

LINEWATCH

Watch out - there's a pipeline about!

Revision No. 21.08

Note: This manual supersedes all previous issues, which should now be sent for recycling.

Special Requirements for **Safe Working**

in close proximity to high pressure pipelines



Awareness and preparation is the key to safe excavation



What to do in an emergency

Signs of a possible pipeline leak may include: pools of fuel, dirt or dust blowing into the air, hissing sounds, gas or petroleum odours, bubbles in standing water, dead or discoloured vegetation and ice on the ground. If you notice any of these in the vicinity of a pipeline, treat as an emergency.

In the event of an emergency

- Remove all personnel immediately from the vicinity of the incident.
- Extinguish any sources of ignition and shut down all working plant from the immediate area (remember, vapours will travel downwind).
- Inform the emergency services. Dial 999 and alert the Fire Brigade and Police.
- If known, call the Pipeline Operator. There will be a pipeline marker nearby with emergency contact information. Emergency numbers can also be found on the back page of this booklet.
- Exclude all vehicles and personnel from the vicinity.
- Do not attempt to seal any leaks.
- Do not attempt to extinguish the flame if the leak has ignited.

Action to be taken if the pipeline has been damaged but has not caused leakage:

- Contact the Pipeline Operator or his Agent.
- Do not backfill and await the representative of the Pipeline Operator to inspect the damage and decide on the action required.
- If damage to the pipeline does not cause a leak do not try and hide it. Dents and gouges in a pipe may cause it to fail at a later time with potentially catastrophic consequences. Report all damage, however seemingly insignificant, to the Pipeline Operator.



This manual relates to the following pipeline systems only:

BPA.....	01827 63 708
CATS	01642 546404
Exolum Aldermaston..... (including Inverness – Lossiemouth)	0118 971 2021
ConocoPhillips Teesside	01642 541 222
E-ON - Winnington.....	01606 77 508
EP Langage Ltd.....	0800 371 726
Essar Oil (UK) Ltd.....	0800 389 9607
Esso Petroleum Company Limited	0800 136 812
Humbly Grove Energy	01256 381625
IGas	01522 754 524
INEOS FPS.....	0800 281 279
INEOS O&P (including TSEP)	0800 374185
Mainline	01646 649 999
Manchester Jetline Limited	01244 665 989
Marchwood Power	0800 328 6030
National Grid	0800 111 999
Oikos Storage Ltd	01268 682206
Petroineos	0800 374185
SABIC TPEP and WGEF.....	0800 318 105
Shell - Mossmorran to Brayfoot Bay	01383 892090
Shell - NGL Line St Fergus to Mossmorran	01779 872240
Shell - NWEF and RSEP	0800 220 959
PRAX Finaline	0800 592 246
Uniper - Cottam and Killingholme	0800 389 4795
Uniper - Enfield	0800 783 0140
Uniper - Isle of Grain	02476 198 550
Uniper - Connahs Quay	01244 894 050
Uniper - Holford	01606 841 223

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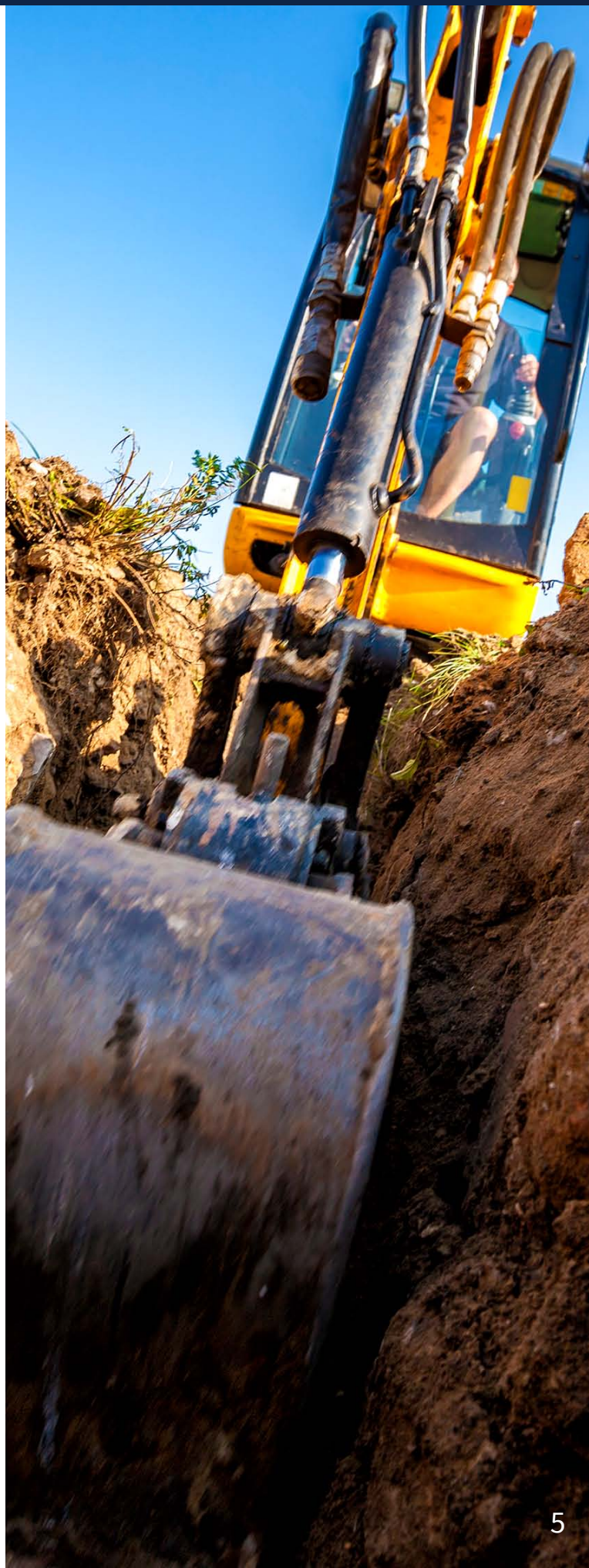
Typical Pipeline Markers and Pages 22-23
Other Warnings

