

Territory

QUARTERLY

FIRST QUARTER 07



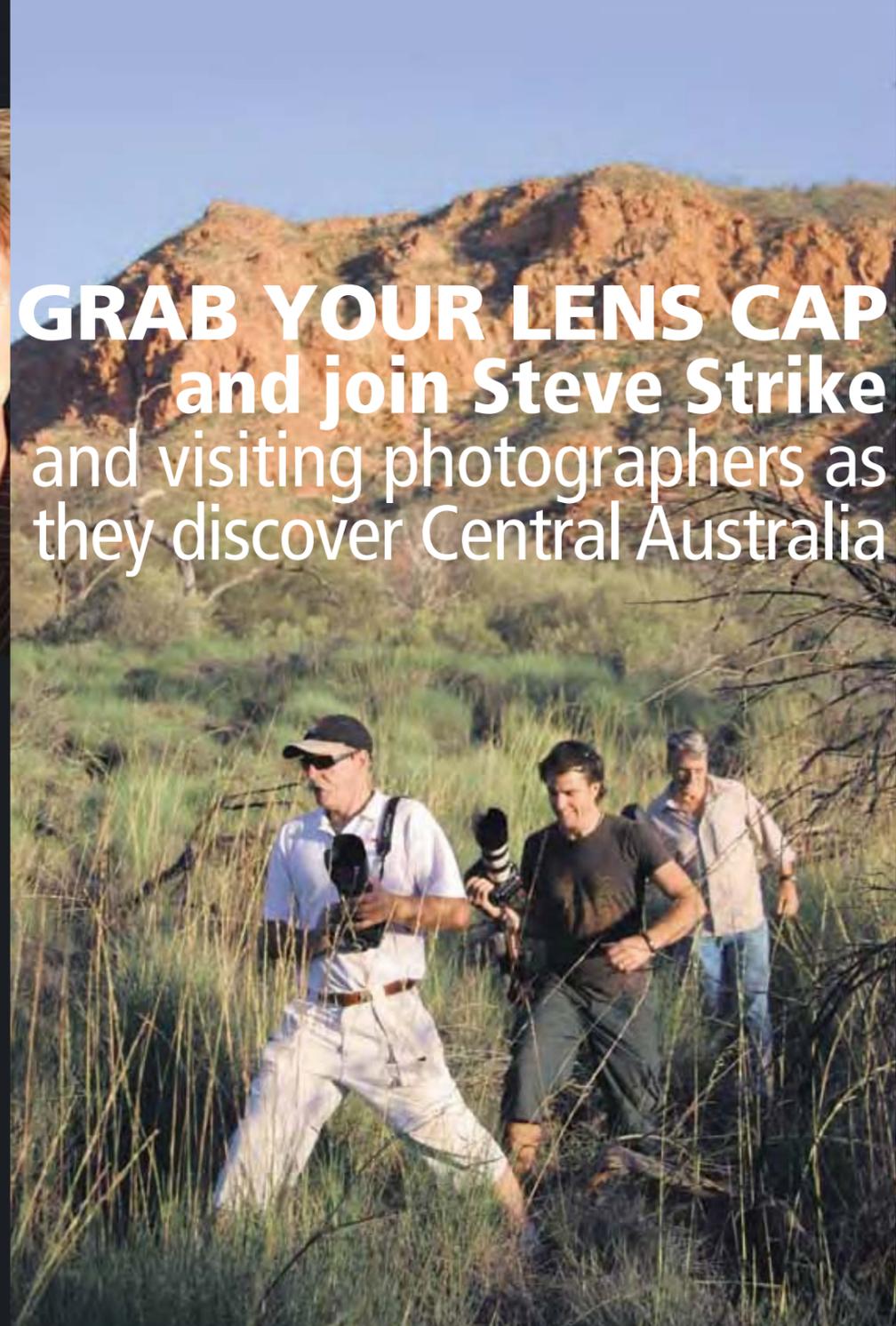
COVER STORY:
TIMOR SEA GAS ONSHORE
— ONE YEAR ON

**CRUISERS SPARK
DARWIN SALES**

SEIZING
the opportunities in Dubai

TALL POPPY
Neil Philip
> Building
an offshore
explorer

GRAB YOUR LENS CAP and join Steve Strike and visiting photographers as they discover Central Australia



