



United Kingdom Onshore Pipeline Operators' Association

## **UKOPA Report**

2023 Infringement database report

UKOPA/RP/23/02 v1

November 2024

**REPORT ISSUED BY UKOPA:**

This report has been prepared by the UKOPA Infringement Working Group and approved for publication by the UKOPA Board

Comments, questions and enquiries about this publication should be directed to:

**UK Onshore Pipeline Operators’ Association**  
Pipeline Maintenance Centre  
Ripley Road  
Ambergate  
Derbyshire  
DE56 2FZ

E-mail: [enquiries@ukopa.co.uk](mailto:enquiries@ukopa.co.uk)

Website: [www.UKOPA.co.uk](http://www.UKOPA.co.uk)

**Disclaimer**

This document is protected by copyright and may not be reproduced in whole or in part, by any means without the prior approval in writing of UKOPA. The information contained in this document is provided as guidance only and while every reasonable care has been taken to ensure the accuracy of its contents, UKOPA cannot accept any responsibility for any action taken, or not taken, on the basis of this information. UKOPA shall not be liable to any person for any loss or damage which may arise from the use of any of the information contained in any of its publications. The document must be read in its entirety and is subject to any assumptions and qualifications expressed therein. UKOPA documents may contain detailed technical data which is intended for analysis only by persons possessing requisite expertise in its subject matter.

Copyright @2024, UKOPA. All rights reserved

**Revision and change control history**

**Planned revision: N/A**

Edition	Date	No. of pages	Summary of changes
Edition 1	Nov 24	21	Published Dec 2024

## CONTENTS

<b>Executive Summary</b>	<b>1</b>
<b>1. Introduction</b>	<b>3</b>
<b>2. Update on Actions from the 2022 Infringement Report</b>	<b>4</b>
<b>3. Main Findings</b>	<b>5</b>
3.1 Infringements by Category	5
3.2 Infringements by Activity Type	7
3.3 Infringements by Location	8
3.4 Infringements by Third Party Type	10
3.5 Third Party Infringement Performance	11
<b>4. Conclusions and Recommendations</b>	<b>13</b>
4.1 Specific actions regarding infringements for IWG	13
<b>5. Acknowledgements</b>	<b>15</b>
<b>Appendix A: Current Status and Management of Database</b>	<b>16</b>
<b>Appendix B: IWG Objectives and Targets</b>	<b>17</b>
B.1 Data Collection	18
<b>Appendix C: IWG membership 2023</b>	<b>19</b>
<b>Appendix D: Guidance on Infringement Categories</b>	<b>20</b>

## EXECUTIVE SUMMARY

The Infringement Working Group (IWG) is one of six working groups of UKOPA and it is responsible for collecting and collating incidents (accidental or malicious) where cross country pipelines have been damaged and near misses where there was a potential for damage (Infringements) to have occurred. The IWG produces an annual report that identifies the number of Infringements recorded by UKOPA members in the UKOPA infringement database and provides some statistical analysis regarding, the type of infringement, where it occurred and how it happened.

In 2023, there were 663 infringements recorded, down from 801 in 2022, one of which were categorised as malicious damage associated with theft of product from a pipeline. The malicious damage infringement has been removed from the statistical analysis in the report thus the number of infringements used is 662.

There were zero A1 category (actual damage) infringements in 2023, down from 2 in the previous 2 years.

Those infringements that have serious potential to cause damage, i.e. B category (B1 and B2) total 113 of the 662 reports (17.1%) compared with 165 of the 801 report (20.6%) in 2022. Category C infringements, those with limited potential to cause damage, accounted for 549 of the 662 reports (82.9%) compared with 634 of the 801 reports (79.2%) in 2022.

UKOPA members, and particularly the IWG, will continue to raise awareness of working safely within pipeline easements, particularly with contractors, utilities, landowners and tenants. The IWG prepared an article on working safely which was published in farmers weekly, and also supported the 2024 Farm Safety Foundations Yellow Wellies campaign, as part of the farm safety week. Similar initiatives are being developed for 2025.

Work will continue to develop and further share the UKOPA agricultural pipeline awareness course as well as identifying specific contractor conferences / stakeholders where engagement can take place.

Members of IWG should continue to ensure that data is collected and submitted in a timely manner and engage with their companies to encourage completion of all fields within the infringement database. Consistency of reporting terminology and structured approaches to reporting are being further developed, with IWG members being pivotal to ensuring these are enacted within their own companies.

The IWG will continue to engage with the HSE to obtain their support and discuss ways of raising awareness of pipeline infringements across all sectors.

### IWG action plan for 2024/25

The specific actions for 2024/25 for the IWG from this report are:

- Action 1: The action to follow up on the 15 infringements from 2022 was not completed. Therefore during 2024-25 IWG should review the 22 infringements where pipeline operators were aware of work taking place before they occurred, and learnings shared across UKOPA.
- Action 2: IWG to identify initiatives that might help reduce the number of fencing infringements.
- Action 3: UKOPA non-Linewatch Members are to attend a workshop aimed at improving data consistency and reporting and share with the rest of the IWG by end of Q1 2025
- Action 4: IWG to enable access to the UKOPA agricultural working safely near high pressure pipelines course by the end of 2024

- Action 5: Pipeline Operators are to review 'unknown' location types before data is submitted in 2025 to determine what type of location the infringement occurred and update data accordingly
- Action 6: IWG to consider ways of engaging with the contracting community (as well as reissuing the Contractor Guidance document) with the aim of reducing the percentage of contractor infringements

And in 2024/25, the IWG (and member companies) will:

- Publish the updated versions of GPG015 Managing Pipeline Infringements and GPG029 Local Authority Planners information regarding On Shore Pipelines and Associated Installations.
- Assist the UKOPA Comms group to establish where NFU and SNFU fit within the UKOPA engagement plan.
- Share learnings of incidents, infringements and good practice for the benefit of all members.

