

# OFFSHORE FRONTIERS



Mediterranean District:  
Character in Performance



Robert L. Long  
President and CEO

# Welcome

The Mediterranean District (MED) that includes Egypt, Italy and the Caspian Sea has experienced steady demand for shallow water drilling rigs while the advent of deepwater drilling in North Africa and the Black Sea adds to future rig demand prospects.

In Egypt, natural gas production has doubled in recent years, and clients have made significant gas discoveries and achievements. The deepwater semisubmersible *Jim Cunningham* has made several finds for clients, and the 5th-Generation semisubmersible *Sedco Express* constructed Apache's first deepwater well before the rig mobilized to Brazil.

In the next 12 to 18 months, two additional deepwater drilling rigs could be required in Egypt. At the same time, the governments of Morocco and Libya are taking steps to develop deepwater blocks, and deepwater exploration has recently begun in the Black Sea.

This activity comes at a time of strong demand for shallow water drilling in the Mediterranean Sea, primarily due to high oil prices and growing natural gas demand. To meet clients' needs for effective and efficient offshore drilling, Transocean provides an increased focus on safety and performance supported by more than 40 years of experience operating in Egypt and almost 30 years of continuous operations in Italy.

In addition, the innovative Technical Limit Process is realizing significant savings, as is the consolidation of our MED District offices in Cairo with a supply yard and warehouse. Another noteworthy item is the safety performance of the *George H. Galloway* and *Transocean Mercury*, which had achieved Zero TRIR year to date at November 2004.

These efforts and others are important building blocks for helping clients in the Mediterranean to achieve their goals.

# CONTENTS

December 2004

Volume 5. Number 2



**Mission Statement:**  
To be the premier offshore drilling company providing worldwide, rig-based well-construction services to our customers through the integration of motivated people, quality equipment and innovative technology, with a particular focus on technically demanding environments.

**Core Values:**  
**F**inancial Discipline  
**I**ntegrity and Honesty  
**R**espect for Employees, Customers and Suppliers  
**S**afety  
**T**echnical Leadership

*Offshore Frontiers* is published twice a year for employees, customers and other key audiences.

**Executive Editor & Writer:**  
Guy Cantwell  
Corporate Communications Manager  
4 Greenway Plaza  
Houston, Texas USA 77046  
gcantwell@houston.deepwater.com

**Contributing Writers:**  
Steven Newman  
Theresa Seegers

**Design:**  
Ellen Custer

**Illustration:**  
Mike Dean

**Photography:**  
Fulvia Abdoni  
Guy Cantwell  
Ken Childress  
Keith Ridings

**Printing:**  
Chas. P. Young

**Visit us at our Web site:**  
[www.deepwater.com](http://www.deepwater.com)

**On the Cover:**  
Representing the innovative and resourceful employees of Transocean's Mediterranean District, *Trident IV* OIM Donald Sargent helped crews pass Italian inspections after the jackup drilling rig arrived in Italy from West Africa last August. Shown on the streets of Ravenna, Italy, Sargent's hobbies during his time off include flying his experimental airplane.

## FEATURES

As Egypt enters a new phase of its hydrocarbon history with the Nile Delta natural gas development off the country's Mediterranean coast, and Italy seeks to bolster its natural gas production, Transocean provides experience, flexibility and responsiveness.

### 2 Mediterranean: Character in Performance

Transocean has 800 employees from 15 nationalities at work in the Gulf of Suez and the Mediterranean, Adriatic and Caspian seas. Their performance is characterized by steady drilling, 40 years of operations experience and persistence in finding new ways to help clients find and produce hydrocarbons more efficiently.

### 8 Egypt: Gas Comes of Age

Past projections heralding natural gas as the "fuel of the future" are becoming reality, especially, in Egypt's deepwater Mediterranean. The Transocean Egypt team, with the largest offshore drilling fleet operated in the country by a drilling contractor, is reaching greater water depths with improved efficiency and effectiveness.

### 14 Transocean in Italy: Innovation in Motion

Building on three decades of operations in Italy, Transocean people from 15 nations seek out and resolve client drilling issues, focusing on operational improvement and zero incidents.

### 16 A World of Experience

The company serves every major offshore drilling market. A two-page map and fleet listing show that diversity.

### 26 Mediterranean Diversity

Transocean personnel in Cairo and Ravenna share their favorite tourist get-aways.

## DEPARTMENTS

### 31 People FIRST

The Transocean Egypt team is making a difference in Cairo's academic and charitable communities.

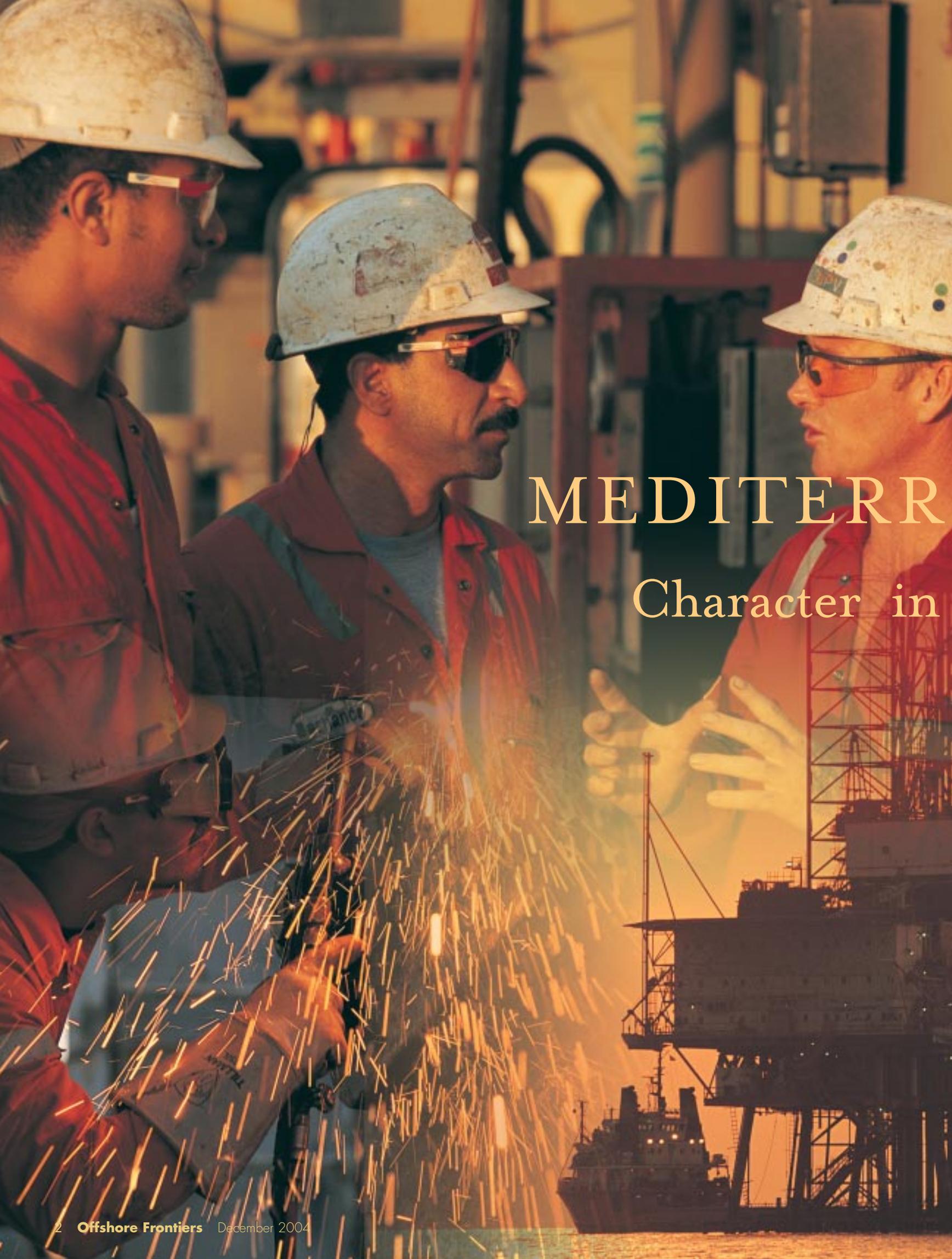
### 32 Connecting with Customers

Customer letters tell us how we're doing.

### 34 Corporate Report

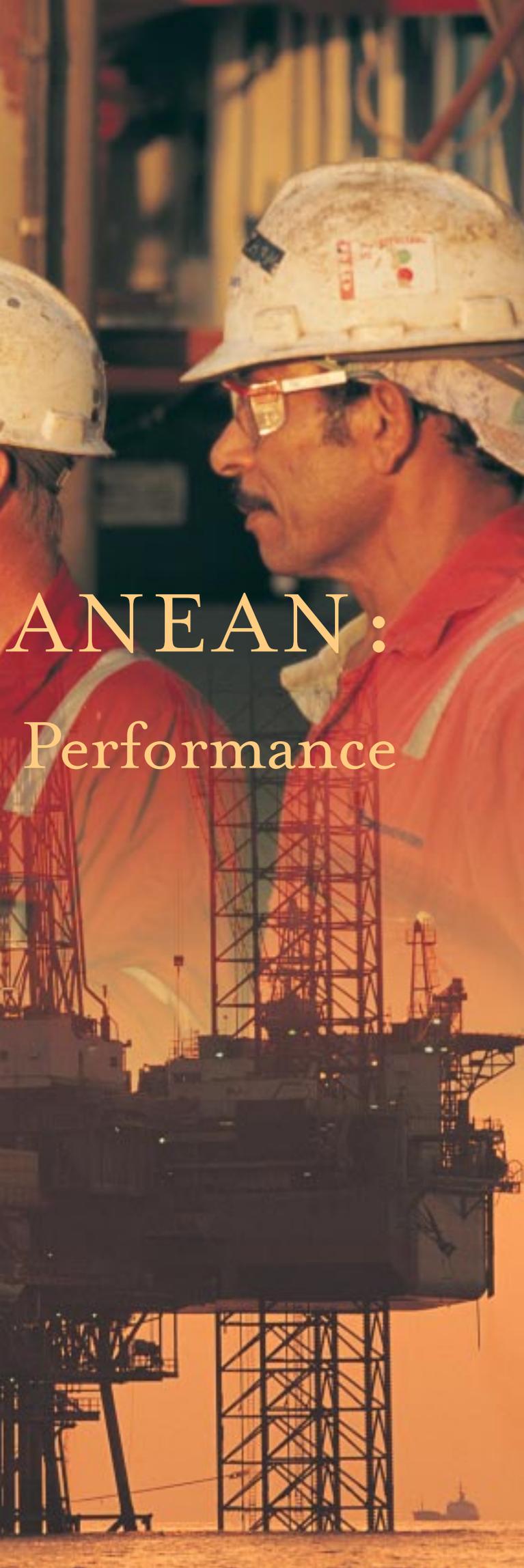
New Horizons column; stock price and safety performance reports and more.





MEDITERR

Character in



# ANEAN: Performance

Just after 4 a.m, screeching airliner wheels smoked the Cairo airport tarmac bringing Mediterranean District (MED) Manager Mac Polhamus from Ashgabat, Turkmenistan. While Parisians slept and Singaporeans made lunch plans, Polhamus headed straight for the office, crumpled shirt and all.