Acknowledgements

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Bayu-Undan and Darwin LNG: One Year On	4
Accrete: Preparing for the Worst	12
Launching the Red Centre Way	14
Kintore Celebrates New Artists' Studio	18
Helen Read: Reaching Out-back	20
Taking on Dubai	22
Imparja Outgrows its Home	26
Athol Wark: Taking Wildfood to the World	28
Cruising to New Heights	30
Cruising — Territory Style	34
Bill Passey: The Lone Trawler	36
Matilda Mines: Mining the Ancient Dunes	38
Makin' Hay in the Desert	40
Designer Flowers on Debut	42
Waterfront Update: the Centre of Attention	44
Arafura Games 2007: the Business of Sport	45
HomeNorth: Approaching the First Thousand	48
The Waste Oil Warrior	52
REGULAR FEATURES:	
TALL POPPY: Neil Philip	10
Indigenous Bizness	
Larrakia Inc.	46
Stephen Garnett on the Knowledge Economy	
Bringing Power to the People: Bushlight	43
Fast Facts: The Territory Economy	50
Paddock to Plate	
Going for Green	56
Parting Shots!	
Green Light for New Territory Mines in 2007	58

Welcome to the fifth edition of *Territory Q*.

Territory Q promotes business and investment opportunities across the Territory. It connects us with national and international audiences, and keeps Territorians up-to-date with what's happening in their own back yard.

Our cover story takes us out to the Bayu-Undan platform in the Timor Sea, then behind the scenes at the Darwin LNG Plant where ConocoPhillips has just celebrated its first year of production.

There's good news in Central Australia where economic opportunities and jobs are being created under the banner of the Red Centre Way. And we also travel to Dubai to see the role Territory companies are playing in that country's remarkable development.

As *Territory Q* enters its second year, its message has never been clearer: the Territory is a great place to live and make a living – and a place of unlimited opportunity.

Clare Martin
Chief Minister of the Northern Territory

The Northern Territory Government respects Indigenous cultures and has attempted to ensure no material has been included in Territory Q that is offensive to Aboriginal and Torres Strait Islander peoples.

Cover > The natural gas flare on the Bayu-Undan platform in the Timor Sea.

page 14



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bayu-undan & DARWIN LNG

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Last month in Houston, Texas, the Chairman and CEO of ConocoPhillips, Jim Mulva, hosted the company's annual worldwide SPIRIT of Performance Awards. These awards honor the people who best exemplify ConocoPhillips' highest standards of performance in conducting business and contributing to society. The awards dinner was attended by hundreds of ConocoPhillips' 38,000 employees from around the globe who saw Mr Mulva present the ConocoPhillips Spirit Award for Project Excellence to George Manning and his team from the Darwin LNG project.

"We think we deserve it," says Mr Manning, the company's Darwin Area Manager, a softly spoken 37 year company veteran. "Our first year was exceptional. It was the first year we had the whole project operating – offshore, the pipeline and Darwin LNG. We exceeded our production budgets offshore at Bayu-Undan and at Darwin LNG. We delivered considerable additional volume to our customers than had been forecast."

The outstanding engineering feat of the Bayu-Undan Project was also recognised in Australia when it was awarded the prestigious "Sir William Hudson Award" in the Australian Engineering Excellence Award for 2006. The Sir William Hudson Award is the highest accolade for an engineering project and recognises world class expertise and innovation for engineering solutions.

The Bayu-Undan offshore facility, the 500 km pipeline, and LNG Plant was a project costing \$3.5 billion, and it was not a coincidence that the date of the Wickham Point plant's groundbreaking in 2003 coincided with the start of the Territory's economic upswing that continues today. That economic activity is fuelled by the dozens of suppliers and contractors that ConocoPhillips deals with locally. "We spend significant sums running the operation and a great proportion of that is spent in the Territory. Our goal is to source as much support from here as we can," explains Mr Manning.

The success of ConocoPhillips' first year of general production was assured: It had everything to do with the investment the company made in ensuring that the people who would operate the offshore and onshore facilities would be involved from the drawing board to the commissioning stage. No longer would one group design the platforms and plant, another project team build them before handing the finished product over to the operators of the facilities. In 2001, the company employed 150 highly skilled people who would eventually operate the facilities, and involved them in all stages of its genesis.

