

ligh level capacity information & infrastructure specific information for prospective users

Infrastructure Information

Judy Facility Description:

Entry Specification The entry specification for any future third party production is dependent upon the point at which such production would enter the Judy facilities and the composition

of production already being processed at that time.

The entry specification will cover areas that affect onward transportation as well as those which impact the Judy platform itself e.g. slugging limitations and

contaminants

Exit Specification:

Liquids - Any liquids processed on the Judy facilities would be transported to Teesside through the J-Block Spur to the Norpipe System. The exit specification from the Judy facilities is the Norpipe entry specification which is directly negotiable between any prospective user and the Norpipe operator. However, any exit specification

must be achievable with the processing facilities available on Judy.

Gas - Any gas processed on the Judy facilities would be transported through the CATS Pipeline via the T6 entry point. The exit specification from the Judy facilities is the CATS entry specification which is directly negotiable between any prospective user and the CATS operator. However, any exit specification must be achievable with the processing facilities available on Judy. Following on from transportation through CATS further processing would be required at either the CATS processing facility or

Outline details of Primary separation processing facilities:

Primary oil and gas separation is achieved by HP separators. The oil is conditioned by a second stage LP separator to the pipeline entry specification (145 psia true

vapour pressure at 100 °F) prior to export.

Outline details of gas treatment facilities:

The gas from the separators is compressed and dehydrated by a triethylene glycol system to achieve a maximum water content of 15kg per million cubic metres

The hydrocarbon dewpoint of -2 °C at all pressures greater than 92 barg is achieved by NGL removal at the suction scrubbers of the second compression stage.

Judy has limited H₂S removal facilities.

High Level Capacity Information

The basic capacity information is portrayed by colour coded 'traffic lights' that reflect thresholds of availability over the next 5 years

| Available Capacities | | > 25% | | 5% to 25% | | < 5% | 0 | Unknown/None |
|--|------------|---------|------------|-----------|---------|---------|---|--------------|
| Description | Capacity | 2040 | Comments | | | | | |
| Oil export capacity (1) Oil export pipeline capacity (1) | 100 mbbl/d | 2019 | 2020 | 2021 | 2022 | 2023 | | |
| Gas compression capacity (2) (3) | 320 MMSCFD | | | Q | | | | |
| Gas export capacity Gas export pipeline capacity | 320 MMSCFD | 8 | 8 | 8 | 8 | 8 | | |
| Gas lift capacity (4) | 36 MMSCFD | | | | | | | |
| Dehydration capacity (5) | 450 MMSCFD | | | | | | | |
| H ₂ S removal capacity | Limited | | | | | | | |
| Produced water handling capacity (6) | 12 mbbl/d | | \bigcirc | 9 | Ŏ | Ŏ | | |
| Water injection capacity | None | \circ | \circ | \circ | \circ | \circ | | |

(1) The design capacity of the Judy oil export system is 100,000 bbls/d from 2 booster and main oil line pumps. However there is also the ability to tie directly into the J Block Spur, then onwards to the Norpipe system. The capacity of the J Block spur line is dependant on the combined throughputs of the J Block spur and Norpipe trunkline

(2) There are 2 compression trains. With both trains operating the system has a total capacity of 320 MMSCFD at 15.5 barg separator pressure.

(3) Compressor optimisation was implemented in Q2 2017, rewheeling both compression trains to reduce the separator pressures. Post-optimisation, the compressors can deliver 320 MMSCFD at 15.5 barg separator pressure. The nameplate capacity of 450 MMSCFD is maintained at around 26 barg separator pressure.

(4) Gas is available at compressor second stage discharge pressure, typically about 150 barg. A gas lift manifold was installed in 2018 with capacity to inject to 6 wells. Gas lift is currently only provided to 1 of the Judy wells.

(5) Achieves a maximum water content of 15 kg per million cubic metres

(6) Produced water is separated at the LP separator, the system has a hydraulic capacity of 12,000 bbl/day. Treatment is by hydrocyclones, compact flotation unit and a degasser. There are no reinjection facilities. Additional produced water capacity may be available via the Jasmine hydrocyclones on JURP however these have yet to be commissioned

Please note, modifications required on Judy for new business may be limited due to facilities constraints

Contact information

For further enquiries regarding the above please contact Michael Wade, Tel 01224 205937, Email Michael.D.Wade@conocophillips.com Last Update:

Note: The information provided above is given by ConocoPhillips Petroleum Company U.K. Limited ("ConocoPhillips") in its capacity as operator of the infrastructure. The information is given in good faith and without liability. The information indicates available capacity at the Last Update but no warranty is given in relation to the accuracy of the information. ConocoPhillips reserve the right to alter information provided in relation the infrastructure at any time and without notice. Parties using the information provided therefore do so at their own risk. The information relating to the vailability of capacity in the infrastructure is provided on a "subject to contract" basis.



Jade

High level capacity information & infrastructure specific information for prospective users

Infrastructure Information

Last Update:

Jul-19

| Description: | | Jade Facility (HP/HT wells) | | | | | | | | |
|---|---|-----------------------------|--|-------------------------|---------------|------|---|--------------|--|--|
| Facility | | | The Jade facility is a NUI which is 17kms north of the Judy Host Facility. Connected to Judy via a subsea pipeline Potential tie-in at Jade topsides or pipeline All processing of Jade hydrocarbons takes place on the Judy Facility. All operations are controlled from Judy | | | | | | | |
| Entry Specification: | The entry specification for any future third party production is dependent upon the point at which such production would enter the Jade facilities and the composition of production already being processed at that time. The entry specification will cover areas that affect onward processing & transportation as well as those which impact the Jade & Judy facilities e.g. slugging limitations and contaminants | | | | | | | | | |
| Exit Specification: | Need to meet the Jade/Judy TPA Delivery Specifications For liquid and gas exit specifications ex processing on Judy see Judy ICOP Page | | | | | | | | | |
| High Level Capacity Information The basic capacity information is portrayed by colour coded 'traffic lights' that reflect thresholds of availability over the next 5 years | | | | | | | | | | |
| Available Capacities | | > 25% | | 5% to 25% | | < 5% | 0 | Unknown/None | | |
| Description | Capacity | 2019 | Ullage as 9 | % of system cap 2021 | acity 2022 | 2023 | | Comments | | |
| Jade HP Separator processing Capacity (Gas) (1) Jade HP Separator processing Capacity (Liquids) (1) Gas compression capacity (2) Gas treatment capacity (2) Gas lift capacity (2) Dehydration capacity (2) | 123 mmscf/d 45mbbls/d None located on Jade None located on Jade None located on Jade None located on Jade | 8 | 8 | 8 | 8 | 8 | | | | |
| H ₂ S removal capacity (2) Water processing capacity (1) | None located on Jade 4mbbls/d | 0 | 0 | 0 | 0 | 0 | | | | |
| (1) At 30bar. Jade HP Separator is located on Judy. Capacity was reduced when separator went down to 15.5 bar in Q2 2017 (2) Refer to Judy datasheet for treatment capacity as all Jade gas is treated on Judy platform | | | | | | | | | | |
| Contact information For further enquiries regarding the above please contact the contact information is a second of the contact information. | act Michael Wade, Tel 01224 2 | 205937, Ema | il Michael.[| D.Wade@conod | cophillips.co | om | | | | |

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