



November 2006 Issue

[Energy To Grow](#)

[Bringing It All Back Home](#)

[Tails of the Deep](#)

Also in This Issue



[HOW IT WORKS: Making Biofuels](#)



[OUR COMMUNITIES: Caring Kids of the Kenai](#)



[VOICES: "What do people ask about Chevron and the industry?"](#)



[LETTERS TO THE EDITOR](#)



Energy To Grow

We are leveraging technology to develop the ultimate biofuel.

by Stacey Simon

I imagine that a new, clean-burning transportation fuel is developed to supplement the Chevron family of quality motor products – a fuel made economically and in substantial quantity from readily available plant substances.

Fodder for the latest science fiction novel?

Hardly. This is the goal of the recently formed Biofuels business unit within Chevron Technology Ventures LLC (CTV), in partnership with Global Downstream, Chevron Energy Technology Co. and several external research organizations.



"Biofuels are an integral component in diversifying energy resources," says Don Paul, Chevron's chief technology officer.

Chevron's core business assets include oil and natural gas resources, but the company has been steadily adding renewable and alternative energy investments to diversify its energy portfolio in light of market dynamics and the changes wrought by growing energy demand and the challenges of developing new production sources.

"To meet the growing energy demand, we will need every molecule. Biofuels are an integral component in diversifying energy resources," says Don Paul, Chevron's chief technology officer.

Already, Chevron is the largest private producer of geothermal energy worldwide, and we have made significant strides in developing of hydrogen infrastructure for fuel cells and manufacturing advanced batteries. More recently, our investments in technology to develop next-generation biofuels processing – and our engagement in several projects involving current generation biofuels – have resulted in a steady stream of

announcements over the past several months.

Biofuels – fuels produced from renewable biomass resources – encompass biodiesel, a fuel made from the oils of plants such as soybeans or sunflowers and blended with diesel, and ethanol (ethyl alcohol), currently made primarily from corn or sugar cane and blended with gasoline.

Both are considered first-generation biofuels as they are produced using conventional feedstocks via conventional conversion processes. A second-generation of biofuels, on which Chevron is focusing, takes less conventional forms of biomass and transforms them into molecules that are chemically like those contained in diesel and gasoline manufactured from petroleum.

“Chevron already sells 20,000 barrels of ethanol a day that is blended into gasoline,” says CTV President Dana Flanders. “We believe biofuels are going to play a role in meeting future energy demand. How big a role isn’t clear just yet. But as a company, we are assessing our opportunities to have a more significant position in the biofuels supply chain.”



“We believe biofuels are going to play a role in meeting future energy demand.” – Dana Flanders, president of CTV

Current Biofuel Activities

To that end, CTV invested earlier this year in Galveston Bay Biodiesel LLP (GBB), a Texas-based company constructing one of the first large-scale biodiesel plants ever built in the United States. Learning about the business – from product manufacturing to storage and distribution – was a key factor in Chevron’s decision to invest in the Galveston-based production and distribution facility.

“This investment is another example of how Chevron takes a proactive, practical approach toward the development of emerging energy sources,” adds Don.

The first module of the new facility, scheduled for completion in the first quarter of 2007, ultimately could be expanded to produce 100 million gallons (379 million liters) per year – more than double what was produced in the United States in 2005. Initially, GBB will produce 20 million gallons (76 million liters) per year. The fuel will be sold pure or blended with conventional diesel to the marine, commercial, trucking and industrial markets in the Galveston and Houston metropolitan areas.

On the ethanol front, CTV is participating in a one-year demonstration project with the state of California, General Motors and Pacific Ethanol to study the efficiency, performance and environmental issues around using E85, a fuel comprising 85 percent ethanol and 15 percent gasoline.

And another Chevron subsidiary – Chevron Energy Solutions Co. – in October announced it has developed a proposal for engineering, geotechnical studies and site and civil design work to develop and build at least three ethanol plants for Ethanex Energy, Inc., a renewable energy company engaged in low-cost ethanol production.

