

## **Sullom Voe Terminal**

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### **Location**

The Sullom Voe Terminal is located at the northern end of the largest of the Shetland Islands. It is one of the largest oil terminals in Europe.

### **Sullom Voe Terminal Installation**

The terminal was built between 1975 and 1981 and covers 1,000 acres. Its main purpose is to act as a buffer between the producing fields offshore and tankers waiting to ship oil to refineries worldwide. The terminal has been designed to allow continuous production offshore, even in bad weather.

Sullom Voe Terminal is operated by EnQuest on behalf of the nineteen different companies which have an ownership interest in the terminal. The terminal receives production from more than thirty fields from the Brent, Ninian, SGP and Clair pipeline systems, from both the East Shetland Basin and the West of Shetland.

### **Installation systems**

Sullom Voe Terminal receives oil and gas from the many fields East of Shetland through the Brent and Ninian Pipelines, commingling, to produce Brent Blend. Forty years after first receiving this production, it continues to provide this as its primary service. The production from East of Shetland enters the terminal through pig reception facilities and is then stabilised before being stored in crude oil storage tanks. In the stabilisation process, water and gas are separated, with the gas being used as fuel in the on-site power station. Brent Blend is then exported by tanker. Recently, a new pipeline has been built to transport condensate from the nearby Shetland Gas Plant into the terminal to also use this commingled service.

The terminal also receives oil from West of Shetland. In 2003 a 22-inch oil pipeline was laid between the Clair Field and Sullom Voe Terminal. Clair Field came on stream in 2005, with a further phase expected late in 2018. Clair oil is stored in dedicated storage tanks prior to being exported by tanker.

Gas from the Clair and other fields West of Shetland are imported to Sullom Voe Terminal via the 20-inch West of Shetland Gas Pipeline System (WoSPS). This gas is dried and treated to remove H<sub>2</sub>S, some of it is then used as fuel in the power station. The remainder is exported to the Magnus platform via another 20-inch pipeline, the East of Shetland Pipeline System (EoSPS), where it is used for Enhanced Oil Recovery.

As a result of its remote location, the Sullom Voe Terminal has to be entirely self-sufficient, particularly where emergency services are concerned. On site there is a fire brigade and a pollution response team, both of which hold regular exercises to test their readiness to cope with emergencies.

## Infrastructure Information

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### Description:

Onshore Oil Processing and Storage Terminal receiving:

- Unstabilised oil from the Brent and Ninian Pipeline Systems;
- Condensate from Shetland Gas Plant Pipeline;
- Stabilised crude oil by pipeline from Clair Field, West of Shetland;
- Gas by pipeline from West of Shetland, en route to the Magnus Platform.

At present the facilities are dedicated to the existing users but these, or similar, may be available in the future

### Main Facilities:

Oil and gas process plant

16 x 500,000 bbl crude oil storage tanks

Four jetties, (2 currently operational)

Each jetty can accommodate crude tankers typically in the range 60,000 to 120,000 deadweight tonnes

Four fixed-roof ballast water tanks fitted with oil skimmers

A power station and steam generation plant

A main flare and two ancillary surge flares

An administration building and laboratory

A fire station and medical centre

### Exit Specification:

Oil Tanker Loading and Gas Export to East of Shetland

### Import/export facilities for Clair crude:

Pipeline reception facilities including pig receiver

Four (of the 16) tanks

Use of jetties shared with Brent Blend

Dedicated pumping and metering of crude export

### Processing facilities:

Stabilisation – one stabilisation train with sub trains. Capacity 410,000 bbls/day.

