



# ARIZONA CORPORATION COMMISSION

Office of Pipeline Safety (AZOPS)

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## 2025 DAMAGE PREVENTION PERFORMANCE REPORT

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## EXECUTIVE SUMMARY

This report provides a comprehensive analysis of excavation-related pipeline damage trends across all Intrastate Gas and Hazardous Liquid systems within the State of Arizona. The scope of this evaluation encompasses transmission and Local Distribution Company (LDC) networks, representing a combined infrastructure of 45,487 pipeline miles and 1,475,054 service connections.

In 2025, operators reported a total of 619 pipeline damage incidents. Following a rigorous root-cause analysis, the findings identify 3rd Party Excavator Error as the primary driver of pipeline hits for the year. This is followed by No AZ811 Ticket Requested and Incorrect Marking, with LDC Personnel Error representing the least frequent cause of damage.

These findings underscore the ongoing need for targeted excavator education and enhanced damage prevention oversight to mitigate risks to Arizona’s pipeline infrastructure.

The definition of “Operator” and “Pipeline System” under R14-5-201 of the Arizona Administrative Code, Title 14, Chapter 5 are as follows:

“Operator” means a person that owns or operates a pipeline system or master meter system.

“Pipeline System” means all parts of the physical facilities of a public service corporation or provider through which gas, LPG, LNG, or a hazardous liquid moves in transportation, including but not limited to pipes, compressor units, metering stations, regulator stations, delivery stations, holders, fabricated assemblies, and other equipment, buildings, and property so used.

## INTRODUCTION

Since 2012, the Arizona Corporation Commission’s Office of Pipeline Safety (AZOPS) has mandated that all Intrastate Operators submit quarterly reports regarding excavation-related pipeline damages. This reporting framework is designed to track four critical metrics:

1. The total number of locate requests received by the Operators.
2. The total number of excavation damages.
3. The date, location, and name of the company or person responsible for the damage.
4. The cause of each damage classified into four root causes.
  - No AZ811 ticket requested by excavator.
  - Incorrect marking of pipeline facilities.

- Error by excavator.
- Error by operator or operator contractor.

The primary goal of this data collection is to identify the leading causes of "pipeline hits." By identifying trends and tracking performance metrics, AZOPS aims to implement targeted safety improvements and significantly reduce the frequency of pipeline damage across the State of Arizona.

The 2025 Damage Prevention Performance Report analyzes data from 22 operators (detailed in Table 1). Collectively, these entities manage a network spanning 45,487 pipeline miles and 1,475,054 service connections, as verified by 2025 Annual Report filings.

	Operator
1	Abbott Nutrition Supply Chain
2	Alliant Gas
3	Ameresco Ninety First Avenue Renewable Biogas
4	West Phoenix Power Plant
5	CPN Pipeline Company
6	City of Benson
7	City of Mesa Municipal System
8	City of Safford Utilities Division
9	City of Willcox Municipal System
10	Colorado City Gas Department
11	Copper Market Incorporated
12	Duncan Rural Service Corp.
13	Tucson Electric Power Company
14	NUCOR Steel Kingman, LLC
15	Pimalco Gas
16	Plains Marketing, L.P.
17	Southwest Gas Corporation
18	Swissport Fueling Incorporated
19	UniSource Energy Services
20	Chevron Caballero RNG
21	Tuba City USD No. 15
22	Origin Mining Company, LLC

Table 1

*Note on Data Integrity:* While Tuba City USD No. 15 and Origin Mining Company, LLC did not submit individual quarterly reports for the 2025 cycle, their damage statistics were extracted directly from their 2025 Annual Reports to ensure a comprehensive statewide analysis. Detailed data sets are available upon formal request.

## METHODOLOGY AND DATA ANALYSIS

The AZOPS synthesized and evaluated comprehensive datasets from Q1 through Q4 of 2025. This analysis focused on correlating ticket volume with incident frequency to establish a baseline for statewide damage prevention performance. The following table - “2025 Summary Report” provides a quarterly breakdown of infrastructure metrics, locate requests, and root-cause incident data.

