

ARIZONA CORPORATION COMMISSION PIPELINE SAFETY SECTION



2018

Damage Prevention Performance Report

SUBMITTED TO: DENNIS RANDOLPH

BY: LUIS GUZMAN

EXECUTIVE SUMMARY

This report examines and measures the trend on pipeline damages caused by excavation activities of all local companies (LDC) that own and operate (Operator) a pipeline system in the State of Arizona.

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.

In the year 2012, the Arizona Corporation Commissions, Office of Pipeline Safety (ACC) instructed the Operators to submit a quarterly report of pipeline damages (data) caused by excavation according to the following information;

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 811-ticket requested by excavator;
 - Incorrect marking of pipeline facilities;
 - Error by excavator;
 - Error by operator or operator contractor.

The goal of this report is to identify the leading cause of “pipeline hits” and to suggest improvement of identification and tracking of areas that have more “pipeline hits” which will be critical to gas pipeline safety.

There are twenty (20) operators included in this Damage Prevention Performance Report, they are the following:

	OPERATOR
1	ABBOTT LABORATORIES
2	ALLIANT GAS ARIZONA PROPANE LLC
3	APS ENERGY SERVICES
4	CALPINE ENERGY SERVICES LP
5	CITY OF BENSON
6	CITY OF MESA
7	CITY OF SAFFORD
8	CITY OF WILLCOX
9	COLORADO CITY
10	COPPER MARKET GAS INCORPORATED
11	DUNCAN VALLEY ELECTRIC COOPERATIVE
12	GILA BEND OPERATIONS LP
13	GRAHAM COUNTY UTILITIES INCORPORATED
14	NUCOR STEEL
15	PIMALCO INCORPORATED
16	PLAINS LPG SERVICES
17	SOUTHWEST GAS CORPORATION (SWG)
18	SWISSPORT FUELING INCORPORATED
19	UNISOURCE ENERGY SERVICES (UNISOURCE)
20	ZAPCO ENERGY TACTICS CORPORATION

These 20 operators have a total combined pipeline length of 40,894 miles and 1,305,753 total number of gas services. It is important to note that this data corresponds to 2017 annual reports; annual reports for year 2018 are not due until March 2018.

METHODOLOGY

The Arizona Corporation Commission gathered all reports and analyzed the data received by operators through year 2018; table below shows a summary report for year 2018.

SUMMARY REPORT 2018							
Miles of Pipelines			40,894				
No. of Services			1,305,753				
			Year 2018				
			1st Q	2nd Q	3rd Q	4th Q	Total
811 Tickets Received			151,990	162,783	171,255	163,387	649,415
Pipeline Damage Totals			185	181	182	164	712
Cause of Damage:							
	No 811 Ticket		61	68	57	48	234
	Incorrect Marking		24	21	19	15	79
	3rd Party Excavator Error		70	65	78	70	283
	Error by LDCs Personnel		30	27	28	31	116
Average Number of Pipeline Damaged Per 1000 Ticket Request			1.22	1.11	1.06	1.00	1.10

Fig. 1 below shows pipeline damage versus 811 tickets received during each quarter during 2018.

