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

Principal Investigator Brian Pierzina
Region Director David Barrett
Date of Report November 29, 2012
Subject Failure Investigation Report – Magellan #6-10” Excavation Damage - Lawrence, Kansas

**Operator, Location, & Consequences**

Date of Failure October 6, 2011
Commodity Released Refined Product – Diesel Fuel
City/County & State Lawrence/Douglas, Kansas
OpID & Operator Name 22610 Magellan Pipeline Company, LP
Unit # & Unit Name 3933 (WPL) Kansas City Unit
SMART Activity # 136157
Milepost / Location MP 125.98/#6-10 Topeka to Kansas City pipeline
Type of Failure Mechanical puncture of pipeline by third party excavator
Fatalities 0
Injuries 0
Description of area impacted Rural Area, HCA (Ecological and Drinking Water)
Property Damage $667,841
**Executive Summary**

On October 6, 2011, at approximately 11:42 am CDT, Magellan Pipeline Company, LP’s (Magellan) #6-10-inch refined products pipeline was damaged by excavation activity near Lawrence, KS. The pipeline was punctured by the tooth of a front-end loader that was owned and operated by RD Johnson Excavating Co. while being used to build a pond at the request of the property owner. The damage resulted in the release of an estimated 590 barrels of diesel fuel, of which an estimated 300 barrels were later recovered. The puncture caused a rapid drop in operating pressure and a corresponding increase in flow rate that was quickly recognized at Magellan’s Operations Control Center, resulting in an emergency shutdown of the pipeline. Personnel were immediately dispatched and began arriving at the accident site by 13:30 CDT.

The damaged pipeline segment had been previously identified by Magellan as affecting a High Consequence Area (HCA) due to Drinking Water and Ecological factors. An interceptor trench was dug that prevented much of the product from migrating further away from the accident site. Examination in the area of the failure revealed that the pipeline had been struck several times by the front-end loader before it was ultimately punctured. The damaged pipe was removed and replaced with approximately 53 feet of pre-tested pipe. The pipeline resumed normal operations at 15:12 CDT, on October 7, 2011.

RD Johnson Excavating Co. did not provide prior notice of their intent to excavate at the accident site to Kansas One Call or Magellan. Both the excavating company and the property owner were included in Magellan’s public awareness program. Approximately 4,708 cubic yards of contaminated soil were removed from the accident site and hauled to a landfill. The total estimated property damage related to the accident has been reported by Magellan as $667,841.

**System Details**

The Magellan hazardous liquid pipeline system includes approximately 9,400 miles of pipeline and 600 storage tanks in 13 different States. The #6-10-inch Topeka to Kansas City Line (Line Segment #6110) was constructed in 1955. At the accident site, the pipeline consisted of 10.75-inch diameter, .203” wall thickness, grade X-46 steel pipe, manufactured by Youngstown Steel in 1955 with a low frequency ERW seam, asphalt coating, and was buried 33” deep. Cathodic protection is provided by an impressed current system. The pipeline has a Maximum Operating Pressure (MOP) of 1,150 psig. Pipeline control is managed at Magellan’s Tulsa Operations Control Center, which includes Supervisory Control and Data Acquisition (SCADA) and Computational Pipeline Monitoring (CPM) for leak detection. These systems assisted with the detection and confirmation of the release.

**Events Leading up to the Failure**

On October 6, 2011, at approximately 7:15 am CDT, an employee of RD Johnson Excavating Co. began excavation to put in a small pond in a field. This property was owned by Mike Garber Enterprises, Inc. and located east of E 902nd Road, on the northwest side of Lawrence, KS. At this time, the pipeline was reported to be operating at 230 psig. A One-Call ticket did not exist. Prior notice of the excavation to affected utility operators had not been made.

The employee indicated he had worked for RD Johnson Excavating Co. for approximately 2 years and reported that he did not see the Magellan line marker where the pipeline crosses the only road into the property.
Emergency Response

Magellan’s Tulsa Operations Control Center (OCC) personnel observed a rapid drop in pressure and an increase in the flow rate between Topeka and Kansas City through the SCADA information on the #6-10” pipeline. The first alert from SCADA came in at 11:42 am CDT. As a result, control center personnel immediately initiated a Code Red Emergency Shutdown and began emergency response activities.

When the release occurred, the RD Johnson Excavating Co. employee backed the front-end loader away from the damage and the spraying diesel fuel. The employee called his supervisor first and then called 911. After making these calls, the employee began to dig a berm in an attempt to prevent the product from migrating away from the release site. According to the employee, the spray slowed down within a few minutes and product continued to escape the pipeline slowly while he was digging the berm.

The Douglas County Hazardous Materials Emergency Response Team received the alarm at 11:49 am CDT and arrived at the failure location at 12:12 pm CDT. At that time, the Kanawaka Fire Department was already on scene standing by for fire suppression as necessary. A survey of the area was completed to assess for threats to any waterways or other affected areas. The wind was out of the south at 10-15 mph. As Magellan and contractor personnel began to arrive, a mitigation plan was developed and implemented that consisted of collecting free product and digging up contaminated soil. The last emergency response unit cleared the scene at 20:58 CDT on October 6th.

Magellan provided two separate notifications to the National Response Center (NRC). The first NRC notification, #991797, was provided as a Web Report via the internet at 12:38 pm CDT. The second NRC notification, #991799, was called in by the OCC at 13:01 CDT. In addition, Magellan provided a “Heads Up” e-mail notification to the PHMSA Central Region Director and Accident Team Supervisor at 12:59 pm CDT.

