

Eastern Goldfields Pipeline Project

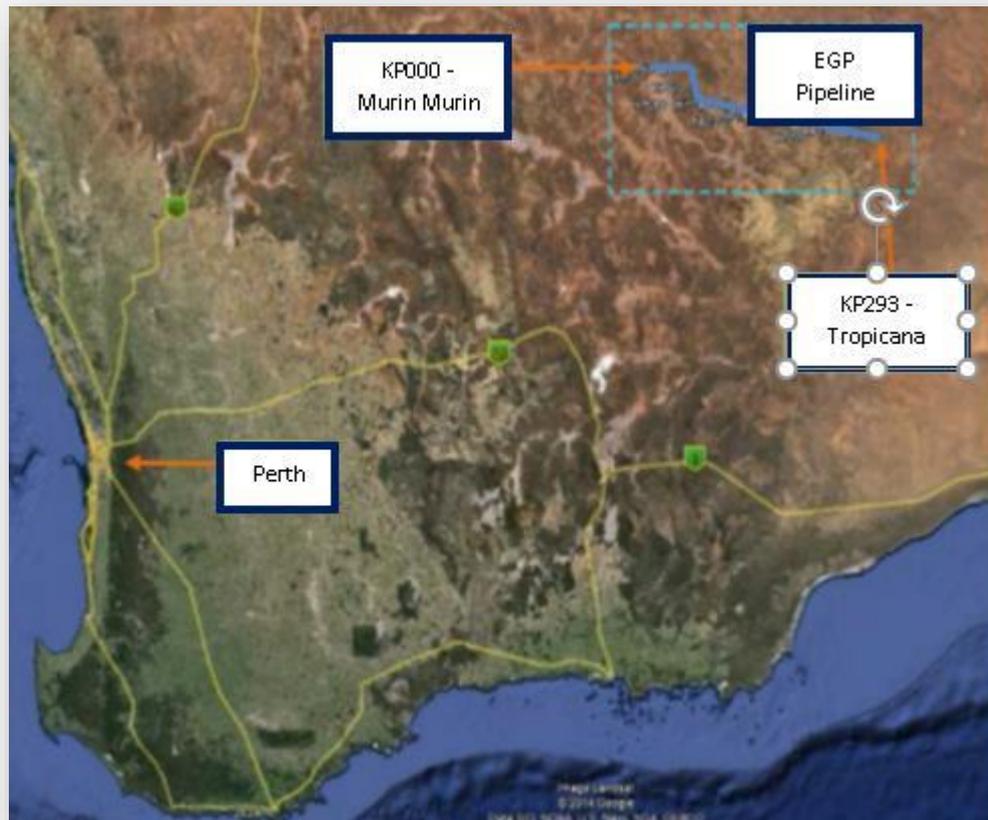


The international pipeline contractor for landmark projects



On the 23rd October 2014 Spiecapag and a JV Partner were awarded the Contract to construct 293Km's of 200mm nominal bore gas pipeline across the Great Victorian Desert on behalf of APA Group. Spiecapag as part of the same joint venture had recently completed the QCLNG Trunklines North project in Queensland, Australia.

APA Group (APA) is Australia's largest natural gas infrastructure business, owning and/or operating approximately \$19 billion of energy assets. At time of writing market capitalisation of APA was \$9.4b.



The Project

The Eastern Goldfields Pipeline was constructed to transport natural gas from APA's existing asset at Murrin Murrin to two of Anglo Ashanti's Gold Mines. One of these (Sunrise Dam) at Kilometer Point 83 and one at kilometer point 293 (Tropicana).

Spiecapag's scope of work included all construction elements of the gas pipeline from clear and grade through to re-instatement, this included: procedure qualifications, rock blasting, construction and operation of a mid-line camp, 4 no. HDD road crossings, temporary works design, connections to two MLV's and three stations, installation of two split tee's for future connections, testing and commissioning support.

The 2 main challenges on the project were:

- The remote location of the Project, the Eastern Goldfields is 12 hours' drive from the closest City Perth, which in itself is the most remote City in Australia.
- Averaging 5km's a day production on each work front in order to meet the schedule.

These 2 challenges were overcome with meticulous planning prior to mobilization to site and regular review meetings during construction.