It was another hot August day, vacation season for many people from Rome to Riyadh. But not for Polhamus. His district has eight offshore drilling rigs and 800 employees from 15 nationalities at work in the Gulf of Suez and the Mediterranean, Adriatic and Caspian seas. Their performance is characterized by steady drilling, 40 years of operations experience and persistence in finding new ways to help clients find and produce hydrocarbons more efficiently.

The character of Transocean employees shows up in their ability to overcome major challenges.

In August, ripping Red Sea winds were keeping work boats from serving the jackups *Transocean Comet* and *Transocean Mercury*. Welders' sparks flew in the Mediterranean Sea, part of anchor repair on the semisubmersible *Jim Cunningham*. In the Caspian Sea, *Trident 20* repairs advanced. In the Adriatic Sea, Italian inspectors had boarded the *Trident 4* jackup, recently arrived from West Africa.

Oh, and don't forget: the semisubmersible *Actinia* at the Suez Canal was soon to leave for India, a new Cairo office was being built and many personnel from shorebase offices in Cairo, Ashgabat and Ravenna, Italy, were on vacation.

"The key to success with managing all these issues is having good people, trusting people to make good decisions and communicating effectively," Polhamus says. "One person cannot do it alone."

The MED team approach comes with deep experience, starting with Egypt.

Since 1964, when the drillship *Discoverer I* constructed the first well in the Gulf of Suez, Transocean has advanced offshore drilling for 40 continuous years in Egypt reaching greater water depths with improved efficiency and effectiveness.

The jackup *Transocean Mercury*, the longest-operating rig in the company at 35 years, and the 5th-Generation semi-submersible *Sedco Express*, which drilled the deepest water-depth well for Apache, represent the company's wide range of drilling capabilities in the district.

Now, Transocean delivers greater flexibility and responsiveness as Egypt enters a new phase of its hydrocarbon history with the Nile Delta natural gas development off the country's Mediterranean coast and Italy seeks to bolster its natural gas production.

In recent years, the Egyptian deepwater Mediterranean has been the scene of major natural gas discoveries by various joint ventures and partnerships including the Egyptian government and BP, Shell, BG, Apache and ENI. And more clients

are drilling offshore or are making plans to do so, including RWE of Germany and a partnership involving the Kuwait Foreign Petroleum Exploration Co.

“Egypt’s natural gas sector is expanding rapidly, with gas production more than doubling between 1999 and 2003,” Polhamus says. “Two LNG plants are being built on the northern, or Mediterranean, coast of Egypt to supply gas to southern Europe and ultimately the United States. These developments are having a major impact on the country, and we hope to have a couple of deepwater rigs operating here in the next 12 to 18 months.”

Meanwhile, other North African countries are emerging as deepwater provinces, including Morocco and Libya.

Northward, the Black Sea’s deepwater areas await largely unexplored.

In the northwest Mediterranean, Italy, too, is seeking additional development by enhancing offshore natural gas production. Having constructed more wells off Italy than any contract driller, Transocean is playing a significant role in helping clients achieve this goal. The company has an unprecedented 30 years of continuous operations in Italy, which brings greater understanding of the best ways to meet clients’ drilling needs.

To the Northeast, in the land-locked Caspian Sea, the *Trident 20* began an incident-free startup in December 2004 for Petronas Carigali under a term contract. Working off Turkmenistan after a fire last year, crews wholeheartedly resumed their quest for 0 TRIR for 2004. Unique to the Caspian Sea, the *Trident 20* is the latest-generation jackup with 350-foot-water-depth capability and state-of-the-art equipment, including a 15,000 psi, 18-3/4-inch BOP and 7,500-psi mud-circulation system. The rig has embarked on an initial three-well program, which is expected to be followed by a long-term campaign, as the client has expressed an interest in using the rig for its entire exploration-and-development plan in Turkmenistan in the coming years.

And because the future always favors the best-prepared companies, the Transocean MED team has been exploring new ways to improve performance in a cost-effective manner.

At the Ras Shukeir Base, the support team now includes rotating Transocean Technical Limits Managers, who help BP/GUPCO to plan wells more effectively and Transocean crews to work more safely and efficiently.

At Cairo, a new supply yard, warehouse and office opened in August 2004, realizing cost savings on renting a yard at Alexandria and providing a more productive work environment for the staff.

Other efforts range from creating new safety and leg-jacking system features on jackups in Italy to time-savings measures and English teachers aboard Egyptian units to improve communications.

Clearly, the Transocean MED team thrives on the district’s challenges. No two days are the same. Their stories on the following pages show how they take singular pride in steadily chiseling out strong character in performance.





# Transocean Firsts in the Mediterranean

Mac Polhamus  
Mediterranean  
District Manager



Peter Ramsey  
Operations  
Manager Egypt



## First Well Drilled in Gulf of Suez

The drillship *Discoverer I* drilled the first well in the Gulf in 1964.

## First Deepwater Well by Apache

The *Sedco Express* drilled Apache's first deepwater well, Abu Sir-1X, in 2002 in 3,255 feet of water in the West Mediterranean Concession of Egypt.

## Italian Water-Depth Record

Italy's water-depth drilling record is 3,609 feet of water, set by the Transocean drillship *Discoverer Seven Seas* for Agip in 1982.

## Most Wells Drilled Off Italy

Transocean rigs have constructed 38% of the wells drilled in less than 600 feet of water in Italy since 1983, according to ODS-Petrodata. Transocean rigs have constructed 45% of all wells in Italy in more than 600 feet of water.

## Longest Continuous Presence

Transocean rigs have worked in Egypt for 40 years and in Italy for almost 30 years.



Kees Witte  
Italy Country  
Manager



Gloria Resta  
Italy Country  
Controller



Lage Nordby  
Outgoing Rig  
Manager  
Jim Cunningham



Franca Budi  
Chief Accountant  
Italy





*Discoverer I*



*Sedco Express*



*Discoverer Seven Seas*



★ **Transocean Mediterranean District Office**

● **Transocean Offices**

■ **Supply Yard/Base**

*Trident 4*



*Interocean III*



*Trident 20*





# Egypt — Gas Comes of Age

CAIRO — When Jala Safi Wasfi was in grade school, her father, a geologist, showed her geological maps and seismic lines. He took her to his office to look at core samples under a microscope. It was love at first sight.

“I love the oilfield, because of my dad,” says Wasfi, a Senior Accounts Payable Accountant at Transocean’s Mediterranean District (MED) office in Cairo.

Wasfi and her father represent the two major phases in Egypt’s energy history, starting with the age of oil launched by her father and his generation. Now, Wasfi and the Transocean Egypt team are providing well-construction solutions to clients in a new era, advancing natural gas to the forefront of the energy sector.

Past projections heralding natural gas as the “fuel of the future” are becoming reality, especially, in Egypt’s deepwater Mediterranean. Countries from Africa to Asia are ramping up LNG (liquefied natural gas) projects and gas production. In Egypt, much of the required gas supply comes from offshore discoveries made in recent years.

“Historically, Egypt’s importance to the world energy business has been its oil production and the Suez Canal and Sumed Pipeline as strategic routes for Persian Gulf oil bound for the West,” says MED Manager Mac Polhamus. “Now, energy-consuming countries require additional natural gas supply, and Egypt is performing a key role in providing this clean-burning fuel.”

Meeting marketplace demand for gas and oil means drilling on many fronts. Egyptian clients are drilling both discovery wells at high find rates in the Mediterranean Sea as well as workover wells in the Gulf of Suez.

By December 2004, clients in Egypt were utilizing the largest offshore drilling fleet operated in the country by a drilling contractor: Transocean. The semisubmersible *Jim Cunningham* and jackups *Transocean Mercury*, *Transocean Comet*, *Interocean III*, *Trident 4* and *D.R. Stewart* were all in action here, with the latter two rigs scheduled to return to Italy in early 2005.



Jala Safi Wasfi

## From Oil to Gas and Back

Egypt’s offshore evolution began in 1964 when the *Discoverer I*, the world’s first turret-moored drillship, constructed the first well in the Gulf of Suez. Since 1983 when ODS-Petrodata began keeping records, approximately 20 Transocean rigs in Egypt have constructed a third of all wells drilled in greater than 600 feet of water and one of every five wells in lesser water depths. Another 10 Transocean rigs have operated in 11 other MED District countries (See list, page 13).

No single date best marks Egypt’s transition to natural gas. But when the *Jim Cunningham* arrived in Egypt from West Africa and moored up on its first well in 2002, the energy landscape was rapidly changing with a series of natural gas discoveries. Raven, Ruby 2, Abu Sir, El Max and El King — the *Cunningham* crews drilled all these discoveries.

That same year, the ultra-deepwater semisubmersible *Sedco Express*, working in the Nile Delta, constructed the deepest water-depth well in the history of Apache, one of many operators that have made Egypt a key business focus.

## Shallow Water

In addition to deepwater and mid-water areas, a significant amount of shallow-water drilling, mostly working over platforms, is taking place in Egypt. And Transocean jackup drilling rigs have been performing well and leading the technical limit improvement process.

Despite working for six different clients the past year, the 35-year-old *Transocean Mercury* operated with 0.15 downtime and 0.00 TRIR (total recordable incident rate) year-to-date through November 2004. In addition, service-quality appraisals have regularly exceeded 90%, and crews completely repainted the rig during operations last year.

*“We have two performance Toolpushers who look into every operation. They measure savings and look at lessons learned so that the same mistakes are not repeated.”*

*Kenny Bain, OIM,  
Jim Cunningham*



*Top to bottom: Dr. Ahmed Zaghloul and OIM Kenny Bain of the semisubmersible Jim Cunningham; and Kamal Saeid, Base Roustabout, Ras Shukeir Base.  
Opposite page: the Transocean Mercury in the Red Sea.*





Also of note, in August 2004, the *Mercury* made the first crude oil discovery in many years in the Gulf of Suez for GPC (General Petroleum Corporation), overcoming a difficult well, high winds and rough seas.

Says Peter Ramsey, Operations Manager Egypt: "The crews on the *Mercury* have worked very hard since leaving the shipyard in March 2003 and have been instrumental in moving the rig to the next level of excellence. They should be congratulated for their major contributions and the part they all played in securing long-term work for the rig."

Originally, the hole for GPC had been difficult and had almost been written off, says Keith Ridings, a *Mercury* OIM.

But the rig team worked closely with the client to save the well and achieved successful log and drill stem testing without further incident, Ridings adds.

For these and other efforts, the *Mercury* was named Rig of the Quarter during the second quarter of 2004 for the Eurafrikan Unit.

"The current condition of the rig, our procurement management, maintenance system, warehousing and safety record are all testament to the management and rig crews who are going beyond the company's 2004 objectives," Ridings reports in late 2004.

### No Limits

Safety and low downtime are precursors to what the *Transocean Comet* and GUPCO (Gulf of Suez Petroleum Company) are achieving, assisted by Technical Limit

Process Managers working from the Ras Shukeir base. Tasked with making well-construction more efficient, effective and safe, employees launched the project in 2004.

Operational savings to date exceed \$1 million for GUPCO, which is a joint venture between BP and EGPC.

What is the limit to effective and efficient offshore drilling?

"I don't believe that there is a limit," says Andy Michel, Technical Limit Manager at the Ras Shukeir Base, on an August day when temperatures approached 100 degrees Fahrenheit (38 degrees Celsius). "It's not about cutting corners so that safety is affected. It's about getting things planned prior to a work event and being more efficient."