Summary of Return-to-Service

As the damage investigation progressed, it became evident the pipeline had been struck several times and incurred coating damage before the puncture occurred. As a result, approximately 53 feet of pipe was removed and replaced. The pipeline was ultimately returned to service in accordance with a written restart plan on October 7, 2011, and normal operations were resumed at 15:12 CDT.

Investigation Details

A PHMSA Investigator arrived at the accident site at approximately 14:30 CDT. After checking in with incident command and Magellan personnel, informal interviews were conducted with the operator of the front-end loader, the owner of the excavating company, and the property owner. The information provided by these representatives was consistent and indicated that the property owner had contacted RD Johnson Excavating Co. to have them dig a pond in the field. The property owner stated that he had hopes of developing the property at some point in the future. The equipment operator said he had begun work about 7:15 am CDT that morning and that he did not notice the Magellan line marker that was present at the road crossing which leads into the property. The owner of the excavating company stated that he had been issued an excavator ID with 1-800-Dig Safe (Kansas One Call Service) however prior notice of excavation had not been provided for this work.

A review of applicable records provided by Magellan indicated that both the property owner and the excavating company are included in the Magellan public awareness program (PAP). The property
owner, Garber Enterprises, Inc., was identified in the Affected Public category and had been mailed a public awareness brochure in December of 2007. The excavator, RD Johnson Excavating Co., was identified as an Excavator in Magellan’s internal database because they had placed an excavation notification in the vicinity of Magellan’s right-of-way within the past year and had most recently been mailed information in September of 2010.

Representatives from the Kansas Corporation Commission (KCC) also investigated the accident on site. The KCC has authority for enforcement of the Kansas One Call law and based upon the investigation results have initiated enforcement proceedings against RD Johnson Excavating Co. for failure to provide notification of the excavation in accordance with state law.

The two NRC reports were provided by the operator and locations provided are within the Ecological and Drinking Water HCAs identified by the operator.

**Findings and Contributing Factors**

The accident occurred as a result of third party excavation damage to the pipeline. The failure on the part of the excavator to provide notification of the excavation in accordance with state law was a contributing factor. The nearest road crossing, which provided the only access to the site, was properly marked by the operator.

Actions taken by excavator personnel, emergency responders, and Magellan personnel, including recognition of abnormal operating conditions, prompt emergency shutdown, immediate notification of 911, and efforts to prevent excessive product migration, helped mitigate the consequences of the accident.

The Kansas Corporation Commission (KCC) through follow-up actions associated with the Kansas One Call law should assist in preventing reoccurrence of this type of event by this excavation company.

**Appendices**

Appendix A - Maps and Photos
Appendix B - NRC Notifications
Appendix C - Operator’s Report
Appendix A

Page Redacted for Security Reasons

This document is on file at PHMSA
Appendix A

Page Redacted for Security Reasons

This document is on file at PHMSA
View looking east from E902nd Road to the Accident Site
Photo taken facing north, showing pipeline punctured by tooth of front-end loader bucket
Photo taken facing north, showing additional damages to pipeline from excavation prior to puncture
Photo taken facing west, showing interceptor trench dug by contractor to prevent product migration
Photo of front-end loader that caused damage
INCIDENT DESCRIPTION

*Report taken at 13:38 on 06-OCT-11
Incident Type: PIPELINE
Incident Cause: OPERATOR ERROR
Affected Area:
The incident occurred on 06-OCT-11 at 11:42 local time.
Affected Medium: LAND GROUND

SUSPECTED RESPONSIBLE PARTY

Organization: MAGELLAN LP
OK
Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

38° 59' 15.27" N 95° 19' 56.87" W
County: DOUGLAS
State: KS
Latitude: 38° 59' 15" N
Longitude: 095° 19' 57" W
WEST OF LAWRENCE, KS AT E 902 RD EAST OF HIGHWAY 10 AND SOUTH OF I-70

RELEASED MATERIAL(S)

CHRIS Code: ODS
Official Material Name: OIL: DIESEL
Also Known As:
Qty Released: 250 BARREL(S)

DESCRIPTION OF INCIDENT

THIRD PARTY DIGGING WITH A BACKHOE STRUCK THE LINE CAUSING A RELEASE OF APPROXIMATELY 250 BARRELS DIESEL FUEL.

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

Closure Type Description of Closure Length of Closure Direction of Closure
Air: N
Road: N Major Artery: N
Waterway: N
Track: N
Passengers Transferred: NO
Environmental Impact: UNKNOWN
Media Interest: NONE  Community Impact due to Material: NOT REPORTED

**REMEDIAL ACTIONS**
Release Secured: UNKNOWN
Release Rate: Estimated Release Duration:

**WEATHER**
Weather: UNKNOWN, °F  Wind direction: S

**ADDITIONAL AGENCIES NOTIFIED**
Federal: N/A
State/Local: N/A
State/Local On Scene: N/A
State Agency Number: N/A

**NOTIFICATIONS BY NRC**
USCG ICC (ICC ONI)
  06-OCT-11 14:06
CGIS RAO ST. LOUIS (COMMAND CENTER)
  06-OCT-11 14:06
COLORADO INFO ANALYSIS CENTER (FUSION CENTER)
  06-OCT-11 14:06
DHS PROTECTIVE SECURITY ADVISOR (PSA DESK)
  06-OCT-11 14:06
DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)
  06-OCT-11 14:06
U.S. EPA VII (MAIN OFFICE)
  06-OCT-11 14:14
FEMA REGION 7 (COORDINATION CENTER)
  06-OCT-11 14:06
NE INFORMATION ANALYSIS CENTER (MAIN OFFICE)
  06-OCT-11 14:06
NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)
  06-OCT-11 14:06
NOAA RPTS FOR KS (MAIN OFFICE)
  06-OCT-11 14:06
NTSB PIPELINE (MAIN OFFICE)
  06-OCT-11 14:06
PIPELINE & HAZMAT SAFETY ADMIN (OFFICE OF PIPELINE SAFETY (AUTO))
  06-OCT-11 14:06
DEPT HEALTH AND ENV (MAIN OFFICE)
  06-OCT-11 14:06
DOI/OEPC DENVER (MAIN OFFICE)
  06-OCT-11 14:06
WEB REPORT (WEB REPORT SUBMITTER)
  06-OCT-11 14:06