2025 SUMMARY REPORT					
Miles of Pipelines	45,487				
No. of Services	1,475,054				
	1st Q	2nd Q	3rd Q	4th Q	Totals
AZ811 Tickets Received	229,641	226,307	214,681	196,218	<b>866,848</b>
Pipeline Damages	162	175	154	128	<b>619</b>
No AZ811 Ticket	55	59	61	46	<b>221</b>
Incorrect Marking	16	12	11	4	<b>43</b>
3rd Party Excavator Error	70	89	70	63	<b>292</b>
Error by LDCs Personnel	21	15	12	15	<b>63</b>
Average Number of Pipeline Damaged Per 1000 Ticket Request	0.71	0.77	0.72	0.65	<b>0.71</b>

Table 2

Figure 1 below shows pipeline damage versus AZ811 tickets received during each quarter in 2025.

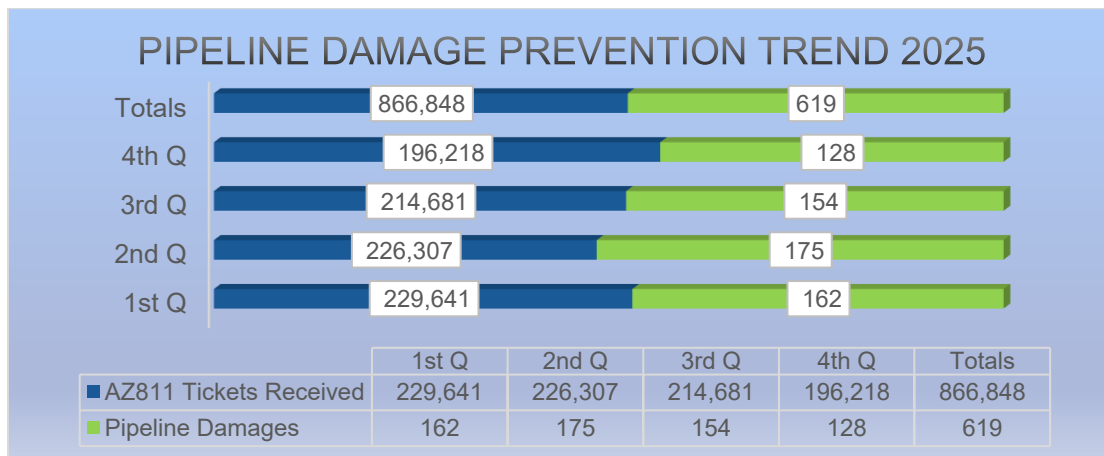
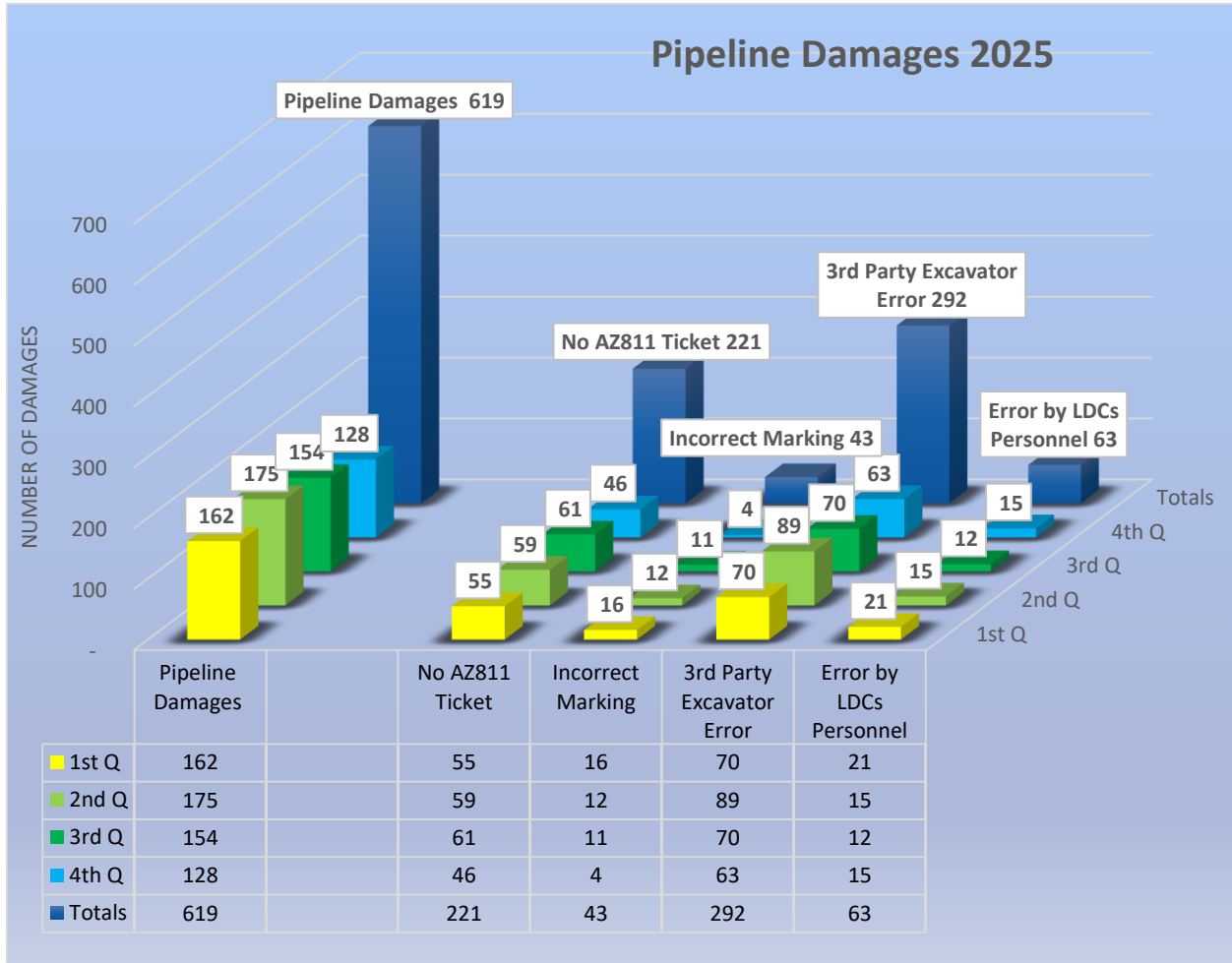