For example, jackup drilling off Egypt the past 25 years required the use of a "shooting nipple" during open-hole wireline operations. But the technical limit process identified that the tool wasn't necessary as well-control barriers and tested pressure-control equipment were already in place during these operations.

"Every time we omit the use of that shooting nipple, we save GUPCO \$20,000," Michel says.

In the Mediterranean Sea, the crews of the *Jim Cunningham* also are embracing the technical limit process, entering 2005 with upgraded accommodations and repairs to anchors and drilling equipment. Operational improvements include reduced riser-running time.

"Some improvements are quick changes and others take time," says OIM Kenny Bain. "We have two performance Toolpushers who look into every operation. They measure savings and look at lessons learned so that the same mistakes are not repeated. After every operation, we speak with the crews, document savings and plan forward, including who is responsible to make sure future improvements happen."

### The Best Medicine

Many improvement efforts involve support for crews, creating a healthier rig and stronger mindset on the job.

Dr. Ahmed Zaghloul on the *Jim Cunningham*, has all the medical equipment and supplies used offshore, including stethoscope and defibrillator. But helping people with family issues, organizing chess games and motivating crews to lead healthy lifestyles are among his favorite activities.

"People will wake me up at 2 a.m. often with family problems," says Dr. Zaghoul, "These issues don't take long to resolve after they rise to the surface, which happens because we have a good management system. In addition, I like helping people, which is my first priority."

Another benefit has been English teachers, who have increased understanding among crews offshore.

"We started the English teaching in October 2002 on the *Mercury* and by the time I left last year to come to the *Comet* there wasn't a single person with whom I couldn't have a chat," says outstanding *Transocean Comet* OIM Willie Dalgarno.

### Improving Onshore

Onshore, personnel also are making improvements to enhance their support of the rigs.

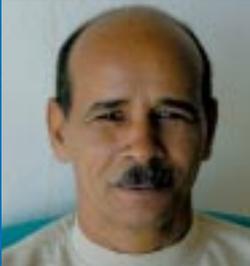
IT Administrator Dina Hegazy and personnel such as Eurafican Unit IT Manager Paul Poncelet in Montrouge,

France, have helped the MED District achieve substantial savings through e-mail and satellite connections between computers onshore and offshore rigs. In addition, voice-over IP technology allows phone calls to company offices worldwide using extension numbers. The result: considerable cost savings.

"You can save in a month what you paid in a year for these services," says Hegazy.

Hegazy was part of another team improvement: moving Transocean's MED offices from New Maadi in town to new offices at Katameya near the Cairo airport, where most of Transocean's clients are located. Also on the team were Ashraf Nour, Administration and Public Relations Supervisor, and Mohamed Saad, HR Manager.

Nour spent all hours of the day helping manage the construction, which took the complex from mostly framed structures to immaculately finished buildings in just a matter of weeks between August and September.



Top to bottom:  
Andy Michel,  
Technical Limit  
Process Manager;  
Abbas El-Abd,  
Ras Shukeir Base  
Supervisor; Transocean  
Mercury Electrician  
Ahmed Samir and  
outgoing Comet OIM  
Willie Dalgarno.



Leading the team that moved into Transocean's new Mediterranean District office and yard/warehouse near the Cairo airport were, left to right: Dina Hegazy, IT Administrator; Asbraf Nour, Administration and Public Relations Supervisor; and Mohamed Saad Hamdan, HR Manager.

With 8,500 square meters of space, the new complex includes a warehouse and supply yard that costs less than a rented facility at Alexandria. It also has 32 offices, two conference rooms, a training room, a cafeteria and a room for twice-a-day prayers.

### Getting Ahead

Success in Egypt has brought immediate rewards through rigs' contracts. It also can lay the groundwork for future drilling opportunities in the deep water of the Black Sea and other North African countries, including Morocco and Libya, places where Transocean rigs have worked in the past.

Looking ahead, employees hope to capitalize on Transocean's deep experience in drilling offshore North Africa supported by their personal drive for continuous improvement on all fronts.

Like many employees, Jala Wasfi, the Senior Accounts Payable Accountant, has a personal vision of what it takes to succeed.

"To be a leader, I should be an initiator of good decisions at the right time," says Wasfi, whose duties include scouring invoices for any discrepancies and managing the petty cash for the MED District.

"I'm the first one to catch invoice mistakes," says Wasfi, "and I'm an eagle eye on the petty cash."

And on Egypt's new energy era.

## Transocean in the Mediterranean District

Of all the countries in the Mediterranean District (MED) where Transocean has operated since the *Discoverer I* drilled the first well in the Gulf of Suez in 1964, approximately two out of three company units have worked in Egypt. The following list is based on records from ODS-Petrodata and the company.

### Egypt

*Actinia*  
*J.T. Angel*  
*Jim Cunningham*  
*Discoverer I*  
*Discoverer II*  
*Discoverer 534*  
*Discoverer Seven Seas*  
*Charley Graves*  
*Interocean III*  
*Roger W. Mowell*  
*Offshore Aquarius*  
*Offshore Babram*  
*Offshore Taurus*  
*Sedco 472*  
*Sedco Express*  
*Sedco H*  
*D.R. Stewart*  
*Transocean Comet*  
*Transocean Mercury*  
*Tender D-01*  
*C.E. Thornton*  
*Trident 4*  
*Trident 6*

### Italy

*J.T. Angel*  
*George H. Galloway*  
*M.G. Hulme, Jr.*  
*Mr. Jack*  
*Roger W. Mowell*  
*D.R. Stewart*  
*Ron Tappmeyer*  
*Trident 4*

### Caspian Sea

*Trident 20*

### Albania

*M.G. Hulme, Jr.*

### Greece

*Roger W. Mowell*  
*C.E. Thornton*

### Libya

*Actinia*  
*Discoverer II*

### Malta

*M.G. Hulme, Jr.*

### Morocco

*Sedco 445*

### Portugal

*Discoverer 511*

### Spain

*Actinia*  
*J.T. Angel*  
*Discoverer 511*  
*Discoverer Seven Seas*

*Sedco I*

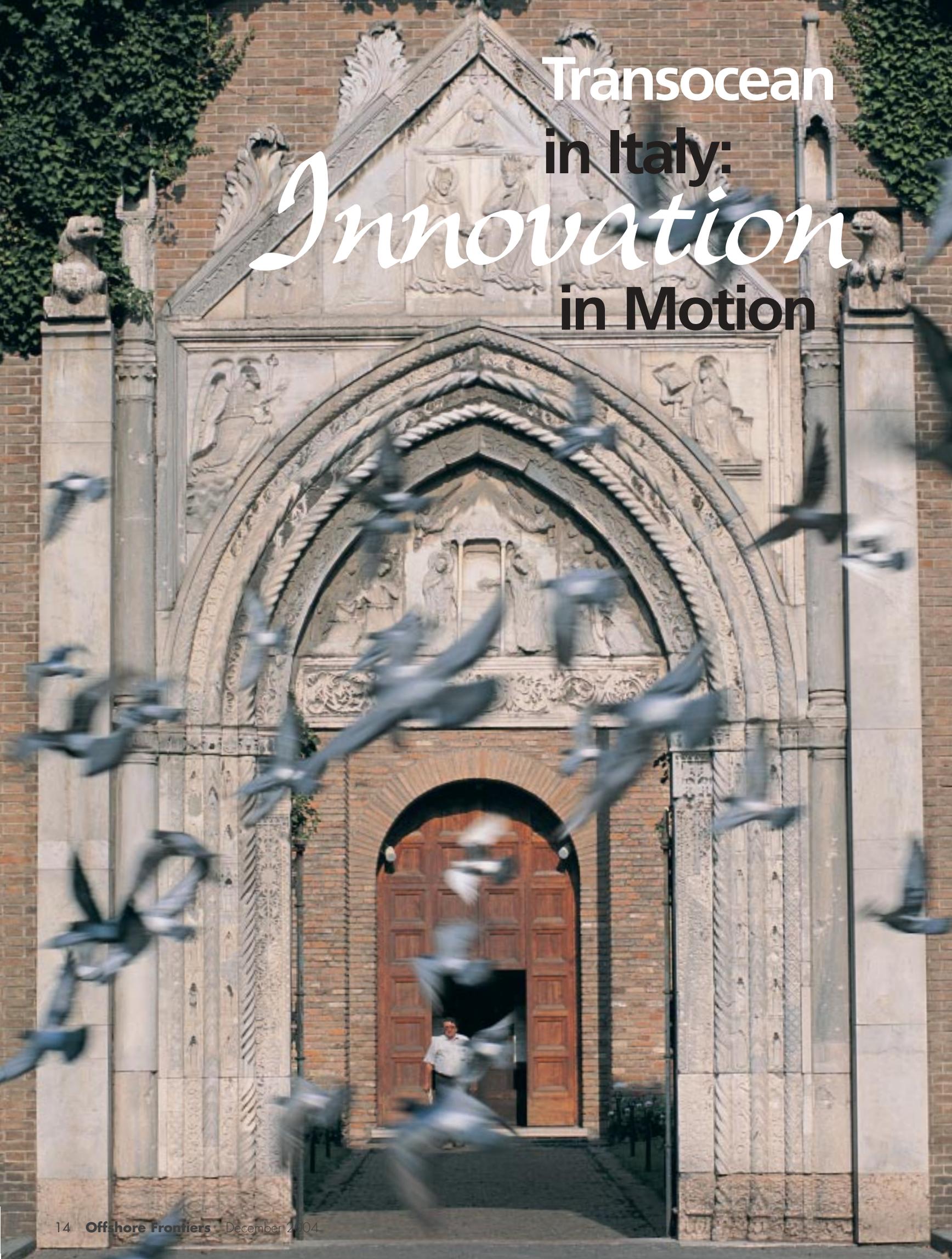
*Sedco 601*  
*Sedneth 701*

### Tunisia

*Actinia*  
*J.T. Angel*  
*Roger W. Mowell*  
*Sedco H*

### Turkey

*Interocean III*  
*Sedco 700*



Transocean  
in Italy:  
*Innovation*  
in Motion

Opposite page: The gothic portal of the Basilica of St. John the Evangelist (Basilica of S. Giovanni Evangelista) is the most ancient church in Ravenna, Italy. Just a few blocks away are the Italy offices of Transocean, the country's most experienced offshore drilling contractor.

**RAVENNA – For millennia, people have made a living from the Mediterranean and Adriatic seas, sailing between them in search of a better future. The story continues for Italy, which today imports most of its petroleum supplies and greatly values its own offshore natural gas fields, home to the innovative crews of Transocean rigs for three decades.**

Building on longstanding operations in Italy, Transocean people from 15 nations seek out and resolve client drilling issues, focusing on operational improvement and zero incidents.

Transocean personnel are as diverse and adaptable as the local Italian culture, a rich mix of mercantilism, values and history that includes Ravenna's brief role as the capital of the Western Roman Empire. The same care that Leonardo da Vinci put into designing Ravenna's harbor can be seen in action offshore.

That's where Costas Kellas, a 37-year company veteran, implemented a smoother jacking mechanism on the *D.R. Stewart*, while the *George H. Galloway* crews reduced injury risks by eliminating 75% of vertical ladders.