This image >
Bayu-Undan
platform in the
Timor Sea.

offshore

Territory



Above > Maintenance Coordinator, Ian Antas (L), and Central Control Technician Brendan Kealy in Bayu-Undan's Central Control Room.
Centre > Ian Stephenson, Bayu-Undan Offshore Installation Manager.
Right > Bayu-Undan platform in the Timor Sea.

“There’s a real buzz about working with a team that you know is the best around.”

When the green light was given to the Darwin LNG project, the first order of business was to design and build the Bayu-Undan offshore facility, 502 km north of Darwin. The plan was not simply aimed at the production of Liquefied Natural Gas, but to extract liquid hydrocarbons in the form of condensate, butane and propane, split them off and store them in a Floating Storage and Offloading (FSO) vessel before export. Approximately half the gas would then be injected back into the reservoir where it would later be extracted and sent to Darwin for LNG production.

The massive platforms for production, as well as the 250 metre long FSO, would be built in the shipyards of Singapore and mainly in Korea. Construction began in 2001, and the newly-recruited operations crew were integrated into the construction, moving between the operations centre in Perth and the shipyards in Asia. One of those was one of Bayu-Undan's current field managers, Ian Stephenson, an animated Yorkshireman whose entire working life has been spent in gas and oil. “The people who were going to operate the facility were considered the customer,” recalls Mr Stephenson. “It was the future platform managers who signed-off on them. Management gave them responsibility for quality control.”

It was an innovative concept that has paid off richly in production figures because, when the facility was installed at sea, everybody knew how it worked. All they had to do was plug in the wells. “They got all that familiarisation during the building of the platform, says Offshore Installation Manager, Neville Carrington. “And that kind of training is gold.” The facility has been in production of liquids since 2004, with tankers arriving at the FSO regularly. The gas is piped to Darwin for processing into LNG.

Today Bayu-Undan is delivering its products with consistent regularity, and the attention of the 140 management and crew of the facilities (including 60 accommodated on the FSO), has turned to maintaining their production schedules as safely as possible.

They are a highly qualified cosmopolitan group, assembled from Australia and around the globe, with technical workers sourced from the Philippines and support staff from East Timor. At shift changes they are flown in from Darwin to Dili by fixed wing aircraft by Air North, and from Dili to the Timor Sea platform by CHC's Super Puma Helicopters.

In the competitive atmosphere of skilled worker recruitment, ConocoPhillips has spared little in its efforts to retain staff. The accommodation and amenities on the platforms are excellent, with the workers on a three weeks on/three weeks off/three weeks on/six weeks off roster. The splendid conditions have attracted talented production specialists. “There’s a real buzz about working with a team that you know is the best around,” says engineer Dave Hutchison.

It is a complex operation, with electronic technology in every corner of Bayu-Undan, powered by subsea natural gas. All production systems from the extraction rates of gas and liquids to the pumping of gas to Darwin is monitored in the control room. A sophisticated communications system is used for daily phone conferencing between senior platform maintenance and engineering staff, and support staff in Perth and Darwin, including direct phone lines to Darwin and Perth in every workers' room.

Besides their regular designated duties, all Bayu-Undan staff have emergency response roles as well, with regular drills taking place, simulating the kind of scenarios that can, and sometimes do, occur. Emergencies can include an approach by an unidentified vessel, like the one earlier **this year that**



