

DOT US Department of Transportation
PHMSA Pipelines and Hazardous Materials Safety Administration
OPS Office of Pipeline Safety
Western Region

Principal Investigator Arizona Corporation Commission (ACC)
Senior Accident Investigator Peter J Katchmar
Region Director Chris Hoidal
Date of Report April 19, 2011
Subject Failure Investigation Report – El Paso Material Failure

Operator, Location, & Consequences

Date of Failure 3/1/2010
Commodity Released Natural Gas
City/County & State Kingman/Navajo, Arizona
OpID & Operator Name 4280 – El Paso Natural Gas Company (EPNG)
Unit # & Unit Name 55334 – ACC--Topock Area
SMART Activity # 129403
Milepost / Location 361 (35 miles E of Kingman near Interstate Hwy 40)
Type of Failure Leak caused by Material Failure
Fatalities 0
Injuries 0
Description of area impacted Next to the westbound lanes of I-40
Property Damage \$ 99,567

Executive Summary

On March 1, 2010, EPNG personnel were exposing the 1201 line to repair an anomaly that was identified from an internal inspection done on the facility. When a gas check using a CGI was done, there were small amounts of gas identified in the excavation, so work was stopped, and the pipeline was blown down as a safety precaution. The pipeline was exposed and it was discovered that the line was resting on a rock at about the 7 o'clock position. The result was a dent (2.78% of OD) with some identified metal loss.

Failure Investigation Report – El Paso Material Failure

3/1/2010

System Details

EPNG's Lines 1200, 1201, and 1204 are the interstate pipelines that traverse this unit. They begin at the Window Rock Station and travel west along the I-40 Highway corridor to the Topock station at the California border. There is 504 miles of pipeline on 193 miles of R.O.W. with two compressor stations. There are 11 different pipelines with sizes ranging from 3" to 36" and maximum allowable operating pressures (MAOP) from 350 psig to 1200 psig. These pipelines are in class 1, 2, and 3 locations along the route. There was a similar event in March 2009 when EPNG had to blow down the line for a similar repair.

Events Leading up to the Failure

On March 1, 2010, EPNG personnel were exposing the 1201 line to repair an anomaly that was identified from an internal inspection done on the facility. The location was next to the westbound lanes of I-40. When the freeway was built in the area during the late 1970's, there was approximately 30 feet of fill material placed on the right-of-way (ROW); therefore, the pipeline took several days to safely expose it. When a gas check using a CGI was done in the excavation, there were small amounts of gas identified so work was stopped and the pipeline was blown down as a safety precaution. When the excavation was started on February 25, the line pressure was reduced to 624 psi and the segment was shut in.

The affected segment was approximately 18 miles in length. On 3/2/10, the pipeline was exposed and it was discovered that the line was resting on a rock at about the 7 o'clock position. The result was a dent (2.78% of OD) with some identified metal loss. The line is 30 inches OD with a 0.438" wall that was installed sometime around 1953. Once the rock was removed, the dent was measured and inspected, and tests (magnetic particle and x-rays) were done on the line to ensure its integrity. Following the tests, a full encirclement sleeve was welded on to strengthen the area before the line was re-coated and backfilled. The ACC oversaw the work.

Emergency Response

EPNG contained the excavation site appropriately.

Summary of initial start-up plan and return-to-service, including preliminary safety measures

EPNG completed repairs and returned the line to service under the scrutiny of the ACC.

Investigation Findings & Contributing Factors

The ACC found that the root cause of this failure was mechanical failure of the pipe (crack in a dent) due to rock impingement.

Appendices

- A Photographs
- B NRC Report
- C El Paso Natural Gas Incident Report to PHMSA

Appendix A Photographs



EPNG Crack in Dent



EPNG Crack in Dent



EPNG Crack in Dent

NATIONAL RESPONSE CENTER 1-800-424-8802

*** For Public Use ***

Information released to a third party shall comply with any applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 932691

INCIDENT DESCRIPTION

*Report taken at 16:41 on 01-MAR-10
Incident Type: PIPELINE
Incident Cause: UNKNOWN
Affected Area:
The incident occurred on 01-MAR-10 at 14:00 local time.
Affected Medium: AIR ATMOSPHERE

SUSPECTED RESPONSIBLE PARTY

Organization: EL PASO CORPORATION
 COLORADO SPRINGS, CO

Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

EXIT 87 County: MOHAVE
WESTBOUND LANE
LAT 35.18237544 N, LONG - 113.4715501 W
City: KINGMAN State: AZ
Latitude: 35° 10' 57" N

Longitude: 113° 28' 18" W
INTERSTATE 40

RELEASED MATERIAL(S)

CHRIS Code: ONG Official Material Name: NATURAL GAS
Also Known As:
Qty Released: 0 UNKNOWN AMOUNT

DESCRIPTION OF INCIDENT

CALLER IS REPORTING A RELEASE OF NATURAL GAS FROM A PIPELINE IN A DIG AREA DUE UNKNOWN CAUSES.