It's where the *D.R. Stewart* crews achieved 10 years without a single serious injury case between 1991 and 2001; followed by the *Trident 4*, which came to the MED District from West Africa last year, passed Italian inspections and conducted smooth startup operations.

The *D.R. Stewart* and the *Trident 4* — past recipients of the company's FIRST Excellence Award for outstanding performance in Transocean's core values — have been working on temporary assignment in Egypt. Both rigs and the *George H. Galloway* had not had a single serious injury case year to date as of November 2004.

"Overall, the team here has performed well," says

Italy Country Manager Kees Witte. "Downtime on the rigs is almost zero and safety performance has been solid, though there is still room for improvement. As a result, we've gotten some good term contracts. In addition, our crews have the opportunity to drill deeper wells with the average depth going from 10,000 feet in past years to 15,000 feet, today, and the majority of the work is reconstructing existing wells using the latest technologies."

### Taking Up the Challenge

Key to the team are the friendly, hard-working Croatian crewmembers, such as Roland Guscic, who joined the company 10 years ago as a Roustabout fresh from Rijeka (River), Croatia.

"It's a challenge to work on this rig," says Guscic, now an RSTC (Rig Safety, Training Coordinator) on the *George H. Galloway*. "This is not a boring factory job."

Indeed, work in the Adriatic can be exciting, as the *Galloway* crews found when conducting batch-set drilling on the Garibaldi field in August.

"This is the first batch drilling we've done since we've been here," says OIM Mike Prati on an afternoon of calm seas and mild winds just a few miles from the Italian Riviera.

While the walnut-tanned society class soaked up the sun on the beach, *Galloway* crews were batch drilling the same-sized casing sections on multiple wells over the Garibaldi platform.

"This is where the savings come from," Prati says, "not having to change mud, clean the mud pits and change out types of equipment on board, unloading and loading each size of casing string. All your drilling assemblies, mud and other supplies stay until you finish all the sections. You're probably saving 20% in time just from less handling of all of these items."

Such efficiency can accelerate gas production. That's important for Italy, where natural gas consumption has grown 9% year on year and where 85% of the nation's gas supplies are imported.

### To Be the Best

The client, ENI SpA, the world's sixth-largest oil company, clearly understands the value of optimal drilling performance and works productively with Transocean offshore and onshore.

"The client lets us do our job," Witte says. "We have a mutual respect, and ENI knows that when they need us, we're there."

Top performance requires an ability to plan for and manage challenges.

Sometimes, it's the weather, which can be brutally cold in the winter followed in the spring and summer by sudden water-spout squalls. Or, the test may be working with zero discharge or drilling step-out deviated wells for eight to 12 months at a time over a single platform, compared with a few weeks in West Africa.

*continued on page 23*

# Transocean:



As of December 2004



# A World of Experience



Other High-Specification Semisubmersibles  
Other Drillships

Other Semisubmersibles  
Jackups

Inland Barges  
Tenders

*Transocean's diversity of people and markets is matched only by its diversity of assets. From inland barges in 10 feet of water to drillships in 10,000 feet of water, we're never out of our depth.®*

*Left to right, this page:*

*First Row: Sedco Energy, Sedco 710, Paul B. Loyd Jr.*

*Second Row: Shelf Explorer, Discoverer Enterprise*

*Third Row: Deepwater Pathfinder, Peregrine 1*

*Fourth Row: Discoverer Seven Seas, George H. Galloway, Jack Bates*

*Fifth Row: Transocean Driller, Transocean Legend, Transocean Winner*



# TRANSOCEAN FLEET

BY TYPE AND WATER DEPTH CAPACITY - AS OF DECEMBER 2004\*

TYPE AND NAME	YR. ENTERED SERVICE	WATER DEPTH CAPACITY <sup>1</sup> (IN FEET)	DRILLING DEPTH CAPACITY (IN FEET)	LOCATION	DESIGN	BOP RATING
<b>High-Specification Floaters • 5th-Generation Deepwater • 13</b>						
Discoverer Deep Seas (DP Ship)	2001	10,000	35,000	U.S. GOM	Discoverer Enterprise	18 3/4 in., 15,000 psi
Discoverer Enterprise (DP Ship)	1999	10,000	35,000	U.S. GOM	Discoverer Enterprise	18 3/4 in., 15,000 psi
Discoverer Spirit (DP Ship)	2000	10,000	35,000	U.S. GOM	Discoverer Enterprise	18 3/4 in., 15,000 psi
Deepwater Discovery (DP Ship)	2000	10,000	30,000	Nigeria	RBF/Samsung	18 3/4 in., 15,000 psi
Deepwater Frontier (DP Ship)	1999	10,000	30,000	Brazil	Conoco/Reading & Bates	18 3/4 in., 15,000 psi
Deepwater Millennium (DP Ship)	1999	10,000	30,000	U.S. GOM	Conoco/Reading & Bates	18 3/4 in., 15,000 psi
Deepwater Pathfinder (DP Ship)	1998	10,000	30,000	En route to Nigeria	Conoco/Reading & Bates	18 3/4 in., 15,000 psi
Deepwater Expedition (DP Ship)	1999	10,000	30,000	Brazil	Rauma Repola Arctic	18 3/4 in., 15,000 psi
Deepwater Horizon (DP Semi)	2001	10,000	30,000	U.S. GOM	RBS-8D	18 3/4 in., 15,000 psi
Cajun Express (DP Semi)	2001	8,500	25,000	U.S. GOM	SFXpress 2000	18 3/4 in., 15,000 psi
Deepwater Nautilus (Semi)	2000	8,000	25,000	U.S. GOM	RBS-8M	18 3/4 in., 15,000 psi
Sedco Energy (DP Semi)	2001	7,500	25,000	Nigeria	SFXpress 2000	18 3/4 in., 15,000 psi
Sedco Express (DP Semi)	2001	7,500	25,000	Brazil	SFXpress 2000	18 3/4 in., 10,000 psi
<b>Other Deepwater • 15</b>						
Deepwater Navigator (DP Ship)	2000	7,200	25,000	Brazil	Earl & Wright Sedco 400	18 3/4 in., 15,000 psi
Discoverer 534 (DP Ship)	1975/1991	7,000	25,000	India	Sonat Discoverer	18 3/4 in., 10,000 psi
Discoverer Seven Seas (DP Ship)	1976/1997	7,000	25,000	India	Sonat Discoverer	18 3/4 in., 15,000 psi
Transocean Marianas (Semi)	1998	7,000	25,000	U.S. GOM	Sedco 700	18 3/4 in., 15,000 psi
Sedco 707 (DP Semi)	1976/1997	6,500	25,000	Brazil	Sedco 700	18 3/4 in., 15,000 psi
Jack Bates (Semi)	1986/1997	5,400	30,000	Australia	F&G L1020 Trendsetter	18 3/4 in., 15,000 psi
Peregrine I (DP Ship)	1982/1996	5,300	25,000	Brazil	Gusto Pelican	16 3/4 in., 10,000 psi
Sedco 709 (DP Semi)	1977/1999	5,000	25,000	Ivory Coast	Sedco 700	18 3/4 in., 15,000 psi
M.G. Hulme, Jr. (Semi)	1983/1996	5,000	25,000	Nigeria	F&G 9500 E. Pacesetter	18 3/4 in., 15,000 psi
Transocean Richardson (Semi)	1988	5,000	25,000	Ivory Coast	GVA 4500	18 3/4 in., 15,000 psi
Jim Cunningham (Semi)	1982/1995	4,600	25,000	Egypt	F&G 9500 E. Pacesetter	18 3/4 in., 15,000 psi
Sedco 710 (DP Semi)	1983	4,500	25,000	Brazil	Sedco 700	18 3/4 in., 10,000 psi
Transocean Rather (Semi)	1988	4,500	25,000	En route to UK North Sea	GVA 4500	18 3/4 in., 15,000 psi
Transocean Leader (Semi)	1987/1997	4,500	25,000	Nor. N. Sea	Aker H-4.2	18 3/4 in., 15,000 psi
Sovereign Explorer (Semi)	1984	4,500	25,000	Trinidad	GVA 4000	18 3/4 in., 15,000 psi
<b>Other High-Specification • 4</b>						
Henry B. Goodrich (Semi)	1985	2,000	30,000	E. Canada	Sonat/Mitsui SES-5000	18 3/4 in., 15,000 psi
Paul B. Loyd, Jr. (Semi)	1987	2,000	25,000	UK N. Sea	Aker H-4.2	18 3/4 in., 15,000 psi
Transocean Arctic (Semi)	1986	1,650	25,000	Nor. N. Sea	Marosso 56	18 3/4 in., 15,000 psi
Polar Pioneer (Semi)	1985	1,500	25,000	Nor. N. Sea	Sonat/Hitachi	18 3/4 in., 15,000 psi
<b>Other Floaters • 25</b>						
Peregrine III (DP Ship)	1976	4,200	25,000	U.S. GOM	Gusto Pelican	16 3/4 in., 10,000 psi
Sedco 700 (Semi)	1973/1997	3,600	25,000	E. Guinea	Sedco 700	18 3/4 in., 10,000 psi
Transocean Legend (Semi)	1983	3,500	25,000	Brazil	Bingo 3000	18 3/4 in., 10,000 psi
Transocean Amirante (Semi)	1978/1997	3,500	25,000	U.S. GOM	Aker H-3	18 3/4 in., 10,000 psi
C. Kirk Rhein, Jr. (Semi)	1976/1997	3,300	25,000	U.S. GOM	Aker H-3	18 3/4 in., 10,000 psi
Transocean Driller (Semi)	1991	3,000	25,000	Brazil	F&G L-1033 E. Pacesetter	18 3/4 in., 15,000 psi
Falcon 100 (Semi)	1974/1999	2,400	25,000	U.S. GOM	F&G L 900 Pacesetter	18 3/4 in., 15,000 psi
Sedco 703 (Semi)	1973/1995	2,000	25,000	Australia	Sedco 700	18 3/4 in., 10,000 psi
Sedco 711 (Semi)	1982	1,800	25,000	UK N. Sea	Sedco 711	18 3/4 in., 15,000 psi
Transocean John Shaw (Semi)	1982	1,800	25,000	UK N. Sea	F&G 9500 E. Pacesetter	18 3/4 in., 10,000 psi
Sedco 712 (Semi)	1983	1,600	25,000	UK N. Sea	Sedco 711	18 3/4 in., 15,000 psi
Sedco 714 (Semi)	1983/1997	1,600	25,000	UK N. Sea	Sedco 711	18 3/4 in., 15,000 psi
Actinia (Semi)	1982	1,500	25,000	India	F&G L-1033 E. Pacesetter	18 3/4 in., 10,000 psi
Sedco 600 (Semi)	1983	1,500	25,000	Singapore	Sedco 600	18 3/4 in., 10,000 psi
Sedco 601 (Semi)	1983	1,500	25,000	Indonesia	Sedco 600	18 3/4 in., 10,000 psi
Sedneth 701 (Semi)	1972/1993	1,500	25,000	Angola	Sedco 700	18 3/4 in., 10,000 psi
Sedco 702 (Semi)	1973/1992	1,500	25,000	Australia	Sedco 700	18 3/4 in., 10,000 psi
Transocean Winner (Semi)	1983	1,500	25,000	Nor. N. Sea	GVA 4000	18 3/4 in., 15,000 psi
Transocean Searcher (Semi)	1983/1988	1,500	25,000	Nor. N. Sea	Trosvik Bingo 3000	18 3/4 in., 15,000 psi
Transocean Prospect (Semi)	1983/1992	1,500	25,000	UK N. Sea	Trosvik Bingo 3000	18 3/4 in., 15,000 psi
Transocean Wildcat (Semi)	1977/1985	1,300	25,000	UK N. Sea	Aker H-3	18 3/4 in., 10,000 psi
Transocean Explorer (Semi)	1976	1,250	25,000	UK N. Sea	Aker H-3	18 3/4 in., 10,000 psi
J.W. McLean (Semi)	1974/1996	1,250	25,000	UK N. Sea	Zapata SS-3000	18 3/4 in., 10,000 psi
Sedco 704 (Semi)	1974/1993	1,000	25,000	UK N. Sea	Sedco 700	18 3/4 in., 15,000 psi
Sedco 706 (Semi)	1976/1994	1,000	25,000	UK N. Sea	Sedco 700	18 3/4 in., 10,000 psi
<b>Jackups • 26</b>						
Trident 9	1982	400	20,000	Vietnam	Modec 400-C-35	13 5/8 in., 10,000 psi
Trident 17	1983	355	25,000	Vietnam	Modec 300-C-38	13 5/8 in., 10,000 psi
Trident 20	2000	350	25,000	Caspian	Keppel Fels CS Mod. V	18 3/4 in., 15,000 psi
D.R. Stewart	1980	300	25,000	Egypt	Marathon LeTourneau 116-C	13 5/8 in., 10,000 psi
George H. Galloway	1984	300	25,000	Italy	F&G L780 Model II	13 5/8 in., 10,000 psi
Harvey H. Ward	1981	300	25,000	Malaysia	F&G L780 Model II	13 5/8 in., 10,000 psi
J.T. Angel	1982	300	25,000	Indonesia	F&G L780 Model II	13 5/8 in., 10,000 psi
Randolph Yost	1979	300	25,000	India	Marathon LeTourneau 116-C	13 5/8 in., 10,000 psi
Roger W. Mowell	1982	300	25,000	Malaysia	F&G L780 Model II	13 5/8 in., 10,000 psi
Ron Tappmeyer	1978	300	25,000	India	Marathon LeTourneau 116-C	13 5/8 in., 10,000 psi
Shelf Explorer	1982	300	20,000	Indonesia	CFEM T2005-C	13 5/8 in., 10,000 psi
Interocean III	1978/1993	300	25,000	Egypt	Sonat Orion-Cantilever	13 5/8 in., 10,000 psi
Transocean Nordic	1984	300	25,000	India	CFEM T2600-1	13 5/8 in., 15,000 psi
Trident 2	1977/1985	300	25,000	India	Marathon LeTourneau 116-C	13 5/8 in., 10,000 psi
Trident 4	1980/1999	300	25,000	Egypt	Marathon LeTourneau 116-C	13 5/8 in., 10,000 psi
Trident 8	1982	300	21,000	Angola	Modec 300-C-35	13 5/8 in., 10,000 psi
Trident 12	1982/1992	300	25,000	India	Baker Marine BMC 300-IC	13 5/8 in., 15,000 psi
Trident 14	1982/1994	300	20,000	Angola	Baker Marine BMC 300-C	13 5/8 in., 10,000 psi
Trident 15	1982	300	25,000	Thailand	Modec 300-C-38	13 5/8 in., 10,000 psi
Trident 16	1982	300	25,000	Cambodia	Modec 300-C-38	13 5/8 in., 10,000 psi
C.E. Thornton	1974	300	25,000	India	Marathon LeTourneau 53-C	13 5/8 in., 10,000 psi
F.G. McClintock	1975	300	25,000	India	Marathon LeTourneau 53-C	13 5/8 in., 10,000 psi
Transocean Comet	1980	250	20,000	Egypt	Sonat Cantilever	13 5/8 in., 10,000 psi
Transocean Mercury	1969/1998	250	20,000	Egypt	Sonat Cantilever	13 5/8 in., 10,000 psi
Trident 6	1981	220	21,000	India	Modec 300-C-35	13 5/8 in., 10,000 psi
Transocean Jupiter	1981/1997	170	16,000	UAE	Sonat Cantilever	13 5/8 in., 10,000 psi

