to an annual production tax calculation, rather than the current monthly basis, would eliminate spurious re-

sults that eventuate from an unstable oil price environment."

A proposed new law, HB 110, has targeted many of those elements. "The first thing that we are doing in the bill is scaling back the government take, in order to make Alaska a more appealing place in which to invest, thereby making us more competitive with other oil-producing regions," says Bryan Butcher, commissioner of the Department of Revenue. "We are changing the way the progressivity is set up so it won't be nearly as aggressive at high oil prices.

"A second element will be adding incentives to explore and produce areas that have not been developed as of yet. Instead of a base rate of 25% for production tax and capping it at 50%, we will have a 15% base rate and will be capping it at 40%. This should serve as a real incentive for companies to go into areas that are a bit more risky and are farther away from infrastructure."

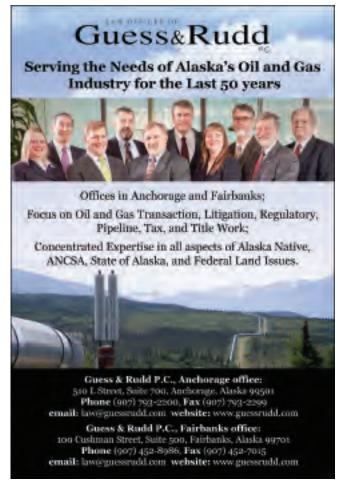
In April, Alaska's House of Representatives passed HB 110, only to have its companion bill knocked down in the Senate several weeks later. One legislative impediment has been the 90-day session, which many argue is too short to pass muchneeded reforms. Short of the unlikely event of the Governor calling a special session, the next opportunity to vote on the law will be when the legislature convenes again in January. When asked if they believe that there is a chance that the tax law will be

voted in, most Alaskan industry leaders suggest that it's not a matter of if, but of when.

Whether political games are the true culprit behind Senate indecision on the tax law or not, the main issue troubling legislators has been employment numbers on the North Slope. According to Department of Labor statistics, the number of oil and gas-related jobs reached a new high this summer. Legislators have questioned HB 110's attempt to lower taxes if employment numbers in the industry have reached all-time highs.

Click Bishop, commissioner of the Department of Labor, explains some of the employment nuances: "There is no doubt about the fact that employment is up on the North Slope, but it's not up in the area that's going to pay the bills. It's in maintenance. Aging infrastructure is what has been driving the uptick in employment, but that does not drive more production, and it's not going to last forever. At some point the maintenance will be caught up, and then you will have layoffs on the North Slope just like in any other business unit."

One of the simpler ways of determining where jobs have been going is by inquiring with companies specializing in construction and new development. To quote an example from Price Gregory, a world leader in pipeline construction, "Our work in the Alaska oil patch this year is considered a 'bust' for us," says Matthews. "We currently have no work booked in the oil and gas sec-





tor in Alaska in 2011, this being a first for Price Gregory in over 30 years. This is not because we are losing bids, but rather because the work is not there to bid."

In an effort to get to the bottom of the employment data, legislators requested two detailed studies to finally give concrete evidence of where the jobs are going. But such legislative studies, notes former Governor of Alaska William Sheffield, do not always result in action. "In Alaska we have a tendency to study things to death. We haven't been doing much in the past 20 years, but just doing a lot of studying."

While everyone agrees that the current governor's proposal will lower taxes, debate over HB 110 in the next session may still change the final outcome of the tax cuts. Even so, what investors need to see at the end of this process is 'fiscal certainty,' argues Joe Hegna, vice president of URS, one of Alaska's leading engineering and construction firms. "We are very bullish on Alaska. However, there is uncertainty on the tax policy. As you move forward, companies want to know that the tax regime will not keep changing. Fiscal certainty is incredibly important."

#### **Benefits of ACES**

The good news for investors is that any company willing to enter Alaska today will not be affected by high taxes until they enter high levels of production, a process

that typically takes years. As long as a company is exploring or is in the initial stages of oilfield development, the ACES tax law is incredibly beneficial, and these positive elements will stay in the governor's proposed new legislation.

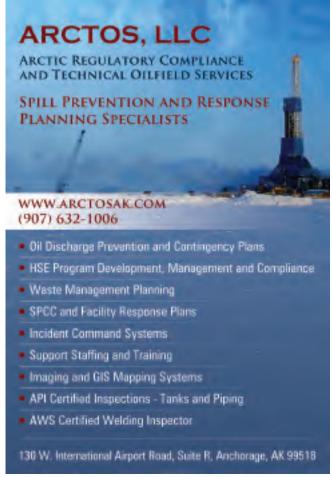
"ACES has actually tipped the scale in favor of the small producer," says Joseph Beedle, president of Northrim Bank. "The tax credit that goes to a new entrant doing exploration and development is tremendous. As an example, if someone certifies that they have expended something, the state of Alaska, not a third party, will buy the credit. If a company, whether big or small, drills a well, 60% of that well can be immediately tax credited. There are a variety of factors that calculate the exact number, such as if you are in an infield development or an unexplored area, but 60% is the best you can do and you can get it back immediately. Eventually, when they start producing at a higher level, the progressivity rate will kick in and they won't like it either, but for the first three to eight years, the small player and any new player will love ACES.'

### **Permitting reform**

Continuous complaints concerning Alaska's infamous permitting structure have encouraged the state government to tackle the issue once and for all. What led to this, explains commissioner Dan Sullivan, who now leads efforts to streamline the process, are decades of overlaying reforms. "A major problem today is that we have regulations that have been around forever, other regulations were then added on top, but no one ever stopped to ensure that the end result is efficient and not duplicative."