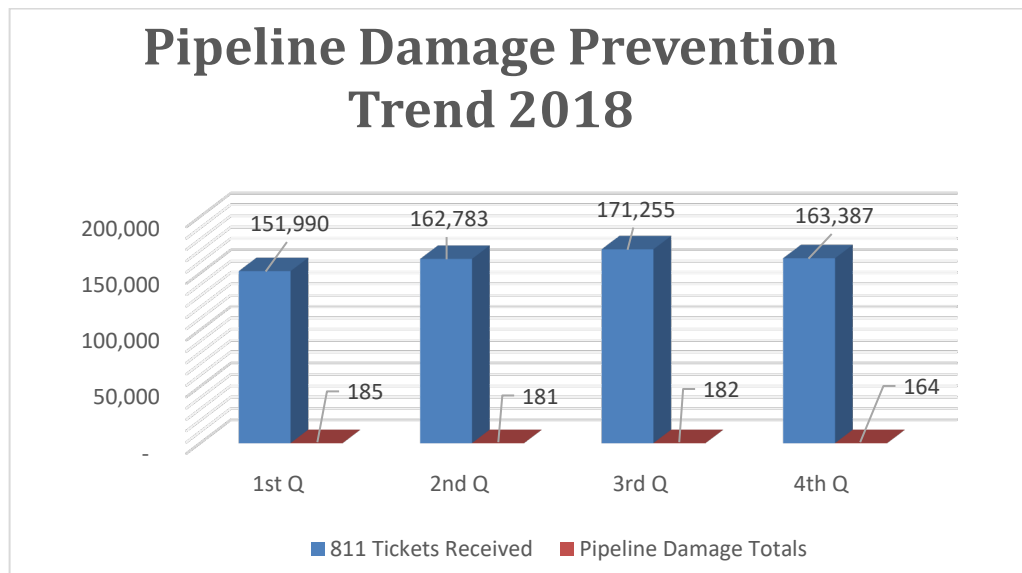


Figure 1.

Figure 2. below shows 712 pipeline hits/damage as the accumulative pipeline damage reported by operators during 2018; the leading cause of pipeline damage during 2018 continues to be Third party excavator error, the second cause is No 811-tickets, followed by Error by LDC’s personnel and Incorrect marking being the last cause.