## 1. INTRODUCTION

Since 2002 UKOPA members have shared information following investigation of 'near miss' and damage incidents ('infringements') on their buried pipeline assets to ensure that:

- Any information, analysis and learning from near miss incidents benefits all member companies.
- The Association exploits its collective experience to establish a national data set and trends.
- The pipelines industry is co-ordinated and has national coherence.

The UKOPA infringement database provides a framework for recording industrywide statistics in order that the Association can develop effective improvement plans as well as ensuring its UK wide experience is fully exploited to reduce the potential for damage to high hazard pipeline assets in order to protect people and property and to influence regulatory processes.

The Infringement Working Group (IWG) members share experiences and manage the infringement database to allow this report to be produced. More information on the IWG members and tasks can be found in Appendix B and C.

## 2. UPDATE ON ACTIONS FROM THE 2022 INFRINGEMENT REPORT

This section provides an update on the specific actions from the 2022 infringement report to be carried out during 2023/24:

- Action 1: Further investigation should take place into the 15 infringements where pipeline operators were aware of work taking place before they occurred, and learnings shared across UKOPA.
  - This action has not been followed up by members and so has stayed open in 2023 report to include the additional 7 reports.
- Action 2: IWG will investigate the increase in ditching infringements, and if required put in place an action plan for reducing the number.
  - Learnings from ditching infringements have been shared via IWG meetings.
- Action 3: IWG to work with Linewatch to prepare pipeline operator guidance for collecting infringement data and publish to members in 2024.
  - Updated guidance for collecting infringement data was prepared by Linewatch and UKOPA mid 2024. This guidance has been reviewed by both organisations and will be published for use from January 2025, when the Linewatch database for recording infringement data will have been updated to reflect the guidance
- Action 4: IWG are to update the Agricultural Course and find ways of sharing the course more widely.
  - The agricultural working safely near high pressure pipelines course has been updated and being used via the Landex college system. Work is still ongoing to establish how this course can be shared via the UKOPA website.
- Action 5: Pipeline Operators are to review 'unknown' location types before data is submitted in 2023 to determine what type of location the infringement occurred and update data accordingly.
  - This action has not been completed in 2023 and so will remain open for 2024.
- Action 6: IWG to consider ways of engaging with the contracting community (as well as reissuing the Contractor Guidance document) with the aim of reducing the percentage of contractor infringements.
  - Work has been started on developing a number of awareness videos for contractors, but as these have not yet been completed, this action will remain open for 2024.

The IWG will also:

- Re-establish links with NFU and SNFU and explore ways of raising awareness of high pressure pipelines.
  - This action has still not been completed. Although members have contacts at a local level a more strategic approach is required and will be focused on during 2024.

### 3. MAIN FINDINGS

Appendix D provides the definition of infringements as agreed by UKOPA members. In summary infringements are categorised based on a Risk Index (A – pipeline damage or leak, B – serious potential for damage, or C – limited potential for damage) and a Location Index (1 – within operators' wayleave or easement or 2 – within operators' notification zone).

#### 3.1 Infringements by Category

Figure 3-1 below presents the overall combined UKOPA data by infringement category. Analysis of the 2023 infringements by category shows the distribution of infringements is generally consistent with a proportional relationship between learning events, near-misses and more serious incidents (the so-called 'Heinrich's triangle').

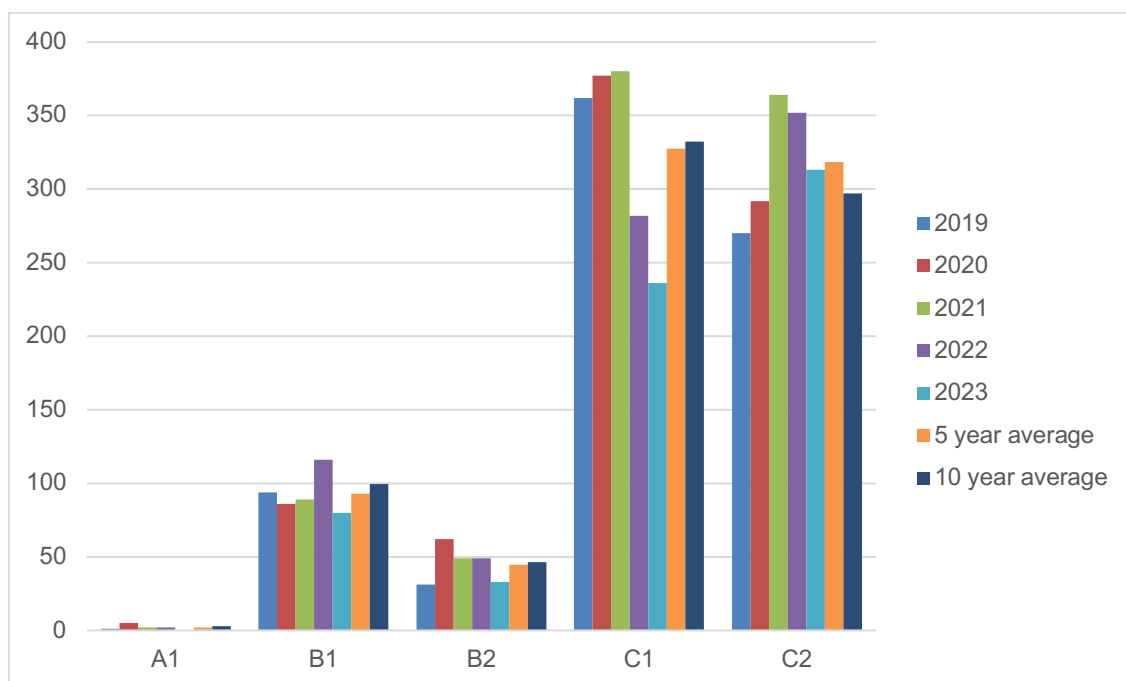
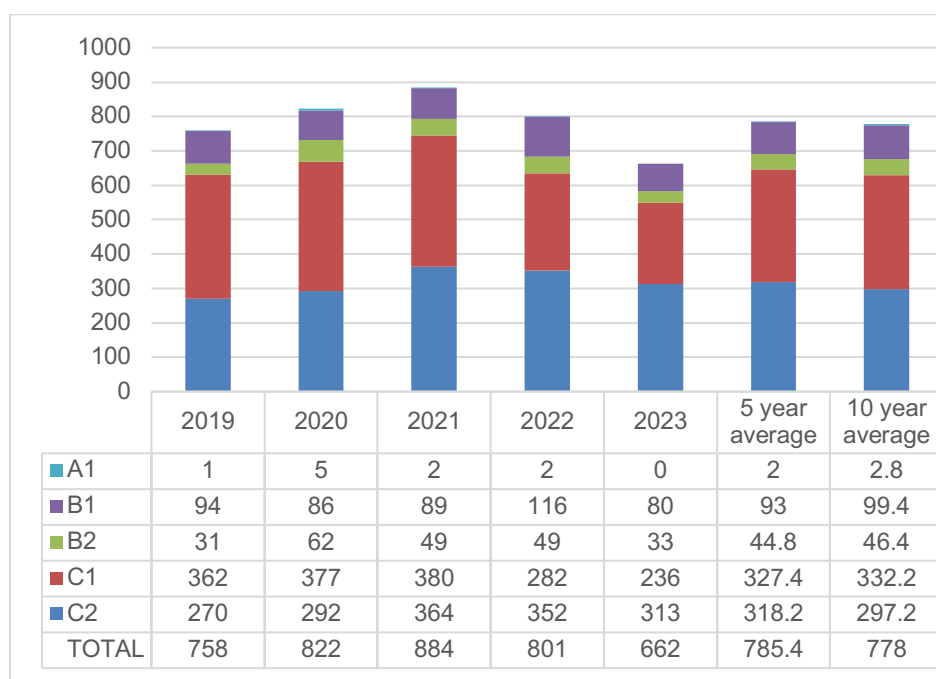