Randy Pysher, business manager for environmental consulting firm Arctos, describes the situation as a "total disconnect between the permitting and the reality on the ground." He adds, "Unfortunately, there are often items that are in the permits that have nothing to do with environmental security. Some permitting agencies are unaware of what other agencies are doing for the same projects.... No one is in charge, and that increasingly creates confusion. It is really a street fight to get our clients to the point where they can do what they do best."

Fortunately, government efforts to reform the permitting system have clearly had their benefits and DNR's new team has particularly made it a priority to help newcomers by speeding up their permits to showcase how approvals will look in the future. "This year, the Alaska legislature increased our budget by 30 more people and that will help us process permit applications more efficiently," says Sullivan. "What we hope to achieve through the legislature next year is to have a permitting process that will be much more efficient, timely and predictable." •





# **State Of Flux**

Legacy producers chart their own paths in uncertain times.

it by high taxes, an uncertain global fiscal environment, and waning oil flow from major fields, the legacy producers that brought Alaska to global prominence in the 1970s and 1980s are now facing tougher times. The "Big Three," as they are known in Alaska, are BP, ConocoPhillips and ExxonMobil. Light and easy oil from the mammoth Prudhoe Bay and Kuparuk oilfields is coming to an end, and a move to heavier crudes is necessary to keep throughput steady. However, current progressivity rates have hampered a speedy transition. As a result, it is this group of players that has been most vocal about fiscal change. Until the environment becomes more transparent, companies like ConocoPhillips and BP have maintained quieter investment profiles, new play developments have decreased and the focus has switched to maintaining aging infrastructure and implementing sophisticated enhanced oil recovery (EOR) techniques.

As the major fields mature, there has been a heightened perception within the industry that the supermajors are slowly making their way out of Alaska. Most recently, this was demonstrated when Chevron announced that it was selling all of its Cook Inlet leases to Texas-based Hilcorp Energy. Last year, a similar buzz arose about BP selling off its assets. Still, when questioned on this issue, BP Alaska president John Minge had the following to say: "One never knows, but when people ask me the same question, I answer that BP is certainly not selling today. Alaska is very important to the overall business. We have 50 years ahead of us here, with a lot of resources and great people."

A similar message can be heard from ConocoPhillips Alaska president Trond-Erik Johansen. The company is currently Alaska's leading oil and gas producer and is the largest taxpayer to the state. "As we look into the next 40 to 50 years, we see that the resources are there, but the challenge is that these resources are much harder to go after than anything we have developed so far, because the 'easy oil' has already been produced," says Johansen.

"Sometimes people wonder if there is a crisis in Alaska and why production has been declining so rapidly. I believe that while there is no crisis right now, there is a looming crisis if we don't act, because although we still spend a lot of money, more and more of that money is being spent on maintaining the old assets to make sure they are safe and can continue to be used. The bottom line is that for Alaska to really plan for the next 30 to 40 years as a state, we need to have the investment climate right



John C. Minge, president, BP Alaska

so that the oil and gas industry is willing to go out and spend that higher-risk dollar."

### **Exploration and outlook**

Even though ACES has become the scapegoat for all the recent trends in Alaska, a lack of exploration by majors has stemmed from entirely different causes. ExxonMobil, for example, halted most of its exploration efforts in the early 1990s following the fallout of the Exxon Valdez environmental disaster, when a tanker spilled hundreds of thousands of barrels into the pristine Prince William Sound. "During the late 1980s, with the global fallout in oil prices, we saw a major drop in our business working with exploration companies," says Britt Lively, owner of Mapmakers Alaska, a company that often works with exploration companies in the production of maps. "The Exxon Valdez accident coincided with an already bad economic environment and activity just stopped."

In the last decade, the most active player on the exploratory front has been ConocoPhillips, which drilled more than 45 exploration wells since 2000. However, unexpected problems dealing with federal agencies have been the major cause of diminished exploration efforts in Alaska over the past several years. Of particular note has been the company's CD-5 project, a proposed satellite field to the Alpine development, which averaged around 61,000 BOE/d in 2010. The issue at heart is that the proposed site for CD-5 is located in the NPRA (a 23.5-million-acre federal designated territory for oil and gas development), and the Coleville River separates it from the main Alpine unit. ConocoPhillips has long argued that the desirable route to CD-5 would be the construction of a bridge, but the U.S. Army Corp of Engineers has



Trond-Erik Johansen, president, ConocoPhillips Alaska

denied permits, and drilling has been delayed for years.

Construction of the bridge would lay the road to further exploration and development of the NPRA, and pending approvals by federal agencies are being seen as a test of federal willingness to open the area for oil and gas companies. Recent news on pending permit approvals has signaled a potential change in federal thinking, and Johansen is hoping for drilling to begin by 2013.

Encouraging news from legacy producers also came this year when BP and ConocoPhillips made announcements about projected investments in the state. "I do foresee more investment if the tax structure changes," says Minge. "If we look at the portfolio of options for future development, we see at least \$5 billion in potential investments."

As majors continue consolidating their holdings, broader global trends have also affected traditional views of Alaska investment. Despite the fact that multinationals have spoken in one voice about not investing until taxes get lowered, tough climates abroad have amplified Alaska's allure. Regina Mayor, principal and leader of the National Oil and Gas Advisory at KPMG, reckons Alaska will begin to feature more prominently in the next round of promising investment opportunities. "We do see more of our very large clients thinking that Alaska is not so bad anymore. If you look at what's happening in places like Libya and Africa onshore and offshore, coming back home doesn't appear to be as much of a challenge as they once thought it was....

"Alaska is becoming far more interesting again because companies have begun to see the challenges with domestic regulations and local taxes in the way of better the devil that you know versus the devil that you don't."