Investing in biodiesel and engaging in first-generation ethanol projects offer Chevron the ability to expand our knowledge of and experience in production, marketing and distribution of these complementary fuel sources. But with an eye clearly toward the future, CTV has, since May, forged

three strategic alliances to advance emerging energy technologies in second-generation biofuel production over the next five years:

- CTV announced plans to collaborate with the Georgia Institute of Technology to develop commercially viable ways of producing transportation fuels from renewable resources such as forest and agricultural waste, otherwise known as “cellulosic” material.
- A second research collaboration – this time with the University of California at Davis – was forged in September to develop viable processes to produce transportation fuels from renewable resources, such as switchgrass grown specifically for biofuel production; agricultural waste, such as rice straw; forest residue; and municipal solid waste. This alliance also will focus on biochemical and thermochemical conversion processes involved in biofuel production, as well as develop other feedstocks optimized for factors such as drought tolerance, minimal land requirements and harvesting technology.
- In early October, CTV entered into a third alliance – with the U.S. Department of Energy’s National Renewable Energy Laboratory in Golden, Colorado — to collaborate on projects to develop the next generation of process technologies that will convert cellulosic biomass into biofuel.

The current biofuel focus is centered on the United States, where state and federal laws are helping drive the use of ethanol and biodiesel.



“Chevron is expanding the capabilities of today’s alternative and renewable energy technologies.” –Rick Zalesky, CTV’s vice president for Biofuels and Hydrogen

Some states already require gasoline to be blended with up to 10 percent ethanol. But the Energy Policy Act of 2005 set a national Renewable Fuel Standard that requires an increase in renewable-fuel use to 7.5 billion gallons (28.4 billion liters) per year by 2012. Projected to represent roughly 5 percent of the total U.S. gasoline consumption, most of this renewable fuel is expected to be ethanol.

“Chevron is investing across the energy spectrum to develop energy sources for future generations by expanding the capabilities of today’s alternative and renewable energy technologies,” says Rick Zalesky, who in June was named to head the newly formed the Biofuels and Hydrogen business unit. Since 2000, the company has spent more than \$1.5 billion on renewable and alternative energy and on delivering energy efficiency solutions.

Dana puts the investment into perspective: “It can take decades between the discovery of a new oil reservoir and the day first production flows from that find, particularly if new technology needs to be developed to bring the crude to the surface. The

same holds true for the technology around renewables – especially biofuels in large volumes derived from cellulose.”

The Science To Be Discovered

At this point there are many questions that must be answered when it comes to developing a biofuel from cellulose. Chevron's main focus is on developing next-generation conversion processes that are efficient, cost effective, and suitable for deployment at the scale of current transportation fuel infrastructure.

Explains James Stevens, CTV program manager for Hydrogen and Biofuels: "We're looking at three variables here. The first is the source: the materials that go into making the fuel. We have to decide which feedstocks make the most sense. Then there's the conversion process. We've looked at more than 70 of them and have narrowed them down to the seven we think are the most viable. And, finally, there's the end product: the fuels we make from these materials and processes.

"Our strategy is to develop new technologies for biofuel production because we believe current technology and feedstocks will be insufficient to meet the projected energy demands. New technologies offer us the opportunity to process a wide variety of cellulosic feedstocks."

Developing this second-generation of biofuels, yet to be produced en masse, could involve the use of existing conversion processes, including hydrolysis (decomposition of a chemical compound by reaction with water), pyrolysis (a heating process) or gasification (a process that converts carbonaceous materials into carbon monoxide and hydrogen, or synthetic gas), or it could use other newer, emerging technologies advanced through CTV's research partnerships.

"We're looking at a lot of second-generation biofuels and ethanol processes," says Harrison Sigworth who, as senior consultant in process planning for Chevron Energy Technology Co., helps provide CTV's Biofuels group with economic, energy and greenhouse gas analyses of different conversion processes that produce ethanol.

While Chevron's progress with biofuels already has positioned the company beyond the realms of science fiction, "science" remains the operative word.