# TRANSOCEAN FLEET

BY TYPE AND WATER DEPTH CAPACITY - AS OF DECEMBER 2004\*

TYPE AND NAME	YR. ENTERED SERVICE	WATER DEPTH CAPACITY <sup>1</sup> (IN FEET)	DRILLING DEPTH CAPACITY (IN FEET)	LOCATION	DESIGN	BOP RATING
<b>Self-Erecting Tenders • 4</b>						
Charley Graves	1975	500	20,000	Thailand	Self-Erecting Tender	13 5/8 in., 10,000 psi
Searex 10	1983/1994	450	21,000	Nigeria	Self-Erecting Tender	13 5/8 in., 10,000 psi
Searex 9	1981	400	20,000	Congo	Self-Erecting Tender	16 3/4 in., 5,000 psi
W.D. Kent	1977	400	20,000	Malaysia	Self-Erecting Tender	13 5/8 in., 10,000 psi
<b>Non-U.S. Drilling Barges • 4</b>						
Searex 6	1981/1991	25	25,000	Cameroon	Swamp Barge	13 5/8 in., 10,000 psi
Searex 12	1982/1992	25	25,000	Nigeria	Swamp Barge	13 5/8 in., 10,000 psi
Hibiscus	1979/1993	25	16,000	Indonesia	Heavy Swamp Barge	13 5/8 in., 10,000 psi
Searex 4	1981/1989	21	25,000	Indonesia	Swamp Barge	13 5/8 in., 5,000 psi
<b>Platform Rigs • 1</b>						
Cliffs #1	1988/1998		18,000	China		
<b>Other • 2</b>						
JOIDES Resolution ( <i>Research Drillship</i> )	1978	27,000	30,000	U.S. West Coast	Earl & Wright Sedco 400	N/A
Sedco 135D	1966/77/01	600	Dewatering	Brazil	Earl & Wright Sedco 135	N/A

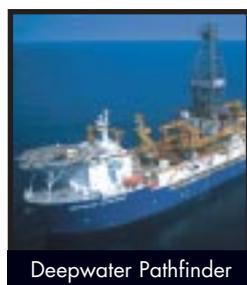
\* As of December 2004, for most units, whether wholly or partially owned, managed, chartered or under joint venture.

<sup>1</sup> Nominal ratings subject to limiting environmental conditions and, in some cases, extended by supplemental equipment.

## TRANSOCEAN: DEEPWATER INNOVATOR



Sedco Express



Deepwater Pathfinder

Transocean's unparalleled technical leadership in ever-greater water depths includes the:

- First offshore jackup drilling rig
- First self-propelled jackup
- First turret-moored drillship
- First dynamically positioned drillship for exploration
- First dynamically positioned semisubmersible
- First fourth-generation semisubmersible
- First rig to drill year-round in the North Sea
- First semisubmersible for sub-Arctic, year-round operations in the Barents Sea
- First semisubmersible for year-round drilling West of the Shetland Islands in more than 4,000 feet of water
- First deepwater semisubmersibles with patented Tri-Act derrick
- First ultra-deepwater drillship with patented dual-activity drilling system
- First drillship capable of working in 10,000 feet of water

## WORLD RECORDS



Discoverer Deep Seas



Deepwater Nautilus

Transocean holds 19 of the past 23 world records for drilling in the deepest waters. Our ultra-deepwater drillship *Discoverer Deep Seas* set the current world water-depth drilling record in 10,011 feet of water in the U.S. Gulf of Mexico working for ChevronTexaco.

Other world records include the world's deepest subsea well completed in 7,570 feet of water by the *Deepwater Nautilus* and the world water depth record for a moored rig in 8,951 feet of water also by the *Deepwater Nautilus*. Both records were set working for Shell.



*Left to right, this page:*  
*First Row:* Charley Graves,  
Deepwater Millennium  
*Second Row:* Falcon 100, Sedco 707,  
M.G. Hulme, Jr.  
*Third Row:* Trident 15, Discoverer 534,  
Deepwater Horizon  
*Fourth Row:* Transocean Nordic,  
Hibiscus, Deepwater Nautilus  
*Fifth Row:* Transocean John Shaw,  
Transocean Amirante, C. Kirk Rhein

A large offshore oil rig is silhouetted against a bright sunset sky. The rig's complex steel structure, including a tall derrick and a large circular platform, is visible. In the background, a support vessel is also silhouetted against the orange and yellow light of the setting sun. The water in the foreground shows the wake of a boat, with ripples catching the low light.

*Likewise, environmental protection is a major focus.*

### *For the Record*

Transocean rigs have constructed almost 40% of the wells drilled in less than 600 feet of water in Italy since 1983, according to ODS-Petrodata records. The company's rigs have constructed 45% of all wells in Italy in more than 600 feet of water during that period.

The Italian water-depth drilling record is 3,609 feet of water, set by the Transocean drillship *Discoverer Seven Seas* for Agip in 1982.



*“...Our crews have the opportunity to drill deeper wells with the average depth going from 10,000 feet in past years to 15,000 feet...”*

Italy Country Manager Kees Witte

Opposite page: George H. Galloway.  
Above: Peter Panza, Floorman, D.R. Stewart

continued from page 15

This dynamic activity attracts personnel like Ozren Perman, who joined the company as an Electrician two years ago after leaving a Croatian shipyard that was headed for bankruptcy.

“In the shipyard, I was working on everything from old Russian fishing boats to the latest generation of cable-laying vessels,” says Perman, who is now a Chief Electrician on the *George H. Galloway*. “The Transocean safety processes, personal-protection equipment and colors personality process were completely new to me. They make everything much safer at work.”

Likewise, environmental protection is a major focus. All drilling rigs offshore Italy work in zero-discharge mode.

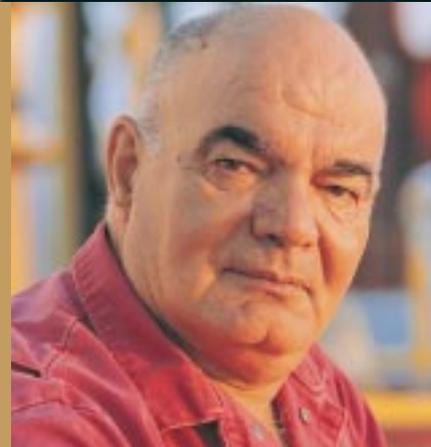
“Even the surface hole cuttings are shipped to shore,” says *Galloway* Toolpusher Harvey Parkin. “I’ve never seen that anywhere in the world. When you’re drilling, you can be filling a skip every half hour for 12 hours.”

### Discovering Success

Last August on the *D.R. Stewart*, just two hours by boat ride from the *Galloway*, crews were decked out in yellow

*“The first time we used the lubricators, and there are 16 on each leg, it cut down the noise by 25%... The second time it was over 50%. Then we couldn’t hear it anymore, and we wondered if the rig was jacking down.”*

Costas Kellas  
Barge Supervisor,  
*D.R. Stewart*



rubberized coveralls and boots as protection from caustic completion fluids.