Figure 3-1 Infringements by category

	2019	2020	2021	2022	2023	5 year rolling average	10 year rolling average
<b>A1</b>	1	5	2	2	0	2.0	2.8
<b>B1</b>	94	86	89	116	80	93.0	99.4
<b>B2</b>	31	62	49	49	33	44.8	46.4
<b>C1</b>	362	377	380	282	236	327.4	332.2
<b>C2</b>	270	292	364	352	313	318.2	297.2
<b>Total</b>	758	822	884	801	662	785.4	778

Table 3-1 Rolling average by category





**Figure 3-2 Annual Total Number of Infringements**

In 2023 there were a total of 662 infringements recorded in the database this is 139 less than in 2022, equivalent to a 17.4% decrease. UKOPA is aware that there was a decrease in the number of infringements recorded in the Linewatch database, and both organisations will monitor the number of recorded infringements over the coming years.

There were no A1 category (actual damage) infringements in 2023, compared with 2 in each of the previous two years.

There was a 2.4% decrease in the number of B1 infringements in 2023 compared with 2022 (12.1% compared with 14.5% respectively), and a 1.1% decrease in B2 infringements (5.0% compared with 6.1% respectively). Overall, the number of category 'B' Infringements (B1+ B2), i.e. those infringements with a serious potential to cause harm, decreased to 17.1% of all infringements, compared with 20.6% in 2022. Learnings from these infringements should still be shared throughout UKOPA with the aim or reducing the overall percentage figure again.

Category C infringements, those with limited potential to cause damage, accounted for 549 of the 662 infringements or 82.9.2%, This is an increase from the 79.1% in 2022 and correlates to the decrease in B infringements in 2023.

Not all recorded data is indicating whether the pipeline operator was 'aware' that the work was taking place before an infringement occurred. Of the 372 records recording this information, 7 indicate that the pipeline operator was aware that work was going to take place before the infringement occurred. It is recommended that further feedback is sought from those operators to establish where systems and processes broke down to enable infringements still to occur despite the person carrying out the work being aware of the pipeline operator requirements for working safely. These learning should be shared across UKOPA.

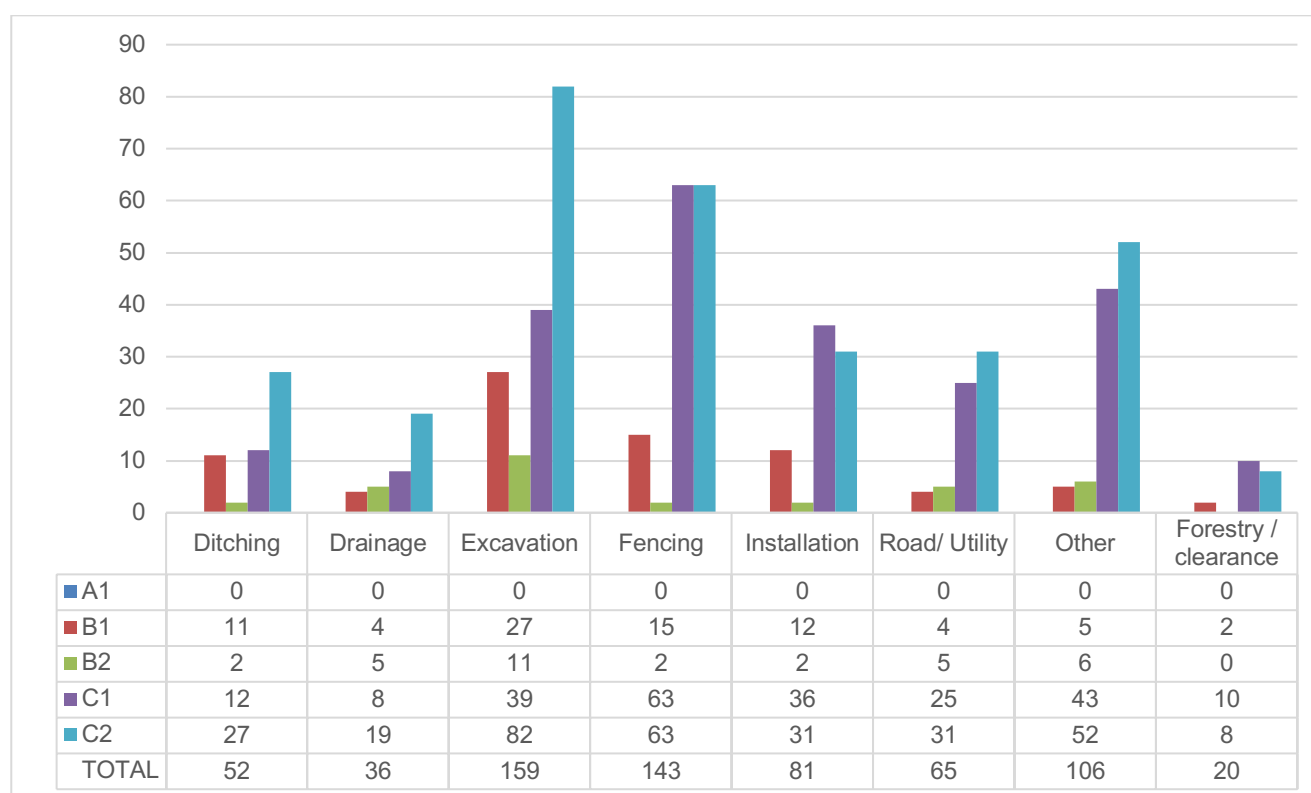
**Action 1: The action to follow up on the 15 infringements from 2022 was not completed. Therefore during 2024-25 IWG should review the 22 infringements where pipeline operators were aware of work taking place before they occurred, and learnings shared across UKOPA.**