As Al Jessel, who works on local, state and federal fuels regulation as a senior policy adviser for Chevron Products Co., explains it, "The perception is that breakthroughs inevitably happen once enough time and effort have been applied to developing the science. The reality is that it's about finding the science. Nobody's been able to figure out how to convert cellulose to ethanol economically yet, but there's the potential out there. That's what these new partnerships are all about."



Bringing It All Back Home

Nigerians train in South Africa to operate the Escravos GTL plant.

by Dennis Wyss

They've left behind families, friends, a warmer climate and their beloved yam porridge to help fulfill an important role in Chevron's global gas strategy.

Some 118 Nigerian nationals are learning to operate and maintain a gas-to-liquids (GTL) plant at the Sasol Synfuels synthetic fuels facility in the rolling hills of Secunda, an hour outside of Johannesburg, South Africa, where the winters are cold and an unfamiliar porridge called pap is served as a staple food. Eighty-nine other Nigerians are training at the Sasol facility in Sasolburg, not far from Johannesburg.



Some of the Nigerians (above) gather in a training facility at the Sasol Synfuels synthetic fuels plant in Secunda, South Africa. Emenike Eziukwa (top of page) tests equipment in the training lab. The trainees are learning to operate and maintain the GTL plant that Chevron and its partners are building in Nigeria.

The 26- to 31-month training program in a land and culture very different from Nigeria isn't easy, but it's a good opportunity for trainees like Emenike Eziukwa, a former telecommunications-company technician from the Abia state in Nigeria.

"It is a challenge to leave your family and come to a place with a different climate and eat strange food – I do miss our yam – but the training is very interesting, and it's an excellent opportunity to learn valuable skills," Emenike says.

A robust national workforce is one of the objectives of the Escravos GTL (EGTL) project. EGTL, a joint venture of Chevron Nigeria Ltd. and the Nigerian National Petroleum Corp., is under construction and scheduled to begin operation in 2009. With state-of-the-art technologies provided by the Sasol Chevron GTL joint

venture, the EGTL facility will convert natural gas currently being flared into high-performance, ultraclean transportation fuels for markets in Europe and around the world.

Approximately 200 Nigerian nationals and 100 expatriates will operate the facility, says Eric Roper, EGTL venture manager. "Creating jobs for Nigerians at a facility we are building in their country is, quite simply, very important and the right thing to do," Eric says. EGTL is also an important part of Chevron's plans, which include the West African Gas Pipeline, to reduce gas flaring from our operations in Nigeria.

On a broader scale, EGTL is a significant step in Chevron's strategy to grow an integrated global gas business using GTL and liquefied natural gas technologies to commercialize our gas resources. Through its joint venture with Sasol, Chevron has a strong competitive position in the GTL industry – a fledgling global industry that is gaining momentum.

In June, Sasol inaugurated its Oryx GTL plant, the world's largest commercial GTL facility, in Qatar's Ras Laffan Industrial City, outside of Doha. That event coincided with the triumphant arrival in Doha of the Sasol Chevron GTL Challenge, a 6,840-mile (11,000-km) GTL-powered expedition through eastern Africa and Saudi Arabia that dramatically proved the performance capabilities of GTL diesel. The Escravos GTL plant will be the next milestone in the evolution of the industry.

Challenges and Opportunities

The Nigerian trainees at the Sasol facility live in nearby company housing. They receive a stipend and are provided a one-week leave to visit home every other quarter. The biggest adjustments for them are not the complexities of the training and work. Rather, it's the colder, dryer climate of South Africa and the food – pap is always mentioned – that is very different from what they're used to.

But those challenges are expressed by trainees with humor and perspective.

"When these kinds of opportunities come along, you have to take hold of them and make some sacrifices," says Augustine Ameh, a mechanical engineer by training from Nigeria's Benue state. "But I believe that it is truly worth it."

Training for the Nigerians focuses on three primary disciplines involved in the leading-edge GTL technology that Sasol brings to its joint venture with Chevron: production (including maintenance); natural gas reforming, which prepares the gas for the next step; and the Fischer-Tropsch process, which actually produces GTL. When trainees have gained experience in the classroom and training labs, they work shifts in Sasol Synfuel's GTL plant onsite.