October 2011 \* OilandGasInvestor.com

# The Next Big Thing

Unconventionals, offshore developments offer new opportunities.

n addition to be being blessed with massive conventional resources, significant advances in unconventional technologies and heightened activity in Alaska's offshore waters have opened a new frontier of petroleum development in the state. Of prime interest has been a massive shale play and promising potential for offshore developments in Alaska's Outer Continental Shelf (OCS).

"We believe that the only way for Alaska to stop the decline and pull production back up to the million barrel target is by fully developing the unconventional resources that it has available," says Ed Duncan, chief executive officer of Great Bear Petroleum. "The unconventional resource play in Alaska is vast. It also is located onshore and it has the promise and ability to quickly go from discovery to production into TAPS. We see the unconventional resource play in Alaska as being unsurpassed as far as its potential impact on the state."

#### **Shales**

When Great Bear Petroleum officially formed last year, nobody within the industry suspected that in the 2010 North Slope lease sale, the previously unheard-of company would be high bidder on 537,000 acres of land. The investment target would be Alaska's first major shale play. While most investment into shale plays has gone into the Lower 48, where access is easy and costs are lower, Alaska presents a unique investment case because, according to geological research, its source rocks easily match if not exceed some of the world's most attractive oil plays, such as the Eagle Ford shale in

Texas. Great Bear Petroleum anticipates production numbers for oil to be 200,000 barrels per day by 2020, and estimates that within five years it could be Alaska's biggest producer.

These announcements have raised more than a few eyebrows from those unaccustomed to such high levels of activity, but they have also boosted interest from other companies who want to play catch-up. Alaska's DNR has already made contact with North Dakota to familiarize itself with shale plays ahead of expected buyins by companies eager for unconventionals. "Our geologists think that the source-rock potential on the North Slope is enormous; after all, it's the source rock for Prudhoe Bay. Great Bear Petroleum recently picked up a big portion, but there is plenty more land up there and many companies are getting interested," says Dan Sullivan, Alaska's commissioner of natural resources.

It may seem strange why a shale play in Alaska wasn't identified earlier on by the state's majors, but as one industry long-timer put it, "They simply didn't think of it."

### Offshore

According to the 2011 Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) assessment, the amount of technically recoverable oil in the OCS stands at 8.22 billion barrels underneath the Beaufort Sea and 15.38 billion barrels underneath the Chukchi Sea. "Offshore Alaska is one of the best, untapped, unproven, undrilled places on the planet," argues Allan Dolynny, president of NANA Worley Parsons. "The ability to find



the next major oil pool in the world exists in offshore Alaska."

Although lease sales in the OCS were offered since the 1980s, the most recent and successful one occurred in 2008, when over 2.7 million acres were auctioned off. Championing offshore development so far has been Shell, which previously drilled wells in the area, but discontinued activities due to low oil prices in the 1990s. After a short hiatus from Alaska, Shell came back with a bang when it purchased 408 offshore blocks in the Beaufort and Chukchi seas for \$2.1 billion between 2005 and 2008.

The attractiveness of the OCS stems from two factors: shallow water depths (less than 330 feet for the majority of Beaufort Sea leases; no more than 160 feet for Chukchi leases) and the natural geology.

When we compare Alaska's basins to other basins around the world, we find very similar geologic patterns with some prolific hydrocarbon provinces," explains Robert Swenson, state geologist and director for DNR's Division of Geological and Geophysical Surveys. "For example, the European North Sea and the Arctic Alaska Beaufort Sea area are both rifted margins with similar geology. One stark difference in this analogy is the level of exploration maturity, with fewer than 40 wells drilled in the Arctic offshore. Renewed exploration in Alaska's offshore sector would be similar to the early exploration efforts in the North Sea well before the significant exploration

## "The exploration

permits for the Beaufort and Chukchi seas are kind of landmark events for us." —Pete Slaiby, vice president, Shell's Alaska Venture

drilling began."

Shell's inability to drill in the five years since the 2008 lease sale has been a great disappointment for the industry. The culprit here has been the federal government, or rather its agencies that any company must deal with when operating in federal waters. In addition, the agencies active in Alaska are more strict, compared to other U.S. areas. "Most of the regulations that we must meet are federal regulations and there are differences in the way we need to manage those challenges here in Alaska compared to the Gulf of Mexico," says Lars Andreas Sunde, head of Alaska for Statoil.

"The authorities responsible for permits in Alaska are not the same as we meet in the Gulf," he continues. "For instance, the EPA is the agency looking after air quality permits here in Alaska, while in the Gulf this is done by BOEMRE. So there are different governmental bodies that we deal with here in Alaska, compared to the Gulf of Mexico."

Fortunately for Shell, good news appeared recently when, after three years of delays, important permits were finally conditionally approved. Pete Slaiby, vice president of Shell's Alaska Venture, has been particularly encouraged because the permits were approved after going through a very unfriendly system. "The exploration plans for the Beaufort and Chukchi seas are kind of landmark events for us. These permits were litigated and they went through the Ninth Circuit. What you are looking at are permits that have been reviewed by the agencies, tested in litigation and then come through, in one of the most difficult and, some say notorious, courts in the US.'

As Shell awaits additional permits, physical preparations for exploratory drilling have already begun and Slaiby hopes to begin drilling in 2012.

### Barrow: Launch pad to the Arctic?

A telltale indicator of what the state, federal governments and private companies expect to see in the Arctic is the heightened level of infrastructure being built in and around the town of Barrow. Barrow is the U.S.'s most northernmost city, located several hundred miles northwest of Prudhoe Bay, and is considered the focal point for any Arctic offshore program. Barrow's native corporation, Ukpeagvik Inupiat Corp.