Figure 1. Damage Prevention Trend 2025

As detailed in Figure 2, the cumulative 619 incidents are categorized by primary responsibility. 3rd Party Excavator Error remains the leading challenge to infrastructure integrity, followed by No AZ811 Ticket requests. Conversely, internal operator-driven errors: Incorrect Marking and LDC Personnel Error represent the smallest percentage of total incidents, indicating high levels of locating accuracy and internal compliance among Arizona's intrastate operators.



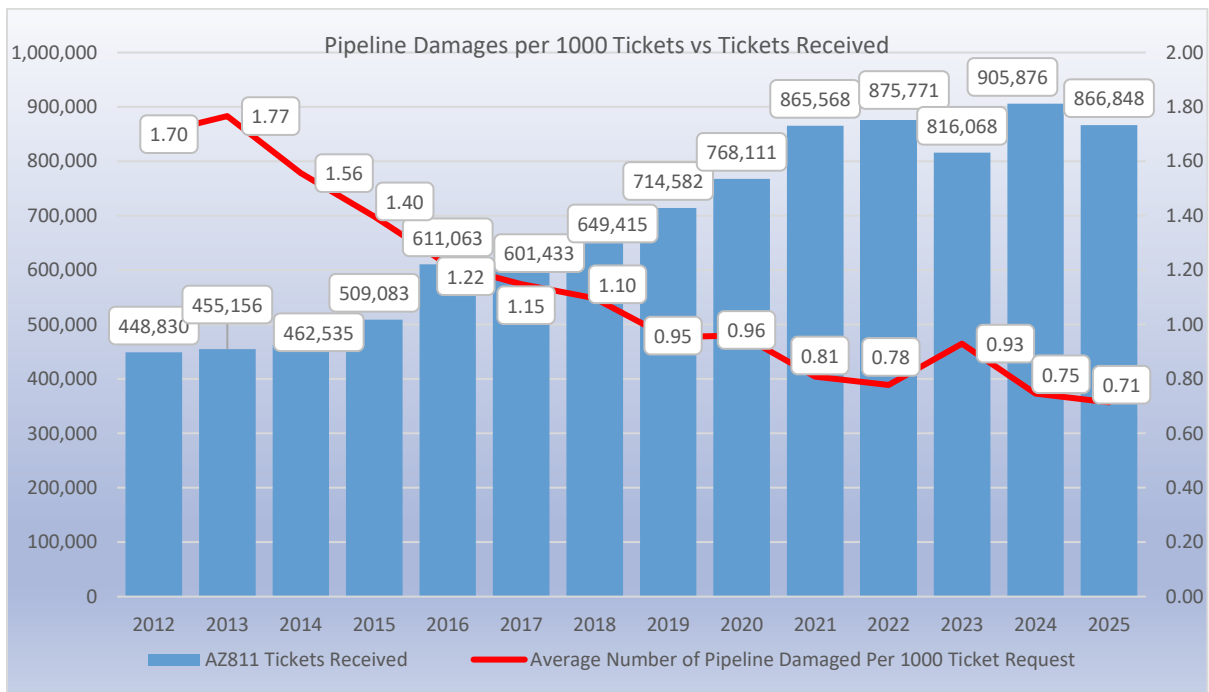
**Figure 2. Pipeline Damages by Cause 2025**

## HISTORICAL DATA

The following analysis examines long-term trends in pipeline safety metrics from 2012 through 2025. Figure 3 illustrates the relationship between total AZ811 ticket volume and the damage rate per 1,000 locate requests, a critical performance indicator for the State's damage prevention program.

### Key Historical Trends

- **Infrastructure Engagement:** Since 2012, there has been a consistent upward trend in the number of AZ811 tickets received, reflecting increased public and professional compliance with "Call Before You Dig" requirements.
- **Operational Excellence:** Despite the growth in excavation activity, the average number of pipeline damages per 1,000 tickets has followed an overall downward trajectory since reporting began.