INCIDENT DETAILS

Pipeline Type: TRANSMISSION
DOT Regulated: YES
Pipeline Above/Below Ground: BELOW
Exposed or Under Water: NO
Pipeline Covered: UNKNOWN

DAMAGES

Fire Involved: NO Fire Extinguished: UNKNOWN
INJURIES: NO Hospitalized: Empl/Crew: Passenger:
FATALITIES: NO Empl/Crew: Passenger: Occupant:
EVACUATIONS: NO Who Evacuated: Radius/Area:
Damages: NO

<u>Closure Type</u>	<u>Description of Closure</u>	<u>Length of Closure</u>	<u>Direction of Closure</u>
Air:	N		
Road:	N		Major Artery: N
Waterway:	N		
Track:	N		

Passengers Transferred: NO

Environmental Impact: NO
Media Interest: NONE Community Impact due to Material:

REMEDIAL ACTIONS

CALLER STATED FOR PRECAUTIONARY MEASURE THE LINE WILL BE BLOWN DOWN.

Release Secured: NO

Release Rate:

Estimated Release Duration:

WEATHER

Weather: PARTLY CLOUDY, 68°F

ADDITIONAL AGENCIES NOTIFIED

Federal: FAA
State/Local: MOHAVE COUNTY SHERIFF DEPT.
State/Local On Scene: NONE
State Agency Number: NONE

NOTIFICATIONS BY NRC

AZ DEPT OF ENVIRONMENTAL QUALITY (MAIN OFFICE)
01-MAR-10 16:51
AZ DEPT OF PUBLIC SAFETY (MAIN OFFICE)
01-MAR-10 16:51
AZ DEPT OF PUBLIC SAFETY (TRANSPORTATION DIVISION)
01-MAR-10 16:51
LA PAZ COUNTY OFFICE OF EMERG MGMT (EMERGENCY RESPONSE/PREPAREDNESS)
01-MAR-10 16:51
USCG ICC (ICC ONI)
01-MAR-10 16:51
COCONINO COUNTY LEPC (COMMAND CENTER)
01-MAR-10 16:51
DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)
01-MAR-10 16:51
U.S. EPA IX (MAIN OFFICE)
01-MAR-10 16:52
FEMA REGION 09 (SITUATION AWARENESS UNIT)
01-MAR-10 16:51
MOHAVE COUNTY EMERGENCY MGMT (COUNTY LEPC)
01-MAR-10 16:51
NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)
01-MAR-10 16:51
NOAA RPTS FOR AZ (MAIN OFFICE)
01-MAR-10 16:51
AZ EMERG RESP COMM (MAIN OFFICE)
01-MAR-10 16:51
DOI/OEPC DENVER (MAIN OFFICE)
01-MAR-10 16:51
CITY OF YUMA EMERGENCY MANAGEMENT (COMMAND CENTER)
01-MAR-10 16:51

ADDITIONAL INFORMATION

CALLER HAD NO ADDITIONAL INFORMATION.

*** END INCIDENT REPORT # 932691 ***

NOTICE: This report is required by 49 CFR Part 191. Failure to report can result in a civil penalty not to exceed 100,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed \$1,000,000 as provided in 49 USC 60122.	OMB NO: 2137-0522 EXPIRATION DATE: 01/31/2013
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 U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration	Report Date:	03/31/2010
	No.	20100008 - 15033 ----- (DOT Use Only)

INCIDENT REPORT - GAS TRANSMISSION AND GATHERING PIPELINE SYSTEMS

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0522. Public reporting for this collection of information is estimated to be approximately 10 hours per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

INSTRUCTIONS

Important: Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions, you can obtain one from the PHMSA Pipeline Safety Community Web Page at <http://www.phmsa.dot.gov/pipeline>.