(List of pipeline routes available online at
www.linewatch.org.uk)

It is emphasised that not all pipelines in the UK are represented and that owners of pipelines, even those who do not appear in this booklet, should still be consulted regarding procedures to be followed when working close to their pipelines.

General Information

- All the pipelines referred to in this booklet are constructed of steel and operate at high pressure containing petroleum products or gas.
- Sizes vary from 100mm, (4”) to 1220mm (48”) diameter.
- Nominal depth of cover is 0.9m, (3ft) although in some locations this cover may be less. e.g. Canal towpaths or rocky areas etc.
- The sponsor/employing authority (and/or their contractor) shall be responsible for all liability under the Health and Safety at Work Act, 1974, etc.
- All the pipelines are covered by the Pipeline Safety Regulations 1996 and require all parties to work safely so that no damage is caused to a pipeline.
- The Construction Design and Management Regulations 2015 holds principal responsibility of ensuring that all necessary health, safety and environmental precautions are taken.



Summary of Guidance

The purpose of this booklet is to provide guidance on the basic requirements for safe working in close proximity to buried pipelines. The guidance is not exhaustive and so a safe system of work, including any specific requirements of the Pipeline Operator, should be agreed prior to work commencing.

For the purposes of this document the term “easement”, as used, includes property rights arising under Deeds of Grant, Wayleave and other rights in land granted.

The Pipeline Operators need to know about **any works within 50 metres of their pipelines** that are within the same parcel of land, i.e. not separated by a fence or other identifiable division. It is strongly recommended that an initial search for pipelines and other critical assets are made on the www.LSBUD.co.uk website. This service is free to use and available to everyone for any type of work. The service will immediately show you which Operators may have assets in the vicinity of your works. The Pipeline Operator is also alerted for any search near their assets and able to make an appropriate response to help you work safely.

The Pipeline Operator is responsible for clearly marking the detailed route of the pipe (a free service) and to specify any constraints on the proposed method of working. All works require prior approval except certain routine agricultural operations.

Typical activities requiring pre-notification include the following:

- Excavation activities
- Installation of new underground services (e.g., cables, pipes)
- Installation of new or replacement poles, posts or lighting columns
- Fencing (new or replacement)
- Ditch/gutter clearing
- Subsoiling
- Mole ploughing
- Drainage
- Planting of certain trees/shrubs
- Removing trees/shrubs, including tree felling
- Building work, including property extensions.
- New or upgrade of roads/tracks (permanent and temporary)

This is not an exhaustive list of activities, so it is important to contact the Pipeline Operator to discuss any proposed works.

When planning works, which could involve crossing or working within the easement, it is important that sufficient time for Approval by the Pipeline Operator is allowed prior to works commencing. In some circumstances this can take up to 13 weeks.

Some Pipeline Operators may have their own specific requirements which will be made available by request.

Supervision of Works

The Pipeline Operators require strict controls to be applied on all third party works that could affect the pipeline, which are administered by the Pipeline Operator or Agent. The minimum controls are:

- A minimum of three working days prior notice shall be given by the third party to the Pipeline Operator or Agent before commencement of any works within 3m (10ft) of the pipeline. It should be noted that National Grid requires at least seven days' notice.
- All works within the pipeline easement shall be attended by the Pipeline Operator or Agent and shall not commence without the written authority and supervision by the Pipeline Operator or Agent.
- There will generally be no charge for such attendance for the first three 8 hour working days. Thereafter, the costs may be recovered by the Pipeline Operator from the third party. Current contract rates for supervision charges will be provided by the Pipeline Operator to the third party on request.

Details of the relevant Pipeline Operators or their agents are listed in this booklet.

Basic Guidelines for any work near Pipelines

1 In general, a **legal consent** or agreed level of supervision will be required **prior** to any works within the easement. Adequate time should be allowed for the completion of any consent. Prior to commencement of all works full details of the proposed work should be submitted to the appropriate Pipeline Operator or their Agent.

2 The pipeline easement shall be marked or pegged out and fenced off prior to works commencing. Agreed crossing points across the easement for construction machines shall be protected by plates, “Bog Mat”, a temporary concrete slab or hard-core layers. Specification for each crossing point will need submitting to the pipeline operator prior to approval. Any plant crossing the easement can be hazardous to the pipeline especially if the ground is soft or wet.

3 No raising or lowering of ground level throughout the easement is permitted without written consent from the Pipeline Operator. **All excavations** above, below or within 3m (10 ft) on either side of the pipeline must always be supervised by a representative of the Pipeline Operator. Manual digging will be employed unless another method is specifically authorised by the representative. All excavations shall be carried out in strict accordance with the HSE’s Guidance Document HSG 47 – Avoiding Danger from Underground Services. A copy of the document can be found on the UK HSE’s website.