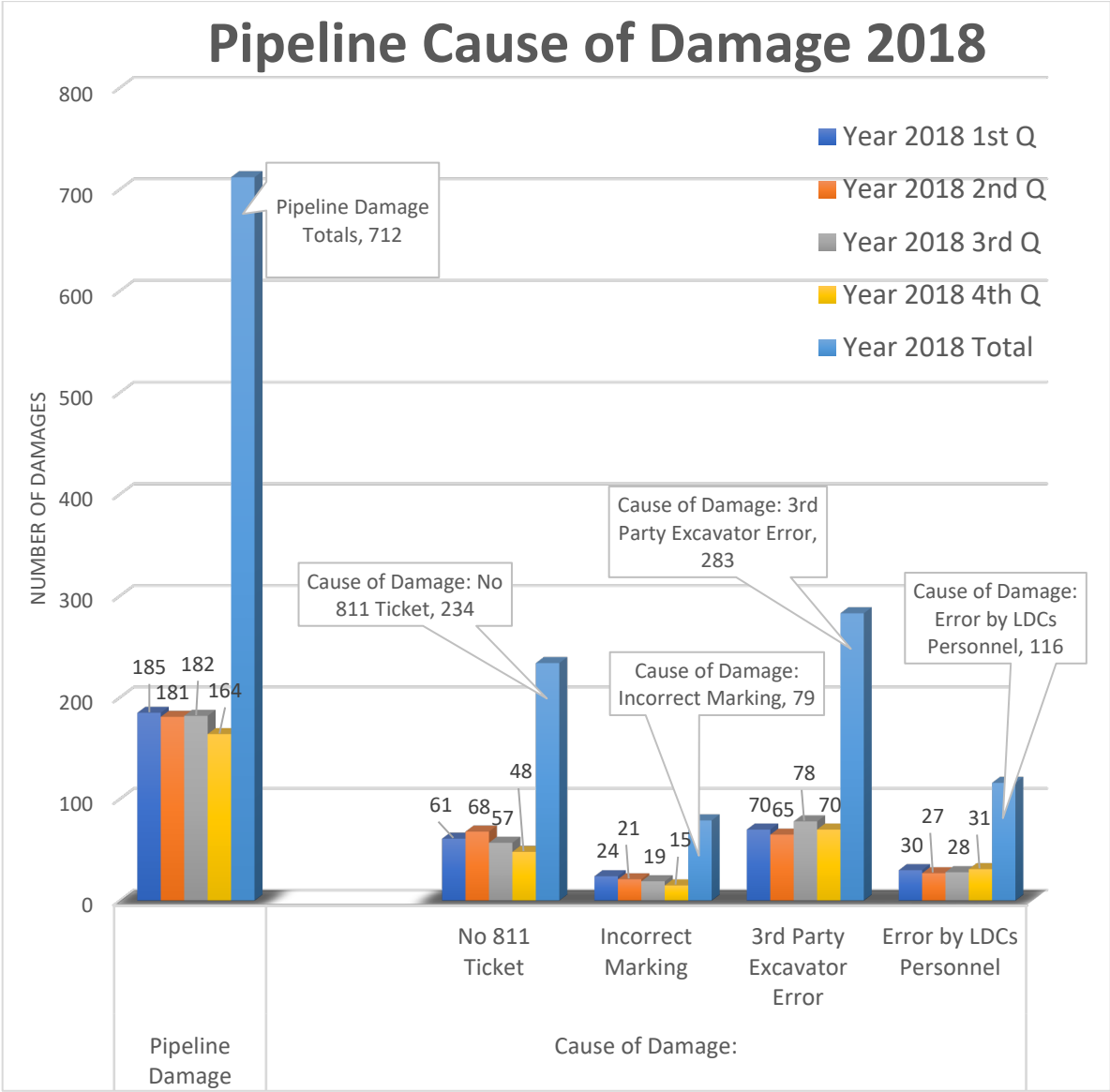


Figure 2.

DATA SUMMARY

For this report, the data analyzed from this point forward is for years 2017 and 2018; However, figures presented herein will show historical data from year 2012 through 2018.

Data shows that there is an 8% increase in 811 tickets generated for 2018 versus 2017. There were 601,433 - 811 tickets received in 2017 and in 2018 649,415 811-tickets were received.

There was a 3% increase of pipeline damages due to excavation from 691 pipeline damages in 2017 up to 712 pipeline damages in 2018.

Pipeline damages by excavation due to no 811-ticket decreased 6.4%. There were 250 cases in 2017 and 234 cases in 2018.

Pipeline damages by excavation due to incorrect marking increased from 2017. There were 72 cases in 2017 and 79 cases in 2018, corresponding to a 10% increment.

Pipeline damages by excavation due to 3rd party excavator error increased by 19%. There were 238 cases in 2017 and 283 cases in 2018.

Pipeline damages by excavation due to operator or operator's contractor error decreased from 2017 to 2018. There were 131 cases in 2017 and 116 cases in 2018.

Based on this data, the average number of pipeline damages due to excavation per 1000 locate tickets decreased from 1.15 in 2017 to 1.10 in 2018.

Additionally, the number one leading cause of pipeline damages by excavation is due to 3rd party excavator error.

HISTORICAL DATA

The charts presented in this section is for general information purpose only, they show historical data from year 2012 through year 2018. The chart below (Fig. 3) shows the trend of 811 tickets received by year during this period, there has been a significant increase since the reporting started in 2012 up to date.

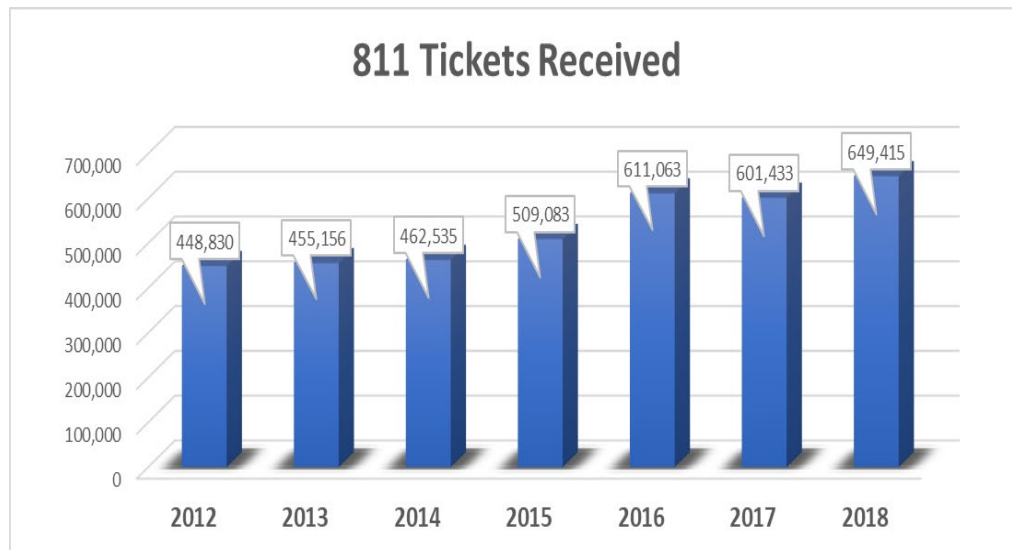


Figure 3.