## Local knowledge counts.

At URS, we believe that the depth of your knowledge determines the level of your success. And the more local knowledge you possess, the better equipped you are to deliver solutions that work. For more than 57 years we have helped deliver oil and gas projects across Alaska on time and on budget. Today, with our full life cycle capabilities and our global expertise, we are helping our customers succeed on both large and small projects across the state. Which is why, when it comes to engineering design, construction management and project controls, more people are turning to us to get it done. We are URS.





FEDERAL
INFRASTRUCTURE
INDUSTRIAL & COMMERCIAL
POWER

URS.COM

(UIC), consisting of the indigenous natives of the area, is actively participating in Arctic offshore development.

"The opening of the OCS offshore for exploration and drilling is creating a whole new horizon for business in the Arctic," says William Humphries, vice president of operations for UIC. "The state has been helping with the infrastructure, in particular with the airport, and there have been excellent benefits. Now there are also discussions about the construction of new ports and a new hospital."

Native corporations like UIC play an integral role in natural resource development in Alaska. The major ones not only support the oil and gas industry through numerous

service and contracting companies, but also provide unique skills and knowledge gained from thousands of years of habitation in an Arctic environment. As such, it is considered crucial to educate the local native populations about any potential development plans in areas where they live and work. Over the past few years, for example, Shell has conducted over 400 meetings with native villages to inform them of their offshore drilling plans. "When we came back here, there were different expectations than when we were last drilling in the Beaufort and Chuckhi seas. The environment is different now. People now want to know more about what is going on up there," says

Apart from being actively engaged in the oil and gas business, the chief historical specialization of the native populations has been whaling and, each summer, large-scale whaling celebrations occur. Who gets invited and who participates is a telling sign of the interest that government officials and companies have in the area, and in Barrow, things have changed.

"We are seeing the oil and gas industry and the support sector become much more interested in what's going on up there and what can be done to support Barrow's growth. The kinds of folks that are up there for the whaling celebrations, I am not sure you would have seen there 10 years ago," says Humphries.

### ALASKA'S OIL AND GAS SECTOR: NATURAL GAS

# **The Gas Question**

Producers and the state seek a solution for gas take-away to markets.

ccording to projections, by 2013 Cook Inlet's production of gas would reach such low levels that Alaska would have to begin gas imports in order to meet local demand. The prospect of energy imports has been a bitter pill to swallow for most Alaskans.

If Cook Inlet gas shortages represent the state's short-term challenge, the long-term one is what to do with all the gas produced on the North Slope. So far, gas has been reinjected into the reservoirs as a mechanism to push more oil out of the ground. This situation, however, is unsustainable and, in 2007, the Alaska Gas Inducement Act (AGIA) passed, requiring the state to incentivize the construction of a pipeline bringing Alaskan gas to North American markets. One year later, market prices of gas collapsed with shale developments in the Lower 48, and prospects for such a pipeline suddenly became hazy. As the state continues to think of adequate solutions to monetize its gas, investors should be on the lookout for major developments on this front.

### Gas imports?

After gas was first produced in Cook Inlet in 1961, a gas industry was born. Alaska became Japan's premier liquefied natural gas (LNG) supplier, and an Agrium chemical facility was constructed. The size of the local market, however, proved too small to justify further activities, and the majority of gas kept on being produced from four single fields.

Petrotechnical Resources of Alaska (PRA), a leading geological, geophysical, and reservoir engineering firm, recently undertook a study of the Cook Inlet situation. "The Alaskan market is very small and utility companies account for 90 billion cubic feet of gas consumption per year, which is a



Thomas Walsh, managing partner, Petrotechnical Resources of Alaska

limited market for big companies like Chevron, ConocoPhillips and Marathon," says Thomas Walsh, managing partner of PRA. "We have been, in recent years, tied to Lower 48 gas prices and contracts were being established that were reflective of those prices. That was good for gas producers at the time at which those prices were negotiated, but now the bottom has fallen out because of all the shale gas that is being produced. That is no longer a reasonable benchmark up here, and local gas prices are not very supportive of more activity."

Aurora Gas, a producer in Cook Inlet, is one of the companies affected. "We are currently producing about 4- to 5 million cubic feet a day, and we are very market driven. In the Lower 48, the typical model is you find gas, you connect it up and you flow it at the maximum efficient rate. That is not what happens here, because you don't have an unlimited market for gas," says Scott Pfoff, president of Aurora Gas.

To keep Alaskans warm and comfortable, the state has debated three ways of solving