While GTL plants are in some respects less complex than refineries, they are trickier to operate. In refineries, fuel components can be made, then stored and blended later. In GTL plants, all parts run simultaneously, each step setting up the next.

Many of the Nigerian trainees, who were chosen from 35,000 applicants, have engineering and science degrees from universities back home in Nigeria. "They're very motivated people," says Ronald Logie, Sasol operational-support training coordinator: "They have little experience with this particular kind of technology, but they're very qualified to learn it. What we're trying to do, with a blend of class work and hands-on problem solving, is connect their heads with their hands."



Nkechi Egbordi, a biochemist from Nigeria's Rivers State, is training to operate the turbines, pumps and boilers in a GTL plant – equipment she never saw in a lab. "But now I am seeing how it all fits together," she says.



"When these kinds of opportunities come along, you have to take hold of them and make some sacrifices," says Augustine Ameh, a mechanical engineer who is one of a group of 118 Nigerians, chosen from 35,000 applicants, who traveled to South Africa to learn how to operate a gas-to-liquids plant.

Nurturing Their Talents

New technology was what attracted Nkechi Egbordi, a biochemist from Nigeria's Rivers state to the training.

"Coming from a biochemistry background, I found things like turbines and pumps and boilers interesting but strange and very difficult to learn about at first," says Nkechi. "You're exposed to a great many new things. But now I am seeing how it all fits together, and I'm becoming confident in my ability to do what we are being asked to do."

Augustine Ameh says that the training is comprehensive and hands-on.

"You learn in class and then take that learning to the workshop and from there to the (GTL) plant," Augustine says. "When you are taught something, it is made sure that everyone understands."

It is troubleshooting complex motors and switching systems that Emenike finds most interesting. "I like to test my thinking on how to solve problems against that of the instructors," he says.

EGTL will help to further unlock the commercial and strategic value of Nigeria's vast natural gas resources for the benefit of the country, its people and the EGTL co-venturers. And it is people

like Emenike Eziukwa, Nkechi Egbordi, Augustine Ameh and their fellow Nigerians in Secunda and Sasolburg, South Africa, who hold the key.

Escravos GTL

A 183-acre (74-hectare) site in a Nigerian swamp is being transformed into a signature project as part of a new global business established to produce high-performance, ultraclean transportation fuels.

The 34,000-barrel-per-day Escravos gas-to-liquids (EGTL) plant, currently under construction, will process natural gas from the Phase 3 expansion of the Escravos gas plant. EGTL is the first project to use the technology and operational expertise of the Sasol Chevron Global Joint Venture. The 50-50 joint venture was established in October 2000 to develop a worldwide GTL business.

Diesel from EGTL is expected to begin fueling cars and trucks in Europe in 2009.



Tails of the Deep

Chevron joins the search for life in one of the world's last unexplored frontiers.

by Nancy Boas

Just because it's dark as coal, cold as slush, and deep as, well, the North Atlantic, doesn't mean it's lifeless. While that's not news to inhabitants, it's opening eyes among scientists watching the odd assortment of fish and other creatures cruise past Chevron's remotely operated vehicle (ROV) on the Orphan Basin seafloor.

Canada's Orphan Basin, nearly 250 miles (400 km) northeast of St. John's, Newfoundland and Labrador, is one of the world's last unexplored petroleum frontiers. The ROV is there for two reasons.

First, it's supporting Great Barasway F-66, a much anticipated, deepwater exploration well that operator Chevron and its partners began drilling in August. The 24,000-foot (7,300-m) well – one of the deepest ever drilled in Canada – should be completed by year's end.

Second, the ROV is doing scientific reconnaissance. It's collecting video footage, stills and sediment samples for an international scientific collaborative project called SERPENT (Scientific and Environmental ROV Partnership Using Existing Industrial Technology). Led by the U.K.'s National Oceanography Centre, SERPENT unites science and academic organizations with energy operators to study the largely unexplored realm of deepwater ecosystems.