The following charts depict trends on the cause of pipeline damage classified into four root causes between the year 2012 and year 2018.

- No 811-ticket requested by excavator (See Fig. 4)
- Incorrect marking of pipeline facilities (See Fig. 5)
- Error by excavator (See Fig. 6)
- Error by operator or operator contractor (See Fig. 7).

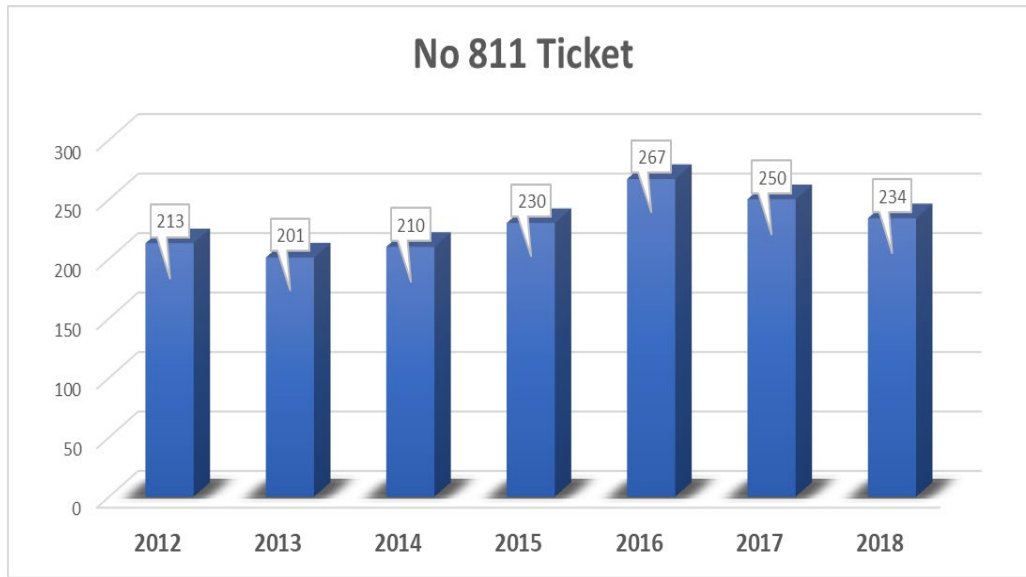


Figure 4.