- **2025 Performance Improvement:** In 2025, the damage rate decreased to 0.71, representing a 0.04 reduction compared to the 2024 factor of 0.75.



**Figure 3. Average number of damaged pipelines per 1,000 tickets vs tickets received.**

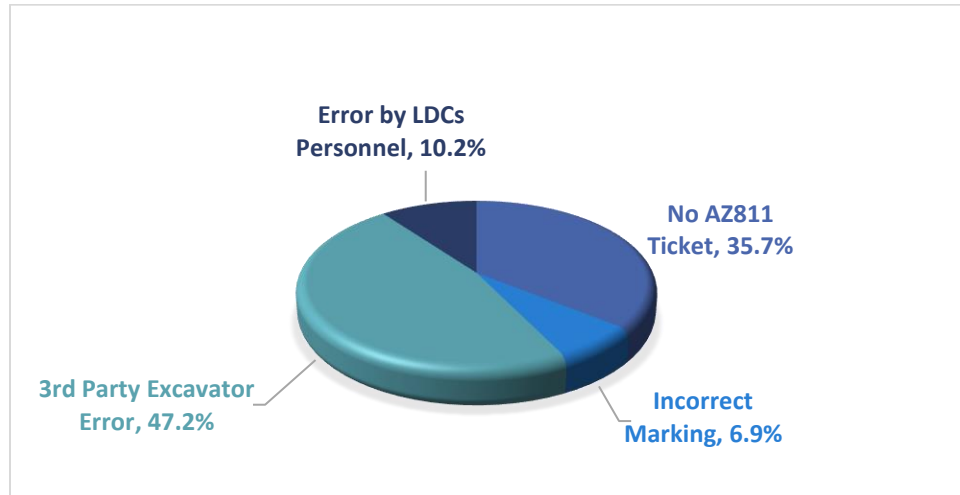
A key performance indicator for measuring the effectiveness of Arizona's Damage Prevention Program is the number of pipeline damages per 1,000 locate requests. In 2025, Arizona recorded **0.71 damages per 1,000 tickets**, an improvement from **0.75 damages per 1,000 tickets in 2024**, representing a **4.3% reduction**. This decline demonstrates that damage prevention efforts continued to outperform changes in excavation activity, resulting in fewer damages relative to the number of excavation notifications received. The improved damage rate reflects the positive impact of enhanced stakeholder education, improved locate accuracy, greater compliance with Arizona's one-call requirements, and ongoing collaboration among utilities, excavators, and AZ811. Maintaining and further reducing this metric remains a key objective for the Arizona Damage Prevention Program as it serves as an important indicator of overall excavation safety performance throughout the state.