PART A - KEY REPORT INFORMATION

Report Type: <i>(select all that apply)</i>	Original:	Supplemental:	Final:
		Yes	Yes
Report Status:	Submitted		
Create Date:	06/07/2010		
1. Operator's OPS-issued Operator Identification Number (OPID):	4280		
2. Name of Operator	EL PASO NATURAL GAS CO		
3. Address of Operator:			
3a. Street Address	2 NORTH NEVADA ST.		
3b. City	COLORADO SPRINGS		
3c. State	Colorado		
3d. Zip Code:	80944		
4. Local time (24-hr clock) and date of the Incident:	03/01/2010 14:00		
5. Location of Incident:			
Latitude:	35.18237		
Longitude:	-113.47155		
6. National Response Center Report Number (if applicable):	932691		
7. Local time (24-hr clock) and date of initial telephonic report to the National Response Center (if applicable):	03/01/2010 14:45		
8. Incident resulted from:	Intentional release of gas		
9. Gas released: (select only one, based on predominant volume released)	Natural Gas		
- Other Gas Released Name:			
10. Estimated volume of commodity released unintentionally - Thousand Cubic Feet (MCF):			
11. Estimated volume of intentional and controlled release/blowdown - Thousand Cubic Feet (MCF)	21,050.00		
12. Estimated volume of accompanying liquid release (Barrels):			
13. Were there fatalities?	No		
- If Yes, specify the number in each category:			
13a. Operator employees			
13b. Contractor employees working for the Operator			
13c. Non-Operator emergency responders			
13d. Workers working on the right-of-way, but NOT associated with this Operator			
13e. General public			
13f. Total fatalities (sum of above)			
14. Were there injuries requiring inpatient hospitalization?	No		
- If Yes, specify the number in each category:			
14a. Operator employees			
14b. Contractor employees working for the Operator			
14c. Non-Operator emergency responders			
14d. Workers working on the right-of-way, but NOT associated with this Operator			
14e. General public			
14f. Total injuries (sum of above)			
15. Was the pipeline/facility shut down due to the incident?	No		

- If No, Explain:	Result of a planned project due to ILI.
- If Yes, complete Questions 15a and 15b: (use local time, 24-hr clock)	
15a. Local time and date of shutdown	
15b. Local time pipeline/facility restarted	
- Still shut down? (* Supplemental Report Required)	
16. Did the gas ignite?	No
17. Did the gas explode?	No
18. Number of general public evacuated:	0
19. Time sequence (use local time, 24-hour clock):	
19a. Local time operator identified Incident	03/01/2010 14:00
19b. Local time operator resources arrived on site	03/01/2010 14:00
PART B - ADDITIONAL LOCATION INFORMATION	
1. Was the origin of the Incident onshore?	Yes
- Yes (Complete Questions 2-12)	
- No (Complete Questions 13-15)	
If Onshore:	
2. State:	Arizona
3. Zip Code:	86401
4. City	Kingman
5. County or Parish	Mojave
6. Operator designated location	Milepost/Valve Station
Specify:	361+2181.6
7. Pipeline/Facility name:	
8. Segment name/ID:	Line No. 1201
9. Was Incident on Federal land, other than the Outer Continental Shelf (OCS)?	No
10. Location of Incident :	Pipeline Right-of-way
11. Area of Incident (as found) :	Underground
Specify:	Exposed due to excavation
Other – Describe:	
Depth-of-Cover (in):	300
12. Did Incident occur in a crossing?	No
- If Yes, specify type below:	
- If Bridge crossing –	
Cased/ Uncased:	
- If Railroad crossing –	
Cased/ Uncased/ Bored/drilled	
- If Road crossing –	
Cased/ Uncased/ Bored/drilled	
- If Water crossing –	
Cased/ Uncased	
Name of body of water (If commonly known):	
Approx. water depth (ft) at the point of the Incident:	
Select:	
If Offshore:	
13. Approx. water depth (ft) at the point of the Incident:	
14. Origin of Incident:	
- If "In State waters":	
- State:	
- Area:	
- Block/Tract #:	
- Nearest County/Parish:	
- If "On the Outer Continental Shelf (OCS)":	
- Area:	
- Block #:	
15. Area of Incident:	
PART C - ADDITIONAL FACILITY INFORMATION	
1. Is the pipeline or facility: - Interstate - Intrastate	Interstate
2. Part of system involved in Incident:	Onshore Pipeline, Including Valve Sites
3. Item involved in Incident:	Pipe
- If Pipe – Specify:	Pipe Body
3a. Nominal diameter of pipe (in):	30
3b. Wall thickness (in):	.438
3c. SMYS (Specified Minimum Yield Strength) of pipe (psi):	52,000
3d. Pipe specification:	API 5L