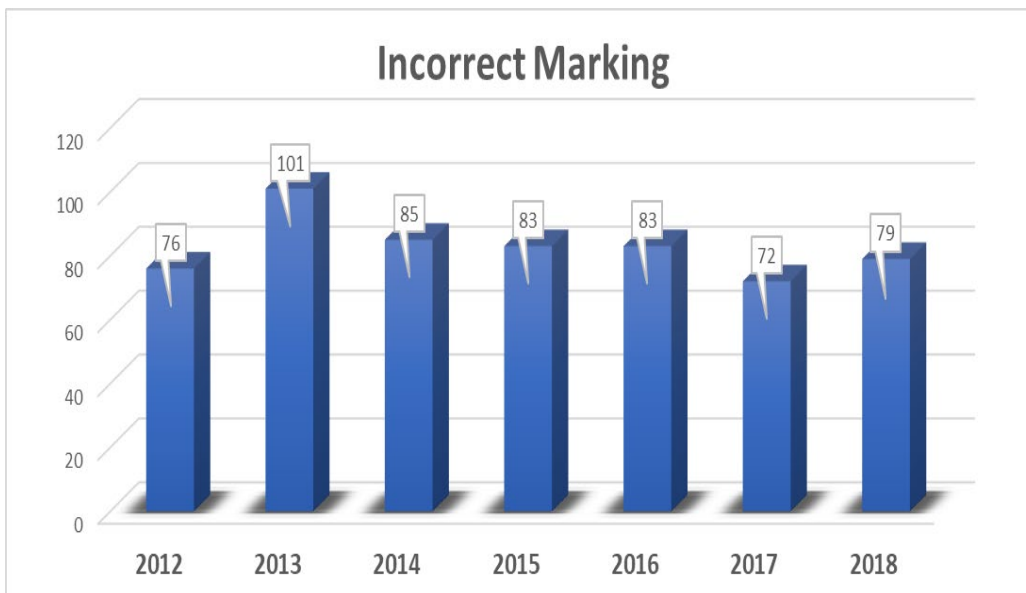


Figure 5.

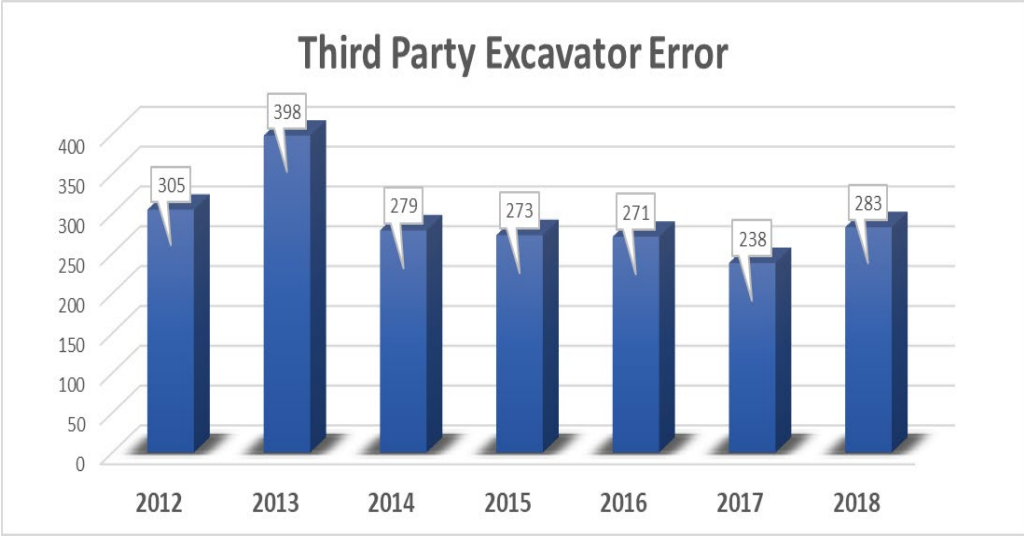


Figure 6.