## DATA SUMMARY

The 2025 performance data highlight a significant shift toward higher operational accuracy and increased public compliance. While total incidents fell by **8.4%**, the following narrative explains the primary drivers behind these improvements:

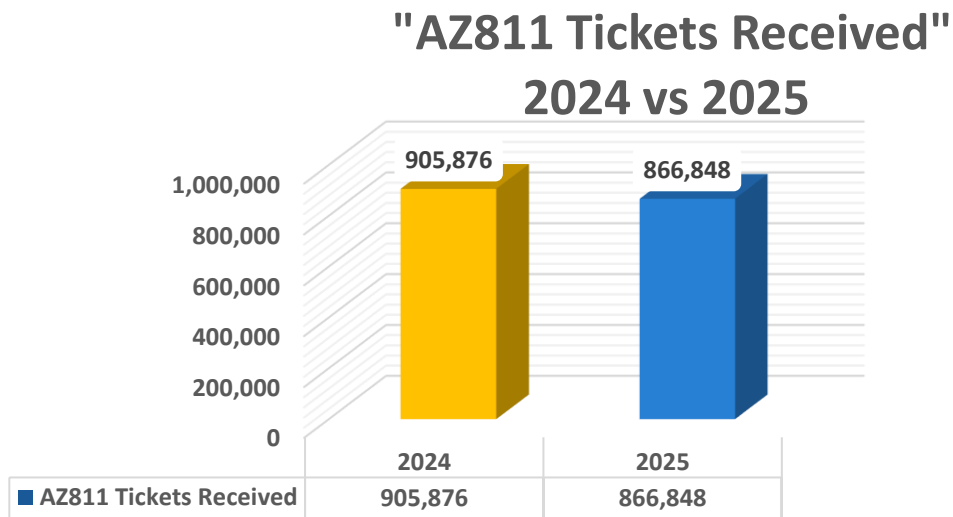
- **Third-Party Excavator Error** remained the leading cause of pipeline damages, accounting for **292 incidents (47.2%)** in 2025, compared to **290 incidents** in 2024. While the number of incidents increased slightly by **2 damages**, it continues to represent nearly half of all reported damages. Although overall damages declined, excavator-related incidents continue to represent the most significant risk factor and remain the primary area for targeted damage prevention initiatives, contractor education, and field engagement.
- **No AZ811 Ticket** - Damages resulting from excavation activities conducted without notification to AZ811 decreased from **245 incidents in 2024 to 221 incidents in 2025**, a reduction of **24 incidents**. This category accounted for **35.7% of total damages** during 2025. The decline suggests continued improvement in awareness of one-call requirements and increased compliance with safe excavation practices; however, unauthorized excavation remains a substantial contributor to overall damage events.
- **Incorrect Marking** - Damages attributed to incorrect facility markings declined significantly from **82 incidents in 2024 to 43 incidents in 2025**, a reduction of **39 incidents (-47.6%)**. This category represented **6.9% of total damages** in 2025 and reflects one of the most notable year-over-year improvements. The reduction indicates enhanced locate quality, improved field verification processes, and increased effectiveness of damage prevention measures.
- **Errors by LDC Personnel** - Incidents attributed to LDC personnel increased slightly from **59 incidents in 2024 to 63 incidents in 2025**, representing an increase of **4 incidents**. These events accounted for **10.2% of total damages** in 2025. While the increase is relatively modest, continued focus on internal operational procedures, training, and accountability measures will be important to reverse this trend.