Watching and helping deck crews to safely line up equipment for upcoming operations was Costas Kellas, Barge Supervisor. He joined the company as a cook in the North Sea in the 1960s on the *Mr. Louie*. Working up the ranks, Kellas learned and looked for ways to make various improvements.

One discovery is the new oil-release lubrication system that reduces noise and wear and tear on the rig’s leg-jacking system.

“The first time we used the lubricators, and there are 16 on each leg, it cut down the noise by 25%,”

*“Every day we try to find a way to  
make something safer.”*

Sylvio Nonveiller  
Driller, *D.R. Stewart*



*“Before, there was no means of automatically relieving pressure from the water pumps in the event of an emergency. Now there is.”*

Ozren Perman  
Chief Electrician  
*George H. Galloway*



Kellas recalls. “The second time, it was over 50%. Then we couldn’t hear it anymore, and we wondered if the rig was jacking down.”

The same drive for improvement led Perman, the Chief Electrician on the *Galloway*, to upgrade the fire-fighting system for the galley and laundry area on his rig.

“Before, there was no means of automatically relieving pressure from the water pumps in the event

of an emergency,” he explains. “Now there is.”

Sylvio Nonveiller, a Driller on the *D.R. Stewart*, was part of yet another innovation. He helped reduce man-riding hours by 60% in two months, working on a team to add a small platform in the casing-stabbing area of the derrick, so that cables hanging from the top drive could be more easily attached to the traveling block.

“Every day we try to find a way to make something safer,” he says.

The same focus on improvement pervades the shorebase office at Ravenna.

Gloria Resta, Italy Country Controller, who has been with the company since the beginning in Ravenna in 1975, sums up how Transocean operates here.

“We definitely work by the company’s core values,” she says. “And I believe that we all work as a team. If there is an issue, we all work together to solve it.”

With innovation.



*Opposite page: D.R. Stewart. Hands on staircase rails, Costas Kellas and company leave one job safely completed for the next.*



The diverse cultures of countries that kiss the Mediterranean Sea make for quite an eclectic mix of tourist experiences.

*The Transocean offices*

in Cairo, Egypt, and Ravenna, Italy, share some of their countries' favorite get-aways.

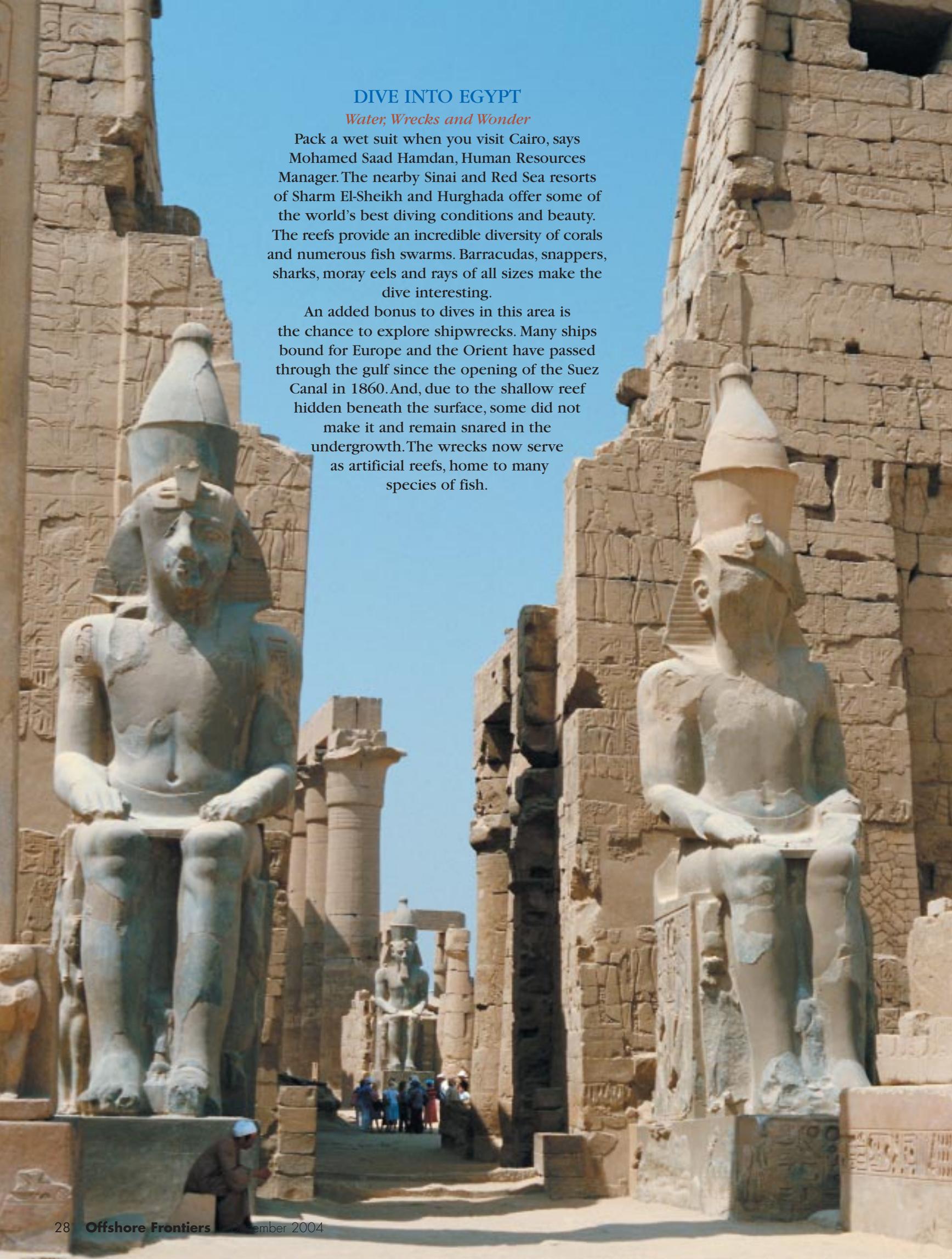


## DIVE INTO EGYPT

### *Water, Wrecks and Wonder*

Pack a wet suit when you visit Cairo, says Mohamed Saad Hamdan, Human Resources Manager. The nearby Sinai and Red Sea resorts of Sharm El-Sheikh and Hurghada offer some of the world's best diving conditions and beauty. The reefs provide an incredible diversity of corals and numerous fish swarms. Barracudas, snappers, sharks, moray eels and rays of all sizes make the dive interesting.

An added bonus to dives in this area is the chance to explore shipwrecks. Many ships bound for Europe and the Orient have passed through the gulf since the opening of the Suez Canal in 1860. And, due to the shallow reef hidden beneath the surface, some did not make it and remain snared in the undergrowth. The wrecks now serve as artificial reefs, home to many species of fish.





Facing page: Temples of Luxor:

Top left: Red Sea rich reefs with Emperor Angelfish. Top right: Feluccas west of Aswan. Below: Ravenna Riviera.

### *Hail a Camel*

While in Cairo, Ashraf Nour, Administration and Public Relations Supervisor, Egypt, says a trip to the area would not be complete without visiting one of the seven wonders of the world — the Pyramids and Sphinx of Giza. Located on the west bank of the Nile River, three main pyramids dominate the complex. They were built for three rulers — Khufu, Khafre and Menkaure.

The largest pyramid stands at 485 feet (150 meters) and held the record of being the tallest artifact on earth for more than 4,300 years until high-rise buildings started dotting the skyline in the 19th century. It's estimated that about two million stone blocks, each weighing more than two tons, went into building the main pyramid.

“Many people come to Egypt for vacations in August, including folks from the Persian Gulf area,” says Nour, a Giza native. “It makes for quite a mix of tourists, many of whom ride hired camels near the pyramids.”

Camel riders, take note: camel drivers do speak most European languages and English, along with Arabic. They like to separate tourists individually during the camel rides and ask for personal tips. For an additional

fee, they will take you around one side of the pyramids, past archeological construction and a small set of dwellings for an outstanding view of the sun setting behind these historic monoliths.

### *Living in a Museum*

If it's possible for an entire city to be a museum, then Luxor is the world's greatest open-air museum, filled with awe-inspiring palaces, monuments, temples and tombs of ancient civilization.

Take in the sights from a horse-drawn *caleche*, sail in a *felucca*, take a sunset cruise or see Luxor: The City of Palaces from above in a hot-air balloon.

Located about 80 miles south of Luxor is Aswan, considered Egypt's sunniest southern city and ancient frontier town. The atmosphere is distinctly African with a slow and relaxing pace of life on the banks of the Nile. Many consider the river to be at its most beautiful here, flowing through amber desert and granite rocks, as well as round emerald islands covered in palm groves and tropical plants. Watching a sunset while dining on freshly-caught fish at a floating restaurant and listening to Nubian music is the perfect way to end a visit to Egypt.





Left: Bikes are best for seeing Ravenna. Above: Marradi near Ravenna.

## CIAO, BABY

### *Relax on the Ravenna Riviera*

Ravenna is situated in the northern part of Italy on the Adriatic coast, very close to Venice and Florence and the Republic of San Marino. The town itself is a major attraction for tourists wanting to see the world's richest heritage of 5th and 6th century mosaics. The masterpieces reflect the ancient Christian symbolism of the Bible's scriptures, and the churches that contain the mosaics are themselves seen as architectural works of art. UNESCO, the United Nations Educational, Scientific and Cultural Organization, has eight of this tiny village's buildings on its World Heritage List.

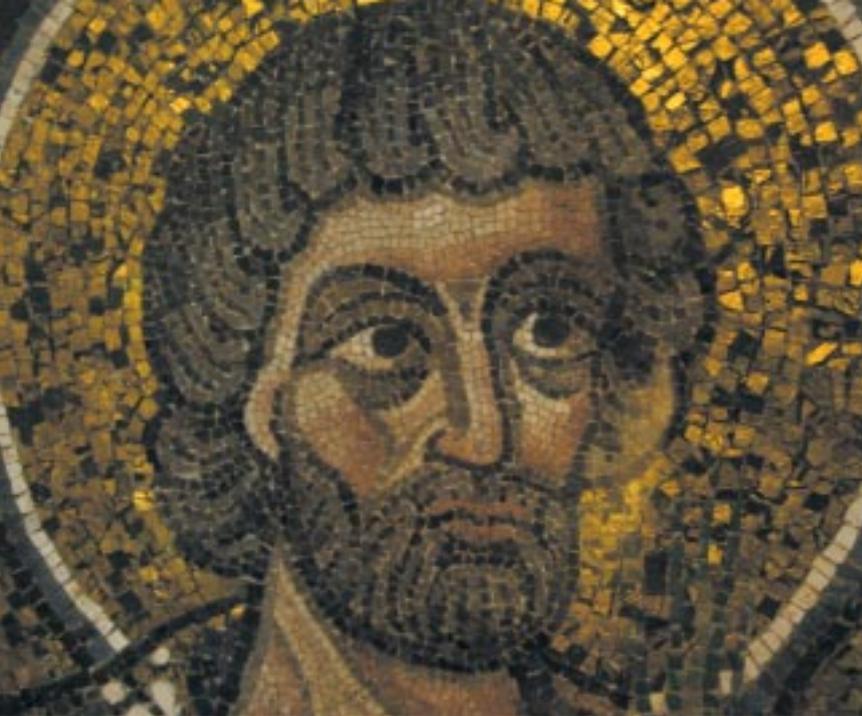
Ravenna's beautiful surroundings make for some interesting day trips as well. Fulvia Abdoni, Personnel Assistant, says visiting the local beach, Mariana di Ravenna, is a popular pastime during the summer.

