

BP Trinidad & Tobago

Building the capability to achieve Operations Excellence in late-life assets

Twenty kilometres off the coast of Trinidad & Tobago, the Teak, Samaan and Pouil oil assets (TSP) were acquired by BP as part of their merger with Amoco. Old by industry standards, the assets had for some time been in their late-life phase – past their production peak, with their commercially viable output predicted to decline steadily over future years.



With BP's focus in the region increasingly on gas production, the seemingly inevitable conclusion was that TSP's useful working life would come to an end sooner rather than later.

The challenge

It was clear to the management team that TSP would cease to be economically viable very quickly if they could not find a new and better way of managing the business.

Specifically, if they were to "bend the curve" and get the business back on track (hitting the year-on-year production targets that formed their managed-decline plan), they would need to increase production to close to 35,000 barrels per day – an improvement of more than 20% on what they were currently achieving.

Barriers to success

TSP's challenge was doubly difficult. Not only were its physical assets – its plant and equipment – old and in poor repair, but also its management assets – its skills and experience – had been significantly reduced by the need to move many of its key people to focus on the exciting opportunities on the gas side of the bpTT business.

Further, as a result of the many organisational changes that had happened in the business since its Amoco days, roles and responsibilities were unclear. Onshore staff were frustrated by their inability to make anything happen, and offshore staff disenfranchised. Little effective collaboration or knowledge sharing was happening.

Finally, of the experienced people the business had retained, few had managed a business in late-life. As a result, they did not have a clear vision of what "good" looked like for a late-life operator and so did not have a clear picture of what it was they were trying to achieve.

Addressing the challenge

The first task was to create a vision of success for TSP that would engage and energise an organisation that had largely accepted an unappealing fate.

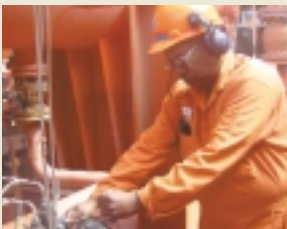
Evolve worked with the Leadership Team to help them lead this vital part of the programme and prepare them for the role they would have to play in leading the whole of the change process. Through one-to-one and team sessions they built a clear vision of success, became more knowledgeable and confident around the process of change and the approach that they would take, and identified the new skills they would need to learn to lead the process successfully.

At the same time a programme team was selected and given two weeks intensive training by Evolve. Training a TSP team to be the internal consultants to the programme started the process through which new leadership skills were transferred to TSP in a highly leveraged way.

Over the course of the programme, a team of 2-3 Evolve consultants working with 4 programme team members and 12 full-time shift coaches implemented new tools and skills with operators and first-line managers on 13 platforms.

At the end of a 10-week Foundation Phase the programme team presented their conclusions and recommendations to the Leadership Team, and agreed how the business would move forwards.

The 12-month implementation programme delivered improvements in 3 key areas:



"At the beginning of the programme I was excited to be selected as a member of the programme taskforce but also a little nervous. But our initial training helped us get ready for what we were going to have to do.

The Evolve team helped us understand what the programme was about and how we were going to get the results, but we also learnt a lot of stuff that I wasn't expecting, like why change works and why it often doesn't, and how to understand how others are going to react to the changes you're going to ask them to make.

This was really important because a lot of what I had to do was about influencing people I didn't have any authority over.

The programme was a great success but what's really great is that not only have changes stuck since the Evolve team left, but we're carrying on making more changes and more improvements.

I am now responsible for rolling-out some of the things we did offshore during Operations Excellence into other areas of the business. This means that I am getting more responsibility and am being seen very much as an important change agent in the business. It also means that I get to use and develop further the skills I learnt during the programme.

I am a lot more confident person than when I started the programme and have proved to myself that when I focus my efforts I can produce great results.

Working with Evolve has been great for the TSP business but it has also been great for me. I am very excited about my future in BP."

