

The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

PIPELINE ENGINEERING AND SAFETY DIVISION

INCIDENT REPORT

3 Magnolia Way, Peabody Massachusetts
March 8, 2007

PIPELINE ENGINEERING AND SAFETY DIVISION

Accident File 07 - 00

Location: Peabody, Massachusetts

Date of Accident: March 8, 2007

Gas Company: KeySpan Energy Delivery, New England

Estimated Property Damage: Over \$100,000 *

Injuries: 0

Report Issued - September, 2008

* Estimated by KeySpan Energy Delivery New England

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I. INTRODUCTION

A. Scope of this Investigation

The Pipeline Engineering and Safety Division ("Pipeline Division") of the Massachusetts Department of Public Utilities ("Department"), formerly known as the Department of Telecommunications and Energy, pursuant to G.L. c. 164, § 105A and G.L. c. 82, § 40 ("Dig Safe"), has investigated a natural gas ("gas") fire at 3 Magnolia Way, Peabody, which occurred on March 8, 2007 ("Incident").¹ The operator of the pipeline was KeySpan Energy Delivery, New England ("KeySpan" or "Operator").² In a report³ to the United States Department of Transportation ("U.S. DOT") KeySpan reported the damages in excess of \$100,000 (Exh. 1). There were no injuries as a result of the Incident (*id.*).

As part of the Department's annual certification process by the U.S. DOT, the Department must report to the U.S. DOT:

[e]ach accident or incident . . . involving a fatality, personal

1 "Incident" means any of the following events:

(1) An event that involves a release of gas from a pipeline or of liquefied natural gas or gas from an LNG facility and

(i) A death, or personal injury necessitating in-patient hospitalization; or

(ii) Estimated property damage, including cost of gas lost, of the operator or others, or both, of \$50,000 or more.

(2) An event that results in an emergency shutdown of an LNG facility.

(3) An event that is significant, in the judgement of the operator, even though it did not meet the criteria of paragraphs (1) or (2)." 49 C.F.R. §191.3.

2 As a result of a merger completed in 2007, KeySpan is part of the National Grid utility system.

3 Form F 7100.1 is an incident report form that operators must tender to U.S. DOT within 30 days of an incident.

injury requiring hospitalization, or property damage or loss more than an amount the Secretary establishes, any other accident the [Department] considers significant, and a summary of the investigation by the authority of the cause and circumstances surrounding the accident or incident.

49 U.S.C. § 60105(c)

The purpose of this report is to inform the U.S. DOT of the cause and circumstances surrounding the Incident.

The Department has established procedures for determining the nature and extent of violations of codes and regulations pertaining to the safety of pipeline facilities and the transportation of gas, including but not limited to, 220 C.M.R. §§ 101.00 through 113.00. See 220 C.M.R. § 69.00 et seq. The Department also enforces the U.S. DOT safety standards for gas pipeline systems as set forth in 49 C.F.R. Part 192 ("Part 192"), G.L. c. 164, § 105A.

B. Overview of Incident

On March 8, 2007, at 1:33 p.m., the Peabody Fire Department ("Fire Department") received an alarm for a fire at 3 Magnolia Way (Exh. 2). The Fire Department was at the scene at 1:40 p.m. (id.). The Fire Department, upon their arrival, found the fire extended three stories on the exterior building into the cockloft area (id.). They also believed that a natural gas service line to the building was on fire at the base of the building (id.). A search of the building was conducted and there were no occupants found (id.).

KeySpan was notified of the fire at 1:47 p.m. (id.). KeySpan was onsite at 2:10 p.m. to shutoff the service line to 3 Magnolia Way (Exh. 3). The service person was unsure whether the shutoff valve in the area of the building was a main or service valve, and requested

3 Magnolia Way, Peabody (March 8, 2007)

assistance (*id.*). The fire department shutoff the gas at the riser at 2:20 p.m (Exh. 2). The Fire Department reported that shutting the gas off at the riser stopped the flow of gas (*id.*). At approximately, 2:25 p.m., KeySpan service personnel shut the curb valve to secure the area (Exh. 3).

At 3:57 p.m., KeySpan notified the Pipeline Division of the fire at 3 Magnolia Way, Peabody (Exh. 3). The Department dispatched two investigators to the scene.