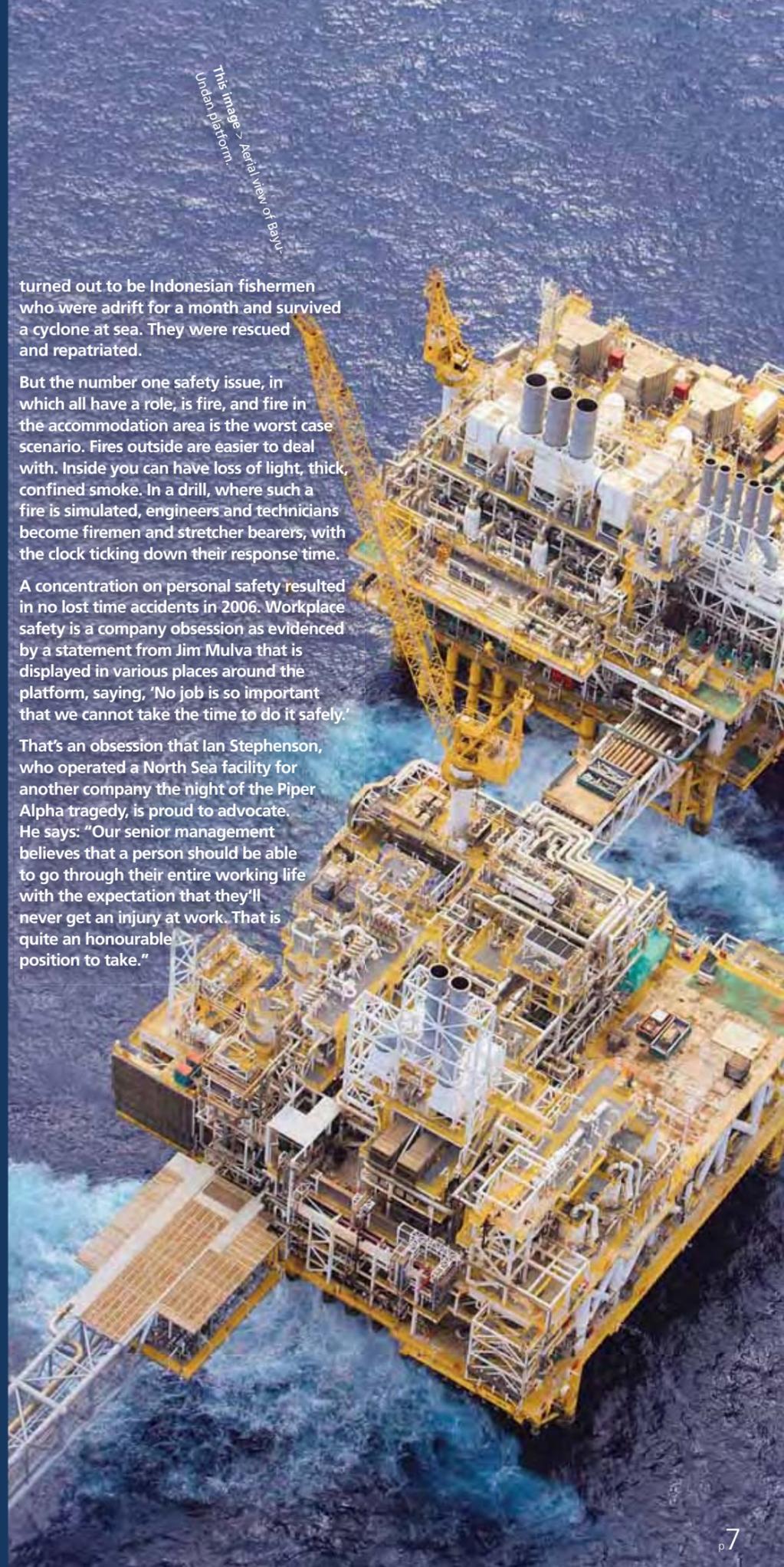
turned out to be Indonesian fishermen who were adrift for a month and survived a cyclone at sea. They were rescued and repatriated.

But the number one safety issue, in which all have a role, is fire, and fire in the accommodation area is the worst case scenario. Fires outside are easier to deal with. Inside you can have loss of light, thick, confined smoke. In a drill, where such a fire is simulated, engineers and technicians become firemen and stretcher bearers, with the clock ticking down their response time.

A concentration on personal safety resulted in no lost time accidents in 2006. Workplace safety is a company obsession as evidenced by a statement from Jim Mulva that is displayed in various places around the platform, saying, ‘No job is so important that we cannot take the time to do it safely.’

That’s an obsession that Ian Stephenson, who operated a North Sea facility for another company the night of the Piper Alpha tragedy, is proud to advocate. He says: “Our senior management believes that a person should be able to go through their entire working life with the expectation that they’ll never get an injury at work. That is quite an honourable position to take.”

This image > Aerial view of Bayu-Undan platform.





“For my family, Darwin’s been wonderful. It’s extremely underrated by lots of Australians and I think there’s a lot of incorrect perceptions about Darwin.”

onshore

What a difference a year makes. No longer does the sight of a huge LNG carrier stop us in our tracks like it did when they began regular pick-ups in February 2006. Then it was something to discuss at the family dinner table – the ship’s impressive length, its four white domes turned golden as the sun disappears behind the Cox Peninsula. It has now visited, as of this writing, 45 times, and, if you are to read the indicators with any objectivity, the story of LNG exports and Timor Sea gas development has only just begun.