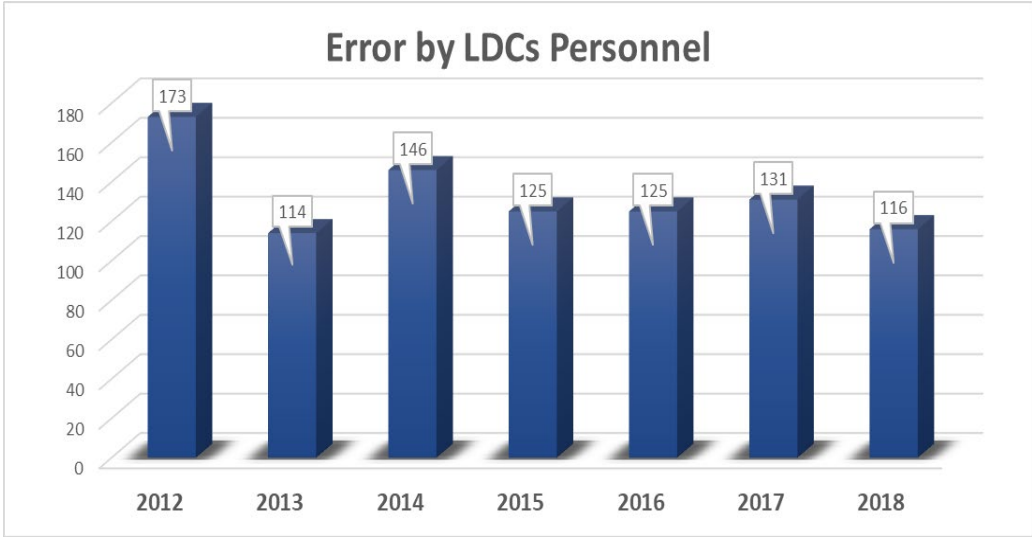


Figure 7.

The chart below (Fig. 8) shows the average of pipeline damaged per 1000 ticket request trend has decrease since the reporting started in 2012 up to date. The number of excavation damage occurrences per 1,000 locate tickets is an established benchmark within the damage prevention industry and an important indicator of damage prevention program performance.

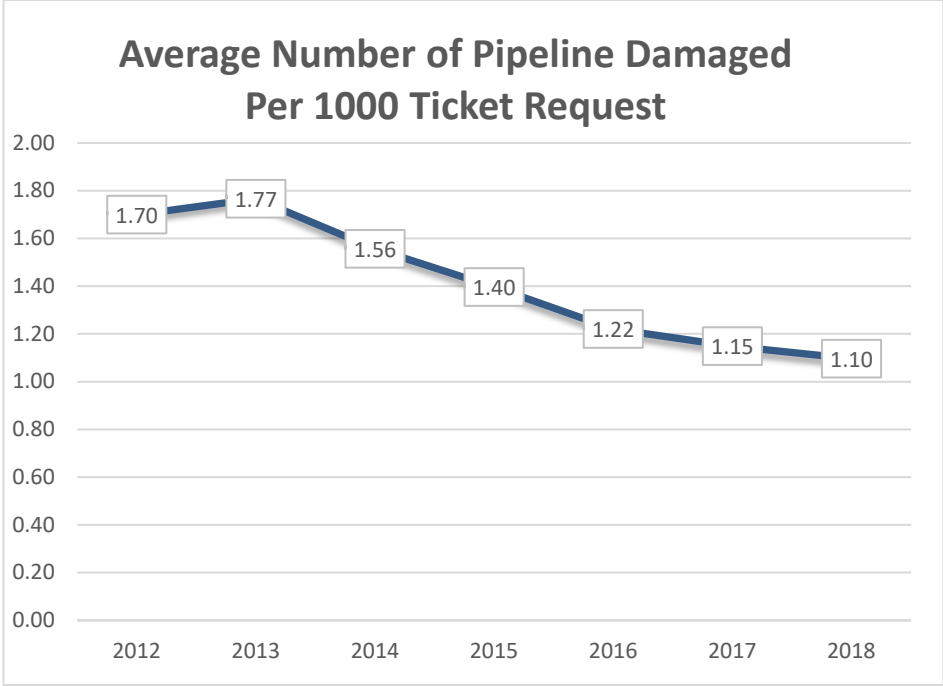


Figure 8.

CONCLUSION:

For the year 2018, “Third party excavator error” was the number one root cause of pipeline damages. The number two root cause was no 811 tickets, followed by LDC personnel’s error and incorrect marking of facilities.

Pipeline damage by excavation due to 3rd party excavator error continues to be the main cause; according to this analysis an increase of 19% from 2017 to 2018 was determined. There were 238 cases in 2017 and 283 cases in 2018.

Data shows that there is an 8% increase in 811 tickets generated for 2018. There were 601,433 - 811 tickets received in 2017 and 649,415 - 811 tickets received in 2018.

The increase of 811 tickets called in to the Arizona 811 Center and the reduction of 5 percent on the average number of pipeline damages per 1000 ticket requests is a good indication that the people within the State of Arizona are receiving the message to call 811 “before you dig”.

In addition, the decrease in damages is a positive trend and may be attributed to the ACC’s proactive approach to enforcing the Underground Facilities Law and to the operators engaging and implementing their damage prevention and public awareness programs.