40 years of gas production from the L7 block

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In the rich history of Total E&P Nederland, we once again chalked up a milestone on 4 June 2017. In fact, this milestone is also one that counts for the history of the offshore industry on the Dutch continental shelf as a whole. On this date, it was exactly 40 years since gas production from the L7 block began. To enable this, a - for its time - super-modern platform complex with a single satellite platform had been constructed 42 miles northwest of Den Helder.

However, developments in the L7 block had already begun in the late 1960s with the government's license to carry out seismic seabed research. An exploration license followed in the early seventies. After extensive studies of the seabed, a total of six exploration wells were drilled in this block in the period 1971-1974, five of which were found to hold commercially viable quantities of gas. The first exploration drilling of L7-1 with the Transocean 1 produced only a marginal gas field and was therefore not worth bringing into production for the time being. Production would not happen until 1985. More successful were the Transocean 2 and Ocean Tide jack-up drilling rigs. The Transocean 2 struck gas in the L7-2 and L7-6 wells, while the Ocean Tide did the same in L7-3, L7-4 and L7-5. All five, it seemed, held commercially viable amounts of gas. These were found at a depth of around 4,000 metres below the seabed in the so-called Rotliegend formation from the 250 million-year-old Perm era. As a result of gas discoveries in the L7 block, our company also applied for a production license from the Ministry of Economic Affairs on 21 May 1973. Shortly afterwards, the consultation with Gasunie started on the sale and transportation of L7 gas, while with the government on state participation during the production process. All this was still under the flag of Petroland, the name given to our company on its foundation in 1964. It was decided to bring the gas fields into production by installing a central complex plus a satellite platform in the L7 block. This central complex, called L7-CC, would consist of bridge linked platforms; an accommodation platform, a wellhead platform and a production platform. It had to be the most modern and safe platform complex of the entire North Sea region, with an estimated life span of 25 to 30 years.

#### Design, construction and installation

The design of the platforms was outsourced to engineering firms Technip en Frederic R. Harris. After this was approved, the construction of the jackets and the topsides was outsourced to various French yards, including Chantiers de la Garonne near Bordeaux, which constructed the 380-tonne residential unit for the accommodation platform. The installation of the four jackets, including those of the satellite platform located 8 kilometres from the central complex, took place in 1975 in nearly 28 metres of water. The installation of the topsides followed a year later. The three platforms of the L7-CC complex each had their own code. The wellhead platform was L7-C, the accommdation platform which housed up to 60 crew was L7-Q, and the production platform was L7-P. In turn, the satellite platform was assigned the code L7-B. One gas production well was connected to L7-C, while three were connected to L7-B. The gas from these three wells would flow through a gas pipeline across the seabed to L7-P, where it would be treated with the gas from L7-C. After that, the gas produced would flow through a 16-kilometre pipeline to the L10 Central Complex of Placid International Oil, Ltd. and then through the 178-kilometre North Gas Transport (NGT) pipeline to the gas treatment station in Uithuizen, Groningen. From here, the gas would then be delivered to Gasunie. The installation and commissioning took place entirely under French supervision. After the start of production, the French left the platforms, which were entirely manned by Petroland employees.

#### Start of offshore gas production

On 20 June 1975, the Ministry of Economic Affairs granted the gas production license for blocks K6 and L7. Petroland served as operator and had a stake of 36.36 percent in these licenses. Almost a year later, gas



New Year's celebration in the control room on the L7-CC complex. (Photo: Riemer Haagsma)

production from L7 started on 4 June 1977. The first gas came from one of the wells of the L7-B satellite platform. On 27 June, gas also started to flow from the L7-C well. However, Petroland was not the first company to produce gas on the Dutch Continental Shelf. On 15 May 1975, Placid produced its first gas from the L10 block, followed by Penzoil on 14 February 1976 in block K13. Like Petroland, NAM produced its first offshore gas in 1977, but from the K14 block. In the following years, Petroland would become one of the largest gas producers in the Netherlands. In total, Petroland and its partners invested nearly 400 million guilders in the L7 project. The central complex became the beating heart of its offshore activities, not only in the L7 block, but also in blocks L4, K5 and K6. The complex always attracted a lot of admiration from the many interested people from home and abroad who came to visit.