### 3.2 Infringements by Activity Type

Understanding the types of activity contributing to infringement statistics provides important information for:

- Targeting awareness training and communication.
- Relating to infringement location and vulnerable areas.

Figure 3-3 shows the distribution of infringements across reported activity types.



**Figure 3-3 Infringements by activity type 2023**

During the last few years, members had been encouraged to ensure that activities taking place when an infringement were recorded correctly and this has led to zero 'unidentified' activities taking place during 2023.

This year, excavation works (including earthmoving/trenching, excavation/digging, piling, marker post renewal and subsoiling/topsoil renewal) had to greatest number of recorded B1 infringements with 27 (which was down from 30 in 2022). This was followed by fencing with 15 (up from 11 in 2022), installations with 12 (up from 6 in 2022) and ditching with 11 infringements – down from 20 in 2022.

Following an incident in 2022 where a fencing contractor was injured when the fence post he was installing punctured a medium pressure gas main, there was a lot of publicity regarding how to work safely when installing fencing. UKOPA published GPG043 Installation of Fencing Near High Pressure Pipelines in July 2023. Despite both of these initiatives, fencing infringements had remained at approximately 15.5% of all infringements recorded in 2022 (124 of 801 infringements) and 2021 (137 of 884 infringements). Sadly, this was not the case in 2023 where there had been an increase in the

percentage number of fencing infringements to 21.6% (143 of 662 infringements). In 2024, IWG should look to identify initiatives that could help reduce the number of fencing infringements.

**Action 2: IWG to identify initiatives that might help reduce the number of fencing infringements.**

Those activities grouped together as “other” are made up of 11 activity types – archaeology (1) crossing by heaving vehicles/machinery (9), flooding (11), landscaping (12), machinery parked (41), caravan parks/travellers (6), ground movement/landslips (2), storage/loading on pipelines (15), Waste Burning/Fire (4), Waste Dumping (12) and Waterway repairs/Riverbank Erosion (2) - which individually are low in the number of events but total 105 infringements. There is however, also a specific activity type in the infringement database entitled ‘other’ which accounts for 1 infringements (down from 52 in 2022). This is how members record infringements that do not specifically fit into one of the categories in the data base.

The combined total of all the ‘other’ infringements is 106 compared with 170 in 2022. This is 16% of all infringements for 2023, down from 21.2% in 2022.

Flooding / waterway infringements have decreased to 13 in 2023, 20 in 2022, with members being more aware of flooding events increasing. Although flooding may not be classed as an infringement, recording this information, along with waterway repairs/river bank erosion may allow for preventative interventions to be made if work is required to remediate the damage caused from them. The cross working group UKOPA project to develop guidance for membership regarding these issues is in development and should be issued during 2025.

In preparing this and previous reports, it has been identified that there can be a lack of consistency among pipeline operators in the way data is being recorded and collated. As per action 3 from the 2022 report, UKOPA and Linewatch have reviewed and updated their guidance for collecting infringement data, and following a final review in November 2024, this guidance will be published for use for collecting data from 2025 onwards.