**ADDITIONAL INFORMATION**

****WEB REPORT****

*** END INCIDENT REPORT # 991797 ***

The National Response Center is strictly an initial report taking agency and does not participate in the investigation or incident response. The NRC receives initial reporting information only and notifies Federal and State On-Scene Coordinators for response. The NRC does not verify nor does it take follow-on incident information. Verification of data and incident response is the sole responsibility of Federal/State On-Scene Coordinators. Data contained within the FOIA Web Database is initial information only. All reports provided via this server are for informational purposes only. Data
to be used in legal proceedings must be obtained via written correspondence from the NRC.
Appendix B - NRC Report

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 # 991799

INCIDENT DESCRIPTION

*Report taken at 14:00 on 06-OCT-11
Incident Type: PIPELINE
Incident Cause: OTHER
Affected Area:
The incident occurred on 06-OCT-11 at 11:42 local time.
Affected Medium: SOIL

SUSPECTED RESPONSIBLE PARTY

Organization: MAGELLAN LP
TULSA, OK

Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

END OF DEAD END EAST 902
County: DOUGLAS
City: LAWRENCE
State: KS
Latitude: 38° 59' 08" N
Longitude: 095° 20' 00" W
WEST OF LAWRENCE ON HWY 40, NORTH ON HWY 10 TO EAST 902 RD.

RELEASED MATERIAL(S)

CHRIS Code: ODS
Official Material Name: OIL: DIESEL
Also Known As:
Qty Released: 250 BARREL(S)

DESCRIPTION OF INCIDENT

CALLER REPORTED A 10" PIPELINE IS LEAKING DUE TO THE LINE BEING STRUCK BY A BACKHOE.

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: UNKNOW
INJURIES: NO
Hospitalized: Empl/Crew: Passenger:
FATALITIES: NO
Empl/Crew: Passenger: Occupant:
EVACUATIONS: NO
Who Evacuated: Radius/Area:
Damages: NO

Closure Type | Description of Closure | Length of Closure | Direction of Closure
--- | --- | --- | ---
Air: | N | | |
Road: | N | | |
Waterway: | N | | |
Track: | N | | |

Major Artery: N
Passengers Transferred: NO
Environmental Impact: UNKNOWN
Media Interest: NONE  Community Impact due to Material:

**REMEDIAL ACTIONS**

VALUES ARE BEING CLOSED, CREWS EN ROUTE, THIRD PARTY STATED A CONTRACTOR HAS BUILT A DIFE AND CONTAINED THE MATERIAL BUT THAT IS UNCONFIRMED.

Release Secured: UNKNOWN
Release Rate:
Estimated Release Duration:

**WEATHER**

Weather: UNKNOWN, °F  Wind direction: S

**ADDITIONAL AGENCIES NOTIFIED**

Federal: NONE
State/Local: 911
State/Local On Scene: NONE
State Agency Number: NONE

**NOTIFICATIONS BY NRC**

USCG ICC (ICC ONI)
06-OCT-11 14:09
CGIS RAO ST. LOUIS (COMMAND CENTER)
06-OCT-11 14:09
COLORADO INFO ANALYSIS CENTER (FUSION CENTER)
06-OCT-11 14:09
DHS PROTECTIVE SECURITY ADVISOR (PSA DESK)
06-OCT-11 14:09
DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)
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PIPELINE & HAZMAT SAFETY ADMIN (OFFICE OF PIPELINE SAFETY (AUTO))
06-OCT-11 14:09
DEPT HEALTH AND ENV (MAIN OFFICE)
06-OCT-11 14:09
DOI/OEPC DENVER (MAIN OFFICE)
06-OCT-11 14:09

**ADDITIONAL INFORMATION**

NO ADDITIONAL INFORMATION.

*** END INCIDENT REPORT # 991799 ***

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## Appendix C - Operator's Report

NOTICE: This report is required by 49 CFR Part 195. 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.

<table>
<thead>
<tr>
<th>OMB NO: 2137-0047</th>
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<td>EXPIRATION DATE: 01/31/2013</td>
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U.S Department of Transportation
Pipeline and Hazardous Materials Safety Administration

### ACCIDENT REPORT - HAZARDOUS LIQUID 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 2137-0047. Public reporting for this collection of information is estimated to be approximately 10 hours per response (5 hours for a small release), 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](http://www.phmsa.dot.gov/pipeline).