#### **Further development**

In the years after the start of production, further wells were drilled in the L7 block. Various gas discoveries were made which proved to be economically viable. All this gas was transported via satellite platforms to L7-P. In 1978, another small well platform was constructed alongside L7-B. Two gas production wells were connected to this new platform, L7-BB. In 1980, annual production was about 4 billion cubic metres of gas. However, a source of concern was the decline in gas pressure from the wells, making it increasingly difficult to maintain gas production. In this context, the huge gas discovery made in the nearby L4 block with the Penrod 67 rig was a welcome boon. In the period 1981-1982, the L4-A satellite platform was installed, connected to four gas production wells. Gas production started in 1983. In the meantime, thought was given to the the declining gas pressure and the problems that could arise as a result. The solution found was to install a compression platform adjacent to the L7-P platform. As a result, the central complex would consist of four platforms, with a total length of 220 metres. This gas compression platform, called L7-PK, was installed alongside the L7-CC complex in 1981 and connected to L7-P by a bridge. After L7-PK came on stream a year later, gas pressure could be increased to well above 80 bar. But things did not stand still for long, because a year later it was decided to bring another two small gas fields into production. The specially built satellite platforms L7-A and L4-B were connected to L7-P in 1984. The two identical platforms delivered their first gas in 1985. They were also the first unmanned platforms to be operated and monitored remotely from the control room on L7-P. After a number of successful exploration drillings, using the Andros and other rigs, further satellite platforms were connected to the central complex. For example, the L7-N satellite, four kilometres north of the central complex, came into use in 1988. This was

### Official closure by Teddy Garnier

"Good afternoon, Today was the last day of production of L7-C2 well after 40 years of service. So after closing the well, we depressurized the remaining part of the plant which was still full with gas. So from today L7-CC is a gas free platform. L7-Q was started up by a Frenchman and also closed again by a Frenchman."

followed two years later by the satellite L7-H. Counting from 1975, no less than nine platforms were installed in the L7 block and two in L4 in a period of 14 years. A remarkable performance. In 1998, these were followed by the K6-GT satellites (temporarily until 2005), L4-PN and in 2006 the L4-G subsea production installation, all of which were connected to the central complex in the L7 block.

#### **Renovations on the central complex**

At the end of 1992, major renovation work started on L7-Q. The accommodation platform got a new kitchen, refrigeration and freezer space, and a radio room. The canteen and the recreation room were also redesigned, and a gym was installed on the second floor. The main contractor for this renovation was Struik & Hamerslag. During this period, the control room on the production platform was updated and expanded. This was necessary, not least because the control room was operating and monitoring an increasing number of platforms. A new computer-controlled control system was introduced. In 1993, L7-B had to be temporarily shut down to repair some significant storm damage. A few years later, it was decided to control the platforms from the control room at the gas treatment station in Harlingen, which significantly reduced the control room occupancy on the L7 central complex. This took place in 1995 with the introduction of the New Operating Method. This would last until 2004. After selling off the onshore gas interests, a new control room was then set up in the new Elf Petroland office at Den Helder Airport.

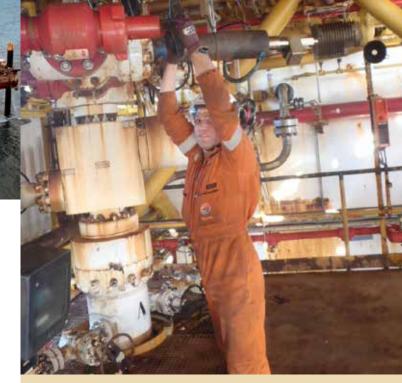
Soon after the year 2000, preparations began for the L7-CC Revamp Project, which was carried out under

the supervision of Controlec-Invensys. The project started on 1 May 2004. In addition to the refurbishment of the gas treatment plant, the instrumentation and glycol regeneration system was completely replaced, safety systems were renewed, new fuel facilities for helicopters were installed and accommodation areas were modified. For five months, about 65 people worked daily on the Revamp Project, while gas production continued unabated. To accommodate the additional staff, the Seafox 4 served as a floating hotel. During this period, it was expected that L7-CC would soon reach the end of its working life and would be decommissioned after a few remaining working years. Its decommissioning in the period 2011-2013 was even discussed. However, things turned out rather differently.