"SERPENT gives scientists around the world a privileged view of the deep ocean," says Janne Kaariainen, a SERPENT project research scientist. "It enables us to see incredible animals in their natural habitat, including potential new species."

Adds Andre d'Entremont, an environmental specialist with the Chevron Canada business unit who won Canada's their President's Award for spearheading the partnership with SERPENT: "My colleagues and I are thrilled to help scientists survey the Orphan Basin for the first time. None of us gets many opportunities to explore the unexplored."

Hostile Digs

If you're a fish, the Orphan Basin is a tough place to make a living. The seabed is 1.5 miles (2.4 km) deep. Temperatures at the bottom hover around 37 degrees Fahrenheit (3° C). Light, which can penetrate less than a tenth of that depth, is absent (the ROV provides its own illumination). In the inky darkness, there's little plant life or food. "Some animals prey on each other," notes Lis



Maclaren, SERPENT's outreach coordinator. "Others rely on the fallout or 'marine snow' from the water column above."

The information SERPENT collects will take months to analyze. But if past projects with Chevron and others are any indication, new species might be among the finds.

Beasts at Our Bores

In 2004, while Chevron was drilling its Toledo well in the U.S. Gulf of Mexico, the drillship's ROV filmed a 40-foot- (12-m-) long, serpentlike creature called a siphonophore (see video link at top of page) slithering its transparent body past the well bore at a depth of 3,500 feet (1,100 m). "This animal is actually a colony of single organisms, or zooids, that have formed a long chain," explains Maclaren. "It might even be a new genus."

A year earlier, the same drillship and team filmed a deep-sea squid (see link at top of page) at 10,000 feet (3,050 m). While this type of animal has been filmed more than once, it cannot be positively identified – nor can any new species be named – until a physical specimen is requested. That only occurs when researchers are acutely intrigued, as happened after India's Oil and Natural Gas Corp. Ltd. filmed a worm swimming in that nation's deep waters, its many legs propelling it gracefully through the sea. The worm remains at large.

Life on the Margin

Chevron has conducted other ROV surveys independent of SERPENT, notably in the cold, deep waters northwest of Great Britain, halfway between the Faroe and Shetland islands. At more than a half mile (1 km) deep, bottom water temperatures there can dip below freezing (0° C), though the water never freezes due to high pressure.

Yet despite its classification as an arctic biogeographic habitat, the zone is surprisingly diverse. More than 2,000 species have been identified so far, including a deepwater octopus and an aquatic equivalent of a carnivorous plant.

Chevron surveyed the area from an ROV while drilling in 2003 and again in 2004 with its successful Rosebank Lochnagar well. In October, when Chevron returned to Rosebank Lochnagar to drill three appraisal wells over the fall and winter, it did so in partnership with SERPENT.

"This time, we're expanding our marine survey and undertaking a range of experiments to better understand our impact," says Peter Oliver, environmental adviser to Chevron Upstream Europe. Since nearly all industry wells west of the Shetlands are drilled in summer, Chevron's current survey may reveal the effect of seasonal changes on the deepwater ecosystem.

Meanwhile, scientists inside Chevron and out are eagerly awaiting news of the fish and other creatures that live, or cruise through, Orphan's cold, dark waters. Perhaps Orphan's sea life will be similar to that in other deep seas.

Or perhaps some magnificent beast, unfathomable to mere landlubbers, is swimming toward the ROV now, ready for its close up.

Read more about SERPENT and, later this fall, look out for video footage and photos from the Orphan expedition on the SERPENT Web site.