4 Vacuum Excavation (or Vac-Ex / Suction Excavation as it is sometimes known) will be considered as an alternative to traditional excavation techniques. However, this type of works can still cause damage to the pipeline or its protective wrapping if used incorrectly and must be discussed and agreed, prior to approval.

5 Protection will be required over the pipeline at road crossings and parking areas, including temporary construction areas, typically, as per example (Appendix I). Under the supervision of the Pipeline Operator and prior to installation, the promoter shall expose the pipeline for the existing protective pipe wrapping to be inspected, repaired, and then double wrapped at the Promoter’s expense by a contractor approved by the Pipeline Operator. Some Operators employ other methods, so agreement of the method and safe systems of work is important before any investigation or removal.

6 The pipeline is wrapped to prevent corrosion. Any damage to the pipe or its wrapping must be notified immediately to the Pipeline Operator or their Agent who will arrange for repairs to be carried out. The Pipeline Operator reserves the right to recover the cost of repairs.

7 To avoid damage during work, any exposed part of the pipeline shall be protected by cladding (e.g. timber) as directed by the pipeline operators representative and any damage to the protective wrap / coating of the pipeline, whether existing or caused by excavation work, etc. shall be brought to their attention.

8 Backfilling shall be in layers of maximum depth of 300mm (12 inches) and consolidated before any further backfilling takes place. Backfill must be free of flints or any other material, which may damage the anti-corrosion wrapping. If the backfill material is not suitable in the opinion of the representative of the Pipeline Operator, imported sand, pea gravel or other approved fine material shall be provided to give a minimum 150mm (6 inches) surround to the pipeline.

9 Where a new service passes under or over the existing pipeline, there should be a minimum of 600mm (24 inches) clearance between them and cross at an angle of not less than 60°. A lesser clearance or angle of crossing will not be permitted without authority in writing from the Pipeline Operator or their Agent. A concrete separation slab, marker tiles or warning tape may be required. If the new service or works includes a high-pressure gas pipe or other pipe containing material whose escape might endanger the pipeline(s), sleeving and/or construction in pre-tested pipe across the width of the easement may be required.

10 High voltage electric cable crossings may require special consideration.

11 To prevent indiscriminate crossings along the pipeline, service crossings (i.e. drains, cables, pipes, etc.), should be grouped together at a common point. These should be ducted if possible.

Basic Guidelines for any work near Pipelines

12 Where permission is granted for a new pipe, cable, etc., to cross a pipeline, that permission will only be granted subject to the following condition:

“If at any time, during the course of the new construction it is discovered that the Pipeline Operator requires to carry out emergency works on their pipeline then work on the new construction must cease until the pipeline repair work has been completed. This repair work will be carried out with the shortest possible delay. In these circumstances the Pipeline Operator will not be responsible for any delay or associated costs on the new construction.”

13 Directional drilling, thrust boring or other trenchless techniques will be considered as an alternative method of crossing the pipelines subject to agreed supervision. A method statement, complete with drawings for the completion of pipeline crossings using trenchless methods shall be approved by the pipeline operator. Approval by the Pipeline Operator shall in no way reduce the responsibilities and liabilities of the third party for the safe and successful completion of the crossing works. Clearance between the pipeline and the drilling auger (or similar) should be maximised. Ideally the minimum clearance shall be 1.5 metres.

14 Pipeline marker posts shall be installed at the Promoter's expense each side of all road crossings and elsewhere as necessary to mark the pipeline route.

15 No buildings, structures or caravans to be sited within the pipeline easement. The pipeline easement should always be free of obstructions as access to the easement and/or the pipeline is required at all times.

16 Storage of materials. No topsoil or other materials shall be stored within the pipeline easement without the approval and written permission of the pipeline operator.

17 No gas vermin eliminator or ignition-based tunnel collapsing systems, eg. Rodenator, are to be used within 100 metres of the pipeline.

18 No explosives are to be used within 400 metres (1300 ft) of the pipeline. Pile driving, 3D seismic survey or bore holes within 30 metres (100 ft) of the pipelines

will require prior agreement with the Pipeline Operator. In all cases the maximum PPV (Peak Particle Velocity) at the pipeline is 25 mm per second.

19 Wind turbines should be situated a minimum distance of one and a half times the mast height from the pipeline in line with current UKOPA guidelines. These guidelines along with other good practice guides can be downloaded free from the UKOPA website www.UKOPA.co.uk.

20 Tree planting is restricted in the easement. Each Operator can give advice. Any approval will be subject to the Pipeline Operator retaining the right to remove all trees and shrubs which, in their opinion, might become a danger to the pipeline and, in consequence, a potential hazard to personal safety, or prevent access for maintenance purposes. Many garden shrubs are acceptable, but conifers are not acceptable.

21 Attention is drawn to the fact that the pipeline is cathodically protected. This can corrode metal structures in the vicinity and it is the Promoter's responsibility to protect their constructions against this.

The conditions mentioned previously are common to most works but are not exhaustive. Other conditions may be imposed depending on the nature of the work.