#### **Exciting times**

In addition to the heavy storms, which the L7-CC complex always withstood resplendently, there was another threat. In particular from ships that had run adrift, as was the case on 30 September 2008. At 11 o'clock in the evening, the Ice Flowers refrigerated vessel lost its propulsion in a southwesterly storm. The vessel ran adrift in the L7 block and was on a collision course with the L7-CC, with the Seafox 2 positioned alongside for maintenance work. In total, 198 people were on board the complex at that time. Just as the first of them were being evacuated by helicopter, the ship glanced past, just missing the complex. Shortly afterwards, the Ice Flowers was towed to Den Helder where it was detained. Another near-miss happened on 6 December 2013. This time at the L7-H satellite, which was threatened by the Greek chemical tanker

Installation Supervisor Teddy Garnier closes the choke valve



Copper plates on L7-Q indicate the year of renovations.



From the beginning, the tradition was to take photos of the platform's crew during the Christmas period. (Photo: Riemer Haagsma)

Elka Athina. Another special event in the history of our company was the shutdown in May 2010 of the L7-A unmanned satellite. This platform had been producing gas since 1985 and had produced a total of 1 billion cubic metres of gas. However, the platform continued to function as an intermediate station between L4-B and L7-P. Time will tell whether the same fate will soon befall L7-CC. Nevertheless, it remains a fact that on 4 June 2017, L7-CC complex had continuously

contributed to the gas production of our company and the Netherlands for 40 years. Since 2007, the manned complex has been controlled and monitored from the modern control room at Total E&P Nederland's headquarters in The Hague, accounting for about 14 percent of our daily gas production. An absolute milestone for a group of platforms that withstood many heavy storms and was actually only built to last for about 25 to 30 years.



Sjoerd de Roos proudly displays the fishing tackle he used to catch cod on L7-CC. (Photo: PAS Publicaties)

Sjoerd de Roos began working at the L7 central complex in August 1982. The hook-up of the L7-PK compression platform was in full swing at the time. Sjoerd first worked as a mechanic and later as an operator. For him, life at the complex was a thoroughly enjoyable experience and the same applies to working on the satellites. Sjoerd worked for our company for some thirty years and spent the last of those as an inspector.

### Sjoerd de Roos: A wonderful life on L7-CC

Actually, Sjoerd de Roos wanted to start working as an operator as soon as he was hired, but that proved impossible. Petroland did, however, offer him a job as a mechanic. 'Given my background in marine engineering, the job was not a problem. The hookup of L7-PK meant that it was very busy on L7-CC on my first day. Apart from the standard crew, there was a complete team of welders, fitters, bench fitters and scaffolders on board. Extra bunk beds had to be placed in the cabins to accommodate everyone. Sometimes you had to sleep four to a cabin. There were new compressors on L7-PK that required all kinds of work - like alignment and calibration. We had to work long days, from 7.00 a.m. to 7.00 p.m. and sometimes we were still working at 11.00 at night. On those occasions, I sometimes wondered what on earth I'd got myself into. Happily, the extreme work pressure was only temporary. Eventually, I discovered that everything was fantastic and I thoroughly enjoyed working in an all-male team. By the way, just like me, most of the others had a nautical background. In the early days at the central complex, drinking water was distilled from seawater. There was always something going wrong with the vacuum evaporators that were used in the process. Once, when I had to repair a float valve, things didn't go at all as planned. I was regularly reminded of this incident for the rest of my career.'

#### L7-CC as a base of operations

Every day, maintenance crews were flown from the L7 central complex to the satellite platforms. Sjoerd de Roos explains: 'I can still clearly remember being dropped off on the first unmanned satellites - L7-A and L4-B. I was a member of a team of mechanics, electricians and instrumentation technicians. We would be picked up and flown back late in the afternoon. Usually we were back at L7-CC at 5.30, well in time for the evening meal. In the evenings, we watched films and played games like Scrabble. Videos came later. Being allowed to phone home every day was a much-appreciated extra. It was very important to my wife. The Optimis maintenance system was introduced in the late eighties. This was my first experience with computers. After I had been working as an offshore mechanic for about ten years, they let all the maintenance staff go. But you did have the option of retraining as an operator. That was no problem for me because I'd wanted to be an operator from the start. I subsequently started working as an operator in the control room on L7-CC as well as on K5 and K6. I was even made L4-A installation

manager.'