A lighthouse marks this resort, built more than a century ago, about seven miles (11 kilometers) north-east of Ravenna. Devoted to tourism since the 1930s, Marina di Ravenna charms visitors with beautiful villas along tree-lined avenues surrounded by parks, hotels and restaurants. The 800-berth harbor and wide sandy beach entice seafaring adventures and fun in the sun.

### *It's a Natural*

In the fall and winter, Cristina Asta, Personnel Assistant, reports that the Sagra, or food festivals, lure tourists into the quaint, historic villages in the nearby hills. "My personal preference is SANA, an exhibition held in Bologna every year. It usually takes place in September and it's heaven for those who believe in natural things, organic food, and ecological design," she says.

Indeed, SANA, the International Exhibition of Natural Products — Nutrition, Health, Environment, touts itself as the main event for the whole natural world.



Above: Ravenna is famous for its 5th and 6th century mosaics of Bible depictions.

This year's 16th annual event attracted 74,000 visitors and 1,600 exhibitors from 34 countries of Europe, North America, Asia, Australia and Africa.

Nutrition vendors include producers and distributors from retail to large-scale distribution. Promoting natural health are physicians, pharmacists, herbalists, homeopaths and therapeutics. For the environment, architects, designers, building contractors, furniture and clothing dealers, producers of environment-friendly energies and environment technicians, show why going natural is a good thing — and good for you.

#### *Homage to the Chestnut*

In October, Abdoni and Asta like to travel to Marradi for the *Sagra Delle Castagne* (Festival of the Chestnut). "It's a quite famous one," reports Abdoni. Marradi is a beautiful village between Tuscany and Romagna, under the province of Florence, about 30 miles (50 kilometers) from Ravenna, and its claim to fame is the *marron buono*.

The chestnuts grown here are appreciated for their high quality, good fruit weight and pulp value. Visitors flock to the village to sample all types of chestnut delicacies and purchase bags of *castagne bianche*, or chestnut flour. "It is amazing what they can cook with them," Abdoni says. "Chestnut gnocchi, chestnut pasta, cakes and polenta — just delicious."

From Ravenna, festival goers can board a coal train to Marradi. "It's like stepping back in time," Abdoni says. She adds that the Marradi area is filled with chestnut forests where you also can pick your own.

A glance at other nearby festivals shows celebration of the truffle, porcini mushroom, almond nougat, edible plants, livestock, and of course, wine.

*Egypt and Italy: diverse countries with the common bond of giving visitors the opportunity to experience some incredible world history.*



Raising money for charity sometimes seems like having to climb the highest mountain — literally. To celebrate 50 years of working with poor communities in Egypt, CARE International introduced the BG Egypt Energy Challenge last year. On December 3rd and 4th, 2004, dozens of four-member teams paid the US \$4,000 entry fee and set off on the challenge to climb Mount Sinai, the highest mountain in Egypt, and hike nine miles (15 kilometers) into the valley within two days.

Funds and strained muscles were still being assessed at press time, but indications are that CARE reached its goal of raising US \$100,000 to support the organization's poverty-fighting projects in Egypt.

The Egypt challenge was sponsored by British Gas, which has teamed with CARE before to present similar events in the United Kingdom. Transocean donated \$4,000 to sponsor a BG team. "This was the perfect opportunity to work together with our client to support helping the community," says Mohamed Saad Hamdan, Human Resources Manager, Transocean Cairo office.

On the education front, Saad reports that Transocean sponsored two scholarships at the American University in Cairo with a total of US \$24,000 for the 2003-04 school year, and has renewed that commitment for 2004-05.

#### *About CARE*

*CARE International is a confederation of 12 organizations, providing assistance to people in need and long-term solutions to ending global poverty. Founded in the wake of World War II, CARE is today one of the world's largest private humanitarian relief and development organizations. CARE has projects in over 65 countries around the world with its International Secretariat in Brussels, Belgium.*

*CARE International in Egypt is a not-for-profit, non-sectarian development organization that has been serving individuals, communities and local associations in the poorest regions of Egypt since 1954. CARE provides and supports opportunities in agriculture; micro-finance and small enterprise development; basic and girls' education; local water management, water and sanitation; capacity building for civil society; Rights-Based Approaches and advocacy planning; among others.*  
[www.care.org.eg](http://www.care.org.eg)

# Connecting with Customers

## **Polar Pioneer**

We wish to thank all the crews on *Polar Pioneer* and the onshore management who through a number of years have performed a great job for Hydro, and not in the least for the Troll license. *Polar Pioneer* has been in service for Hydro almost continuously for more than 18 years and has during this time drilled close to 42 miles (418,147 meters) for Hydro. The work performed throughout these years has contributed to great economic growth for the society.

The jobs performed by *Polar Pioneer* demand respect both when it comes to technical challenge, quality, efficiency and safety results. You have every reason to be proud of the rig and the work you have performed. I know that you have worked with dedication and great loyalty to Hydro, which I appreciate immensely.

The rig has been a true “pioneer” for Hydro through constantly being a test bench for new, challenging drilling exercises. The success stories have been numerous.

*Polar Pioneer* and her crews have been throughout the years a model in Hydro for great safety work, showing great safety results over a long period.

Thank you for your contribution and good luck on Snøhvit.

Best Regards,

Roald Soltveit

Drilling Manager Mobile Units  
Norsk Hydro Produksjon a.s.



## **In Review**

### Media Analysis

#### Discoverer Enterprise Featured on History Channel

On September 29, 2004, at 9 p.m. Central Standard Time (10 p.m. Eastern Time), U.S. cable and satellite TV viewers saw the Discoverer Enterprise featured as part of The History Channel program “Modern Marvels, More of the World’s Biggest Machines.” The Enterprise segment included excerpts of an interview conducted with Rig Manager Dan Reudelhuber, as well as video and animation of the drillsip in action in the U.S. Gulf of Mexico.

“The rig isn’t just big, it’s revolutionary,” the History Channel narrator noted.

Reudelhuber said the program about the world’s first dual-activity drillsip was well produced. “Frankly, I didn’t know what to expect, but in the end I was pleased with the outcome,” he says.

The History Channel segment is the second high-profile coverage of the Discoverer Enterprise by a news media outlet during 2004. The rig was spotlighted in the cover story of the June edition of National Geographic Magazine.

### **Sedco 700**

On behalf of Nexen Petroleum Equatorial Guinea Limited, I would like to thank the crew members on the *Sedco 700* and the Transocean shore-based staff for the exceptional performance that was achieved during the drilling of Nexen's first well offshore Equatorial Guinea.

Your efforts during the drilling of the well accomplished many things: 1) your days without a Lost Time Accident was not broken during the drilling of the Nexen well which translates into a safe operation for all involved; 2) no environmental incidents occurred; 3) the time required to reach total depth was much better than expected; and 4) the above time saving reflects on a lower than expected well cost.

Nexen headquarters and our partner are very impressed with the drilling results on this first well which only happened due to your professionalism, dedication and hard work. *Again, thank you,*  
*Frank MacIsaac*  
*Drilling Manager*  
*Nexen Petroleum EG Limited*

### **Sedco 601**

The Santos drilling operations group in Jakarta and drilling crew onboard the *Sedco 601* have achieved a significant accomplishment with the running of 5 kilometres of 9-5/8" casing in the Jeruk-2 well. This follows a similar 3 km accomplishment with the 13-3/8" casing last month.

Over 5,000 m of 9-5/8" casing have been set above the targeted Kujung Carbonate, in the highly deviated, (52 degrees) abnormally pressured and high-temperature Jeruk-2 well. The drilling crew safely ran this mammoth string of casing in a timely/cost effective manner utilising the Tesco casing handling system, a new innovation in casing running which allows safer, more efficient handling of casing with less manual handling than conventional methods.

To me, the team have clearly shown they have learned from Jeruk-1 and with their dedication, commitment and experience are putting Santos back on the pedestal of effective and efficient drillers in East Java and the partners of choice.

The Santos/Transocean team is to be congratulated on this safe and innovative accomplishment.

May the exploration team now deliver also!

*Chris Newton*  
*President, Santos Indonesia*

### **Trident 16**

Allow me to thank you for the time you made available to make our visit to the *Trident 16* informative, enjoyable and safe. Building and sustaining relationships with key stakeholders is an important aspect of the way we do business in ChevronTexaco, and the visit to the rig was invaluable in this respect.

Out guests, viz: Deputy Prime Minister and Chairman of Cambodian National Petroleum Authority, H.E. Sok An; H.E. Mr. Te Duong Tara, Director General, Cambodian National Petroleum Authority; and the United States Ambassador for Cambodia, Charles Ray, came away from this visit with a better understanding of the complexities, science and risk in drilling operations.

In closing, let me mention that the safety and health of our workforce (employees and contractors) and the protection of the environment we operate in are core values our company upholds. My observation during the Safety Briefing suggests that your company also demonstrates similar values. This being the case, my sincere desire is to complete this exploration campaign incident free. Your ongoing support and care for our mutual values is much appreciated.

*Regards,*  
*Isikeli R. Taureka*  
*Managing Director*  
*Chevron Offshore (Thailand) Ltd.*



*Transocean's Trident IV jackup was featured on the cover of the July 2004 edition of World Oil Magazine.*

## **Press Box**

### Media Mentions

#### *Transocean Mercury Strikes Oil*

*Yesterday the Egyptian Minister of Petroleum Mr. Samah Fabmy announced a new discovery of crude oil in the Gulf Of Suez.*

*The 80 mtr reservoir discovery was achieved by the General Petroleum Company of Egypt (GPC) in East Amer Field 1.9 km from shore utilizing the Transocean Mercury rig. The oil reserve, the first new discovery by GPC in 39 years is estimated to contain 30 million barrels estimated at 2,000 bbl/day production.*

*This is the first well drilled by Mercury for GPC.*

Alakbar Newspaper  
Cairo, Egypt  
August 4, 2004

# Corporate Report

## Transocean Serves Santos in MPD Milestone

By the Performance and Technology Group

*Transocean has helped Santos to construct an exploration well in Indonesia using MPD (Managed Pressure Drilling), an emerging technology that is allowing clients to tap challenging reservoirs and optimize performance.*

Defined by IADC (International Association of Drilling Contractors) as "...an adaptive drilling process used to precisely control the annular pressure profile throughout the wellbore...", MPD is garnering increased interest across the industry. Considering that half of the world's known offshore hydrocarbon resources cannot readily be drilled with conventional methods, MPD and other innovative drilling applications are making solid advances. This work results from many collaborative efforts by clients, offshore drillers and service providers.

Last year, Santos of Australia contracted the *Sedco 601* to drill an exploration well in the Madura Sea off the coast of Indonesia. As project preparations began, MPD was identified as a possible solution to address the massive lost circulation problems the operator had experienced on previous attempts to drill the reservoir from a jackup.

Ultimately, the project team settled on a riser rotating control head (RCH) produced by Weatherford to control annulus pressure while drilling the troublesome fractured carbonate section of the well with seawater-based drilling fluid. Normal operations were conducted down to the 9-5/8-inch casing shoe, above the fractured carbonate. At that point, the RCH was installed on the collapsed slip joint, with flexible flow lines providing the conduit for returns. *Figure 1* shows the Weatherford RiserCap™ system installed on the rig prior to beginning the managed

pressure phase of the well. *Figure 2* shows the system during managed pressure operations.