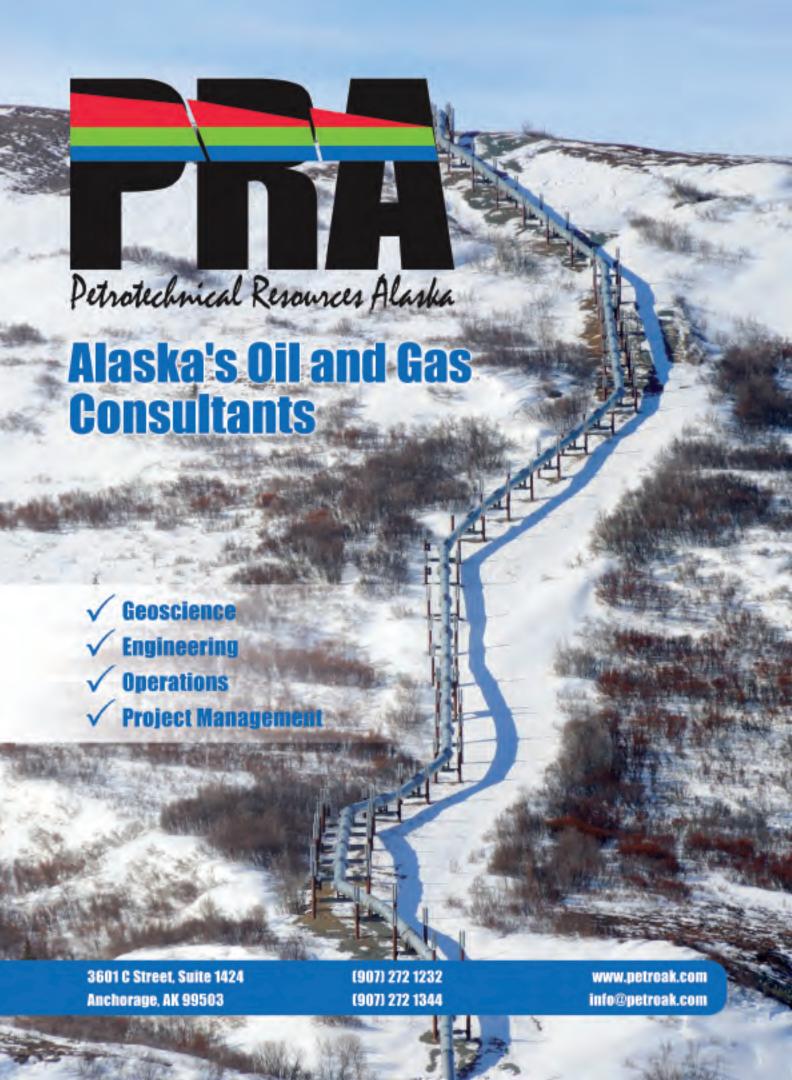
the problem. The most direct is to boost exploration efforts and get companies to production. Another option has been ASAP, or the Alaska Stand-Alone Gas Pipeline, which would be a bullet line carrying North Slope gas to Cook Inlet. The most undesirable option is LNG importation and, while most hope that this option can be avoided, Walsh isn't so optimistic. "I think that there is a lot of interest and activity happening in Cook Inlet right now, but once a big gas accumulation is discovered it will take years to take it online. Realistically, the turnaround time is around five years to get more gas from Cook Inlet.... I think we are behind the point at which we can resolve this issue with local gas production."

## The Alaska Gasline Inducement Act (AGIA)

Passed in 2007, AGIA's purpose was to find a solution for monetizing North Slope gas. The law would grant selected applicants up to \$500 million in state matched funds to construct a major gas pipeline. Thomas Maloney, CH2M Hill's vice president in Alaska, believes that the need for a gas pipeline is directly related to oil flow in TAPS. "There is a very complex mixture of gas, oil and water within reservoirs that has to be maintained delicately for oil production to continue," he says.

"What has been happening on the North Slope is that while the amount of oil in the reservoirs continues to decrease, the amount of water continues to increase, and the gas has to be recirculated more and more. Alaska currently has the largest gashandling facility in the world, but eventually the composition within the reservoirs will become so pressurized that, in order to handle the gas, we will have to build another facility to process it more effectively."

The leading applicant to come through



under AGIA has been the ExxonMobil and TransCanada team, but no agreement with shippers has yet occurred. A major reason ExxonMobil needs a natural gas pipeline in place is due to its Point Thomson Project, a massive 8 Tcf gas field that also contains substantial oil reserves. To give a bit of perspective, more gas is contained within Point Thomson than has ever been produced from Cook Inlet. While ExxonMobil has held the field since the 1960s, development was considered too slow by the state and a legal battle between the two was instigated. Recent developments imply that the situation is

going in a positive direction, and Exxon-Mobil has been particularly motivated to start Point Thomson production. Oil and gas liquid condensates would be targeted first, as they can be funneled through TAPS, but a gas pipeline would be required for the conventional gas.

Whether or not the pipeline will be constructed is still up in the air, but no cancellation has been announced, and contractors on the ExxonMobil-TransCanada project have actively proceeded with permit applications. Joe Hegna, vice president of URS, the main contractor on the project, reckons that low gas prices aside, the end product

will justify the high development costs. "While the economics of the project are challenging in today's prices, they could be attractive 10 years from now when it goes into production.

"The market is always changing, so it makes sense to take this effort right now and take it to a place where you get a FERC certificate, so that, if the market is solid enough in the foreseeable future, you could go ahead and build the pipeline. The fact remains that there is up to 200 Tcf of gas on the North Slope that will be commercialized and monetized at some point. How this is ultimately accomplished is still the question."

## ALASKA'S OIL AND GAS SECTOR: THE INDEPENDENTS

# **New Players Join The Game**

Smaller players are increasingly attracted to Alaska's limitless resources.

or decades, Alaska's domination by majors was considered a barrier for independent entry. Those who entered the market experienced difficulty negotiating the use of infrastructure owned and built by the majors. In the early 2000s, as a result of litigation, independents finally gained an upper hand in the sharing agreements, and the landscape for entry on the North Slope and Cook Inlet changed considerably. The years following have seen many new players on the slope, including international companies like Eni Petroleum from Italy or Repsol from Spain, and independent numbers in Cook Inlet have likewise substantially grown. As the market becomes progressively unrestricted, Alaska is poised to become a leading destination for independents craving a big find.

### **Dealing with high costs**

For those seeking a high-reward/high-risk environment, it is important to keep in mind that a pricey operating atmosphere, such as the one found in Alaska, can be prohibitive for independents. The North Slope has seen many come and go because companies underestimated the costs of working in the Alaskan environment.