### PART A - KEY REPORT INFORMATION

<table>
<thead>
<tr>
<th>Report Type: (select all that apply)</th>
<th>Original:</th>
<th>Supplemental:</th>
<th>Final:</th>
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<tbody>
<tr>
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<td>Yes</td>
<td>Yes</td>
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#### Last Revision Date:

12/07/2012

1. Operator’s OPS-issued Operator Identification Number (OPID):

   22610

2. Name of Operator

   MAGELLAN PIPELINE COMPANY, LP

3. Address of Operator:

   3a. Street Address
   ONE WILLIAMS CENTER, MD 27
   3b. City
   TULSA
   3c. State
   Oklahoma
   3d. Zip Code
   74172

4. Local time (24-hr clock) and date of the Accident:

   10/06/2011 11:42

5. Location of Accident:

   Latitude: 38.98759
   Longitude: -95.32997

6. National Response Center Report Number (if applicable):

   991799

7. Local time (24-hr clock) and date of initial telephonic report to the National Response Center (if applicable):

   10/06/2011 12:33

8. Commodity released: (select only one, based on predominant volume released)

   - Refined and/or Petroleum Product (non-HVL) which is a Liquid at Ambient Conditions
   - If Biofuel/Alternative Fuel and Commodity Subtype is Ethanol Blend, then % Ethanol Blend:
   - If Biofuel/Alternative Fuel and Commodity Subtype is Biodiesel Blend:
   - If Other Subtype, Describe:
   - Biofuel/Alternative Fuel and Commodity Subtype:
   - Diesel, Fuel Oil, Kerosene, Jet Fuel

9. Estimated volume of commodity released unintentionally (Barrels):

   590.00

10. Estimated volume of intentional and/or controlled release/blowdown (Barrels):

    300.00

11. Were there fatalities?:

    No

12. Were there injuries requiring inpatient hospitalization?:

    No

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Appendix C - Operator's Report

13e. General public
13f. Total injuries (sum of above)

14. Was the pipeline/facility shut down due to the Accident? Yes
   - If No, Explain:
      - If Yes, complete Questions 14a and 14b: (use local time, 24-hr clock)
         14a. Local time and date of shutdown: 10/06/2011 11:46
         14b. Local time pipeline/facility restarted: 10/07/2011 15:12
   - Still shut down? (* Supplemental Report Required)

15. Did the commodity ignite? No
16. Did the commodity explode? No
17. Number of general public evacuated:

18. Time sequence (use local time, 24-hour clock):
   18a. Local time Operator identified Accident: 10/06/2011 11:55
   18b. Local time Operator resources arrived on site: 10/06/2011 13:30

PART B - ADDITIONAL LOCATION INFORMATION

1. Was the origin of Accident onshore? Yes
   - If Yes, Complete Questions (2-12)
   - If No, Complete Questions (13-15)

   - If Onshore:
     2. State: Kansas
     3. Zip Code: 66049
     4. City: Lawrence
     5. County or Parish: Douglas
     6. Operator-designated location: Survey Station No. Specify: 6552+02
     7. Pipeline/Facility name: #6-10" Topeka to Kansas City Line
     8. Segment name/ID: Line Segment #6110
     9. Was Accident on Federal land, other than the Outer Continental Shelf (OCS)? No
    10. Location of Accident: Pipeline Right-of-way
     11. Area of Accident (as found): Underground
        - If Other, Describe: Depth-of-Cover (in): 33

   - If Offshore:

13. Approximate water depth (ft) at the point of the Accident:

PART C - ADDITIONAL FACILITY INFORMATION

1. Is the pipeline or facility: Interstate
2. Part of system involved in Accident: Onshore Pipeline, Including Valve Sites
   - If Onshore Breakout Tank or Storage Vessel, Including Attached Appurtenances, specify:
3. Item involved in Accident: Pipe
   - If Pipe, specify: Pipe Body

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Appendix C - Operator’s Report

3a. Nominal diameter of pipe (in): 10.75
3b. Wall thickness (in): 0.203
3c. SMYS (Specified Minimum Yield Strength) of pipe (psi): 46,000
3d. Pipe specification: API 5LX-46
3e. Pipe Seam, specify: Longitudinal ERW - Low Frequency
   - If Other, Describe:
3f. Pipe manufacturer: Youngstown Steel
3g. Year of manufacture: 1955
3h. Pipeline coating type at point of Accident, specify: Asphalt
   - If Other, Describe:
   - If Weld, including heat-affected zone, specify:
     - If Other, Describe:
   - If Valve, specify:
     - If Mainline, specify:
     - If Other, Describe:
3i. Manufactured by:
3j. Year of manufacture:
   - If Tank/Vessel, specify:
   - If Other - Describe:
4. Year item involved in Accident was installed: 1955
5. Material involved in Accident:
   - If Material other than Carbon Steel, specify:
6. Type of Accident Involved:
   - If Mechanical Puncture – Specify Approx. size:
     in. (axial) by 3.50
     in. (circumferential) 2.00
   - If Leak - Select Type:
   - If Rupture - Select Orientation:
     - If Other, Describe:
     - If Other - Describe:
   Approx. size: in. (widest opening) by
   in. (length circumferentially or axially)

PART D - ADDITIONAL CONSEQUENCE INFORMATION

1. Wildlife impact: No
   1a. If Yes, specify all that apply:
     - Fish/aquatic
     - Birds
     - Terrestrial
2. Soil contamination: Yes
3. Long term impact assessment performed or planned: No
4. Anticipated remediation: Yes
   4a. If Yes, specify all that apply:
     - Surface water
     - Groundwater
     - Soil Yes
     - Vegetation
     - Wildlife
5. Water contamination: No
   5a. If Yes, specify all that apply:
     - Ocean/Seawater
     - Surface
     - Groundwater
     - Drinking water: (Select one or both)
       - Private Well
       - Public Water Intake
   5b. Estimated amount released in or reaching water (Barrels):
5c. Name of body of water, if commonly known:
6. At the location of this Accident, had the pipeline segment or facility been identified as one that "could affect" a High Consequence Area (HCA) as determined in the Operator’s Integrity Management Program? Yes
7. Did the released commodity reach or occur in one or more High Consequence Area (HCA)? Yes
7a. If Yes, specify HCA type(s): (Select all that apply)
   - Commercially Navigable Waterway:
     Was this HCA identified in the "could affect" determination for this Accident site in the Operator’s
Appendix C - Operator’s Report

### Integrity Management Program?

- **High Population Area:**
  - Was this HCA identified in the “could affect” determination for this Accident site in the Operator's Integrity Management Program?  