Trudy Patrick, Operations Excellence Programme Shift Coach

- Increased production from late-life assets worth estimated \$60 million per year
- 12 month programme
- 2-3 Evolve consultants working through 4-person Programme Team and 12 full-time Shift Coaches
- Created the vision for the business of late-life operational excellence
- Implemented improvements in well-intervention and production optimisation
- Improved onshore/offshore teamwork
- Developed leadership capability onshore, offshore and at all levels of the business

Improving onshore/offshore teamwork

The programme team first mapped the key processes across the business – both onshore and offshore – to identify those that would need to change for the business to be more successful in a late-life operating environment. This also helped make clear which activities were best done offshore and how they could be supported by the skills and experience of the onshore team.

Evolve helped the onshore team develop the skills to act as coaches, transferring some of their knowledge to their offshore colleagues, and worked with the senior offshore management team (OIMs) so that they could develop new skills to set and manage the expectations of the onshore team and build effective communications with the rest of the business.

Implementing effective Well Intervention and Production Optimisation processes

The programme team had identified the two main areas where the required increase in production would come from. First, through the implementation of a proactive Well Intervention programme, TSP ensured that each well was properly and routinely tested, maintained and functioning optimally. To achieve this the programme team had to put in place an effective management system to enable fact-based decision making and then encourage, train and support the offshore staff, who had not previously been involved in the management process, to use the data to make decisions and to intervene proactively and cost effectively. This helped make a fundamental change in the mindset of the offshore managers, creating a new focus on understanding the commercial impact of their interventions as well as the engineering impact – critical for managing the business successfully in its late-life.

At the same time the Production Optimisation Team started to work to develop a new rigour in the offshore management teams around their understanding of day-to-day production issues. To achieve this, Evolve trained the Programme Team to enable them to develop the ability of the offshore teams to use problem-solving tools to make more-timely interventions and allow more decision making to happen quickly and closer to the issues being addressed.

Building management capability in all parts of the business

Critically, all the work undertaken as part of the Operations Excellence Programme was done by TSP's own people. Evolve supported them by providing frameworks and structure, tools and specialist skills, coaching and day to-day support, but the programme would not have been successful if the business-at-large had seen it as led by external consultants.

Key to this was the creation of the Shift Coach Team, formed from people across the business, to lead the implementation of the programme particularly in the Production Optimisation area. Given full-time programme roles, the Shift Coaches learnt new skills - technical skills but also change leadership skills to enable them to work directly with the offshore teams to understand and drive performance.

The Shift Coach teams took an enormous amount of pride in the results they were able to achieve and not only developed their own performance improvement capabilities for use in future challenges, but also passed on much of what they learnt to the rest of the shift teams, greatly increasing the management capability of the business as a whole.

Results

TSP's Operations Excellence Programme has achieved all of its objectives. Production has risen by some 7,000 barrels per day - an increase of nearly 25%. The overall effectiveness (OEE) of the assets has moved from 75% to 96% and unplanned production losses have fallen by 45% versus the same period in the previous year.

The field is now producing at a higher rate than it was two years ago, and 6 months after the end of the programme had its best production month for 3 years. Expected to decline (unmanaged) at a rate of some 30% per year, TSP is now managing its decline at only 4% per year - an improvement calculated by bpTT to be worth more than \$60 million on an annualised basis.



"At the beginning of this year the feedback we received from our people both offshore and onshore was that it was impossible to achieve production levels of 35,000 bopd - an increase of 7,000 on August 2001. In October this year we exceeded this target and have consistently exceeded the performance of the field back in August 2000.

We have done this by building the capability of our people both onshore and offshore.

Our challenges for 2003 are very clear - both in terms of our ability to operate safely and deliver extraordinary performance. It is very clear that in TSP we have built a strong foundation in our journey to becoming a great operator.

Evolve's support has been invaluable. I had worked with consultants before, and I guess had the view that consultants were useful so long as you kept them "in their box". Working with Evolve has changed my views.

Evolve have demonstrated that consultants with the right skills and approach can really teach us something, and leave behind real long-term value."

Thor Hjelmaas, Delivery Unit Manager



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