Sjoerd de Roos remembers a special activity that was widely indulged in at the L7 central complex. 'In the summer, we fished for mackerel and the rest of the year it was cod. There were always plenty of fish swimming near the platforms, especially L7-C. The biggest fish I ever caught was a cod that measured 1.07 m. Our tackle consisted of a line weighted by a chair leg that had been filled with lead, and a hook that we dropped off L7-C to the bottom and then pulled back in again. The fish we caught were gutted, cleaned, packaged and frozen immediately. I took fish home with me every time I had a week off. Our children grew up on it.'

#### Working as an inspector

At the end of 2003, Sjoerd de Roos responded to a vacancy for the job of inspector. 'They were looking for someone with offshore experience and I definitely had that. I was hired immediately, but I had to complete a special training course. I stayed in that job until I retired in 2012. I subsequently worked for a further three years as an inspector for the Den Helder based company Vector. That job involved both office and offshore duties.' An interesting fact is that from 2005 to 2012, Sjoerd always had a camera with him. This meant he could take photos of the crews on all the platforms he worked on. The end result? The publication of a beautiful photography book containing countless familiar faces.

> "I wanted to start working as an operator as soon as I was hired"



Harry Zwanenburg shows the promotional brochure about L7 that was produced many years ago. (Photo: PAS Publicaties)

Harry Zwanenburg currently works for Total in Nigeria and will be retiring in eighteen months. That will mark the end of an enjoyable, 35-year-long career with our company. Over the years, Harry has held more than ten different positions both onshore and offshore. He went offshore for the first time in 1991 and experienced life on the L7 central complex first as the head of maintenance and then as installation supervisor. A wonderful time that he wouldn't have missed for the world.

## Harry Zwanenburg: Close-knit team on L7-CC

After spending nearly ten years in merchant shipping, on 15 November 1981 Harry began working as an operator at the gas treatment station in Garijp (Friesland). Eighteen months later he joined the precision mechanics team. In 1988, there was a vacancy at the terminal in Harlingen. The job involved setting up a preventive maintenance system called Optimis. Harry Zwanenburg explains: 'The company had decided that we should use Optimis offshore as well as onshore, so I also spent eighteen months working in Den Helder. In 1991, I went offshore for the first time in the capacity of consultant. I was tasked with implementing the system on the platforms. Shortly afterwards, I was appointed deputy head of maintenance on L7 under Peter Coolwijk, who was head of maintenance at the time. When he retired six months later, I took over his job. I soon realised that offshore life is something completely different and that the people on board were a closeknit team. They saw the platform complex as their home-away-from-home, a place where they spend half their life. They had formed deeply ingrained habits - especially the people who had been working on board since 1976. Flexibility was absent. However, the prevailing attitude was we're in this together to get the job done. The third compressor was being installed on L7-PK when I came on board. At meal times, only one man had his own seat in the canteen on L7-Q: crane operator Bennie Haasen. All hell would break loose if you took his corner spot!'

#### Tonnes of fish caught

Just like Sjoerd de Roos, Harry Zwanenburg also remembers the intensive angling that took place at the complex. 'Tonnes of cod and mackerel were caught using longlines stretched out from the spider deck. At night, there was even a 50-metre longline stretching from L7-P to L7-Q. This line was reeled in at L7-Q every morning with a small winch. And we weren't the only ones fishing. The painters working for Venko also took part. This team usually comprised six men who had to blast and paint a set number of square metres every day. One of them was given time off to spend the whole day fishing for the team. The other five team members had to work a bit harder and longer to get the work done on time. The fish caught were gutted, cleaned and frozen

straightaway to be taken home at a later date. I also heard that occasionally they used the lifeboat to get from the central complex to L7 Bravo – a distance of eight kilometres – but that was before my time. On arrival, they would pop open the door and say, 'Hi everyone, we've dropped by for a cuppa'. Also, during fire drills they would sometimes aim the fire hoses at the lifeboats floating out at sea.'