Making Biofuels

How do you turn plant matter into fuel? That depends. If the plant is corn, the process to turn it into ethanol (or grain alcohol) is relatively simple, and it's been around for thousands of years.

by Stacey Simon

First-Generation Ethanol Production

In the United States, this first-generation ethanol is produced at about 100 facilities, located mostly in the Midwest near corn crops. About 80 percent of the plants use a “dry” milling (grinding) process; the remainder use a “wet” milling extraction process, but both employ the following basic steps:

1. First, the corn is ground into a “meal” that is then mixed with water to form a slurry, or “mash.”
2. Enzymes are added to convert its starch to fermentable sugar (dextrose).
3. The mixture is then cooked at a high temperature to reduce bacteria. Once the mash is cooled and transferred to fermenters, yeast is added, and the mixture ferments for 40 to 50 hours.
4. After fermentation, the mixture is distilled in columns where the ethanol is separated from “stillage.” The ethanol is distilled and dehydrated to remove residual water. The leftover plant matter is treated, dried and sold as an animal feed supplement.
5. Finally, the ethanol is denatured with a small amount of gasoline to make it unfit for human consumption. The final product, containing 92 to 97 percent ethanol, is then ready to be shipped to retailers or gasoline terminals.

Second-Generation Ethanol Production

Chevron is currently researching several processes to convert forms of biomass other than corn, known as cellulosic plant waste, into ethanol. Several of these second-generation processes are proprietary and not available for public disclosure, but one of them, hydrolysis, already is being used to produce cellulosic ethanol in Canada. Cellulose — the major component of most plant solids — is a polymer made of linked sugar molecules. The yeasts normally used for fermenting sugar into alcohol cannot convert cellulose to ethanol. By using enzymes, the cellulose in pre-treated biomass can be converted to sugars that can then be fermented to produce ethanol. The steps are as follows:

1. Plant matter is ground or chipped until it can be transported in a slurry. The plant matter is then mixed with diluted sulfuric acid and steeped at high temperature. This step of the process removes a portion of the plant matter known as hemicellulose and makes the cellulose portion of the plant more accessible to the chemicals used in the next steps.
2. Solids are washed to remove the acid and hemicellulose. They are then steeped with enzymes that convert the remaining cellulose into sugars. Yeasts are then added to ferment the sugars into ethanol.
3. Ethanol is separated and purified by distillation using the same kind of equipment used in the grain ethanol process. The solids left in the process stream are burned to provide heat and power.



Caring Kids of the Kenai

Award-winning program rewards Alaska high school students for thinking 'green.'

By Nancy Boas



Mount Redoubt, Kenai, Alaska. Photo courtesy of Ron Frison.

A 17-year education partnership co-sponsored by Chevron challenges high school students in Alaska's Kenai Peninsula to dream workable answers to the question, What can I do to better care for the Kenai's environment or improve the area's preparedness for a natural disaster?

Caring for the Kenai (CFK) award winners share more than \$6,000 in cash prizes and can earn up to \$20,000 for their school science department.

The Kenai Peninsula, where oil and gas was first discovered in Alaska, is a 25,000-square-mile (65,000-sq-km) region south of Anchorage that comprises 90 percent wilderness and abundant wildlife.

CFK winners include 2004's Marit Hartvigson, who raised more than \$14,000 and organized construction of a walkway to protect the Slikok creek from erosion caused by foot traffic. Marit's project also led to a President's Environmental Youth Award, commemorated in an awards ceremony hosted by U.S. President Bush.

"Some of the ideas that come out of Caring for the Kenai are so innovative, yet so simple and easy to implement," says Roxanne Sinz, Public Relations and Communications manager with Chevron North America Exploration and Production's Midcontinent business unit. "Small changes can make a huge difference when it comes to environmental preservation."

Some winning projects have attracted a degree of exposure uncommon for high school projects. A 1991 entry to create a polyculture greenhouse received a \$78,000 foundation grant and became a successful business.

In 1994, Serena Woods debuted her award-winning environmental curriculum for elementary schools on American Broadcasting Co.'s Good Morning America.

The Nature Conservancy distributed copies of 1998 winner Alden Ford's interactive computer CD, The Kenai Peninsula's Amazing Water Maze, which explores the life of a watershed.

The CFK program, begun by Unocal in partnership with Agrium, a fertilizer-nutrient producer, is open to all Kenai Peninsula–area high school students.

Project Photo Gallery



High school sophomore Elliott Tuttle painted his truck to promote CFK and environmental awareness.



Alaska Highlights

Area: 365 million acres (one-sixth the size of the lower 48 states).

If Alaska were divided in two, Texas would be the third-largest state.