- **Other Populated Area:**
  - Was this HCA identified in the “could affect” determination for this Accident site in the Operator’s Integrity Management Program?  

- **Unusually Sensitive Area (USA) - Drinking Water:**
  - Was this HCA identified in the “could affect” determination for this Accident site in the Operator’s Integrity Management Program? Yes  

- **Unusually Sensitive Area (USA) - Ecological:**
  - Was this HCA identified in the “could affect” determination for this Accident site in the Operator’s Integrity Management Program? Yes  

### Estimated Property Damage:

| 8a. Estimated cost of public and non-Operator private property damage | $0 |
| 8b. Estimated cost of commodity lost | $62,300 |
| 8c. Estimated cost of Operator’s property damage & repairs | $35,000 |
| 8d. Estimated cost of Operator’s emergency response | $50,000 |
| 8e. Estimated cost of Operator’s environmental remediation | $520,541 |
| 8f. Estimated other costs | $0 |

**Describe:**
- **Total estimated property damage (sum of above):** $667,841

### PART E - ADDITIONAL OPERATING INFORMATION

1. **Estimated pressure at the point and time of the Accident (psig):** 230.00
2. **Maximum Operating Pressure (MOP) at the point and time of the Accident (psig):** 1,150.00
3. **Describe the pressure on the system or facility relating to the Accident (psig):** Pressure did not exceed MOP
4. **Not including pressure reductions required by PHMSA regulations (such as for repairs and pipe movement), was the system or facility relating to the Accident operating under an established pressure restriction with pressure limits below those normally allowed by the MOP?** No

- **If Yes, Complete 4.a and 4.b 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:** Remotely Controlled
  5b. **Type of downstream valve used to initially isolate release source:** Remotely Controlled
  5c. **Length of segment isolated between valves (ft):** 262,704
  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
  - Low operating pressure(s)

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### Appendix C - Operator’s Report

| Question                                                                 | Response
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<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5f. Function of pipeline system:</td>
<td>&gt; 20% SMYS Regulated Trunkline/Transmission</td>
</tr>
<tr>
<td>6. Was a Supervisory Control and Data Acquisition (SCADA)-based system in place on the pipeline or facility involved in the Accident?</td>
<td>Yes</td>
</tr>
<tr>
<td>- If Yes -</td>
<td></td>
</tr>
<tr>
<td>6a. Was it operating at the time of the Accident?</td>
<td>Yes</td>
</tr>
<tr>
<td>6b. Was it fully functional at the time of the Accident?</td>
<td>Yes</td>
</tr>
<tr>
<td>6c. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?</td>
<td>Yes</td>
</tr>
<tr>
<td>6d. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?</td>
<td>Yes</td>
</tr>
<tr>
<td>7. Was a CPM leak detection system in place on the pipeline or facility involved in the Accident?</td>
<td>Yes</td>
</tr>
<tr>
<td>- If Yes:</td>
<td></td>
</tr>
<tr>
<td>7a. Was it operating at the time of the Accident?</td>
<td>Yes</td>
</tr>
<tr>
<td>7b. Was it fully functional at the time of the Accident?</td>
<td>Yes</td>
</tr>
<tr>
<td>7c. Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?</td>
<td>Yes</td>
</tr>
<tr>
<td>7d. Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?</td>
<td>Yes</td>
</tr>
<tr>
<td>8. How was the Accident initially identified for the Operator?</td>
<td>CPM leak detection system or SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations)</td>
</tr>
<tr>
<td>- If Other, Specify:</td>
<td></td>
</tr>
<tr>
<td>8a. If &quot;Controller&quot;, &quot;Local Operating Personnel&quot;, including contractors&quot;, &quot;Air Patrol&quot;, or &quot;Guard Patrol by Operator or its contractor&quot; is selected in Question 8, specify the following:</td>
<td></td>
</tr>
<tr>
<td>9. 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 Accident?</td>
<td>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)</td>
</tr>
<tr>
<td>- 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)</td>
<td>The release was the result of a third party line strike by an excavator and did not stem from the operation of the line</td>
</tr>
<tr>
<td>- If Yes, specify investigation result(s): (select all that apply)</td>
<td></td>
</tr>
<tr>
<td>- Investigation reviewed work schedule rotations, continuous hours of service (while working for the Operator), and other factors associated with fatigue</td>
<td></td>
</tr>
<tr>
<td>- Investigation did NOT review work schedule rotations, continuous hours of service (while working for the Operator), and other factors associated with fatigue</td>
<td></td>
</tr>
<tr>
<td>- Provide an explanation for why not:</td>
<td></td>
</tr>
<tr>
<td>- Investigation identified no control room issues</td>
<td></td>
</tr>
<tr>
<td>- Investigation identified no controller issues</td>
<td></td>
</tr>
<tr>
<td>- Investigation identified incorrect controller action or controller error</td>
<td></td>
</tr>
<tr>
<td>- Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response</td>
<td></td>
</tr>
<tr>
<td>- Investigation identified incorrect procedures</td>
<td></td>
</tr>
<tr>
<td>- Investigation identified incorrect control room equipment operation</td>
<td></td>
</tr>
<tr>
<td>- Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response</td>
<td></td>
</tr>
<tr>
<td>- Investigation identified areas other than those above: Describe:</td>
<td></td>
</tr>
</tbody>
</table>

### PART F - DRUG & ALCOHOL TESTING INFORMATION

Reproduction of this form is permitted.
1. As a result of this Accident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations? Yes

- If Yes:
  1a. Specify how many were tested: 1
  1b. Specify how many failed: 0

2. As a result of this Accident, 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. Specify how many were tested:
  2b. Specify how many failed:

---

### PART G – APPARENT CAUSE

Select only one box from PART G in shaded column on left representing the APPARENT Cause of the Accident, and answer the questions on the right. Describe secondary, contributing or root causes of the Accident in the narrative (PART H).