"Do your homework and make sure that you understand the risk versus the reward," advises Michael O'Connor, president of Peak Oilfield Services. "It's important for companies entering Alaska to know what the business environment here is and ensure that they have the financial backing to get it done. You cannot just come up here and decide that you are in business and you will get rich quickly."

Oftentimes, new entrants tackle the high-cost issue by bringing in contractors from outside of Alaska. The more players present, the cheaper the costs, goes conventional thinking, but in the state's unique environment, such attempts have often resulted in higher costs resulting from correctional work. The industry is rife with tales

of projects that needed to be redone by Alaskan companies, after low-cost, out-ofstate contractors won on the initial bid.

Even companies that are successful and adept at working on the North Slope are cautious when taking on new projects, explains Matt Thorpe, senior partner at Delta Leasing, a company specializing in leasing equipment and constructing remote camps. "Many companies will bid and will promise to deliver, but many companies can't deliver. There are many projects that we won't bid on because we don't think we have the capability to do that."

### **North Slope**

Independent behaviors on the slope vary widely based on size and capital, but a winning strategy pattern has emerged. Those with formidable financial backing and patience succeed. For example, Pioneer Natural Resources was the first major independent to enter Alaska in 2003. Its experience has shown that despite the challenging operating conditions, independent companies on the slope can get to production quickly. Pioneer's major development has been Oooguruk Field, a small gravel island located five miles offshore. First exploration wells were drilled in 2003 and today the company averages approximately 10,000 barrels per day. "We drilled our first well in 2003 and in 2008 became the first independent producer on the North Slope. We succeeded in establishing production in only five years after drilling our first exploration wells—a significant achievement for an offshore project in the Arctic," says Pioneer's Alaska president, Kenneth Sheffield.

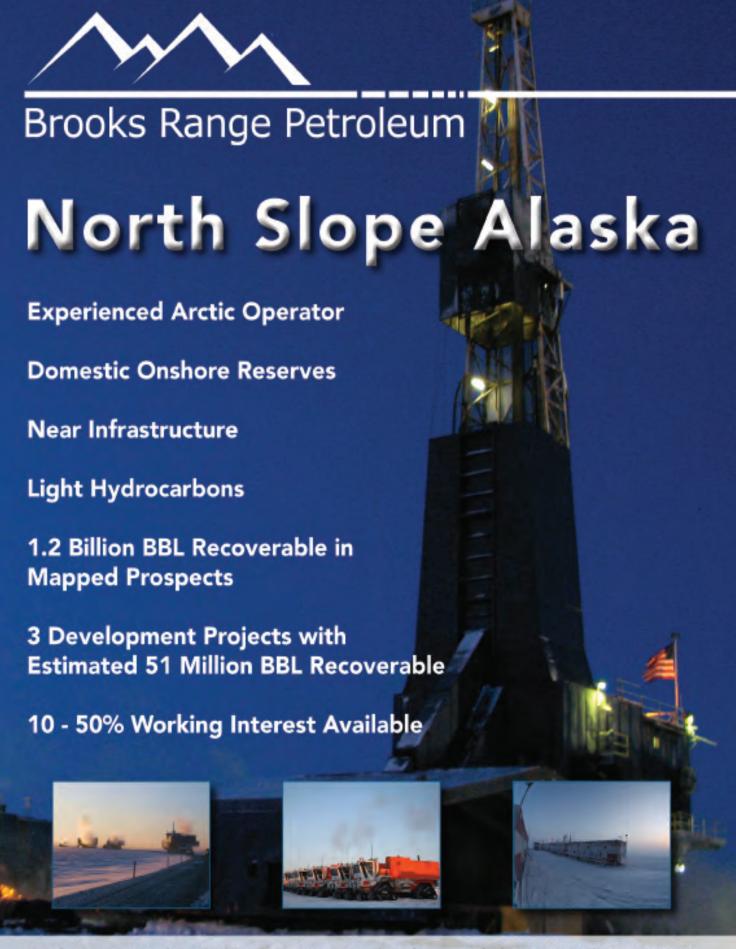
The experience of Brooks Range, a smaller junior, has been different. After 11 years on the North Slope, the company hasn't reached production, but has enjoyed success in its exploration program and was the only company to drill an exploration well on the slope this year. "We wanted to have a balanced lease inventory, balanced



Bart Armfield, vice president of operations, Brooks Range Petroleum Corp.

in that we wanted to stay onshore but also stay spread across the slope and have the diversity of what we were looking for," says Bart Armfield, vice president of operations. "We want to pull in the best technologies and practices from the Lower 48 and apply them to the North Slope. From 2000 to 2007, we accumulated our acreage positions, refined the portfolio, and started drilling our first well in 2007. We made a nice discovery within the Kuparuk formation and are planning to go in next year to drill three more wells. We are looking for first production by 2013."

A key advantage for smaller independents is finding acreage positions close to existing infrastructure. Larger fields are also available, but targeting smaller fields closer to big developments is more economic for those with less capital. "We are looking anywhere from 10- to 50 million barrels at the moment and that is the typical range of resources that we are focusing on. The reserves are smaller than the average of the bigger players, but because of the proximity to existing infrastructure, we like to think that we can monetize it quicker," observes Bartfield.





Drilling season on the North Slope takes place in the winter, from December to April. Snow and ice build-up allows for easier transport of heavy equipment across the tundra surface.

Erik Opstad, general manager of another North Slope independent, Savant Alaska, says that the possibility of using major-owned infrastructure makes the singular difference between success and failure for smaller players. The company had recently negotiated a deal to restart production at BP's Badami Field, a smaller oil field located on the North Slope's Brookian reservoir, where operations were previously shut down due to poor performance.