3e. Pipe Seam – Specify:	Longitudinal ERW - Low Frequency
- If Other, Describe:	
3f. Pipe manufacturer:	A.O. Smith
3g. Year of manufacture:	1969
3h. Pipeline coating type at point of Incident – Specify:	Coal Tar
- If Other, Describe:	
- If Weld, including heat-affected zone – Specify:	
- If Other, Describe:	
- If Valve – Specify:	
- If Mainline – Specify:	
- If Other, Describe:	
3i. Mainline valve manufacturer:	
3j. Year of manufacture:	
- If Other, Describe:	
4. Year item involved in Incident was installed:	1969
5. Material involved in Incident:	Carbon Steel
- If Material other than Steel or Plastic – Specify:	
6. Type of Incident involved:	Leak
- If Mechanical Puncture – Specify Approx. size:	
Approx. size: in. (in axial) by	
in. (circumferential)	
- If Leak - Select Type:	Crack
- If Other – Describe:	
- If Rupture - Select Orientation:	
- If Other – Describe:	
Approx. size: in. (widest opening):	
by in. (length circumferentially or axially):	
- If Other – Describe:	
PART D - ADDITIONAL CONSEQUENCE INFORMATION	
1. Class Location of Incident:	Class 1 Location
2. Did this Incident occur in a High Consequence Area (HCA)?	No
- If Yes:	
2a. Specify the Method used to identify the HCA:	
3. What is the PIR (Potential Impact Radius) for the location of this Incident? Feet:	602
4. Were any structures outside the PIR impacted or otherwise damaged due to heat/fire resulting from the Incident?	
5. Were any structures outside the PIR impacted or otherwise damaged NOT by heat/fire resulting from the Incident?	
6. Were any of the fatalities or injuries reported for persons located outside the PIR?	
7. Estimated cost to Operator :	
7a. Estimated cost of public and non-Operator private property damage paid/reimbursed by the Operator	\$
7b. Estimated cost of gas released unintentionally	\$
7c. Estimated cost of gas released during intentional and controlled blowdown	\$ 99,567
7d. Estimated cost of Operator's property damage & repairs	\$
7e. Estimated cost of Operator's emergency response	\$
7f. Estimated other costs	\$
Describe:	
7g. Estimated total costs (sum of above)	\$ 99,567
PART E - ADDITIONAL OPERATING INFORMATION	
1. Estimated pressure at the point and time of the Incident (psig):_	626.00
2. Maximum Allowable Operating Pressure (MAOP) at the point and time of the Incident (psig):	845.00
3. Describe the pressure on the system or facility relating to the Incident:	Pressure did not exceed MAOP
4. Not including pressure reductions required by PHMSA regulations (such as for repairs and pipe movement), was the system or facility relating to the Incident operating under an established pressure restriction with pressure limits below those normally allowed by the MAOP?	No
- If Yes - (Complete 4a and 4b below)	

4a. Did the pressure exceed this established pressure restriction?	
4b. Was this pressure restriction mandated by PHMSA or the State?	
5. Was "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend" selected in PART C, Question 2?	Yes
- If Yes - (Complete 5a. - 5f. below):	
5a. Type of upstream valve used to initially isolate release source:	Manual
5b. Type of downstream valve used to initially isolate release source:	Manual
5c. Length of segment isolated between valves (ft):	96,710
5d. Is the pipeline configured to accommodate internal inspection tools?	Yes
- If No – Which physical features limit tool accommodation? (select all that apply)	
- Changes in line pipe diameter	
- Presence of unsuitable mainline valves	
- Tight or mitered pipe bends	
- Other passage restrictions (i.e. unbarred tee's, projecting instrumentation, etc.)	
- Extra thick pipe wall (applicable only for magnetic flux leakage internal inspection tools)	
- Other	
- If Other, Describe:	
5e. For this pipeline, are there operational factors which significantly complicate the execution of an internal inspection tool run?	No
- If Yes, which operational factors complicate execution? (select all that apply)	
- Excessive debris or scale, wax, or other wall build-up	
- Low operating pressure(s)	
- Low flow or absence of flow	
- Incompatible commodity	
- Other	
- If Other, Describe:	
5f. Function of pipeline system:	Transmission System
6. Was a Supervisory Control and Data Acquisition (SCADA)-based system in place on the pipeline or facility involved in the Incident?	Yes
- If Yes:	
6a. Was it operating at the time of the Incident?	Yes
6b. Was it fully functional at the time of the Incident?	Yes
6c. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume or pack calculations) assist with the detection of the Incident?	No
6d. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Incident?	No
7. How was the Incident initially identified for the Operator?	Other
- If Other – Describe:	
7a. If "Controller", "Local Operating Personnel, including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 7, specify the following:	During ILI anomaly dig
8. Was an investigation initiated into whether or not the controller(s) or control room issues were the cause of or a contributing factor to the Incident?	No, the Operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to: (provide an explanation for why the Operator did not investigate)
- If No, the operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to: (provide an explanation for why the operator did not investigate)	Activity was in response to an ILI indication.
- If Yes, Describe investigation result(s) (select all that apply):	
- Investigation reviewed work schedule rotations, continuous hours of service (while working for the operator), and other factors associated with fatigue	
- Investigation did NOT review work schedule rotations, continuous hours of service (while working for the Operator) and other factors associated with fatigue	
- Provide an explanation for why not:	
- Investigation identified no control room issues	
- Investigation identified no controller issues	
- Investigation identified incorrect controller action or controller error	

- Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response	
- Investigation identified incorrect procedures	
- Investigation identified incorrect control room equipment operation	
- Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response	
- Investigation identified areas other than those above –	
Describe:	
PART F - DRUG & ALCOHOL TESTING INFORMATION	
1. As a result of this Incident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?	No
- If Yes:	
1a. Describe how many were tested:	
1b. Describe how many failed:	
2. As a result of this Incident, were any Operator contractor employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?	No
- If Yes:	
2a. Describe how many were tested:	
2b. Describe how many failed:	
PART G - APPARENT CAUSE	
<i>Select only one box from PART G in the shaded column on the left representing the APPARENT Cause of the Incident, and answer the questions on the right. Describe secondary, contributing, or root causes of the Incident in the narrative (PART H).</i>	
Apparent Cause:	G5 - Material Failure of Pipe or Weld
G1 - Corrosion Failure - only one sub-cause can be picked from shaded left-hand column	
Corrosion Failure – Sub-cause:	
- If External Corrosion:	
1. Results of visual examination:	
- If Other, Describe:	
2. Type of corrosion: (<i>select all that apply</i>)	
- Galvanic	
- Atmospheric	
- Stray Current	
- Microbiological	
- Selective Seam	
- Other	
- If Other – Describe:	
3. The type(s) of corrosion selected in Question 2 is based on the following: (<i>select all that apply</i>)	
- Field examination	
- Determined by metallurgical analysis	
- Other	
- If Other – Describe:	
4. Was the failed item buried under the ground?	
- If Yes:	
4a. Was failed item considered to be under cathodic protection at the time of the incident?	
- If Yes, Year protection started:	
4b. Was shielding, tenting, or disbonding of coating evident at the point of the incident?	
4c. Has one or more Cathodic Protection Survey been conducted at the point of the incident?	
If "Yes, CP Annual Survey" – Most recent year conducted:	
If "Yes, Close Interval Survey" – Most recent year conducted:	
If "Yes, Other CP Survey" – Most recent year conducted:	
- If No:	
4d. Was the failed item externally coated or painted?	
5. Was there observable damage to the coating or paint in the vicinity of the corrosion?	

- If Internal Corrosion:	
6. Results of visual examination:	- If Other, Describe:
7. Cause of corrosion (select all that apply):	
- Corrosive Commodity	
- Water drop-out/Acid	
- Microbiological	
- Erosion	
- Other	
- If Other, Describe:	
8. The cause(s) of corrosion selected in Question 7 is based on the following (select all that apply):	
- Field examination	
- Determined by metallurgical analysis	
- Other	
- If Other, Describe:	
9. Location of corrosion (select all that apply):	
- Low point in pipe	
- Elbow	
- Drop-out	
- Other	
- If Other, Describe:	
10. Was the gas/fluid treated with corrosion inhibitors or biocides?	
11. Was the interior coated or lined with protective coating?	
12. Were cleaning/dewatering pigs (or other operations) routinely utilized?	
13. Were corrosion coupons routinely utilized?	
Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Incident" (from PART C, Question 3) is Pipe or Weld.	
14. Has one or more internal inspection tool collected data at the point of the Incident?	
14a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage Tool	Most recent year run:
- Ultrasonic	Most recent year run:
- Geometry	Most recent year run:
- Caliper	Most recent year run:
- Crack	Most recent year run:
- Hard Spot	Most recent year run:
- Combination Tool	Most recent year run:
- Transverse Field/Triaxial	Most recent year run:
- Other	Most recent year run:
If Other, Describe:	
15. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Incident?	
- If Yes,	Most recent year tested:
	Test pressure (psig):
16. Has one or more Direct Assessment been conducted on this segment?	
- If Yes, and an investigative dig was conducted at the point of the Incident:	Most recent year conducted:
- If Yes, but the point of the Incident was not identified as a dig site:	Most recent year conducted:
17. Has one or more non-destructive examination been conducted at the point of the Incident since January 1, 2002?	
17a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	Most recent year examined:
- Guided Wave Ultrasonic	Most recent year examined:

- Handheld Ultrasonic Tool	Most recent year examined:	
- Wet Magnetic Particle Test	Most recent year examined:	
- Dry Magnetic Particle Test	Most recent year examined:	
- Other	Most recent year examined:	
	If Other, Describe:	
G2 - Natural Force Damage - only one sub-cause can be picked from shaded left-handed column		
Natural Force Damage – Sub-Cause:		
- If Earth Movement, NOT due to Heavy Rains/Floods:		
1. Specify:		
	- If Other, Describe:	
- If Heavy Rains/Floods:		
2. Specify:		
	- If Other, Describe:	
- If Lightning:		
3. Specify:		
- If Temperature:		
4. Specify:		
	- If Other, Describe:	
- If High Winds:		
- If Other Natural Force Damage:		
5. Describe:		
Complete the following if any Natural Force Damage sub-cause is selected.		
6. Were the natural forces causing the Incident generated in conjunction with an extreme weather event?		
6a. If yes, specify: (select all that apply):		
- Hurricane		
- Tropical Storm		
- Tornado		
- Other		
	- If Other, Describe:	
G3 - Excavation Damage only one sub-cause can be picked from shaded left-hand column		
Excavation Damage – Sub-Cause:		
- If Excavation Damage by Operator (First Party):		
- If Excavation Damage by Operator's Contractor (Second Party):		
- If Excavation Damage by Third Party:		
- If Previous Damage Due to Excavation Activity:		
Complete Questions 1-5 ONLY IF the "Item Involved in Incident" (From Part C, Question 3) is Pipe or Weld.		
1. Has one or more internal inspection tool collected data at the point of the Incident?		
1a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:		
- Magnetic Flux Leakage	Year:	
- Ultrasonic	Year:	
- Geometry	Year:	
- Caliper	Year:	
- Crack	Year:	
- Hard Spot	Year:	
- Combination Tool	Year:	
- Transverse Field/Triaxial	Year:	

- Other:	
Year:	
Describe:	
2. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained?	
3. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Incident?	
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
4. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Incident:	
Most recent year conducted:	
- If Yes, but the point of the Incident was not identified as a dig site:	
Most recent year conducted:	
5. Has one or more non-destructive examination been conducted at the point of the Incident since January 1, 2002?	
5a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	Year:
- Guided Wave Ultrasonic	Year:
- Handheld Ultrasonic Tool	Year:
- Wet Magnetic Particle Test	Year:
- Dry Magnetic Particle Test	Year:
- Other	Year:
Describe:	
Complete the following if Excavation Damage by Third Party is selected as the sub-cause.	
6. Did the operator get prior notification of the excavation activity?	
6a. If Yes, Notification received from (select all that apply):	
- One-Call System	
- Excavator	
- Contractor	
- Landowner	
Complete the following mandatory CGA-DIRT Program questions if any Excavation Damage sub-cause is selected.	
7. Do you want PHMSA to upload the following information to CGA-DIRT (www.cga-dirt.com)?	
8. Right-of-Way where event occurred (select all that apply):	
- Public	
- If Public, Specify:	
- Private	
- If Private, Specify:	
- Pipeline Property/Easement	
- Power/Transmission Line	
- Railroad	
- Dedicated Public Utility Easement	
- Federal Land	
- Data not collected	
- Unknown/Other	
9. Type of excavator :	
10. Type of excavation equipment :	
11. Type of work performed :	
12. Was the One-Call Center notified? - Yes - No	
12a. If Yes, specify ticket number:	
12b. If this is a State where more than a single One-Call Center exists, list the name of the One-Call Center notified:	
13. Type of Locator:	
14. Were facility locate marks visible in the area of excavation?	
15. Were facilities marked correctly?	
16. Did the damage cause an interruption in service?	
16a. If Yes, specify duration of the interruption: (hours)	
17. Description of the CGA-DIRT Root Cause (select only the one predominant first level CGA-DIRT Root Cause and then, where available as a choice, then one predominant second level CGA-DIRT Root Cause as well):	