Figure 4 shows the pipeline damages by cause by percentage in 2025. “3<sup>rd</sup> Party Excavator Error” being the leading cause of excavation damages in 2025, “No AZ811 tickets” the second leading cause followed by “Incorrect Marking” and “Error by LDC’s Personnel”.



**Figure 4. Pipeline damages by percentage in 2025**

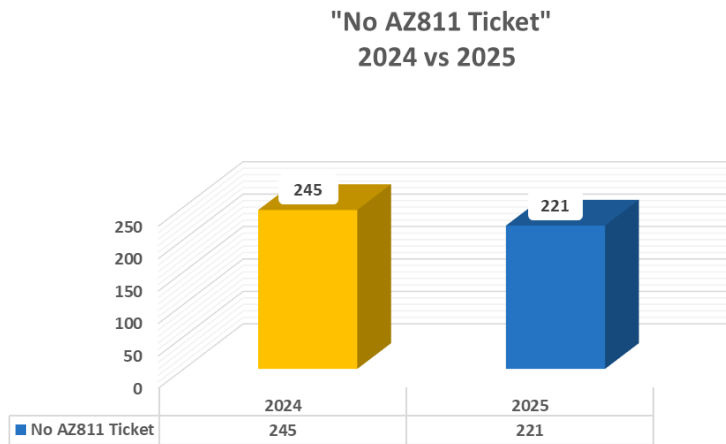
The chart below (Figure 5) shows how the number of AZ811 tickets generated in 2025 decreased by 39,029 representing 4% less than in 2024. Since year 2021, there has been more than 800,000 AZ811 tickets reported in the State of Arizona annually to date.



**Figure 5. AZ811 tickets received 2024 vs 2025.**

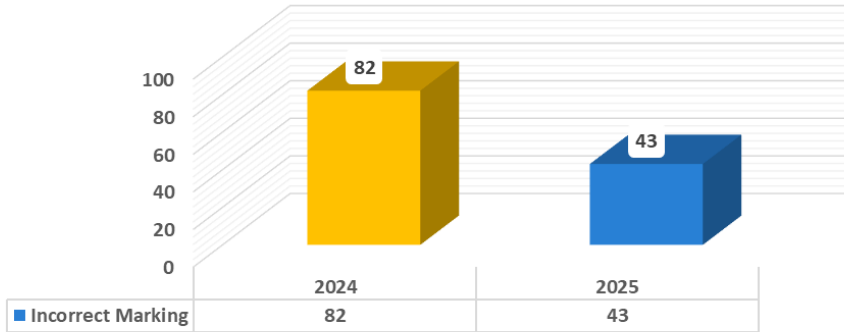
The following next 4 charts show a comparison on the cause of pipeline damage classified into four root causes between the year 2024 and year 2025. These categories are:

1. No AZ811 ticket requested by excavator (See Figure 6)
2. Incorrect marking of pipeline facilities (See Figure 7)
3. Third party excavator error (See Figure 8)
4. Error by operator or operator contractor (See Figure 9)



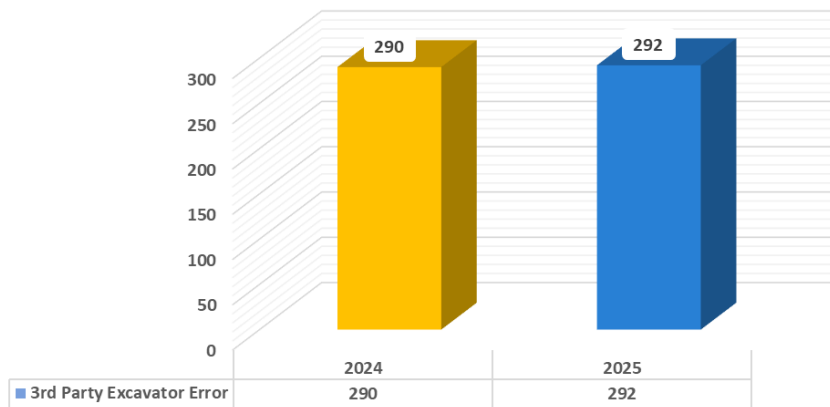
**Figure 6. Pipeline Damage "No AZ811 Ticket"**