After three months of operations, including a side-track as a result of a lost BHA (bottom hole assembly) unrelated to MPD, Santos announced a discovery, as reported in the World Markets Research Centre Daily Analysis for October 18, 2004:

"Australian oil and gas company Santos has announced a new discovery of crude oil reserves from its Sampang concession in Indonesia. Santos discovered oil flowing at 7,500 bpd as well as 2.2 MMcfd of natural gas after drilling the Jeruk-2 well in the concession, which lies off the coast of East Java. Santos is developing the field in a 50:50 joint venture with PT Medco, and has already discovered natural gas in the area, which it is selling to state electricity company Perusahaan Listrik Negara (PLN)."

According to Wayne Nolan, Rig Manager for the *601*, both the

operator and Transocean personnel were pleased with the execution of the MPD operations.

"It is such a simple concept, yet it allows us to drill and trip knowing exactly what is happening inside the well," Nolan reports. "We have learned a lot from this experience, and MPD is certainly an excellent tool."

Ralph Adams, the Santos Drilling Manager for the project, echoed Wayne's comments, saying: "I am extremely pleased; it (MPD) is the only way to drill [abnormally] pressured carbonate reservoirs."

In a letter, Santos Indonesia President Chris Newton noted that over 16,400 feet (5,000 meters) of casing were set above the targeted Kujung Carbonate, in the highly deviated (52 degrees) abnormally pressured and high temperature Jeruk-2 well.

"The drilling crew safely ran this mammoth string of casing in a timely/cost effective manner utilizing the Tesco casing handling system, a new innovation in casing running which allows safer, more efficient handling of casing with less manual handling than conventional methods," he wrote.

The objective of MPD is to ascertain the downhole pressure environment limits and manage the annular hydraulic pressure profile accordingly. MPD has been around for a number of years in various forms, including under-balanced drilling, mud-cap drilling, dual-gradient drilling, and other similar approaches. It is only recently, how-



*Figure 1*

ever, that the offshore industry has combined all of these like applications under the broader MPD heading. Regardless of the particular application being employed, whether it's underbalanced drilling or one of the other approaches, all involve some form of pressure control on the annulus as a means of monitoring and managing the pressure profile throughout the wellbore.

With the industry's move into deeper waters and more challenging reservoirs, this ability to proactively manage the annular pressure profile becomes increasingly important. In the Far East, where many reservoirs occur either within or below fractured carbonates; in the North Sea, where infield drilling routinely takes place in depleted reservoirs; in the U.S. Gulf of Mexico, where deepwater increases the challenge of managing small margins between pore pressures and fracture gradient; and in other areas of the world where similar drilling challenges exist, all present good opportunities to apply some form of MPD to overcome these obstacles and improve drilling performance.

Examples of MPD applications to address these types of problems have been demonstrated in various areas of the world:

ConocoPhillips employed a bell nipple RCH insert to implement MPD on a jackup in the Ekofisk field;

ConocoPhillips utilized a marine diverter converter RCH on a jackup in Vietnam;

Shell Malaysia executed pressurized mud cap drilling with a RiserCap™ rotating control head in Sarawak, Malaysia;

Unocal achieved "zero equivalent circulating density (ECD) MPD" on the Sandman prospect in the Gulf of Mexico with a jackup rig;

Petrobras operated an Under-Balanced Drilling/MPD hybrid, utilizing standpipe injection of nitrogen to achieve zero ECD MPD in a depleted reservoir from a moored semisubmersible rig.

While relatively new to off-

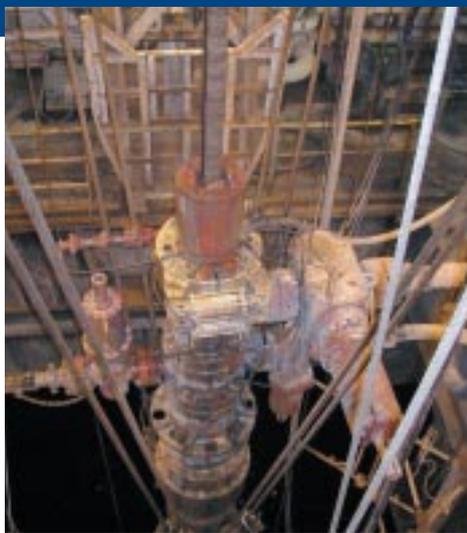


Figure 2

shore operations, MPD applications are utilized when drilling a significant percentage of onshore wells globally. So, MPD ideas and concepts are well developed and continually improving as they become established offshore.

In addition to dealing with drilling challenges like lost circulation and stuck pipe, eliminating the non-productive time associated with these setbacks, generally, MPD is a less-invasive form of drilling, resulting in far less drilling fluid damage to the reservoir formation and consequently better productivity from a given wellbore.

Additional side benefits from employing a managed pressure approach include better rates of penetration and longer bit life, optimizing the overall drilling process, and a reduction in borehole stress changes, resulting in a more stable hole. The approach also offers other distinct economic advantages, as generally fewer consumables are required for the well and a potentially simplified casing program can be implemented.

Furthermore, a managed pressure approach offers enhanced HSE management, since the drilling fluid system is closed in and constantly controlled. Slight variations in annulus pressure can be detected and appropriately managed, eliminating time-consuming well-control operations.

As evidence of the industry's growing focus on managed pressure drilling, there have been a number of recent forums and workshops discussing the technology including:

the SPE/IADC Applied Technology Workshop on Managed Pressure Drilling (August, 2004), IADC Under-Balanced Drilling Sub-Committee (ongoing), and the American Association of Drilling Engineers/Drilling Engineering Association topical lunches.

As with any new technology, MPD is not an appropriate solution in every situation. A thorough review of the drilling program and operational considerations is necessary to determine if some form of MPD is advisable.

Where it is determined to utilize a managed pressure application, a focused approach to planning and preparing for the project is necessary. This priority will ensure that operations teams, including rig crew and shore-based management, are familiar with the equipment to be utilized and develop appropriate rig-specific procedures to properly operate and maintain MPD-specific equipment.

Future managed pressure operations for clients call for more innovative drilling applications.

While the Santos Jeruk-2 exploration well was drilled last year in conventional subsea mode, Transocean and Santos are working together to analyze potential future work that would combine MPD with Transocean's industry-leading experience in surface BOP operations. The combination of these two applications, utilizing the *Sedco 601*, the most experienced, active semisubmersible rig in Surface BOP operations, will be yet another industry first, adding to Transocean's reputation as an industry leader in technology development.

Further information on managed pressure drilling, including assistance with applying appropriate managed pressure solutions to overcome drilling challenges, can be obtained from John Kozicz, Drilling Technology Manager, via e-mail at [jkozicz@houston.deepwater.com](mailto:jkozicz@houston.deepwater.com) or phone at 713-232-7388.

# Measuring Our Success

## Transocean Fleet Utilization by Quarter 2004

By Rig Type	Utilization		
	First Quarter	Second Quarter	Third Quarter
International & U.S. Floater Contract Drilling Services Segment:			
5th-Generation Deepwater Floaters	92%	90%	83%
Other Deepwater Floaters	78%	70%	78%
Other High-Specification Floaters	73%	75%	84%
Total High-Specification Floaters	83%	79%	81%
Other Floaters	42%	45%	45%
Jackups	83%	85%	81%
Other Rigs	54%	46%	47%
Segment Total	69%	68%	67%

## Transocean Fleet Safety Performance YTD November 2004

By Region	TRIR*
Asia and Australia (includes India)	1.34
South America	1.34
Eurafrica	1.35
North America	1.50
<b>Drilling Segment Total</b> (Excludes TODCO and Houston administration)	<b>1.31</b>

\*Total Recordable Incident Rate per 200,000 hours worked.

## Meeting the Expectation — ZERO

The following 21 rigs had achieved Zero TRIR\* year to date through November 30, 2004.

### Africa, Mediterranean Sea, North Sea, Caspian Sea:

Sedco 709  
Searex 9  
Transocean Rather  
Transocean Mercury  
George H. Galloway  
Polar Pioneer  
Sedco 704  
Sedco 706  
Trident 20

### Asia & Australia:

J.T. Angel  
Charley Graves  
Harvey H. Ward  
Hibiscus  
Shelf Explorer  
Trident 2

### South America:

Sedco 707  
Sedco 710  
Sedco 135-D

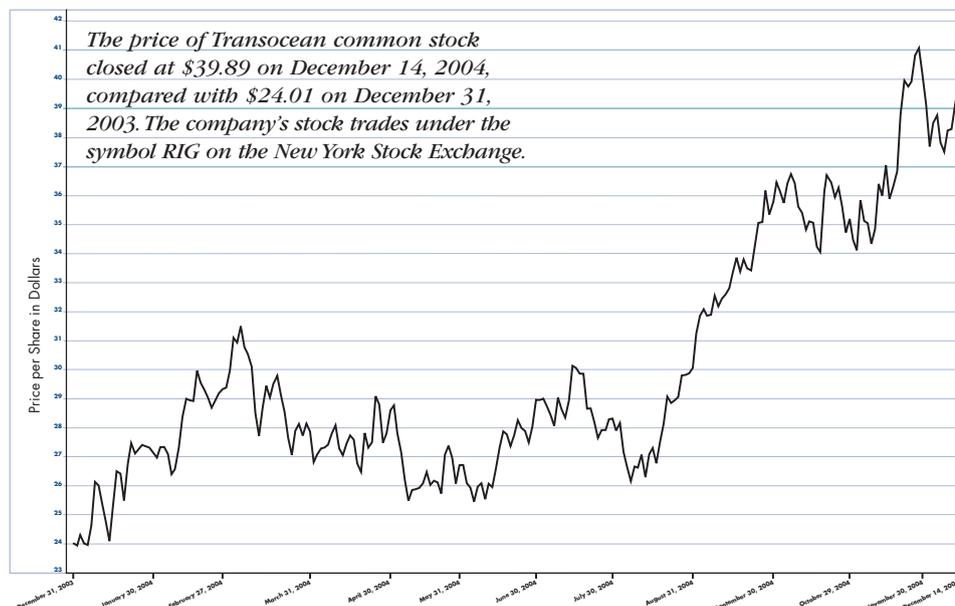
### North America:

Deepwater Nautilus  
Deepwater Pathfinder  
Transocean Marianas

\*Total Recordable Incident Rate per 200,000 hours worked.

## Transocean Stock Price Performance

December 31, 2003 to December 14, 2004



# Make the Right Move

Offshore drilling requires a strategy, especially in today's environment where the wrong move can be more costly than ever. That's why the first move should be to look for a company with worldwide capability and experience. And that's Transocean.

In fact, we have more experience drilling deepwater and harsh environment wells than anyone. We also have the largest and most diverse fleet in the world, so we can deliver exactly the rig our customers need when and where they need it. And we operate in every major oil and gas area, so we can save on mobilization and demobilization costs worldwide.

Put them all together and you can see why more and more customers have learned that the right move is frequently the easiest move. That's why they call Transocean.

Transocean: We're never out of our depth.®





[www.deepwater.com](http://www.deepwater.com)

4 Greenway Plaza  
Houston, Texas 77046  
713.232.7500