- Predominant first level CGA-DIRT Root Cause:	
- If One-Call Notification Practices Not Sufficient, Specify:	
- If Locating Practices Not Sufficient, Specify:	
- If Excavation Practices Not Sufficient, Specify:	
- If Other/None of the Above, Explain:	
G4 - Other Outside Force Damage - only one sub-cause can be selected from the shaded left-hand column	
Other Outside Force Damage – Sub-Cause:	
- If Nearby Industrial, Man-made, or Other Fire/Explosion as Primary Cause of Incident:	
- If Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation:	
1. Vehicle/Equipment operated by:	
- If Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring:	
2. Select one or more of the following IF an extreme weather event was a factor:	
- Hurricane	
- Tropical Storm	
- Tornado	
- Heavy Rains/Flood	
- Other	
- If Other, Describe:	
- If Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation:	
- If Electrical Arcing from Other Equipment or Facility:	
- If Previous Mechanical Damage NOT Related to Excavation:	
Complete Questions 3-7 ONLY IF the "Item Involved in Incident" (from PART C, Question 3) is Pipe or Weld.	
3. Has one or more internal inspection tool collected data at the point of the Incident?	
3a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage	Most recent year run:
- Ultrasonic	Most recent year run:
- Geometry	Most recent year run:
- Caliper	Most recent year run:
- Crack	Most recent year run:
- Hard Spot	Most recent year run:
- Combination Tool	Most recent year run:
- Transverse Field/Triaxial	Most recent year run:
- Other:	Most recent year run:
	Describe:
4. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained?	
5. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Incident?	
- If Yes:	
	Most recent year tested:
	Test pressure (psig):
6. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Incident :	
	Most recent year conducted:
- If Yes, but the point of the Incident was not identified as a dig site:	
	Most recent year conducted:
7. Has one or more non-destructive examination been conducted at the point of the Incident since January 1, 2002?	

7a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	Most recent year conducted:
- Guided Wave Ultrasonic	Most recent year conducted:
- Handheld Ultrasonic Tool	Most recent year conducted:
- Wet Magnetic Particle Test	Most recent year conducted:
- Dry Magnetic Particle Test	Most recent year conducted:
- Other	Most recent year conducted:
Describe:	
- If Intentional Damage:	
8. Specify:	
- If Other, Describe:	
- If Other Outside Force Damage:	
9. Describe:	
G5 - Pipe, Weld, or Joint Failure	Use this section to report material failures ONLY IF the "Item Involved in Incident" (from PART C, Question 3) is "Pipe" or "Weld."
	Only one sub-cause can be selected from the shaded left-hand column
Pipe, Weld or Join Failure – Sub-Cause:	Construction-, Installation-, or Fabrication-related
1. The sub-case selected below is based on the following (<i>select all that apply</i>):	
- Field Examination	Yes
- Determined by Metallurgical Analysis	
- Other Analysis	
- If "Other Analysis", Describe	
- Sub-cause is Tentative or Suspected; Still Under Investigation (<i>Supplemental Report required</i>)	
- If Construction-, Installation- or Fabrication- related:	
2. List contributing factors: (<i>select all that apply</i>)	
- If Fatigue or Vibration related:	
	Specify:
	- If Other, Describe:
- Mechanical Stress	Yes
- Other	
- If Other, Describe:	
- If Original Manufacturing-related (NOT girth weld or other welds formed in the field):	
2. List contributing factors: (<i>select all that apply</i>)	
- If Fatigue or Vibration related:	
	Specify:
	- If Other, Describe:
- Mechanical Stress	
- Other	
- If Other, Describe:	
- If Environmental Cracking-related:	
3. Specify:	
- If Other, Describe:	
Complete the following if any Material Failure of Pipe or Weld sub-cause is selected.	
4. Additional Factors (<i>select all that apply</i>):	
- Dent	
- Gouge	
- Pipe Bend	
- Arc Burn	
- Crack	Yes
- Lack of Fusion	
- Lamination	
- Buckle	
- Wrinkle	
- Misalignment	
- Burnt Steel	
- Other	

- If Other, Describe:	
5. Has one or more internal inspection tool collected data at the point of the Incident?	Yes
5a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage	Yes
Most recent year run:	2008
- Ultrasonic	
Most recent year run:	
- Geometry	
Most recent year run:	
- Caliper	
Most recent year run:	
- Crack	
Most recent year run:	
- Hard Spot	
Most recent year run:	
- Combination Tool	
Most recent year run:	
- Transverse Field/Triaxial	
Most recent year run:	
- Other	
Most recent year run:	
Describe:	
6. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Incident?	No
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
7. Has one or more Direct Assessment been conducted on the pipeline segment?	No
- If Yes, and an investigative dig was conducted at the point of the Incident:	
Most recent year conducted:	
- If Yes, but the point of the Incident was not identified as a dig site:	
Most recent year conducted:	
8. Has one or more non-destructive examination(s) been conducted at the point of the Incident since January 1,2002?	No
8a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	
- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
G6 - Equipment Failure - only one sub-cause can be selected from the shaded left-hand column	
Equipment Failure – Sub-Cause:	
- If Malfunction of Control/Relief Equipment:	
1. Specify:	
- Control Valve	
- Instrumentation	
- SCADA	
- Communications	
- Block Valve	
- Check Valve	
- Relief Valve	