<table>
<thead>
<tr>
<th>Apparent Cause:</th>
<th>G3 - Excavation Damage</th>
</tr>
</thead>
</table>

**G1 - Corrosion Failure** - only one sub-cause can be picked from shaded left-hand column

<table>
<thead>
<tr>
<th>External Corrosion:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Corrosion:</td>
</tr>
</tbody>
</table>

- If External Corrosion:

  1. Results of visual examination:
  2. Type of corrosion: *(select all that apply)*
     - 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: *(select all that apply)*
     - 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 Accident?
         - If Yes - Year protection started:
       - 4b. Was shielding, tenting, or disbonding of coating evident at the point of the Accident?
       - 4c. Has one or more Cathodic Protection Survey been conducted at the point of the Accident?
         - 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:
  7. Type 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
## Appendix C - Operator’s Report

- Determined by metallurgical analysis
- Other:  
  - If Other, Describe:

### 9. Location of corrosion (select all that apply):
- Low point in pipe
- Elbow
- Other:  
  - If Other, Describe:

### 10. Was the commodity 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 Accident" (from PART C, Question 3) is Tank/Vessel.**

### 14. List the year of the most recent inspections:
- **14a. API Std 653 Out-of-Service Inspection**
  - No Out-of-Service Inspection completed
- **14b. API Std 653 In-Service Inspection**
  - No In-Service Inspection completed

**Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.**

### 15. Has one or more internal inspection tool collected data at the point of the Accident?
- **15a. 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:
  - Ultrasonic  
    - Most recent year:
  - Geometry  
    - Most recent year:
  - Caliper  
    - Most recent year:
  - Crack  
    - Most recent year:
  - Hard Spot  
    - Most recent year:
  - Combination Tool  
    - Most recent year:
  - Transverse Field/Triaxial  
    - Most recent year:
  - Other  
    - Most recent year:
  
  **Describe:**

### 16. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?
- **If Yes -**
  - Most recent year tested:
    - Test pressure:

### 17. Has one or more Direct Assessment been conducted on this segment?
- **If Yes, and an investigative dig was conducted at the point of the Accident:**
  - Most recent year conducted:
- **If Yes, but the point of the Accident was not identified as a dig site:**
  - Most recent year conducted:

### 18. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?
- **18a. 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:
### Appendix C - Operator’s Report

#### G2 - Natural Force Damage

- **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 Accident 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

- **Excavation Damage – Sub-Cause:**
  - **Excavation Damage by Third Party:**
  - **If Excavation Damage by Operator (First Party):**
  - **If Excavation Damage by Operator’s Contractor (Second Party):**
  - **If Excavation Damage by Third Party:**

Complete Questions 1-5 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.

1. Has one or more internal inspection tool collected data at the point of the Accident?
   1a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:
   - Magnetic Flux Leakage
   - Ultrasonic
   - Geometry
   - Caliper
   - Crack
   - Hard Spot
   - Combination Tool
   - Transverse Field/Triaxial
   - Other

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 Accident?
   - If Yes:

---

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### Appendix C - Operator’s Report