#### **October revolution**

According to Harry Zwanenburg, the 'October revolution' broke out offshore following

the announcement of the introduction of the New Operating Method. The crux of the matter was that the way things stood, the L7 complex could no longer be operated profitably. Harry explains: 'In 1995, this announcement led to all kinds of changes. For instance, gas production operations and monitoring were to be handled by the control room in Harlingen. This meant that offshore staff would be drastically reduced. Up to then, we had six operators in the control room on L7-P. But now the only people who were needed were those who did maintenance work during the day and kept the installation available for gas production. In that period, I was asked to take on the job of installation supervisor on L7-CC. I declined, but later I accepted the position of installation supervisor for the satellites when it became vacant. This meant that I had an office job on L7-CC and I managed a team of 4 or 5 operators plus a 15man maintenance crew. The learning curve was steep, especially in terms of logistics and planning. Two years later, I did actually become installation supervisor on L7-CC. An exciting experience for me was when the reefer ship Ice Flowers broke adrift in heavy seas and ended up on a collision course with the L7 complex. At the time, I was the offshore installation manager and there were 198 people on the L7 complex. The decision to abandon the complex would eventually have to be made. I became very anxious. I decided to first evacuate about thirty-six people to the L10 complex in two helicopter flights. Everyone on Seafox 2 had already been taken to L7-Q because if a collision were to occur, the Seafox 2 would be hit first. Thankfully, that didn't happen because the Ice Flowers ended up drifting past the complex by some 200 metres.'

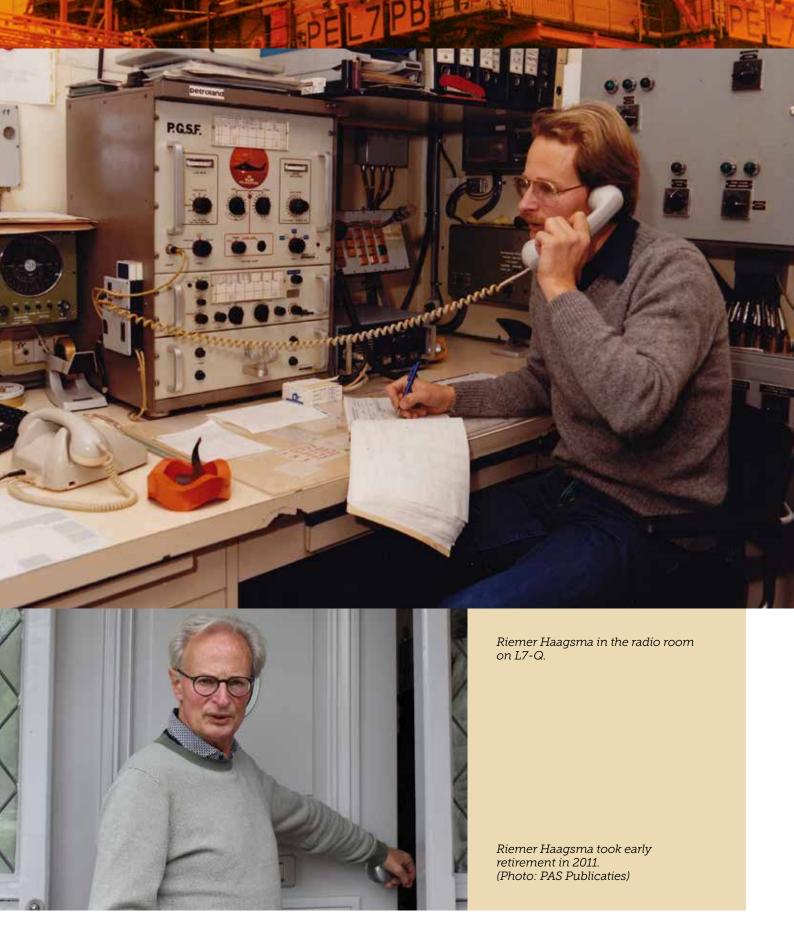
#### **Northern lights**

After working for some time in The Hague and Den Helder, Harry Zwanenburg was stationed for three years in Syria. In 2012, he returned to the Seafox 2 as offshore installation manager. Two years later, Harry was once again posted abroad, this time to Nigeria. His position there was offshore installation manager on the Ofon oil production platform. This is the job he is still doing. When asked about his most memorable experience on L7 he answers: That has to be when I was installation supervisor. I received a call from Harlingen late at

"For me L7 represented the "heart" of our operations. It was our home, the hub and the centre of our offshore experience. I call it the beginning, the past & the laboratory that crystallized our future operational excellence and innovations."