"Under our farmout agreement we have had unfettered access to



and use of the Badami surface infrastructure operated by BP, a complex of civil, utility and production facilities linked to a sales pipeline; assets that could not be easily replicated in today's regulatory and operating environment," says Opstad. "Were it not for this preexisting infrastructure, development of the Brookian would have little chance of being commercial, even with the incentives offered by a number of excellent state programs."

#### **Cook Inlet**

Independent awakening in Alaska has also been clearly noticed in Cook Inlet, where the number of active new companies has grown considerably. Despite being Alaska's oldest oil field, the Inlet remains largely unexplored.

"When Prudhoe Bay was discovered in the late 1960s, it was such a massive find and such a game-changer that companies picked up and moved," says Steve Sutherlin, spokesman for Escopeta Oil, a Houston-based independent that holds significant leases in Cook Inlet.

"They left Cook Inlet under-explored and only a very small percentage of the hydrocarbons there have been found to date. We and a number of other companies have expressed a very strong interest in offshore Cook Inlet, so we think that the stage is set for a major revitalization of the field."

Despite the Inlet's area and resource estimates being dwarfed by those found on the North Slope, the assessments that independents are putting on their new leaseholds do not always lag behind their North Slope counterparts. Escopeta's Kitchen Lights Unit, an 83,394-acre leasehold positioned in the middle of the Inlet, is estimated by the company to contain as much as 1.7 billion barrels of oil, which would be comparable to some of the North Slope's most successful plays.

The growing awareness of the Inlet's resource potential and state efforts to promote the area's competitiveness have piqued independents' interest. A prime example has been new entrant Apache Corp., which bid about \$9 million for slightly more than 500 thousand acres. The company will begin seismic operation this year with exploratory drilling slated for 2012 or 2013.

"Government efforts to make the Inlet competitive have paid off," says John Bedingfield, Apache vice president of operations and new ventures. "I think the State of Alaska has done exactly what they intended to do in Cook Inlet. They have provided a competitive environment that is attractive to explorers, and I applaud Alaska's Department of Natural Resources for being so business savvy in their approach. They did an excellent job of structuring incentives that were helpful to attract us here." •

# **Not Texas**

Alaska's petroleum industry faces unique service challenges.

hen Alaskans compare their state to others from an operating perspective, certain trends become apparent. On a bright note comes the initial comparison of size, most often in reference to Texas being twice as small, followed shortly by more complex observations. Beyond the obvious temperature and weather comparisons, Alaska's oil and gas companies must deal with drastically different operating environments than those found in most oil and gas provinces. Thankfully, decades of experience have turned the state's service companies into ideal working partners, ready to share their knowledge and get companies to production as soon as possible.

## Logistics

The first operational challenge companies face when dealing with Alaska is actually getting there. The second is getting around. "From a project perspective, our biggest challenge in Alaska is the complexity of the logistics," says Richard Farrand, national oil and gas director of Weston Solutions, a leading national infrastructure redevelopment firm. "How do you mobilize to a site that is on the tundra and off the road system and then, how do you get that site cleaned up or addressed with no impact?" Despite intense competition within the small market, major carriers have carved out specific niches for themselves, based on size, weight and delivery time.

"This is a really simple market," explains Greg Kessler, commercial director for Totem Ocean Trailer Express, one of two major ship freight carriers. "Logistics and transportation to Alaska are key, because it's remote, cold, dark and icy, so there are not a lot of providers who can supply a consistent reliable service."

Three conventional options to get equipment to Alaska are by shipping, air freight or trucking. Shipping is the most utilized method and the majority of freight reaches Alaska through the port of Anchorage. A major expansion project to the port is under way that will greatly increase its terminal capacity, and, according to port authorities, the efforts are a result of not only aging infrastructure, but of an expected increase in shipping needs in coming decades.

Air cargo, while costly, wins when it comes to speed. Alaska Air Cargo is particularly called on regarding drilling parts, says managing director Torque Zubeck. "Drilling is a big concern because parts often break. When an operator needs a drillbit urgently, we can fly that equipment from anywhere in the U.S. in one day to Prudhoe Bay, and that's a big part of our business."

Famous for its beautiful passenger rides through the idyllic Alaska wilderness, Alaska Railroad is better known in the oil and gas industry as a key transportation avenue for equipment. The railroad operates a barge service from Tacoma, Washington, to its port in Seward. "We represent 8% of the market capacity for bringing things up here from the continental U.S.," explains vice president Steve Silverstein. "For large projects, when steel, pipe, chemicals and bulk

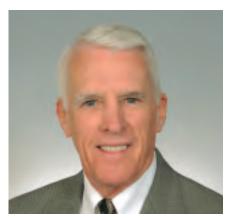
materials need to be moved, we are more efficient than trucking, so we are better able to get materials to the interior of the state from the coastline.... We are very much involved in moving heavy things for the oil and gas industry, and we don't handle consumer goods and light things that come to Alaska by ship. We handle most of the pipe, chemicals, drilling muds, and the other oil-field materials because they are much better handled in a railcar."

### Labor, skills

When the TAPS pipeline was constructed from 1975-77, it caused a major population boom within Alaska. Thousands of inexperienced workers came from other states in search of opportunity. Initially, the lack of a trained workforce posed a major problem, but throughout the construction of the pipeline, and for the following four decades, many of the people who built TAPS stayed in Alaska and brought together a deep working knowledge of oil and gas work in Arctic conditions. That knowledge and skill, however, was not passed on in a sustainable manner, and today, a majority of Alaska's workforce is close to retirement.