Prior to any work commencing the following applies:

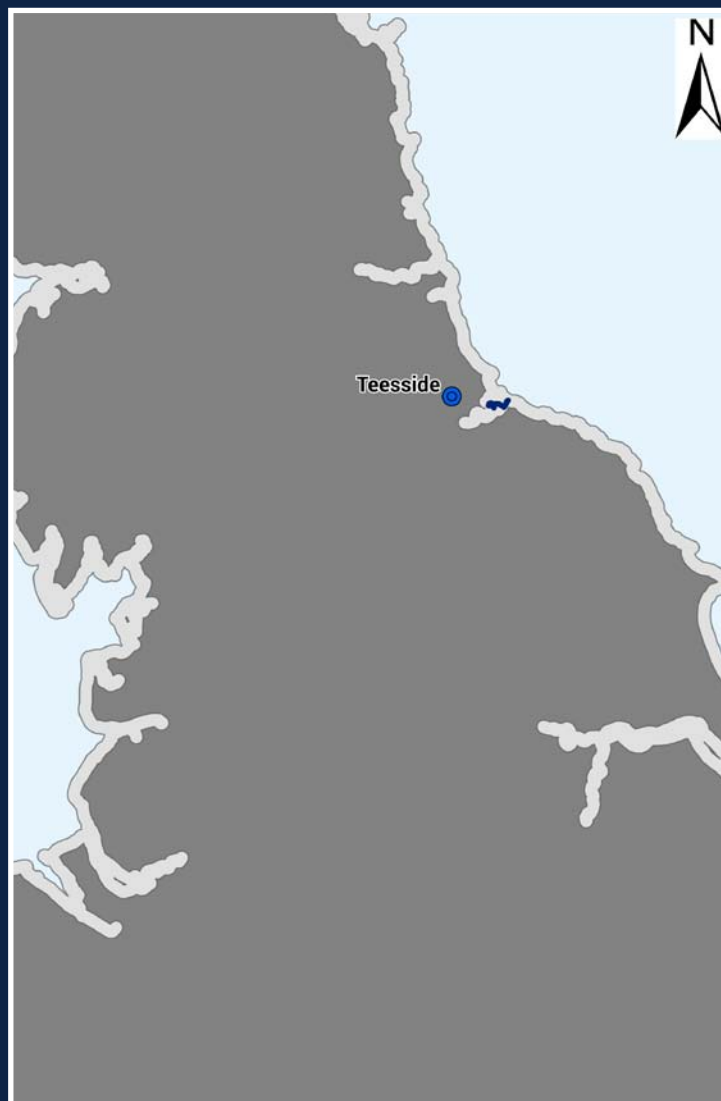
- a)** The location of the pipe must be verified and marked on site by the Pipeline Operator's representative and witnessed by a representative of the Promoter or contractor
- b)** On receipt of written approval of the proposed works, and subject to the approval, if required, of the Secretary of State and the landowner, the Promoter or contractor shall give not less than 3 working days' notice to the respective Pipeline Operator or his Agent of intention to commence the works and access for them will be afforded at all times. Please note National Grid will require seven days' notice.

Basic Guidelines for any work near Pipelines

- c) The Pipeline Operator may require the Promoter to mark out the easement with a paling fence or similar if this is considered to be in the best interest of a safe operation. Where access over the easement is required then protection to the pipeline must be considered.
- d) Any work involving a naked flame or likely to cause a spark within 3m (10 ft) of an exposed section of a pipeline will only be permitted subject to approval of the methods by, and presence of, the representative of the Pipeline Operator. The Pipeline Operator reserves the right for his representative to check the availability of fire extinguishers on site to reduce the risk to the pipeline should the plant or equipment catch fire, and to prohibit any work until they are reasonably satisfied.
- e) Cathodic protection of the pipelines is provided by an impressed current system and/or sacrificial anodes which could adversely affect any ferrous structure or service that crosses or runs parallel to the pipeline for any distance. It is recommended that test leads be installed at the point of intersection of the two to facilitate interference testing, according to BS EN 12954:2001, BS EN 13509:2003, BS EN13636:2004 and BS EN50162:2004.

The fitting of the test lead to the pipeline will be carried out by a representative of the Pipeline Operator and the two leads taken to a Cathodic Protection Test Post, generally supplied by them, installed at the nearest convenient point. Any work required will be at the expense of the Promoter. The Pipeline Operator does not accept responsibility for any damage to the new service by virtue of electric corrosion protection systems applied to the pipeline(s). Alternatively, any third party works must not detrimentally affect the Pipeline protection either.





Contact for enquiries and general information:

Agent: Lands Department
BPA
5-7 Alexandra Road
Hemel Hempstead
Hertfordshire
HP2 5BS

Tel: 01442 218 911
Email: lands@bpa.co.uk

In an emergency contact:
01827 63 708

Contact for enquiries and general information:

CATS Kellas Midstream Ltd
CATS Terminal
Seal Sands Road
Middlesbrough
TS2 1UB

Tel: 01642 546 404
Email: CATSpipeline@woodplc.com

In an emergency contact:
24 hour
01642 546 404



Contact for enquiries and general information:

Exolum Pipeline System
PO Box 7273
Ashby de la Zouch
LE65 2UZ

Tel: 0845 070 1245
Fax: 0845 070 1250
Email: exolum@fishergerman.co.uk

In an emergency contact:
Aldermaston Control:
0118 971 2021

Contact for enquiries and general information:

ConocoPhillips (UK) Teesside Operator Ltd
Norsea House, Evolution
Wynyard Business Park
Wynyard
TS22 5TB

Tel: 01642 546 411
Fax: 01642 546 096
Email: TEECOPIpipelines@CONOCOPHILLIPS.COM

In an emergency contact:
01642 541 222



Contact for enquiries and general information:

Winnington Pipeline

E-ON UK CHP Ltd
Winnington Lane
Northwich
Cheshire
CW8 4GX

Tel: 01606 723 700

Email: Gas_Pipelines@eon-uk.com

In an emergency contact:

01606 77 508

Contact for enquiries and general information:

EP Langage Ltd
c/o FisherGerman LLP
The Estates Office
Norman Court
Ashby de la Zouch
Leicestershire
LE65 2UZ

Tel: 01530 412 821

Email: ep.langage@fishergerman.co.uk

In an emergency contact:

0800 371 726



Contact for enquiries and general information:

Essar Oil (UK) Ltd
c/o Penspen, Unit 2
Kirkby Lonsdale Business Park
Kirkby Lonsdale
Cumbria
LA6 2HH

Tel: 01539 624 197
Email: r.palmer@penspen.com

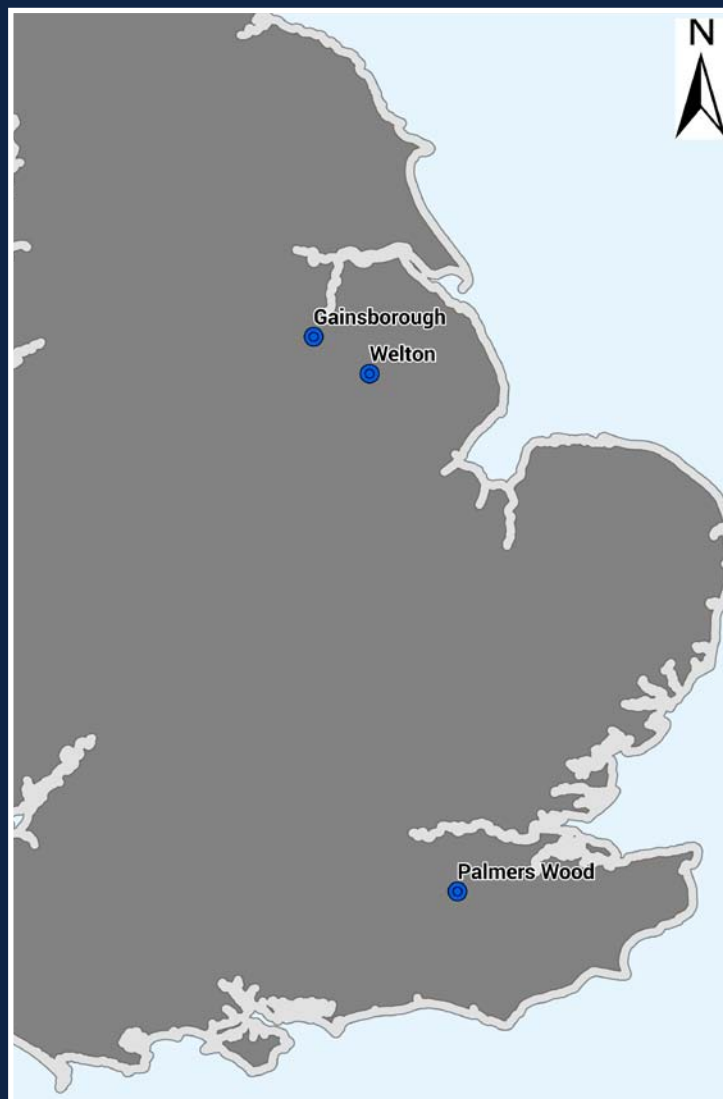
In an emergency contact:
24 hour freephone
0800 389 9607

Contact for enquiries and general information:

Agent: Fisher German LLP
Firn House
61 Church Street
Hungerford
Berkshire
RG17 0JH

Tel: 0800 136 812
Email: pipelines@fishergerman.co.uk

In an emergency contact:
0800 136 812



Contact for enquiries and general information:

Humbly Grove Energy Ltd
The Avenue
Lasham
Hampshire
GU34 5SY

Tel: 01256 381 621
Email: enquiries@humblyenergy.co.uk

In an emergency contact:
01256 381 625

Contact for enquiries and general information:

Welton Gathering Centre
Barfield Lane,
Off Wragby Road
Sudbrooke
Lincoln
LN2 2QU

Tel: 020 3435 5230
Email: plenquirey@igasplc.com

In an emergency contact:
01522 754 524



Contact for enquiries and general information:

INEOS FPS LTD
Wayleaves Management
PO Box 21, 1 Inchyra Road
Grangemouth
FK3 9XB

Tel: 0800 281 279
Email: fpspipelinesenquiries@ineos.com
Website: www.ineos.com

In an emergency contact:
0800 281 279

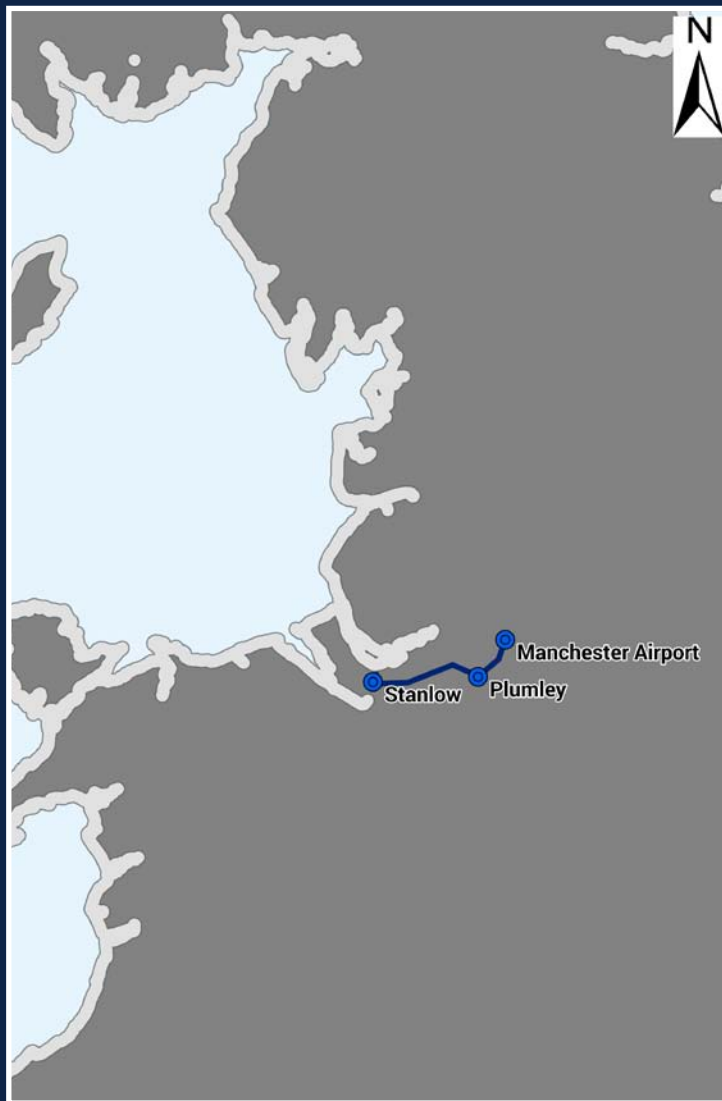


Contact for enquiries and general information:

INEOS O&P Pipeline Team
PO Box 21
1 Inchyra Road
Grangemouth
FK3 9XB

Tel: 0800 374 185
Email: ggrapipelinesteam@ineos.com
Website: www.ineos.com

In an emergency contact:
0800 374 185



Contact for enquiries and general information:

Mainline Pipelines Ltd
PO Box 9856
Ashby de la Zouch
Leicestershire
LE65 9BZ

Tel: 0800 756 0804
Email: mainlinepipelines@fishergerman.co.uk

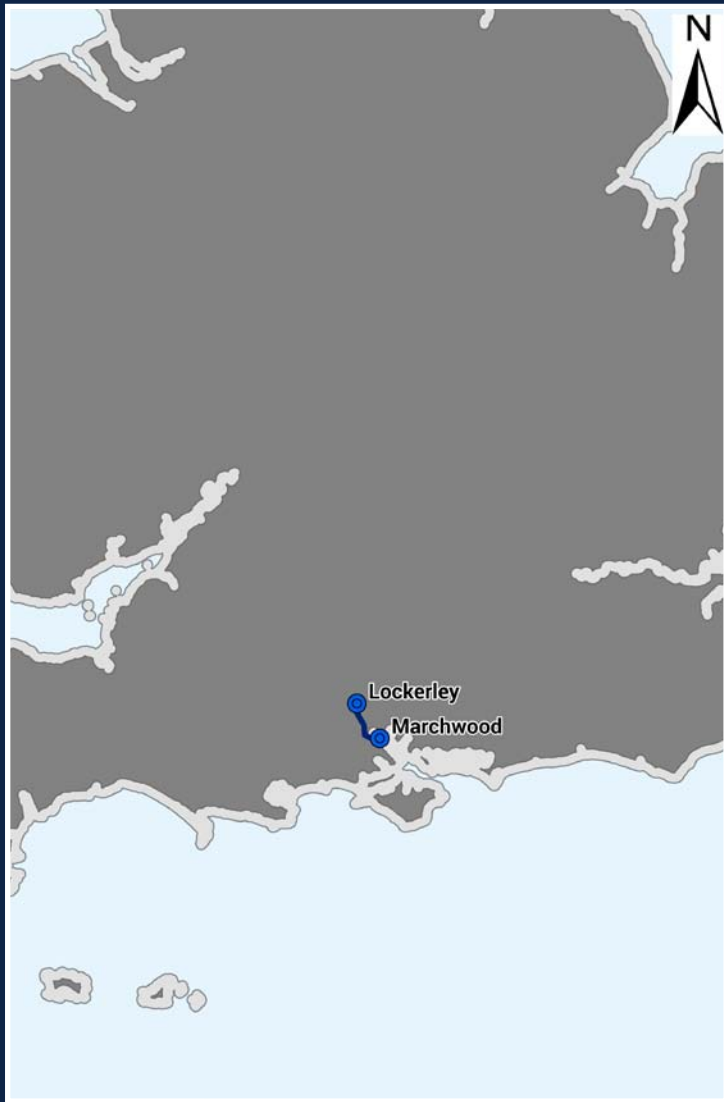
In an emergency contact:
01646 649 999

Contact for enquiries and general information:

Penspen
2 Verity Court
Pochin Way
Middlewich
Cheshire
CW10 0GW

Tel: 01606 833 805
Fax: 01606 835 557
Email: middlewich@penspen.com

In an emergency contact:
01244 665 989



Contact for enquiries and general information:

Marchwood Power Limited
Oceanic Way
Marchwood Industrial Park
Marchwood
Hampshire
SO40 4BD

Tel: 02380 527 999
Fax: 02380 527 998

In an emergency contact:
0800 328 60 30

Contact for enquiries and general information:

Plant Protection Team
National Grid
Block 1, Floor 1
Brick Kiln Street, Hinckley
Leicestershire
LE10 0NA

Tel: 0800 688 588
Email: Plantprotection@cadentgas.com

In an emergency contact:
24 hour National Gas Emergency
Number: 0800 111 999



Contact for enquiries and general information:

Oikos Storage Ltd
Haven Road
Canvey Island
Essex
SS8 0NR

Tel: 01268 682 206
Fax: 01268 510 095
Email: info@oikos.co.uk

In an emergency contact:
01268 682 206

Contact for enquiries and general information:

Petroineos Pipeline Team
Petroineos Manufacturing Scotland Ltd
PO Box 21, Bo'ness Road
Grangemouth
Stirlingshire
FK3 9XH

Tel: 0800 374 185
Email: rgrafgoppipelines@petroineos.com
Website: www.ineos.com

In an emergency contact:
0800 374 185



Contact for enquiries and general information:

SABIC UK Petrochemicals Ltd
Olefins Offices, Wilton International
Redcar, TS10 4RF

TPEP (East), WGEP and TSEP
Tel: 01642 834 531
Email: ethylene.pipelines@sabic.com

TPEP (West)
Tel: 01928 512 677
Email: ethylene.pipelinenorthwest@sabic.com

In an emergency contact:

0800 318 105



Contact for enquiries and general information:

Shell UK Ltd
St Fergus Gas Plant, PO Box 20, Peterhead
Aberdeenshire, AB42 3EP

Tel: 01779 872 292

In an emergency contact:

Mossmorran to Brayfoot Bay:

01383 892 090

NGL Line St Fergus to Mossmorran:

01779 872 240

North West Ethylene Pipeline (NWE)
and Runcorn to Stanlow Ethylene Pipeline (RSEP):

0800 220 959



Contact for enquiries and general information:

Prax Lindsey Oil Refinery (Finaline)

Lands Department BPA
5-7 Alexandra Road
Hemel Hempstead
Hertfordshire
HP2 5BS

Tel: 07887 745 004
Email: finaline@bpa.co.uk

In an emergency contact:

Finaline: **0800 592 246**

Contact for enquiries and general information:

Engineering & Maintenance Dept. (Pipelines)
Chase Hill Road, North Killingholme
North Lincolnshire, DN40 3LU

Tel: 01469 504 010
Email: pipelinesuk@uniper.energy

In an emergency contact:

Cottam & Killingholme: **0800 389 4795**

Enfield: **0800 783 0140**

Isle of Grain: **02476 198 550**

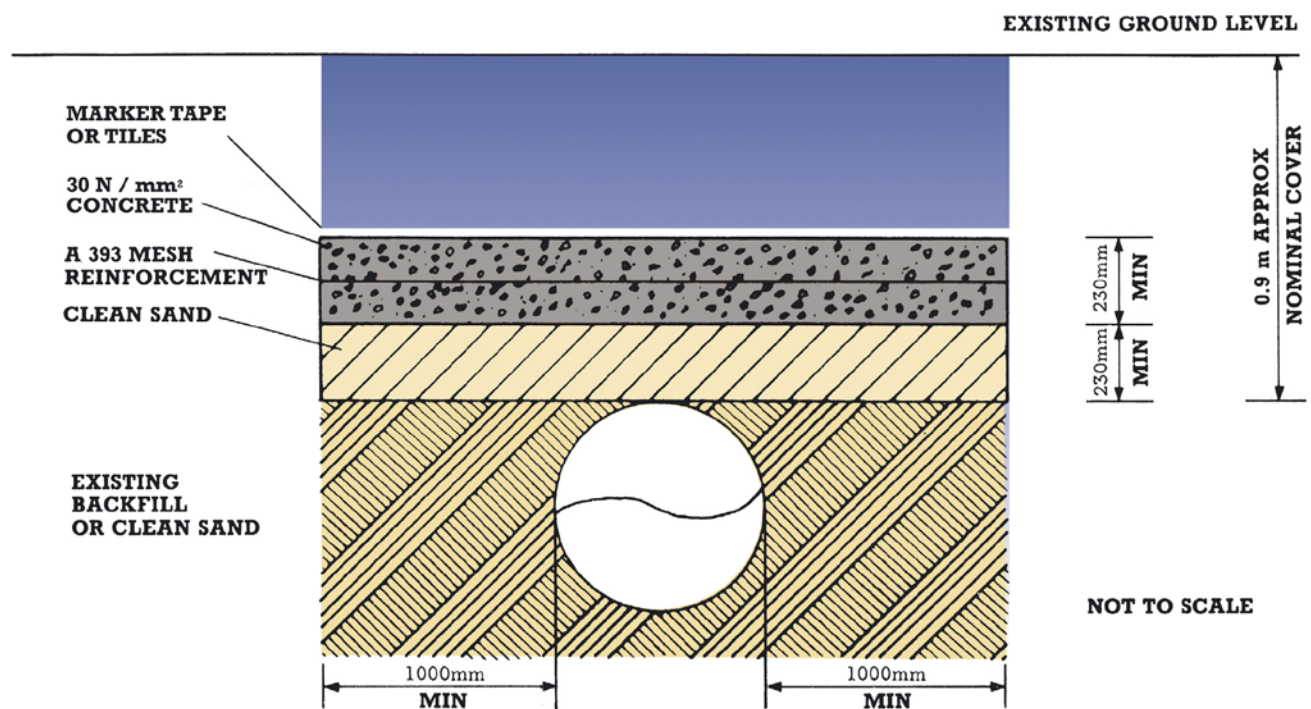
Connahs Quay: **01244 894 050**

Holford: **01606 841 223**

Appendix 1

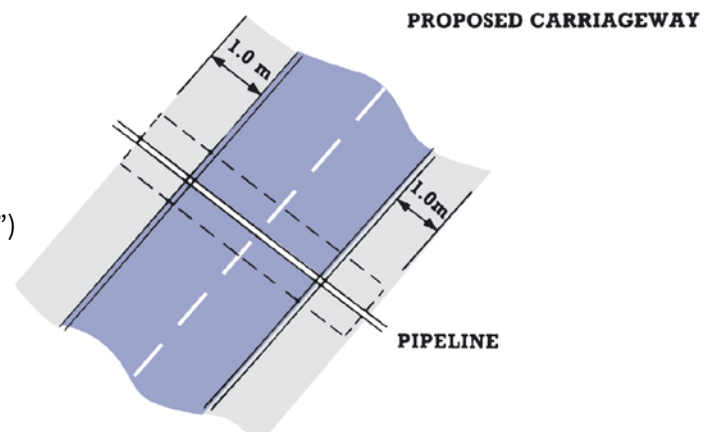
Typical sectional drawing and specification for temporary protection of Pipeline under carriageways.

(Each case will be treated separately)



Notes:

1. Backfill between pipeline and concrete slab to be:
Either existing backfill (undisturbed)
Or sand (clean of any inclusions).
2. The concrete slab is to extend a minimum of 1.0 metre (3'3") beyond the proposed crossing area, i.e.



Typical Pipeline Markers and Other Warnings



BPA marker post



CATS marker post



Conoco Phillips marker post



EON marker post



EP Langage marker post



Exolum marker post



Humbly Grove Energy post



IGas marker plate



Ineos marker post



Ineos FPS marker post



MJL marker post



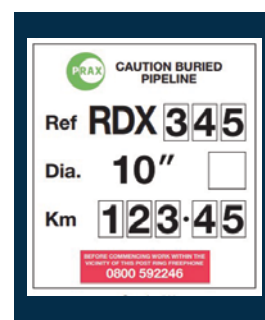
National Grid marker post



Oikos marker post



Petroineos marker post



Prax marker post



UNIPER marker post

IMPORTANT

Marker posts only denote the presence of our pipelines. Never presume that the pipeline runs in a straight line between marker posts as there could either be a bend or the posts may have been moved without our knowledge.

**DO NOT PRESUME ANYTHING;
TELEPHONE OUR AGENTS AND WE WILL
SEND SOMEONE TO VERIFY EXACTLY
WHERE THE PIPELINE IS SITUATED.**



When the pipeline route has been located it will be marked with location pegs.



Pole warning marker

Watch out - there's a pipeline about!



Essar marker post



Esso marker post



Mainline marker post



Marchwood Power marker post



SABIC marker post



SHELL

Each operator has similar aerial markers to the above



Post warning marker



Stile warning marker



Sometimes metal studs are used in roads and pathways



Beware of posts with brass studs (such as the post above) which have cables connecting to the pipeline below.

CAUTION

THIS STRUCTURE IS IN CLOSE PROXIMITY TO A HIGH PRESSURE OIL PIPELINE. BEFORE COMMENCING ANY EXCAVATION WORK PLEASE CALL

FREEFONE 0800 XXXXXX

You may find signs such as this on apparatus close to the pipeline.

WARNING

PIPELINE OFFSET BEHIND MARKER

The markers may not always be directly over the pipeline. In which case an additional warning sticker will indicate the direction of off-set.

Emergency Numbers



01827 63 708



01642 546 404



Aldermaston Control

0118 971 2021



01642 541 222



Winnington

01606 77 508



0800 971 726



0800 389 9607



0800 136 812



**HUMBLY GROVE
ENERGY**

01256 381 625



01522 754 524



0800 281 279



0800 374 185



01646 649 999



01244 665 989



0800 328 60 30



0800 111 999



01268 682 206



0800 374 185



Mossmorran to Brayfoot Bay:
01383 892 090

NGL Line St Fergus to Mossmorran:
01779 872 240

North West Ethylene Pipeline (NWEF)
and Runcorn to Stanlow Ethylene
Pipeline (RSEP): 0800 220 959



0800 592 246



0800 318 105



Cottam/Killingholme:
0800 389 4795

Enfield: 0800 783 0140
Isle of Grain: 02476 198 550
Connahs: 01244 894 050
Holford: 01606 841 223