Climate: Significant temperature fluctuations exist in all of Alaska, and especially on the North Slope.

The Cook Inlet area ranges from -40°F (-40°C) to 85°F (29°C).

Snowfall ranges from 50 inches (127 cm) to 150 inches (381 cm) each year.

The North Slope ranges from -60°F (-51°C) to 80°F (27°C).

Snowfall is typically less than 10 inches (25 cm) per year.

Population: 655,000

State Capital: Juneau

Chevron Interests:

Operations

Cook Inlet offshore

- Predominately oil production
- Four operated fields
- 10 platforms
- 145 wells
- Average daily production: approximately 11,000 barrels of oil-equivalent per day (BOED)

Cook Inlet onshore

- Predominantly gas production
- 10 fields (eight operated)
- 60 wells
- Average daily production: approximately 14,000 BOED

North Slope onshore

- Oil production
 - Nonoperated interests in five fields
 - Average daily production: approximately 15,000 BOED
-



When you tell friends and neighbors you work for Chevron, what questions do they ask most about the company or the energy business?

Sofia Brink

*Human Resources Business Partner,
Southern Africa Strategic Business Unit
Luanda, Angola*



“Chevron is without a doubt one of the most

recognized organizations in the world. Why do I say that? Because when I tell my friends I work for Chevron, they smile and say, ‘Then you must be doing really well!’ Questions that come up range from what my paycheck looks like, including all the social benefits provided, to what career opportunities and international experience such a global company offers.”



Ronaldo Marques

*Global Group Category Manager, Marketing,
Global Downstream Procurement,
Chevron Products Co.
San Ramon, California, United States*

“Friends in the United States link the Chevron name

with retail gas stations almost 100 percent of the time. I get a lot of questions like ‘Do you own a gas station?’ or ‘Do you get a discount on gas?’ Few Americans understand the size and scope of the company – which is one of the largest integrated oil and gas producers in the world – or recognize that exploration, production, transportation, refining and distribution are all key parts of our business.”

Russell Moro

*Corporate Counsel, Downstream Law,
Chevron Uganda Ltd.
Kampala, Uganda*



“People ask if Chevron is pursuing renewable energy sources.

Uganda relies heavily on hydroelectricity, but a recent dip in Lake Victoria’s water level due to rainfall declines combined with other factors have restricted Owens Fall Dam’s generating capabilities. To supplement waning hydropower, the government built a thermal plant that uses diesel fuel to generate electricity. However, the public is keenly aware of diminishing oil reserves, and everyone expects Chevron – an old hand – to play a leading role in the search for viable, sustainable alternatives.”



Melinda Rieboldt

*Legal Analyst, Environmental Practice Group,
Law Department, Chevron U.S.A. Inc.
San Ramon, California, United States*

“First, they complain about gas prices. When I

respond that I work in the Law Department’s Environmental Practice Group, they ask if I’m a ‘tree hugger.’ I explain our group is much more than that. We provide counsel on water, waste and other discharge release regulations as well as Superfund [remediation projects as defined by the U.S. Environmental Protection Agency], retail remediation and clean-up compliance issues. We are as concerned as anyone about how company operations affect the environment.”

Nadia Tobing

*Senior Assistant Pharmacist,
PT. Chevron Pacific Indonesia
Rumbai, Indonesia*



“Many people want to know what Chevron’s

business is and what the difference is between Chevron and [the former] Caltex Pacific Indonesia. In 2005, Pt. Caltex Pacific Indonesia was renamed PT. Chevron Pacific Indonesia to raise Chevron’s profile as a top Asian producer. But it will take time to let people know that Caltex is now Chevron, since Caltex had existed since before I was born.”



Massoxi Van-Dunem

*Petroleum Engineer, Southern Africa Strategic Business Unit
Cabinda Gulf Oil Co. Ltd.
Luanda, Angola*

“My friends are often curious about how oil is

measured. They ask if a barrel of oil is actually one barrel, and, if so, can I bring a barrel home? I explain crude oil has not been shipped in barrels since the introduction of oil tankers. However, a standard barrel of crude oil – 42 U.S. gallons [about 35 imperial gallons, or 159 liters] – is still the unit used for measurement and pricing and in tax and regulatory codes.”



