

Northern Leg Gas Pipeline (NLGP)

Background

The Northern Leg Gas Pipeline (NLGP) transports natural gas in dense phase. Subsequent transportation and processing in the Far North Liquids and Associated Gas System (FLAGS) and Shell Esso Gas and Associated Liquids (SEGAL) systems ultimately leads to the delivery of sales quality gas into the UK National Transmission System (NTS) at St Fergus in the northeast of Scotland, and the delivery of separated natural gas liquids into the Shell operated SEGAL / Mossmorran system.

The NLGP is owned collectively by the following field owners: Magnus (44%), Thistle (7%) and Statfjord UK (49%). These ownership equities relate to the operational ownership. The Murchison Field Group became an Exempt Sleeping Owner in 2016. It remains an Owner in relation to Decommissioning activities. A further breakdown of the individual entities involved in each field group can be found in the table below.

Despite having been in operation since 1982, strict adherence to operating procedures and rigorous maintenance and inspection programs have ensured the NLGP remains in excellent physical condition.

Pipeline System Overview

The NLGP system comprises of the following:

- i. The twenty inch (20") diameter (80km long) trunk pipeline extending from the face of the flange connected to the base of the gas offtake riser on the Magnus Platform to the gas delivery point into the Shell operated FLAGS pipeline (offshore section of the SEGAL System) near the decommissioned Brent A platform which is five (5) metres downstream of the centreline of the Eastern top bar of the 'V2C' NLGP SSIV structure;
- ii. The twenty inch (20") diameter trunk pipeline extending from the point approximately located at UTM co-ordinates 6767655.87N, 429783.26E to the Brent Alpha Platform, including any riser and necessary on-deck equipment on the Brent Alpha Platform owned by the Original Pipeline Owners;
- iii. 6-inch (6") diameter, 9.3km long lateral pipeline connecting the EnQuest operated Thistle A platform to the trunk line. This is a lateral pipeline extending from a point one (1) metre, in the direction away from the Thistle Platform, from the bell mouth of the Thistle Platform's gas offtake "J" tube, to the trunk pipeline described in (i);
- iv. The disconnected lateral pipeline extending from a point one (1) metre, in the direction away from the trunk pipeline described in (i), from the hyperbaric weld at UTM co-ordinates 6807758.2N, 432754.1E to a point located proximate to where said lateral pipeline was formerly connected to the trunk pipeline described in (i); and

- v. 12-inch (12”), 11km long spur line connecting the Statoil operated Statfjord B platform (located in the Norwegian sector of the North Sea) to the trunk line. This is the lateral pipeline from the Statfjord B Platform to the trunk pipeline described in (i) but only to the extent that such lateral pipeline extends from the point of its intersection with the westernmost boundary of the Statfjord unit area at the UTM co-ordinates 6785992N, 432747E to the trunk pipeline described in (i).

Characteristics

Location	<ul style="list-style-type: none"> From the Magnus platform to the gas delivery point into the Shell operated FLAGS pipeline
Description	<ul style="list-style-type: none"> 20-inch (20”) diameter, 80km long trunk line running from the EnQuest operated Magnus platform to the gas delivery point into the Shell operated FLAGS pipeline (offshore section of the SEGAL System) near the decommissioned Brent A platform. 6-inch (6”) diameter, 9.3 km long lateral pipeline connecting the EnQuest operated Thistle A platform to the trunk line. 12-inch (12”), 11 km long spur line connecting the Statoil operated Statfjord B platform (located in the Norwegian sector of the North Sea) to the trunk line.
Ownership Equities (Operational Ownership)	<p>Magnus Field Group:</p> <ul style="list-style-type: none"> EnQuest Heather Limited (NLGP Operator) 43.902% <p>Thistle Field Group:</p> <ul style="list-style-type: none"> Britoil Limited 5.979% Harbour Energy 1.337% <p>Statfjord (UK) Field Group:</p> <ul style="list-style-type: none"> Spirit Energy Resources Limited 48.780%
Export Routes	Subsequent transportation and processing in the FLAG/SEGAL systems ultimately leads to the delivery of sales quality gas into the UK NTS at St Fergus in the northeast of Scotland, and the delivery of separated natural gas liquids into the Shell operated SEGAL / Mossmorran system.
Maximum Capacity	300 MMscfd

Public Available Specification Information

Entry Specification (for gas entering NLGP at Magnus Entry point / EoSPPS)

Gas shall be commercially free from objectionable odours and dust or other solid or liquid matters, waxes, gums and gum forming constituent which might cause injury to or interference with the proper operation of the lines, meters, regulators or other appliances through which it flows. The following represents the current Entry Specification for the pipeline which may be changed if required in the future.

Entry specification	
Water Content by Volume	max 35ppm (v) (equivalent to a water dewpoint of -13 deg C at 138 bar(g))
Hydrocarbon dewpoint temperature	max 48.9 deg C at 54.16 bar(g)
Hydrocarbon dewpoint pressure	max 103.8 bar(g) at 5.6 deg C
Level of liquid condensation	max 5.15% by volume at or above 95.53 bar(g) and 5.6 deg C
Hydrogen sulphide	max 3.3 ppm (v)
Total sulphur as H2S	max 35 ppm (v)
Carbon dioxide	max 1.15 mol%
Oxygen	max 0.1 mol %
Pressure	Maximum Pressure 147 bar(g) Minimum Pressure 140 bar(g) Normal Operating Entry Pressure 133-136 bar(g)
Temperature	Maximum 25 deg C Minimum 0 deg C

Exit Specification (for gas exiting NLGP into FLAGS at Brent Alpha)

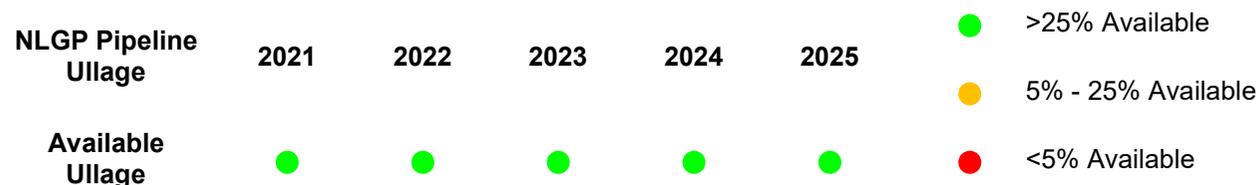
Gas shall be commercially free from objectionable odours and dust or other solid or liquid matters, waxes, gums and gum forming constituent which might cause injury to or interference with the proper operation of the lines, meters, regulators or other appliances through which it flows.

Exit specification	
Water Content by Volume	max 55ppm (v) (equivalent to a water dewpoint of -13 degrees C at 138 bar(g))
Hydrocarbon dewpoint temperature	max 48.9 deg C at 54.16 bar(g)
Hydrocarbon dewpoint pressure	max 103.8 bar(g) at 5.6 deg C
Level of liquid condensation	max 5.15% by volume at or above 95.53 bar(g) and 5.6 deg C
Hydrogen sulphide	max 3.3 ppm (v)
Total sulphur as H₂S	max 35 ppm (v)
Carbon dioxide	max 2.5 mol%
Oxygen	max 0.1 mol %
Pressure	Maximum Pressure 136 bar(g) Minimum Pressure 134 bar(g)
Temperature	Maximum 55 deg C Minimum 4.4 deg C

High Level Capacity Information

The NLGP system does not operate a capacity booking system currently.

The maximum capacity of the NLGP, whilst dependent on both operating conditions in downstream SEGAL system and the actual entry point utilised, is nominally 300 MMscfd.



Contact Information

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