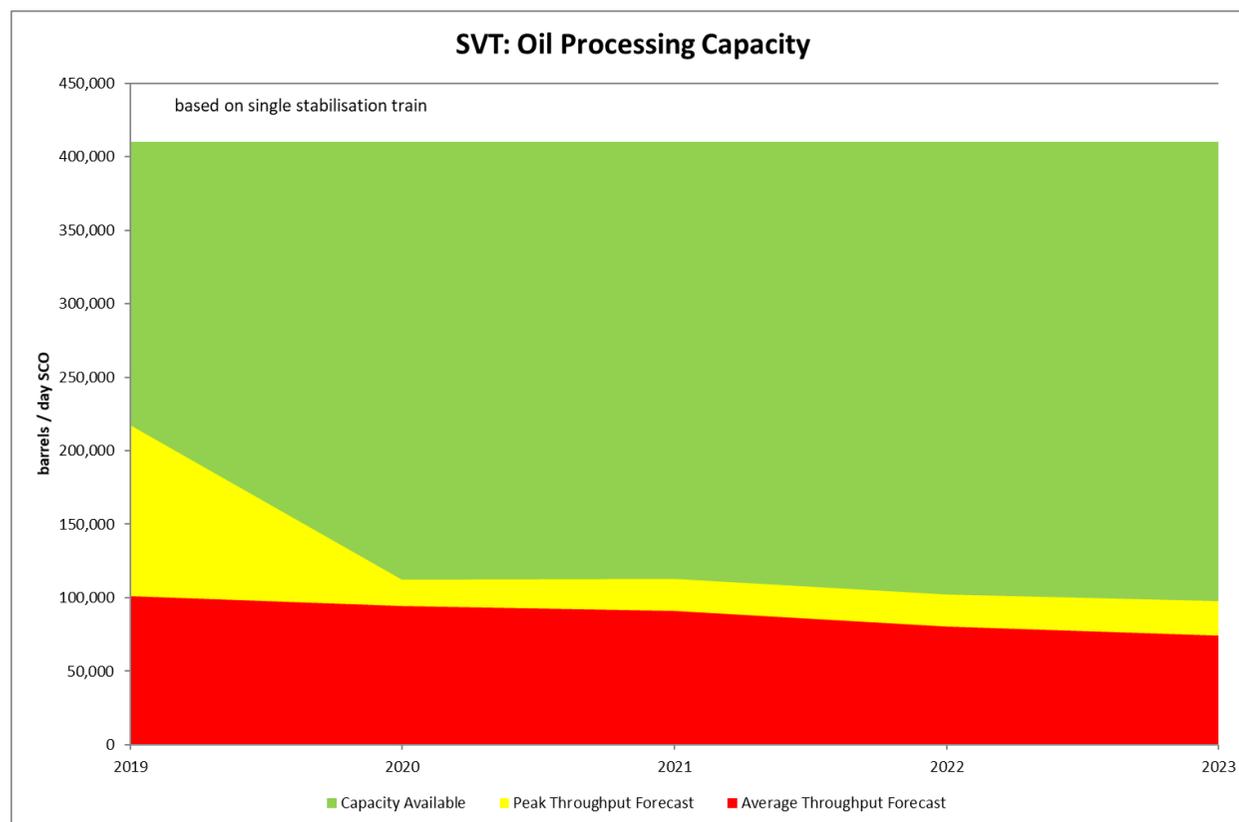
Compression – 1 high pressure and 1 low pressure train

Fuel gas production from East of Shetland (with a back-up supply from West of Shetland gas and diesel)

Effluent treatment

## High Level Capacity Information

SVT does not operate a capacity booking system. Decisions leading to increase or decrease in capacity are anticipated on the basis of forecast throughput, may incur additional cost and (subject to that) are reversible.



## Public Available Specific Information

<b>Entry specification (pipeline)</b>	BS&W – maximum 5% vol True vapour pressure – maximum 220 psia at 100degF
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<b>Exit specification</b>	<b>Level</b>	<b>Test Method</b>
<b>Reid Vapour Pressure, psi</b>	target 10.0	IP 69 (mod)
<b>BS &amp; W vol%</b>	max 0.5	IP386 (mod)
<b>Acidity mgKOH/g</b>	target 0.05 max	-
<b>Density at 15°C</b>	to be reported	SVTA 101
<b>Salt Content 1bs/10,000bbl</b>	to be reported	IP265 (mod)

<b>Details of primary separation processing facilities</b>	One operational stabilisation train of 410,000 bbls/day
<b>Details of Gas treatment facilities</b>	Fractionation to produce fuel gas (which is burnt in the onsite power station)
<b>Oil export capacity</b>	Oil is generally exported in 600,000 barrel parcels (+/- 5%)
<b>Gas compression capacity</b>	N/A
<b>Gas export capacity</b>	N/A
<b>Gas lift capacity</b>	N/A
<b>Produced water handling capacity</b>	1,200 m3/hr.
<b>Gas Dehydration capacity</b>	N/A
<b>H2S removal capacity</b>	-
<b>Water injection capacity</b>	N/A



## Contact Information

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## Updated

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