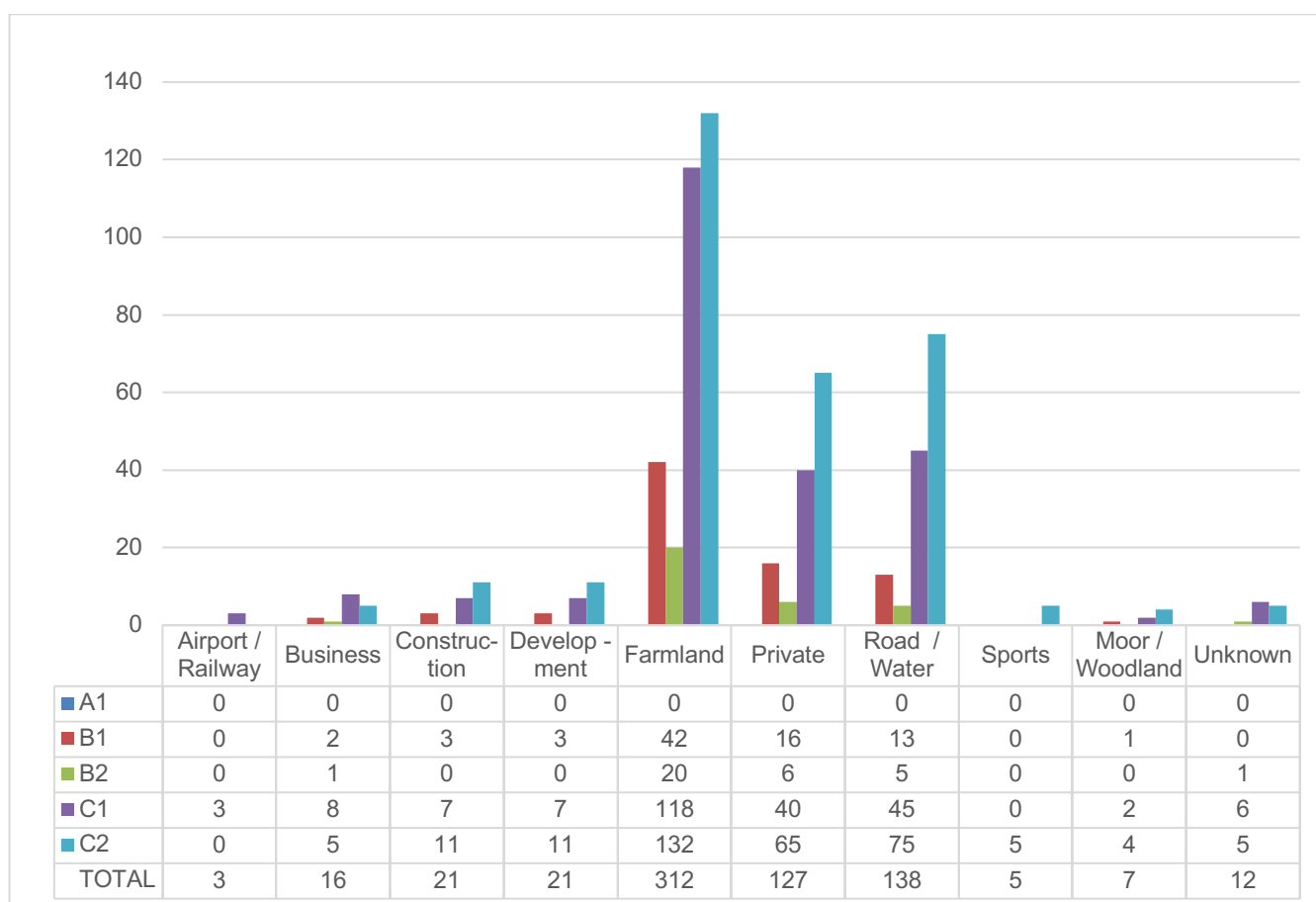
Those UKOPA members who are not members of Linewatch, have also agreed to attend a review workshop to identify internal good practice and processes that may assist others with data collection.

**Action 3: UKOPA non-Linewatch Members are to attend a workshop aimed at improving data consistency and reporting and share with the rest of the IWG by end of Q1 2025**

### 3.3 Infringements by Location

Locations where infringements take place may provide key information for:

- The main areas of pipeline vulnerability.
- Areas where marking is critical.
- Areas where excavator vigilance is particularly important.



**Figure 3-4 Infringements by location type 2023**

Incidents in 'Farmland' continues to provide the largest number of records in the database. In 2023 these accounted for 312 infringements or 47.1% of all records (2% more than the 45.1% of infringements in 2022). Unfortunately, the continued drop in farmland infringements that had occurred for the 3 years up to 2022, did not continue into 2023. Most of the incidents that occurred in farmland in 2023 (80.1% down from 81.4% in 2022) have been recorded as category C infringements, but that does not mean that the infringer or the pipeline operator should be complacent.

It should be noted that there is possibly an overlap between those records reported as being in Farmland and those recorded in Private Land (another 107 of the 662 records), but the infringement reports themselves do not provide enough detail to draw any further conclusions.

The UKOPA agricultural college course hosted by Landex Agricultural College platform went live in September 2022. During the first year, over 3000 people have completed the course.

During 2024 IWG have reviewed and updated the UKOPA agricultural working safely near high pressure pipelines course. This course is hosted by Landex Agricultural College platform, and continues to be completed by students of colleges that are members of Landex. Work is ongoing to enable non-landex members to access the course, via a link from the UKOPA website, with the aim of this being up and running before the end of 2024.

**Action 4: IWG to enable access to the UKOPA agricultural working safely near high pressure pipelines course via the UKOPA website by the end of 2024**

Work in Farmland (312), Private Land (127), Roads/Waterways (138) and Business Land (16) continues to provide the greatest number of incident reports recorded, accounting for 89.6% of all recorded infringements.

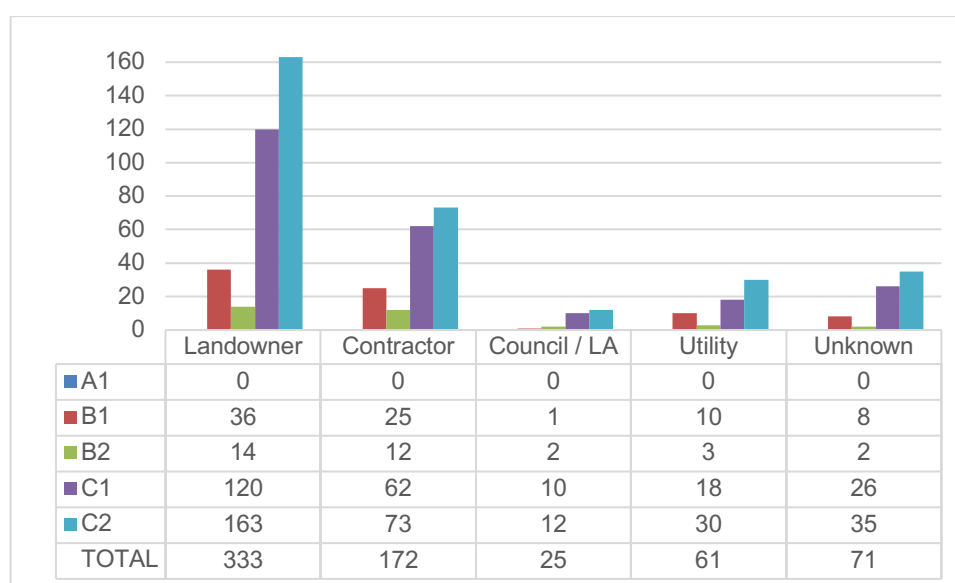
Despite action 5 from the 2022 report, to reduce the number of 'unknown' location type records in member infringement systems, there were still 12 records (2 less than the 2022 figure) that had 'unknown' as the location type. On a positive note, only one of these was a B2 infringements with the rest being C infringements. The action from the 2022 report is therefore to remain open.