> Obi Imemba, Field Operations Manager

night saying that they were having problems with the compressor. It was winter and when I stepped outside everything was clear and crisp, and deathly silent. The weather was wonderful and along the horizon I could see a flaming band of green light. It turned out to be the northern lights. I will never forget that experience.'



After thirty-three years of loyal service, 62-year-old radio operator Riemer Haagsma took early retirement in 2011. For the majority of his career, Riemer played a key role at the L7 central complex, spending most of his time in the radio room on L7-Q. He looks back fondly on his career, especially his early years with Petroland when there was a strong feeling of solidarity at the platform complex.

### Riemer Haagsma: One big family on the L7 complex

Riemer Haagsma's nautical career began in 1969 as a marconist. or radio officer second class. He first worked for Radio Holland and then Bureau Wijsmuller. Later, he took on temporary jobs through the Elswijk agency in Amsterdam and worked on Penrod's offshore drilling rigs. These rigs were drilling for oil for Placid International Oil Ltd. in the Dutch sector of the North Sea. Riemer Haagsma explains: 'At that time, drilling was done with the Penrod 58. The Penrod 36 was at the L10 Alpha platform. I worked as a temp from 1972 until 1978 and those years were hectic ones for me. One day, someone I knew who was working for Vonk tipped me off that there was a vacancy for a technical secretary at Petroland. In May 1978, Petroland gave me a permanent contract straightaway and I started working on L7-Q. This platform, with its panoramic views, was renowned at the time as the North Sea's most luxurious accommodation platform. I thoroughly enjoyed my work and felt at home immediately. I ended up working as a technical secretary, together with Johan Koes and Pieter Vader, for about a year. It was an administrative role involving a lot of typing and research. After Leen van der Bent left, I became a radio operator again and I remained in that role until the arrival of Seafox 2 in 2006. From then on, all logistics activities - including mine - were handled on the Seafox 2 and we had our own communications room on that platform.'

#### All-male team

For many years, only men worked on board L7. 'A lot of people were living on L7-Q, but the life definitely wasn't for everyone. There was an ongoing kind of natural selection process because the people who couldn't cope with offshore life would always leave after a time. Often, the same people were left on board and they were the ones who usually got along together well. We always worked hard, but during breaks, meals or leisure time stories were told. Talk was often work-related, but family, friends and relatives also came up. This meant that we knew a lot about one another and trusted each other. We were actually one big family. We knew what we could expect from each other and we were all in the same boat, as it were. Everyone had to leave their home and hearth, first for one week, later for two. And it definitely wasn't all sunshine and roses. If something was going on, we solved the problem together.

There was a feeling of solidarity and some people formed very close ties. A lot of effort was put into providing entertainment for the on-board staff. At the start, all we had was a chest of books from the seafarers' library. Later we could rent films from Walport. The film projector was in a cupboard in the utility room and we used the wall between the canteen and the smoking lounge as a screen. We screened the most wonderful films through a hole in the wall. But sometimes things went wrong, especially when the reels weren't rewound or had been mixed up. Most of the time the sound quality was terrible and there were no subtitles. On occasion, the film would break and end up lying on the floor like spaghetti. Winding the film back onto the reel was a show in itself. Television only arrived on board in the eighties. On public holidays, we were served up a sumptuous meal. We also held shuffleboard, table tennis and billiards competitions. The winners were always awarded a small prize. All in all, they were wonderful years, surrounded by great people with whom you could share a lot of laughs.'

#### Always stay for a meal

Riemer Haagsma has this to say about his work: 'Most of my work involved planning helicopter flights using a flight registration system. At that time, people flew a lot - not just to and from the shore but between the other platforms and satellites as well. It was high-pressure work. Things changed constantly and I had to see that, if possible, the changes were accommodated immediately. Sometimes it took quite some figuring out. Also, everyone who came on board was received and registered in the radio room. Apart from our own staff, this involved people employed by subcontractors. We also had a lot of visitors because Petroland used the L7 complex as a kind of flagship. However, we didn't just have French visitors but people from other countries, too. Once we even had a group of Chinese people visiting. The custom was that visitors would always stay for a meal. The time our own families were allowed to visit was special. We really appreciated it a lot.