### "Incorrect Marking" 2024 vs 2025



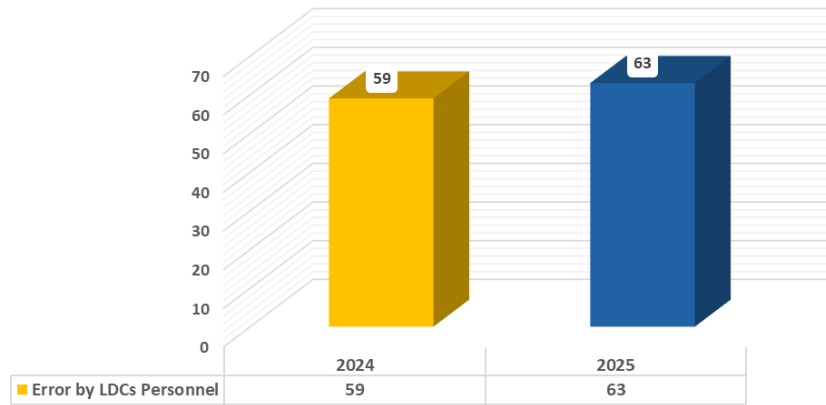
**Figure 7. Pipeline Damage " Incorrect Marking"**

### "Third Party Excavator Error" 2024 vs 2025



**Figure 8. Pipeline Damage "Third Party Excavator Error"**

**"Error by LDCs Personnel"  
2024 vs 2025**



**Figure 9. Pipeline Damage "Error by LDCs Personnel"**

To maintain Arizona's downward trend in pipeline hits, the following actions are recommended:

- Targeted Third-Party Outreach: Prioritize safety seminars for external construction firms to address the leading cause of damage (Excavator Error).
- Sustain Marking Excellence: Formalize the internal training protocols that led to the 47.6% reduction in marking errors as "Standard Best Practices."
- Expanded Public Awareness: Intensify "Call Before You Dig" campaigns in high-growth residential zones to further reduce the "No Ticket" incident rate.
- Technological Integration: Encourage the adoption of GPS and GIS mapping tools to minimize human error during the locating process.
- Continue targeted outreach and education programs aimed at reducing excavation without an AZ811 notification.
- Maintain quality assurance programs that contributed to the significant reduction in incorrect marking incidents.
- Increase collaboration among facility owners, locators, contractors, and regulators to address recurring causes of excavator error.
- Monitor damage trends quarterly to identify emerging risks and evaluate the effectiveness of prevention strategies.

## CONCLUSION

Arizona's damage prevention program continues to mature, showing consistent operational improvement since 2019. The AZOPS remains committed to leveraging this data to implement targeted safety enhancements and further mitigate risks to the state's critical infrastructure.

The 2025 data indicate successful mitigation efforts across all major damage categories. The significant reduction in "Incorrect Marking" and the steady decline in "No AZ811 Ticket" incidents suggest that public awareness and internal marking accuracy initiatives are yielding.

Arizona's commitment to underground safety reached a new high-water mark in 2025, as pipeline damage incidents fell by **8.4%** even as excavation activity remained at historic levels. **Data from the AZOPS reveals that for the sixth consecutive year, Arizona has outperformed national safety benchmarks, achieving a damage rate of just 0.71 per 1,000 locate tickets.** This success is driven by a massive **47.6% reduction in marking errors** and a significant increase in public compliance with "Call Before You Dig" requirements. While third-party excavator errors remain the leading challenge, these trends prove that Arizona's proactive education and precision locating efforts are effectively shielding the state's 45,000 miles of critical infrastructure.