**Action 5: Pipeline Operators are to review 'unknown' location types before data is submitted in 2025 to determine what type of location the infringement occurred and update data accordingly**

### 3.4 Infringements by Third Party Type

UKOPA is interested in which types of third parties are infringing:

- Are there any patterns?
- What does it tell us about potential weaknesses in the sub-contracting 'chain'?
- Who is responsible for checks and searches in each case?
- What does it tell us about the 'pipeline awareness' of those actually doing the digging?



**Figure 3-5 Infringements by infringer type 2023**

Figure 3-5 describes the current position of infringements by infringer type. Landowners continue to be the largest single infringing group with 50.3% of all infringements in this category, up from 48.9% in 2022.

Contractor infringer type has dropped from 28.3% in 2022 to 26% in 2023. But is still higher than it had been for the previous 3 years. One of the key focuses for IWG during 2025 will be to identify ways of engaging with the contracting community to drive a reduction in infringements. The contractor working safely guidance document is also due to be reviewed and reissued in 2025, and will assist in supporting this action.

**Action 6: IWG to consider ways of engaging with the contracting community (as well as reissuing the Contractor Guidance document) with the aim of reducing the percentage of contractor infringements**

It is acknowledged that the Contractor figure will include both rural (for example agricultural activities) and urban activities (for example on development land). It should be noted, however, that the distinction between 'Contractor', 'Utility' and 'Council/Local Authority' work can be seen as a very fine one and is masked by the significant level of contractor-delivered utility and council services in the UK. Utility infringements accounted for 9.2% (up from 6.7% in 2022) and Council/Local Authority infringement accounted for 3.8% (down from 5.5% in 2022) of all infringements.

The downward trend in 'unknown' infringer type plateaued in 2023 at 10.7% of all recorded infringements compared with 10.5% in 2022, 12.56% in 2021 and 16.5% for the previous three years. This figure will include infringements where parties have left the site between the sighting being reported and a site visit taking place, hence being recorded as unknown. However, 10 of the 71 'unknown' reports were classed a B infringements, and potentially should be investigated further by members to try and establish the root cause of the infringement.

### 3.5 Third Party Infringement Performance

UKOPA are interested in identifying and working with anyone who has, or has the potential, to infringe. Those third parties who, via the database, are identified as having made multiple infringements are a particular concern, but also give a focus to where member awareness raising could be targeted.

A summary of the main activity groups is presented at the top of the Table 3-3 to give a flavour of the overall numbers of infringers and as an indicator of how much improvement there has been in reducing potential risk or consequence. The weighted score for the unknown infringer type has decreased again 2023, this is due to a reduction in A and B infringements which have a greater bearing on the weighted average. The score is down to 131 in 2023 compared with 139 in 2022, 185 in 2021 and 298 in 2020.

The contractor infringer weighted score has decreased to 346 compared with 487 and utility infringer weighted score has also decreased to 122 from 158.

In an effort to rank repeat infringers, more "weight" is given to the raw count of infringements based on the seriousness of the infringement by applying a multiplier to each risk category, included in Table 3-3 as an adjacent column. The multiplier "risk" values are based upon the model developed in consultation between the IWG, Linewatch and UKOPA, as below in Table 3-2.

<b>A1</b>	10
<b>B1</b>	5
<b>B2</b>	2
<b>C1</b>	2
<b>C2</b>	1

**Table 3-2 Risk Multiplier Matrix**

UKOPA remains very aware that the infringement performance of particular companies or agencies is a very sensitive issue. Data is provided by individual operators for use in the database on the understanding that individual records are, in the first instance, confidential. Hence names of the work promoters (identified as company A, utility B, etc.) in Table 3-3 are not published and remain confidential to UKOPA secretariat.

However, as an invited member of UKOPA, the Health & Safety Executive (HSE) has access to the list of 'repeat infringers'. The database output in the form shown in Table 3-3 has been previously used by HSE to inform their operational strategy. There is no doubt that to date, this is the area where the database has had its greatest impact. For companies that operate on a region-by-region basis, there is some evidence to suggest that through UKOPA's activities, they have become aware of their overall infringement behaviour. HSE's feedback is that this data has received serious attention at senior levels within each company when brought to their attention.

Identifier/Category	Number of infringements	A1	Weight X10	B1	Weight X5	B2	Weight X2	C1	Weight X2	C2	Total weighted score
<b>Unknown</b>	0			8	40	2	24	26	52	35	131
<b>Land/Farm</b>	0			36	180	14	28	120	240	163	611
<b>Contractor total</b>	0			25	125	12	24	62	124	73	346
<b>Council/LA/ Government</b>	0			1	5	2	4	10	20	12	41
<b>Utility/Infrastructure</b>	0			10	50	3	6	18	36	30	122
<b>Utility A</b>	<b>10</b>	0	-	2	10		-	3	6	5	<b>21</b>
<b>Utility B</b>	<b>4</b>	0	-	2	10		2	4			<b>14</b>
<b>Company A</b>	<b>5</b>	0	-			1	2	1	2	3	<b>7</b>
<b>Company B</b>	<b>3</b>	0	-		-		-	2	4	1	<b>5</b>
<b>Utility C</b>	<b>3</b>	0	-		-		-	2	-	1	<b>5</b>
<b>Local Authority A</b>	<b>2</b>	0	-		-	1	-		4	1	<b>3</b>
<b>Utility D</b>	<b>2</b>	0	-		-	1	-		2	1	<b>3</b>
<b>Utility E</b>	<b>2</b>	0	-		-	1	-		-	1	<b>3</b>

**Table 3-3 Significant Infringers 2023**

A further point to note regarding this data is that it currently makes no attempt to analyse numbers of infringements per third party with their national excavation activity rate. Such a measure, if it were to be developed in future, may provide an alternative expression of each third party's effectiveness in managing activities adjacent to hazardous pipelines.