A camera was brought on board so that we could take photos of ships that came within 500 metres of the platform. Fishermen were the usual culprits. Every day, I passed on weather information to the Royal Netherlands Meteorological Institute: wind speeds, cloud cover and wave heights. My reward for this work was the gift of a barometer which was presented to me by the then minister for transport, public works and water management.'

#### **Offshore tigers**

Riemer Haagsma explains: 'At the L7 complex, we had various criteria you had to fulfil before you could call yourself a true 'offshore tiger'. This mainly involved the guys working in drilling or production. To use the title, you had to catch a cod of at least one metre in length and carry a plate of biscuits across the bridge from L7-P to L7-Q

"L7 was a great place to work and also very comfortable; everyone at Total preferred to be on the 'Q'. My most remarkable experience? Without a doubt the call I received from the coastguard on the evening of 30 September 2008, mentioning the vessel Ice Flowers was adrift and heading in our direction."

**Cees Visser** 

in a 45-knot wind without dropping a single one. You also had to be able to remember your wife's name after spending fourteen days at sea and fall asleep during the 25-minute helicopter flight to Den Helder.' Back home in JJlst in Friesland, Riemer sometimes thinks about his years of working offshore. A wonderful time that he wouldn't have missed for the world.



Jaap van der Most now works on classic motor bikes and builds clog boats in his own workshop.(Photo: PAS Publicaties)

Jaap van der Most speaks animatedly about the early years of the L7 central complex, especially about the hook-up and commissioning of the platform and the start-up of the gas production. Jaap experienced it all at close quarters, first as chief operator and later as installation manager. Looking back, he still finds those years to be the most dynamic and enjoyable of his 30-year-long career with our company. Jaap van der Most retired in 2004.

### Jaap van der Most: Good times on L7-CC and L7-B

'In the beginning, it was the French technicians who reigned supreme at the L7 central complex,' according to Jaap van der Most. He himself arrived in 1976, together with several Dutch co-workers, after the installation of all the jackets and topsides. Jaap explains: 'At that time you had a chef de chant (installation manager) with three foremen under him who were known as contremaitres. There was one contremaitre for production, one for mechanical work and one for electrical/instrumentation work. Each contremaitre had his own small department staffed by operators and specialists. When we came on board, we accompanied them so that we could gain experience as quickly as possible. We also served as safety officers. We learned a lot, especially during the hook-up and start-up. In those early days, there were about fifty French staff on board who worked two weeks on, two weeks off. During the hook-up, 200 welders and fitters from the English company Fieldco were added. Extra accommodation space was needed since there were only sixty beds available on L7-Q. The problem was solved by placing the Transocean 4 drilling rig next to L7-Q and the Gulf Tide drilling rig next to L7-B. The two rigs served as accommodation platforms for a time. I remember that at a certain moment, Transocean 4 had to be moved to L7-C so that a gas production well could be completed there. The move took place on a weekend. All 200 English staff were flown by S61-N helicopters to Den Helder so that they could stay at a hotel there. But they decided to go drinking en masse. This invasion of Den Helder left an impression on the town. It got really crowded on board Transocean 4 when the English workers returned and an additional drilling crew was brought over to finish the well.'