Your letters in this issue not only show your appreciation for our diverse stories in September's *Line Rider* (from comic heroes to bug villains), but also for a particular display of Angolan hospitality.

Strikas Scored Big With Readers

Regarding "Brands Score Big With Supa Strikas" [Issue 9], this has been an instant hit since my son brought a copy home over a year ago; all in my home are fans of Supa Strikas. We have to take all the back copies whenever we are visiting him at his boarding house. It's a successful loyalty tie with customers.

Olufemi Salako, Lagos, Nigeria

I enjoyed reading about Mfundo and the Supa Strikers comic strip. What a wonderful story and a wonderful gift! Is it possible for us in the USA to receive it?

Andrea M. Scott, San Ramon, California, United States

It's a Bug-Eat-Bug Life

The question "Who or what is assisting the people of Vietnam's Mekong Delta in growing rice?" ["Test Your Knowledge," Issue 9] had an answer that was misleading, to say the least. The "correct" answer given was "pests." The real correct answer is "pest cycles." Pests can't help anyone grow rice. Using the pest cycles to control the pests can. This item notwithstanding, I still like *Line Rider*.

Stanley Anderson, Houston, Texas, United States

Editor's response: *True – strictly speaking all pests are, well, pests. But we obtained this explanation from the expert sources for our story and found that along with the pest cycles you noted, some pests, too, are useful:*

"Integrated Pest Management is one strategy to slow the increasing use of pesticides and the resulting problems. When farmers learn about the cycle of pests, they learn that some insects are 'good' (called 'predators') in the sense that they eat the insects that damage rice, and some are 'bad' because they cause the damage. Instead of applying large amounts of pesticides to the entire field, which kills both good and bad insects, there is another way. By using small amounts of the right pesticides in targeted areas – where there is a problem that goes beyond the ability of good insects to control – farmers can significantly reduce the amount of pesticides needed to grow a good crop."

Liked the Slide Show

Line Rider is an innovative way of communicating with Chevron employees in over 180 countries. I enjoyed reading all the articles [Issue 9], particularly the story about Vietnam, with slide show, music and Chevron interests. I also enjoyed entering the quiz. Thank you.

Olive Law, Singapore

In Praise of Buddies

"Buddy" is much more than just a five-letter word – for me it was a lifeline! In April I accepted a resident job in the Nigeria/Mid-Africa business unit and started the adventure of planning my move.

One of the unique things about the expat community in Lekki is that you are assigned a "buddy" who looks after you from the time you accept the job until one of you departs! Mine is Laura Bortolon.

I recognized that the buddy scheme was a really neat thing. I later realized it was the key to at least 80 percent of the move. The duties of a buddy are just too numerous to list, but buddies answer any questions you have pertaining to living in Lagos, send you information about your residence, procedures for arrival, etc. If they don't know the answer, they have additional resources to find out (for example, Are guitar lessons available? Are veterinary services available?).

My buddy, Laura, even helped me in preparing for my shipment to Lagos. Thanks to her, I received an inventory list from several people on what to include in the initial shipment, tips on what can be purchased and what can be made here.

A buddy has many responsibilities and works behind the scenes to ensure a very smooth transition for incoming families. In some cases, like mine, where my home was not ready, I actually stayed at my buddy's residence and found out that many of these special buddies have done the same for others. What an extremely generous gesture! It was these extra things that convinced me life in Lagos was going to be just fine.

Moving internationally to a location like Lagos has its ups and downs, but when you are leaving your family back home, it is always nice to know you are gaining another family in that location!

Thank you, my buddy, Laura Bortolon!

Laurie LaMarca, Lagos, Nigeria

Sayings

I saw some interesting favorite sayings [in "Voices: What's Your Favorite Saying," Issue 8] and couldn't help but express my own. When asked how I'm doing, I usually reply, "Great! But I'll get better."

Chuck Walker, New Orleans, Louisiana, United States