Like the Bayu-Undan Project 500 km away, Darwin LNG has been an overwhelming success. It was a project that cost \$1.5 billion and at the height of construction activity it employed 2500 workers on site. It is a project that changed the face of the Northern Territory economy, with gas sales producing continuing earnings, permanent employment opportunities, plus the potential for associated manufacturing using Timor Sea gas in a range of new industries.

Like its offshore associate, Darwin LNG saw ConocoPhillips integrate the future operations team into the project construction team operated by American construction giant, Bechtel. Together, they brought the project in ahead of schedule and below budget. “We were able to have a seamless transition from the project phase into the operating phase,” remembers George Manning. “As a result of that training and development, we had a much improved start-up time. We had less disruption to the plant than normal. Of all the plants that Bechtel have built, this is the best start-up they’ve ever done.”

Darwin LNG is based on company’s original technology, the ConocoPhillips Optimised Cascade System, and is only the second plant in the world that the company operates

themselves. The other is in Kenai, Alaska, the first plant to pioneer that technology. The Darwin plant is designed, very simply, to chill the incoming Timor Sea gas to a temperature of minus 160 degrees Celsius, transforming it to Liquid Natural Gas, thus making it exportable.

ConocoPhillips brought Production Team Leader, Paul Bruner, to Darwin from Alaska early in the process, a man who knows the company’s technology. For Paul, Darwin displays a ‘frontier pride’ not unlike Kenai. “I feel that same sense in Darwin as in Alaska,” says Mr Bruner. “It’s that sense that you’re self supportive. There’s pride in being able to pull off the unexpected. Like this plant coming to a site that hasn’t been developed, with little infrastructure, but you’re still able to make it happen. That’s pretty exciting stuff.”

According to Mr Bruner, Darwin LNG is unique in many ways. It utilises Aero-Derivative Turbines - jet aircraft engines - to drive the big refrigeration compressors used in the chilling process. They are fuel efficient, with lower emissions than other engines. Waste heat recovery systems recycle heat for other plant uses. The storage tank is the largest above ground tank in the world – with 188,000 cubic metres capacity – and the innovative ground flare spreads the flame, creating no hazard to passing aircraft.

The company also made administrative changes that saw 30 positions moved from Perth to Darwin to set up the Darwin Operations Centre, bringing the technical support, engineering and maintenance teams permanently on site where they can be most effective. One of those is Flemish Engineering Team Leader, Dirk Faveere, who, like many of the imported staff, has been pleasantly surprised by the Territory capital. “For my family, Darwin’s been wonderful,” explains Mr Faveere. “It’s extremely underrated by lots of Australians and I think there’s a lot of incorrect perceptions about Darwin.”

But what will the Wickham Point LNG Plant look like in a decade from now? If ConocoPhillips has their way it will look much different, representing a gas hub of processing in the Asia-Pacific region.

Under their licence with the NT Government, the LNG Plant is permitted to produce 10 million tonnes of LNG per annum, and is currently producing 3.2 million tonnes. The size of any extra development on the site will be determined by the size of the next Timor Sea gas field to get a green light for development. All potential sources in the Timor Sea are being considered, including Caldita and Sunrise.

Last month, Sunrise moved a step closer to development after Australia and Timor Leste exchanged notes to bring into force the two treaties which settle arrangements in the Timor Sea between the two countries.

Both countries would no doubt like to see the Sunrise gas processed on their home soil, but this is one of many issues yet to be resolved.

However, with LNG processing already successfully under way in Darwin, those in the Territory capital clearly believe that it has advantages to take up any opportunities for future expansion. “We understand and respect Timor Leste’s desire to have the LNG processing plant based there – but we hold our own hopes that Darwin could be the site for the development of Sunrise Gas,” says Territory Chief Minister Clare Martin. “The ratification of the treaty allows the Sunrise Gas Field to become another gas supply option for the expansion of LNG and gas manufacturing in Darwin.”

Left > Inside the Darwin LNG Plant.
Images Right from top to bottom > Engineering Team Leader Dirk Faveere; Paul Bruner in the plant control room; An LNG carrier loading at the Darwin LNG Plant; and Workers at the Darwin LNG Plant.