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most recent year tested:</td>
<td></td>
</tr>
<tr>
<td>Test pressure (psig):</td>
<td></td>
</tr>
<tr>
<td>4. Has one or more Direct Assessment been conducted on the pipeline segment?</td>
<td></td>
</tr>
<tr>
<td>- If Yes, and an investigative dig was conducted at the point of the Accident:</td>
<td></td>
</tr>
<tr>
<td>Most recent year conducted:</td>
<td></td>
</tr>
<tr>
<td>- If Yes, but the point of the Accident was not identified as a dig site:</td>
<td></td>
</tr>
<tr>
<td>Most recent year conducted:</td>
<td></td>
</tr>
<tr>
<td>5. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?</td>
<td></td>
</tr>
<tr>
<td>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:</td>
<td></td>
</tr>
<tr>
<td>- Radiography</td>
<td></td>
</tr>
<tr>
<td>Most recent year conducted:</td>
<td></td>
</tr>
<tr>
<td>- Guided Wave Ultrasonic</td>
<td></td>
</tr>
<tr>
<td>Most recent year conducted:</td>
<td></td>
</tr>
<tr>
<td>- Handheld Ultrasonic Tool</td>
<td></td>
</tr>
<tr>
<td>Most recent year conducted:</td>
<td></td>
</tr>
<tr>
<td>- Wet Magnetic Particle Test</td>
<td></td>
</tr>
<tr>
<td>Most recent year conducted:</td>
<td></td>
</tr>
<tr>
<td>- Dry Magnetic Particle Test</td>
<td></td>
</tr>
<tr>
<td>Most recent year conducted:</td>
<td></td>
</tr>
<tr>
<td>- Other</td>
<td></td>
</tr>
<tr>
<td>Most recent year conducted:</td>
<td></td>
</tr>
<tr>
<td>Complete the following if Excavation Damage by Third Party is selected as the sub-cause.</td>
<td></td>
</tr>
<tr>
<td>6. Did the operator get prior notification of the excavation activity?</td>
<td>No</td>
</tr>
<tr>
<td>6a. If Yes, Notification received from: (select all that apply) -</td>
<td></td>
</tr>
<tr>
<td>- One-Call System</td>
<td></td>
</tr>
<tr>
<td>- Excavator</td>
<td></td>
</tr>
<tr>
<td>- Contractor</td>
<td></td>
</tr>
<tr>
<td>- Landowner</td>
<td></td>
</tr>
<tr>
<td>Complete the following mandatory CGA-DIRT Program questions if any Excavation Damage sub-cause is selected.</td>
<td></td>
</tr>
<tr>
<td>7. Do you want PHMSA to upload the following information to CGA-DIRT (<a href="http://www.cga-dirt.com">www.cga-dirt.com</a>)?</td>
<td>Yes</td>
</tr>
<tr>
<td>8. Right-of-Way where event occurred: (select all that apply) -</td>
<td></td>
</tr>
<tr>
<td>- Public</td>
<td></td>
</tr>
<tr>
<td>- &quot;Public&quot;, Specify:</td>
<td>Yes</td>
</tr>
<tr>
<td>- Private</td>
<td></td>
</tr>
<tr>
<td>- &quot;Private&quot;, Specify:</td>
<td>Private Landowner</td>
</tr>
<tr>
<td>- Pipeline Property/Easement</td>
<td>Yes</td>
</tr>
<tr>
<td>- Power/Transmission Line</td>
<td></td>
</tr>
<tr>
<td>- Railroad</td>
<td></td>
</tr>
<tr>
<td>- Dedicated Public Utility Easement</td>
<td></td>
</tr>
<tr>
<td>- Federal Land</td>
<td></td>
</tr>
<tr>
<td>- Data not collected</td>
<td></td>
</tr>
<tr>
<td>- Unknown/Other</td>
<td></td>
</tr>
<tr>
<td>9. Type of excavator:</td>
<td>Contractor</td>
</tr>
<tr>
<td>10. Type of excavation equipment:</td>
<td>Backhoe/Trackhoe</td>
</tr>
<tr>
<td>11. Type of work performed:</td>
<td>Agriculture</td>
</tr>
<tr>
<td>12. Was the One-Call Center notified?</td>
<td>No</td>
</tr>
<tr>
<td>12a. If Yes, specify ticket number:</td>
<td></td>
</tr>
<tr>
<td>12b. If this is a State where more than a single One-Call Center exists, list the name of the One-Call Center notified:</td>
<td></td>
</tr>
<tr>
<td>13. Type of Locator:</td>
<td>Unknown/Other</td>
</tr>
<tr>
<td>14. Were facility locate marks visible in the area of excavation?</td>
<td>No</td>
</tr>
<tr>
<td>15. Were facilities marked correctly?</td>
<td>No</td>
</tr>
<tr>
<td>16. Did the damage cause an interruption in service?</td>
<td>Yes</td>
</tr>
<tr>
<td>16a. If Yes, specify duration of the interruption (hours)</td>
<td>27</td>
</tr>
<tr>
<td>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, the one predominant second level CGA-DIRT Root Cause as well):</td>
<td></td>
</tr>
<tr>
<td>Root Cause:</td>
<td>One-Call Notification Practices Not Sufficient</td>
</tr>
<tr>
<td>- If One-Call Notification Practices Not Sufficient, specify:</td>
<td>No notification made to the One-Call Center</td>
</tr>
<tr>
<td>- If Locating Practices Not Sufficient, specify:</td>
<td></td>
</tr>
<tr>
<td>- If Excavation Practices Not Sufficient, specify:</td>
<td></td>
</tr>
<tr>
<td>- If Other/None of the Above, explain:</td>
<td></td>
</tr>
</tbody>
</table>

---

**G4 - Other Outside Force Damage** - only one sub-cause can be selected from the shaded left-hand column

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### Appendix C - Operator’s Report

**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 Accident” (from PART C, Question 3) is Pipe or Weld.**

3. Has one or more internal inspection tool collected data at the point of the Accident?
   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 conducted:
      - Ultrasonic
        Most recent year conducted:
      - Geometry
        Most recent year conducted:
      - Caliper
        Most recent year conducted:
      - Crack
        Most recent year conducted:
      - Hard Spot
        Most recent year conducted:
      - Combination Tool
        Most recent year conducted:
      - Transverse Field/Triaxial
        Most recent year conducted:
      - Other
        Most recent year conducted:
      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 Accident?
   - 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 Accident:
     Most recent year conducted:
   - If Yes, but the point of the Accident 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 Accident 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:

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### Material Failure of Pipe or Weld – Sub-Cause:

1. The sub-cause selected below is based on the following: *(select all that apply)*
   - Field Examination
   - Determined by Metallurgical Analysis
   - Other Analysis
   - If "Other Analysis", Describe:
   - Sub-cause is Tentative or Suspected; Still Under Investigation (Supplemental Report required)

2. List contributing factors: *(select all that apply)*
   - Fatigue or Vibration-related
     - If Other, Describe:
   - Mechanical Stress:
   - Other
     - If Other, Describe:

3. List contributing factors: *(select all that apply)*
   - Fatigue or Vibration-related
     - If Other, Describe:
   - Mechanical Stress:
   - Other
     - If Other, Describe:

4. List contributing factors: *(select all that apply)*
   - Fatigue or Vibration-related
     - If Other, Describe:
   - Mechanical Stress:
   - Other
     - If Other, Describe:

5. Complete the following if any Material Failure of Pipe or Weld sub-cause is selected.

### Additional factors: *(select all that apply)*

- Dent
- Gouge
- Pipe Bend
- Arc Burn
- Crack
- Lack of Fusion
- Lamination
- Buckle
- Wrinkle
- Misalignment
- Burnt Steel
- Other
  - If Other, Describe:

5a. Has one or more internal inspection tool collected data at the point of the Accident?