II. THE DEPARTMENT'S INVESTIGATION

A. Description of the Site

Magnolia Way is located in a residential area in Peabody. The area is comprised of several apartment residences. The structure at 3 Magnolia Way is a three-story wood building (Exh. 2). The building is comprised of four units, nos. 325, 326, 335 and 336 (Exh. 3). A two-inch plastic gas main, installed in 2005, underlies Magnolia Way (Exh. 4). The operating pressure of the main at the time of the incident was approximately 55 pounds per square inch gauge ("psig")⁴ (Exh. 5). A one-inch plastic service line was installed to 3 Magnolia Way in 2005 (Exh. 4). The service line was installed at a depth of three (3) feet (*id.*). The outside service riser contained a manual shut off valve (Exh. 3). The service regulator⁵ was mounted downstream of the valve along with four gas meters (Exh. 7). The regulator set point was 13

4 Pounds per square inch gage refers to the pressure expressed in points exerted on one square inch of surface area. The designation "gauge" indicates the readings are already adjusted to ignore the surrounding atmospheric pressure, which is 14.7 psi at sea level. If a psig gauge was not connected to any pressure source, it would read zero, even though it is actually sensing 14.7 psi at sea level.

5 A service regulator is a valve which reduces the pressure in the service line from the pressure in the main to the pressure provided to the customer

3 Magnolia Way, Peabody (March 8, 2007)

inches water column ("in. wc") (Exh. 4).⁶ The maximum inlet pressure to the regulator was 125 psig (*id.*). The gas meters were installed on October 6, 2006 (Exh. 4). A curb valve had also been installed on the service line (Exh. 3). Approximately fifteen feet from the service installation was a Comcast cable vault (Exh. 6).

B. Description of the Scene

On March 8, 2007, at about 6:00 p.m., two investigators from the Department's Pipeline Engineering and Safety Division ("Division") arrived at 3 Magnolia Way. Representatives from KeySpan, Peabody Fire Department, and the State Fire Marshal's Office were already at the scene.

The building had fire damage directly above KeySpan's gas facilities servicing this building. The damaged area included the side of the building and a portion of the roof (Exh. 6). KeySpan's facilities consisted of an outside service riser, regulator and four meters (Exh. 7). The regulator and meters suffered extensive fire damage. Approximately 15 feet from the gas facilities was a Comcast Cable vault and two air-conditioning units (Exh. 6). The vault suffered fire damage. The gas service line was initially shutoff at the riser by the fire department. KeySpan then shutoff the gas service at the curb valve (Exh. 8).

On the following day, the Division investigators requested that KeySpan pressure test the portion of the service line from the exposed curb valve to the service riser valve. The service line did not hold the 10 psig pressure test. The investigators observed leakage on the service riser valve and the insulating fitting above the valve (Exh. 6). Upon excavation of the

⁶ Inches water column is a measurement of pressure with 27.71 inches of water column equal to one psig.

service line riser and associated piping, the inspectors noticed what appeared to be a hole in the black rubber that encased the plastic service pipe (Exh. 9). There was also a section of corrugated steel that was exposed on the service (id.). The tracer wire that is used to locate the service pipe was found wrapped around the pipe. A section of the tracer wire had fused itself to the black rubber on the riser (Exh. 10). There were bubbled sections of the riser that was also located on the riser (Exh. 11). There were also other underground facilities in the area of KeySpan's facilities (Exh. 12). The next test the Division investigators requested involved excavating the service at the building wall. The test included pressure testing the service line from the curb valve to the building. The service riser was removed. The pressure test held at 62 psig for 23 minutes (Exh. 6). The service riser with shutoff, insulator, remains of the regulator, four meter manifolds and the melted meters were taken into custody by the State Fire Marshal's Office (Exh. 13).

III. ODORIZATION

The state regulation, 220 C.M.R. § 101.06(20), requires operators to odorize gas in their distribution systems. Gas must be "readily perceptible to the normal or average olfactory senses of a person coming from fresh uncontaminated air into a closed room containing [0.15 percent gas in air]." 220 C.M.R. § 101.06(20)(a). Operators are also required to conduct periodic sampling of odorant concentrations throughout their system (id.).

KeySpan conducts odorant sampling on a monthly basis.

On March 8, 2007, odor level tests were conducted at 3 Magnolia Way, Peabody after the fire (Exh. 14). The result of the test is as follows:

1. 3 Magnolia Way @ 9:30 p.m. - Odor level @ 0.09 percent gas in air
2. 3 Magnolia Way @ 9:30 p.m. - Odor level @ 0.06 percent gas in air

(Note: Readings taken by two different employees)

The odor detectability levels of gas in air ranged from 0.090 percent to 0.060 percent gas in air, indicating that the odorant levels were within the prescribed state regulation.