Even though Alaska's Department of Labor has undertaken successful efforts to raise the number of students studying oil and gas-related academic fields, staffing and recruitment agencies in the state have been tasked with the more immediate challenge of finding the skills and the people willing to work in Alaska today. As more of the





Robert Bulmer, Alaska Executive Search

TAPS generation begins to retire, many agencies have had to look for skills outside of the state, but finding the right people remains difficult, explains Robert Bulmer, who, with his wife Anne, has been running employment company Alaska Executive Search since 1977. "We try to find people in Alaska for our jobs, but many companies are hesitant to bring people up from other places. We really need to be careful when we consider candidates from other states," says Anne Bulmer.

"I know one company that has gone through four chief financial officers in four years because the families were not happy. You have to interview for that as well, otherwise people are going to come up here with false perceptions. If they don't know what they are getting into, they might not last."

"We are now finding that we have to go out of the state to find specialists that we no longer can find here, and that is not unusual. Before employers would not want to spend money to find people out of state, but now they are willing to pay anything to get the right people, because there is a shortage of them here in Alaska," says Robert.

Given Alaska's complex hiring situation, employment agencies have emerged as use-

ful tools for finding the right people and thus they have been helpful in lowering costs in Alaska's high priced environment. Personnel Plus, another staffing agency, participates in the employee leasing program, which helps smaller companies avoid many costly employment costs. "Under this program, the company does not employ its own staff, but rather we employ the employees and lease them to companies," explains Cindy Schebler, president of Personnel Plus. "That way the work employer does not need to carry the compensation policy, they don't need to provide the medical benefits and we take care of all the paperwork.

"For the seasonal hire period that happens so often on the North Slope, this is a great opportunity and we are trying to get more and more involved, because when those people are laid off, we could carry the unemployment benefits and the company does not have to be involved any longer, which is a huge benefit. Over the past 15 years, about 100 companies have participated in this program with us and the de-

mand for this has been rising in the past year. Service companies who come to us for this program are very pleased with how cost-effective it is."

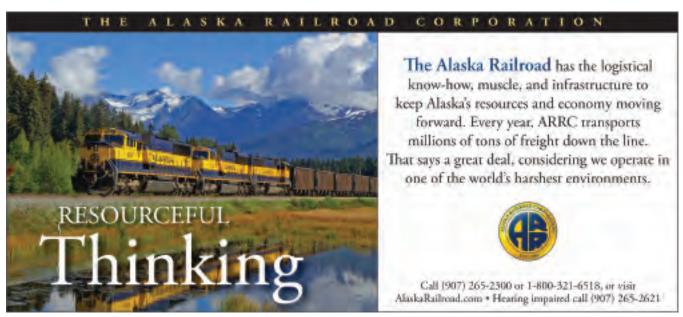
Inasmuch as Alaska's working environment has kept many out, it has also helped create a unique working culture for those that want in. Newcomers to the state can expect to find a very tight knit community, where companies often help each other and competitors work together. "One thing about Alaska which is very unique and why I am still here is that it still has a frontier mentality in that if you are stuck by the side of the road, people come and help you," says Gail Morrison, president of Allied GIS, a geographic information services company that produces maps for oil and gas companies. "There is a lot of free thinking and many innovative ideas that start here, and you won't see that in many other places in the U.S."

### **Environmental permitting**

While Alaska is seen by most as the last



Alpine satellite CD-2 is connected to the main Alpine pad by a combination gravel road/airstrip.





Cindy Schebler, Personnel Plus president

frontier, it is ironic that many Alaskans who have experienced the levels of environmental regulation in other states, often consider them to be more reflective of a Wild West mentality. "The projects here in Alaska are some of the most regulated and technically thoroughly reviewed projects in the whole world," says Kara Moriarty, deputy director of the Alaska Oil and Gas Association.

Alaska's regulations concerning the environment have incrementally become more stringent for over two decades now. When the Macondo accident occurred in the Gulf of Mexico in 2010, the industry suddenly found itself facing high levels of scrutiny that resulted in even tougher regulations. Alaska got a head start in 1989 with the *Exxon Valdez* accident. That environmental catastrophe caused the state to put the environment first in all natural resource decisions.

The negative side effect for companies has been the labyrinth of environmental permits now required to start operations. As a result, a whole industry has been born in Alaska, consisting of companies who help E&P players get their permitting done. "Once all of the permits are in place the system works together fairly well, but it does take a good team of compliance and regulatory experts who will be able to assist a client's navigation through the very complex regulatory requirements in order for you to start drilling a well," says Kirsten Ballard, general manager of Arctos, an environmental consulting firm.

"Fortunately, there are many people and firms here in Alaska who can guide players through the enormous environmental and regulatory maze that each company must go through. This is a very profitable business in Alaska, because getting these permits is certainly not cheap. The effect of such tight regulations can easily be discerned. I have never observed cleaner places of operations than I have seen here," she adds.

#### Conclusion

In an age where easy oil is becoming more difficult to find, Alaska's resources have everything to offer companies looking for massive conventional or unconventional resources in a politically stable and supportive environment. Even though the state will have to address a number of problems to attract the investment it needs, perhaps the most challenging will be dispelling misconceptions that have, over time, become commonplace.

The largest by far is that Alaska is a mature oil province in decline. However, the fact remains that most of the state's oil and gas resources lie untouched, and nowhere else can companies come and make such a difference. "If you are going to be in the oil and gas business there is no better place to invest because you can make an impact...," says Richard Farrand of Weston Solutions. "This is a small community and everyone can make a difference. That makes Alaska unique in terms of the attractiveness of its working environment for professionals looking to be challenged."

For additional and up-to-date information on Alaska's oil and gas industry, visit Alaska's weekly oil and gas newspaper at petroleumnews.com.