- 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:
### Appendix C - Operator’s Report

<table>
<thead>
<tr>
<th>- Hard Spot</th>
<th>Most recent year run:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Combination Tool</td>
<td>Most recent year run:</td>
</tr>
<tr>
<td>- Transverse Field/Triaxial</td>
<td>Most recent year run:</td>
</tr>
<tr>
<td>- Other</td>
<td>Most recent year run:</td>
</tr>
</tbody>
</table>

Describe:

6. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?

- If Yes:
  - Most recent year tested:
  - Test pressure (psig):

7. 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 Accident -
  - Most recent year conducted:
- If Yes, but the point of the Accident 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 Accident since January 1, 2002?

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: (select all that apply)
     - Control Valve
     - Instrumentation
     - SCADA
     - Communications
     - Block Valve
     - Check Valve
     - Relief Valve
     - Power Failure
     - Stopple/Control Fitting
     - ESD System Failure
     - Other
       - If Other – Describe:

- If Pump or Pump-related Equipment:
  2. Specify:

- If Threaded Connection/Coupling Failure:
  3. Specify:

- If Non-threaded Connection Failure:
  4. Specify:

- If Defective or Loose Tubing or Fitting:

- If Failure of Equipment Body (except Pump), Tank Plate, or other Material:

- If Other Equipment Failure:
Complete the following if any Equipment Failure sub-cause is selected.

6. Additional factors that contributed to the equipment failure: (select all that apply)
   - 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 commodity
   - 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:

<table>
<thead>
<tr>
<th>Description</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damage by Operator or Operator's Contractor NOT Related to</td>
<td></td>
</tr>
<tr>
<td>Excavation and NOT due to Motorized Vehicle/Equipment Damage</td>
<td></td>
</tr>
<tr>
<td>Tank, Vessel, or Sump/Separator Allowed or Caused to Overfill or Overflow</td>
<td></td>
</tr>
<tr>
<td>1. Specify:</td>
<td></td>
</tr>
<tr>
<td>- If Other, Describe:</td>
<td></td>
</tr>
<tr>
<td>Valve Left or Placed in Wrong Position, but NOT Resulting in a</td>
<td></td>
</tr>
<tr>
<td>Tank, Vessel, or Sump/Separator Overflow or Facility Overpressure</td>
<td></td>
</tr>
<tr>
<td>Pipeline or Equipment Overpressed</td>
<td></td>
</tr>
<tr>
<td>Equipment Not Installed Properly</td>
<td></td>
</tr>
<tr>
<td>Wrong Equipment Specified or Installed</td>
<td></td>
</tr>
<tr>
<td>Other Incorrect Operation</td>
<td></td>
</tr>
</tbody>
</table>

2. Describe:

Complete the following if any Incorrect Operation sub-cause is selected.

3. Was this Accident related to (select all that apply): -
   - Inadequate procedure
   - No procedure established
   - Failure to follow procedure
   - Other

   - If Other, Describe:

4. What category type was the activity that caused the Accident?

5. Was the task(s) that led to the Accident identified as a covered task in your Operator Qualification Program?
   - If Yes, were the individuals performing the task(s) qualified for the task(s)?

G8 - Other Accident Cause - only one sub-cause can be selected from the shaded left-hand column

Other Accident Cause – Sub-Cause:

- If Miscellaneous:

1. Describe:
PART H - NARRATIVE DESCRIPTION OF THE ACCIDENT

At approximately 11:42 October 6, 2011 the SCADA system in Magellan’s Operations Control Center indicated a sharp drop in pressure and an increase in flow rate on the #6-10” pipeline between Topeka and Kansas City. Magellan personnel executed a Code Red Emergency Shutdown of the line in accordance with Magellan’s O&M procedures and notified qualified field personnel to investigate. Subsequent investigation discovered that an excavating contractor had dented the line in several places and punctured it with a tooth of a front end loader while excavating a pond. The excavator did not place a One-Call with the Kansas One Call Agency. Magellan personnel immediately began controlling the released product and repaired the line with a segment of new, pretested pipe in accordance with PHMSA regulations and company procedures. The released product was recovered and the effected soil was remediated per company and state requirements.

PART I - PREPARER AND AUTHORIZED SIGNATURE

<table>
<thead>
<tr>
<th>Preparer's Name</th>
<th>Kenneth L. Lybarger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparer's Title</td>
<td>Sr. Compliance Coordinator</td>
</tr>
<tr>
<td>Preparer's Telephone Number</td>
<td>918-574-7315</td>
</tr>
<tr>
<td>Preparer's E-mail Address</td>
<td><a href="mailto:ken.lybarger@magellanlp.com">ken.lybarger@magellanlp.com</a></td>
</tr>
<tr>
<td>Preparer's Facsimile Number</td>
<td>918-574-7246</td>
</tr>
<tr>
<td>Authorized Signature's Name</td>
<td>Kenneth L. Lybarger</td>
</tr>
<tr>
<td>Authorized Signature Title</td>
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<td><a href="mailto:ken.lybarger@magellanlp.com">ken.lybarger@magellanlp.com</a></td>
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<tr>
<td>Date</td>
<td>12/07/2012</td>
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