Project Schedule

Project was awarded on 23rd October 2014, mobilization to start commenced on 23rd January 2015 with clear and grade commencing on the 1st March 2015. Throughout the Project the baseline schedule was adhered to with each activity achieving or surpassing their weekly targets. Activities were accelerated wherever possible to maintain the momentum. Re-instatement crews completed their activities 19 days ahead of schedule. Practical Completion of the entire line was achieved on the 28th September, 33 days ahead of schedule. Spiecapag was also in a position to provide APA operations with access to Section 1 between KP000 and KP083 two weeks prior to the PC date to enable early commissioning and gas up.



Organization

Due to the remote nature of the project all personnel were employed on a fly in fly out basis, working on a 28 days on 9 days off roster. Accommodation was made available at 4 locations along the pipeline route. Laverton town, Sunrise Dam (KP085), Spiecapag Constructed Fly Camp (KP185) and Tropicana (KP293).

The workforce were hired from Western Australia wherever possible, however key personnel and the management team were mobilized from interstate and internationally by the joint venture.

Spiecapag mobilized the Management Team to temporary offices in Perth 1 week after contract award for the initial 3 months planning and mobilization phase of the project.

The majority of the project management team (PMT) had recently worked together on the QCLNG project and provided support to the construction crews in terms of safety, quality, engineering, procurement, transport and accommodation. This team was site based but was further supported by the offices of both partners.



Construction

Mainline Crews arrived progressively on site from the 1st March 2015, Pipe had already been received and inspected in 3 locations along the pipeline KP49, KP83 and KP293 and the survey crew had begun staking out the Right of Way limits. Stringing and Bending commenced the beginning of April, welding and NDT then began 2 weeks later. Trenching commenced the middle of May followed by lowering and backfill mid-June. During Initial inspection of Pipe a number of factory and transport defects were detected on the Factory applied coating, therefore Spiecapag mobilized two crews to perform repairs after the pipe is welded.

Production Highlights			
Activity	Best Days Production	Best Week's Production	Average Daily Production
Clear and Grade Km's	12.3	63.9	4.4
Stringing Km's	10.8	58.5	5.3
Welding Km's	7.8	48.1	5.5
Welding Joints	425	2622	302
Coating Km's	8.4	52.1	4.5
Coating Joints	440	2858	253
Trenching Km's	9.8	59.2	4.7
Lowering Km's	10.6	65.6	5.5
Backfill Km's	15	72.1	5.4
Reinstatement Km's	11	58	5.5

Mainline crews finished progressively, starting with clear and grade on 25th May and ending with Backfill being completed the 28th July.



Quality

In terms of Quality the project was a great success, during the mobilization phase the Quality Management Plan and ITP's were all issued and approved. Welding and Coating Qualifications were also performed in Perth prior to moving to site.

Monthly internal audits were performed by Spiecapag site Quality Team, periodic audits performed by APA, two corporate audits were performed. In addition AFAQ performed an audit for the recertification of Spiecapag's ISO accreditations, there were no NCR's or CAR's relating to Quality on the project and only 2 Improvement Actions.

The welding repair rate was 0.92% (KPI 2.0%) and zero defects found during DCVG survey of the full 293km.

Safety

The comprehensive safety structure implemented was carried over from QCLNG and reinforced on the EGP Project.

Project Statistics	
No of man-hours worked	346,579
Fatalities	0
Loss Time Incidents	0
Medical Treatments	0

All Safety KPI's established at the start of the project were achieved.

The safety department took an active role in training (6,348 Hours of training performed) and competency assessments (355 assessments performed), to ensure the workforce was aware of the risks involved in the tasks being performed.

Spiecapag took the opportunity on this project to invite corporate HSE Managers from both partners to do a full review of the safety system and provide feedback. This provide some very positive comments.

During the EGP Project Spiecapag reached the milestone of 1,000,000 Man-hours LTI Free.



Environmental

The Environment Team worked closely with the client at the start of the project and assisted with obtaining Department of Mining and Petroleum approval licenses. The Construction Environmental Plan (CEP) was developed to highlight all the specific environmental Controls the needed to be implemented on the project. The CEP was effectively implemented on site with fauna monitors in place for clear and grade and

Trenching activities, open trench was inspected twice per day to ensure there was no fauna trapped. In total there was 1112 Fauna Interactions on the project with a total of 91 Species identified.



Environmental alerts were rolled out to keep the workforce informed of all issues and to refresh the information provided during the Project Induction.

Our work was executed with zero environmental incidents and to the satisfaction of our client and independent monitoring bodies.