- Power Failure	
- Stopple/Control Fitting	
- Pressure Regulator	
- ESD System Failure	
- Other	
- If Other, Describe:	
- If Compressor or Compressor-related Equipment:	
2. Specify:	
- If Other, Describe:	
- If Threaded Connection/Coupling Failure:	
3. Specify:	
- If Other, Describe:	
- If Non-threaded Connection Failure:	
4. Specify:	
- If Other, Describe:	
- If Defective or Loose Tubing or Fitting:	
- If Failure of Equipment Body (except Compressor), Vessel Plate, or other Material:	
- If Other Equipment Failure:	
5. Describe:	
Complete the following if any Equipment Failure sub-cause is selected.	
6. Additional factors that contributed to the equipment failure <i>(select all that apply)</i>	
- Excessive vibration	
- Overpressurization	
- No support or loss of support	
- Manufacturing defect	
- Loss of electricity	
- Improper installation	
- Mismatched items (different manufacturer for tubing and tubing fittings)	
- Dissimilar metals	
- Breakdown of soft goods due to compatibility issues with transported gas/fluid	
- Valve vault or valve can contributed to the release	
- Alarm/status failure	
- Misalignment	
- Thermal stress	
- Other	
- If Other, Describe:	
G7 – Incorrect Operation - only one sub-cause can be selected from the shaded left-hand column	
Incorrect Operation – Sub-Cause:	
- If Damage by Operator or Operator's Contractor NOT Related to Excavation and NOT due to Motorized Vehicle/Equipment Damage:	
- If Underground Gas Storage, Pressure Vessel, or Cavern Allowed or Caused to Overpressure:	
1. Specify:	
- If Other, Describe:	
- If Valve Left or Placed in Wrong Position, but NOT Resulting in an Overpressure:	
- If Pipeline or Equipment Overpressured:	
- If Equipment Not Installed Properly:	
- If Wrong Equipment Specified or Installed:	
- If Other Incorrect Operation:	
2. Describe:	
Complete the following if any Incorrect Operation sub-cause is selected.	
3. Was this Incident related to: <i>(select all that apply)</i>	
- Inadequate procedure	
- No procedure established	

- Failure to follow procedure			
- Other:			
- If Other, Describe:			
4. What category type was the activity that caused the Incident:			
5. Was the task(s) that led to the Incident identified as a covered task in your Operator Qualification Program?			
5a. If Yes, were the individuals performing the task(s) qualified for the task(s)?			
G8 - Other Incident Cause - only one sub-cause can be selected from the shaded left-hand column			
Other Incident Cause – Sub-Cause:			
- If Miscellaneous:			
1. Describe:			
- If Unknown:			
2. Specify:			
PART - H NARRATIVE DESCRIPTION OF THE INCIDENT			
<p>An anomaly indication from an ILI run was being investigated on El Paso Natural Gas Company's Line No. 1201. A very minute amount of gas was discovered to be leaking following excavation of the anomaly. The pipeline was blown down to atmospheric pressure for further in situ investigation. A rock was found impinging on the pipe surface at the 6:30 o'clock position resulting in a small crack through which the gas is believed to have been escaping. This occurrence was deemed to be a reportable incident only because of the amount of gas blown down.</p>			
<table border="1"> <tr> <td>File Full Name</td> </tr> <tr> <td> </td> </tr> </table>		File Full Name	
File Full Name			
PART I - PREPARER AND AUTHORIZED SIGNATURE			
Preparer's Name	Kenneth C Peters		
Preparer's Title	Manager - DOT Compliance Field Support		
Preparer's Telephone Number	2053257554		
Preparer's E-mail Address	ken.peters@elpaso.com		
Preparer's Facsimile Number	2053253729		
Authorized Signature's Name	Kenneth C Peters		
Authorized Signature Title	Manager - DOT Compliance Field Support		
Authorized Signature Telephone Number	2053257554		
Authorized Signature Email	ken.peters@elpaso.com		
Date	06/07/2010		