As in the previous seven years, the records for 2023 show no infringer with more than 10 infringements recorded against them. Many of the contractor companies in table 3.3 were working on behalf by a variety of Utilities/Infrastructure companies and Local Authorities and generally indicate those operating at a national level and across a number of work sectors. This year there were still no significant issues noted with housing developers, however utility companies have the greatest number of infringements between them.

Despite the low incident of overall number (and weighted averages) of infringements by any one organisation, those companies who are UKOPA members, or a companies who have contracts with UKOPA members will continue to be engaged with and ways of reducing the number of infringements explored.

## 4. CONCLUSIONS AND RECOMMENDATIONS

In 2023 there was a 17.4% decrease in the number of infringements recorded in the database, 662 compared with 801 in 2022.

There were 0 infringements reported that caused actual damage, category A, down from 2 in the previous two years. There was however 1 infringement recorded as 'malicious damage', which was a fuel theft attempt.

Those infringements that have serious potential to cause damage, i.e. B category (B1 and B2) total 113 of the 662 reports (17.1%) compared with 165 of the 801 report (20.6%) in 2022 which is a 3.5% reduction. Category C infringements, those with limited potential to cause damage, accounted for 549 of the 662 reports (82.9%) compared with 634 of the 801 reports (79.2%) in 2022– a comparable 5% increase.

In 2023, the number of B1 and C1 findings (within the pipeline easement) was 316 or 47.7% of the total infringements. This continues the downward trend since 2020 when the figures was 56.3% (2021 was 53.1% and 2022 was 49.7%). This therefore means that the number of B2 and C2 (within the pipeline operator's zone of interest) accounted for 52.3%. Operator companies do, however, investigate all types of infringements and are encouraged to share the findings across the UKOPA membership.

IWG members have continued to support the production of 'Learning Briefs' which are shared throughout the UKOPA membership. Sharing continues to be an agenda item at IWG meetings with the aim of improving the dissemination of learning.

UKOPA members, and particularly the IWG, will continue to raise awareness of working safely within pipeline easements, particularly with contractors, utilities, landowners and tenants. The IWG prepared an article on working safely which was published in farmers weekly, and also supported the 2024 Farm Safety Foundations Yellow Wellies campaign, as part of the farm safety week. Similar initiatives are being developed for 2025.

Work will continue to develop and further share the UKOPA agricultural pipeline awareness course as well as identifying specific contractor conferences / stakeholders where engagement can take place.

Members of IWG should continue to ensure that data is collected and submitted in a timely manner and engage with their companies to encourage completion of all fields within the infringement database. Consistency of reporting terminology and structured approaches to reporting are being further developed, with IWG members being pivotal to ensuring these are enacted within their own companies.

The IWG will continue to engage with the HSE to obtain their support and discuss ways of raising awareness of pipeline infringements across all sectors.

### 4.1 Specific actions regarding infringements for IWG

The specific actions for 2024/25 for the IWG from this report are:

- Action 1: The action to follow up on the 15 infringements from 2022 was not completed. Therefore during 2024-25 IWG should review the 22 infringements where pipeline operators were aware of work taking place before they occurred, and learnings shared across UKOPA.
- Action 2: IWG to identify initiatives that might help reduce the number of fencing infringements.
- Action 3: UKOPA non-Linewatch Members are to attend a workshop aimed at improving data consistency and reporting and share with the rest of the IWG by end of Q1 2025



- Action 4: IWG to enable access to the UKOPA agricultural working safely near high pressure pipelines course by the end of 2024
- Action 5: Pipeline Operators are to review 'unknown' location types before data is submitted in 2025 to determine what type of location the infringement occurred and update data accordingly
- Action 6: IWG to consider ways of engaging with the contracting community (as well as reissuing the Contractor Guidance document) with the aim of reducing the percentage of contractor infringements

## 5. ACKNOWLEDGEMENTS

The development and current success of the infringement database would not have been possible without the support of UKOPA members. Their trust in providing the infringement records and the resources necessary to make the input to UKOPA should not be underestimated.

It is also important to recognise the role played by HSE's Energy Division Unit 3 – Onshore and Offshore Gas & Pipelines, Offshore Oil and Gas Inspection Management Team. They have shown faith in UKOPA's excavation safety activities, providing a valuable member to the IWG, who in turn has worked very effectively with UKOPA colleagues in pursuit of improved awareness of excavation safety in the vicinity of hazardous pipelines.

## APPENDIX A: CURRENT STATUS AND MANAGEMENT OF DATABASE

The following Operating companies have provided a submission (including nil reports) for the UKOPA infringement database for 2023:

- BPA
- CATS
- Eon\*
- Essar
- Exolum
- Ineos
- Mainline Pipelines Ltd
- Marchwood Power\*\*
- Northern Gas Networks
- Prax
- Petrolneos\*
- SGN
- Wales & West Utilities
- Star Energy
- Cadent
- Conoco Philips\*\*
- EP Langage\*
- Esso
- Humbly Grove Energy\*
- Ineos FPS
- Manchester Jetline
- National Gas
- Oikos Storage
- Perenco
- SABIC UK Petrochemicals
- Shell
- Uniper\*

A number of these organisations provided their data via a single route, by means of their participation in Linewatch.

Those companies indicated with \* provided a response indicating they had zero infringements during the year, whilst those indicated with \*\* did not report in 2023.

## APPENDIX B: IWG OBJECTIVES AND TARGETS

The IWG strategy sets out a number of objectives and these are reviewed regularly to ensure that they are still relevant.