#### **First Dutch arrivals**

Jaap van der Most still has no trouble naming the first Petroland people who had to get the ball rolling on board the L7 central complex. 'Our first chefs de chant were John Purvis and Paul Exalto. Rindert Oetsma and Rein Krijger were the production contremaitres, Kees Brooshoofd and Peter Coolwijk were the mechanical work contremaitres and Enno Nap and Theo Plas were the electrical/instrumentation work contremaitres. All these people played major roles on L7-CC for quite some time. Back then, Riemer Haagsma was our radio operator. I was slightly lower down in the hierarchy. Together with Johannes Dijkstra, I was a chief operator for one shift on board, and Peter Hoek and Auke Breeuwsma had that role on the other shift.' The commissioning and start-up of the gas production at the L7 central complex took place at the same time as that of the L7-B satellite. Jaap van der Most explains: 'L7-B was designed to be operated remotely. A good idea, except that the technology wasn't up to it yet. This had to do with the control valves (chokes) of the four gas production wells on the platform. Not only were they massive, they were guite complicated, too. It turned out that they were not resistant to the kind of gas coming out of the wells. They became corroded while you watched and they were highly maintenance sensitive. They were quickly replaced with Cameron's manually operated chokes. Unfortunately, guite soon afterwards a well was lost during an operation in which a hydraulic pulling unit was used for the first time. Since L7-B was too small to for extra wells to be drilled, a small platform (L7-BB) was placed alongside it. Two new wells were connected to L7-BB. However, this platform had been positioned in such a way that the supply boat could no longer be seen from the usual crane cabin on L7-B. This meant that a separate control cabin had to be placed on one of the corners of the platform. All in all, a lot was learned during that time.'

#### **Departure of the French**

A significant number of Dutch staff were among those working for Petroland during the start-up of the gas production. Jaap van der Most continues: 'Apart from the chefs de chant and contremaitres I mentioned earlier, each shift consisted of two chief operators, four operators, a radio operator, two or three mechanics, two or three electricians/instrumentation technicians, two crane operators and two roustabouts. At the time, catering was mainly provided by Portuguese and South Americans working for Universal Services International. The crane operators and roustabouts were hired through the Dietsmann agency. Many of the French staff had left the platform complex once the hook-up was complete. After the start-up of production, the French startup team also departed. Some three months after the start-up, only a few French operators and technicians remained to dot the i's and cross the t's. Once they had also left, we took things into our own hands. We had learned in the meantime that electricians are not instrumentation technicians and vice versa. This led to a division of duties. Teun Leeuwenstein was appointed head of instrumentation and immediately began to put together his own team.' When it turned out that L7-B could not yet be operated remotely, Jaap van der Most and Rindert Oetsma were appointed to the position of installation manager of the satellite. 'This platform was not designed to accommodate staff, so for us it was more like camping.' After some time, Jaap would return to the L7 central complex as platform chief of L7-Q. He was also there for the installation of the L7-PK compression platform. Although he retired years ago, Jaap still looks back very fondly on his early years offshore when you still had the freedom to do things your own way.



### Bernard Reith

" The people of Petroland were pioneers when this field development was done as one of the first in the Dutch offshore industry. They could never imagine that it would produce for 40 years, thanks to those who came after them and found ways of making it better and extending its lifetime. I myself am proud to have been part of this adventure, and we can all be proud of it now that production has ceased and "the Q" is part of Dutch offshore industry heritage.

The future of Total E&P Nederland is a continuing adventure, and I am convinced we can be pioneers again to make it happen."





## Dominique Janodet

"Any exploration & production project goes through different phases in its life: from the discovery of the field to the decommissioning of the platform, from ramping up to maturity and decline.

Over four decades, L7 has been a landmark of Total E&P Nederland's activity and operational excellence. This exceptional longevity has been the result of the initiatives and efforts of the affiliate to extend its economical life beyond the initial forecasts. But now the end has come with the reserves exhausted and we have to put the platforms of the L7 complex to a rest before removing them in a few years time to ensure full restitution of the site.

Beyond its industrial activity, L7 has also been a significant part of many Total E&P Nederlands employees life with a lot of remembrance and stories of hard team work and friendship, technical initiatives and...fishing. This short publication is a tribute to a great industrial and human adventure and to the women and men who have made this project a great success in the history of our company."



Well platform L7-B was the first satellite.



For the L7-CC Revamp Project, the Seafox 4 was used as an additional accommodation platform.



At first, the L7-CC central complex consisted of three platforms. A well platform, accommodation platform and production platform.



In order to maintain gas production, a fourth platform, the L7-PK compression platform, was installed in 1981 alongside L7-CC.



Senior Plant Technician Rienk Wind closes the Surface Controlled Subsurface Safety Valve (SCSSV)



Copper plate on L7-Q indicate the year of construction. (Photo: Riemer Haagsma)

PETROLAND CHANTIERS & GARONNE BORDEAUX CONSTRUCTION The L7 'make safe' team

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