Currently, these are to:

- Engage with companies identified as the “most frequent infringers” from annual Infringement review to improve pipeline safety awareness.
- Continue to collect 3rd party pipeline infringement data and publish an annual report.
- Raise the profile of the UKOPA and the management of pipeline safety in the general contractor community.
- Raise awareness of working safely within cross-country pipeline easements in the general contractor community.
- Improve awareness of working safely within cross-country pipeline easements with landowners and tenants.
- Work with all operators, particularly gas operators, to ensure standardisation of data submitted, utilising the selection criteria already developed.
- Identify ways of engaging with the landowner / farming community to reduce the number of infringements that occur on farming land.

Good progress continues to be made against many of the objectives and the IWG will continue to develop on the work done to date.

IWG achievements from 2023:

- Updated UKOPA Agricultural Working Safe Near High Pressure pipelines course.
- Published GPG043 Installation of Fencing Near High Pressure Pipelines.
- Articles published in Farmers Weekly and supported the Yellow Wellies Farm Safety Campaign.

And in 2024/25, the IWG (and member companies) will:

- Publish the updated versions of GPG015 Managing Pipeline Infringements and GPG029 Local Authority Planners information regarding On Shore Pipelines and Associated Installations.
- Assist the UKOPA Comms group to establish where NFU and SNFU fit within the UKOPA engagement plan.
- Share learnings of incidents, infringements and good practice for the benefit of all members.

## B.1 Data Collection

IWG is committed to the continued improvements of data and working to reduce the number of infringements that take place on an annual basis. To this aim, the following areas continue to be the focus for the group.

- Work to further improve the quality of the reported data.

Members will continue to work to improve the quality of the data submissions, with all members provided with a template of the information required for the UKOPA report.

As with any mass collation of data, data quality is an issue and there remains a wide variety in how third parties or, in the case of contractors, “who they are working for” are named, this is also true of the “unknown” records. The IWG continues to engage with members to ensure that fields are completed as fully as possible.

- Review the database content to ensure that only relevant data is collected.

The IWG will continue to consult with UKOPA members to ensure that the data fields within the database appropriately represent the findings from operator’s investigations of infringements. In doing so the challenge for the IWG is to ensure that there is due regard for the evolutionary nature of development of data collection by the large volume of gas contributors. These operators use large scale integrated databases which exist for purposes much wider than support of the infringement database, and so addition of new fields will be subjected to critical value and timing assessments.

- Ensure data is collected in a timely and efficient manner.

Pipeline operators are requested to provide data annually, although encourage to report throughout the year. Gas operator data is subject to a review in the first quarter of each year prior to submission for inclusion in the IWG infringement report. All data is then critically reviewed for apparent errors and to ensure that appropriate data field entries are consistent with agreed standards. The Linewatch members and other authorised operators utilise the Linewatch Infringement database (LIDB) for recording all events; records are submitted via this system on a daily basis. IWG is to liaise with Linewatch to try to ensure that those UKOPA members who are also members of Linewatch submit data. Even if no infringements have occurred, members should still return a ‘nil report’ submission.

- Greater use of statistical techniques to reveal trends.

As the infringement database continues to increase, so its statistical significance as a source of data for UK excavation safety will follow. The size of the dataset will enable the use of statistical analysis techniques to reveal trends and outputs. Critical to this will be to improve the quality of the report dataset to encourage greater consistency in terminology and reporting against all the UKOPA data fields.

## APPENDIX C: IWG MEMBERSHIP 2023

Although it has proved difficult to formally confirm the total number of oil, petrochemical and gas pipeline operators in the UK, UKOPA membership (and hence database representation) is considered to exceed 95% of operators by underground pipeline length. As a result, it provides an authoritative view on the third-party threat to hazardous pipelines in the UK.

The database is managed on behalf of UKOPA incorporating input from the Linewatch Infringement reporting database where authorised member contributions are provided in a uniform format.

Activities relating to the operation of the database and development of excavation safety strategy are managed by UKOPA's Infringement Working Group (IWG), whose membership during 2023 was constituted as follows:

- IWG Secretary
- BPA
- GNI
- Cadent
- CATS
- Essar
- Esso
- Exolum
- HSE (invited member)
- Ineos
- Ineos FPS
- National Gas
- NGN
- Mutual Energy
- Perenco
- Petrolneos
- SABIC
- SGN
- Shell
- Valero (IWG Chair)
- Wales & West Utilities

The 2023 report includes data imported from several sources of aerial surveillance databases. The gas network data has been subject to an extensive filtering exercise to retain only those events which are relevant for the infringement report. Details of the filtering process are published in the guidance to UKOPA members on the population of the infringement data by IWG. Linewatch member data is imported directly from the Linewatch database.

## APPENDIX D: GUIDANCE ON INFRINGEMENT CATEGORIES

The UKOPA database categorises infringements on the basis of risk and location indices as follows:

Risk index can be one of three levels:

Risk Index	Infringement Type	Infringement Description
A	Pipeline Damage or Leak	Includes damage to wrap or protective sleeve
B	Serious Potential for Damage	Methods or equipment used could have resulted in significant damage had excavation taken place at pipeline
C	Limited Potential for Damage	Methods or equipment would not have resulted in serious damage

**Table D-1 Risk index**

Location index can be in two forms:

Location Index	Location Description
1	Within the pipeline wayleave or easement. Typically, this is the zone within which the pipeline operator has legal rights, including a requirement by the landowner to notify planned work (although may be different for non-Pipelines Act lines laid by Statutory Undertakers).
2	Within the pipeline operators zone of interest, but outside the pipeline wayleave or easement. It is the area within which the operator would have reasonably expected a competent third party to have given notification in the prevailing circumstances.

**Table D-2 Location index**

So that infringement categories can be summarised as follows:

	Actual Damage	Serious Potential for Damage	Limited Potential for Damage
Within Wayleave or Easement	A1	B1	C1
Within Operators Notification Zone	-	B2	C2

**Table D-3 Infringement categories**