IV. LEAK INVESTIGATIONS AND MAINTENANCE ACTIVITY

A review of the submitted maintenance records indicates KeySpan did not perform any maintenance or repair work on the main and service at 3 Magnolia Way, Peabody (Exh. 15). In addition, there were no service calls to the four accounts at 3 Magnolia Way, Peabody (Exh. 16).

V. LEAKAGE SURVEY

In order to determine if other leak sources were contributing factors to the Incident, the Department reviewed the leak history of the mains and service to 3 Magnolia Way. Leakage surveys of gas main and services are required by federal and state regulations.

See Part 192 § 192.723(a) and 220 C.M.R. § 101.06(21). The week of August 25, 2006, a walking survey of the main and service was performed (Exh. 17). There were no leaks detected. After the Incident, KeySpan conducted a leak survey. The Operator detected no gas readings on the main or service to or in the area of 3 Magnolia Way (Exh. 18).

VI. FAILURE ANALYSIS OF PIPE SAMPLE

Massachusetts Materials Research, Inc. ("MMR") conducted the failure analysis of the 3 Magnolia Way pipe samples. The pipe samples included the following: meter manifold;

service standpipe; pigtail portion of service line; high pressure cock; regulator; tracer wire; regulator and meter remnants. The purpose of the testing was to determine if there were any failures in the pipe segments examined, and ascertain the probable cause of the failure.

MMR's analysis included visual inspection, leak test, chemical analysis, fracture analysis, and radiographic inspection.

On April 15, 2008, MMR submitted its results to the Department⁷. MMR's findings and conclusions are summarized below:

- The damage to the black polymer pigtail cover was OD-initiated, or "outside-in." This damage did not affect the gas-transporting yellow plastic pipe within the pigtail.
- The yellow plastic pipe was intact from the base of the pigtail to the transition fitting. The yellow plastic pipe was breached within the transition fitting. This and other internal transition fitting damage was consistent with melting caused by the heat of the fire. Firefighters' statements that shutting off the high pressure cock stopped the flow of gas indicate that this damage may have resulted from latent heat after the fire was put out. This also indicates that the transition fitting did not fail prior to the incident.
- The high pressure cock did not fail, as indicated by the firefighter's ability to stop the flow of gas by turning this valve to the "off" position.
- Differential melting of meters revealed that the source of the fire was at or very near the vertical standpipe assembly side of the gas equipment.
- Apparent heat damage on the upstream corner of the regulator mounting pad (facing down in service) indicates that the fire source may have been upstream of the regulator. In-situ photographs of the standpipe assembly after the fire revealed a non-plumb alignment of this region of piping, with the assembly bent at the universal joint union. Loss of meter assembly support during the fire would cause this bend, as the nylon gasket is less strong than the steel piping. However, if this joint was misaligned during installation, or shifted later prior to the incident, the resulting stresses on the gasket

⁷ The Department incorporates by reference the MMR Report, "Analysis of Jurisdictional Piping and Appurtenances From the 3 Magnolia Way, Peabody, MA, Incident (MMR Project No. 63797)". Copies of this report may be obtained by contacting MMR at 508-835-6262.

would encourage cracking, especially during cold weather.

- The yellow plastic pipe was medium density polyethylene, as intended.
- The black polymer pigtail cover was an aromatic polyester, likely poly(phthalate).
- The universal joint gasket material was Nylon 6, 6-co-6. This is the same material as the exemplar universal joint gasket.

Based on the results, MMR also concluded the following:

- No anomalies in the available gas equipment were revealed by this investigation that could have caused the release of natural gas at 3 Magnolia Way.
- Of the equipment available for investigation, only the universal joint gasket was too damaged to examine.
- The regulator and all four meters were melted in the fire.

VII. FINDINGS AND CONCLUSIONS

A. Findings

1. A two-inch plastic main was laid under Magnolia Way in 2005.
2. A one-inch plastic service line to 3 Magnolia Way was installed in 2005.
3. The structure at 3 Magnolia Way is comprised of four units. The meters servicing those units were installed in 2006.
4. The Peabody Fire Department received an alarm at 1:33 pm. They arrived onsite at 1:40 p.m.
5. The fire at 3 Magnolia Way extended three stories on the exterior of the building into the cockloft area.
6. KeySpan was notified of the fire at 1:47 p.m. They were onsite at 2:10 p.m.
7. The fire department shutoff the gas at the riser at 2:20 p.m.
8. KeySpan shut the curb valve on the service to secure the area at 2:25 p.m.
9. KeySpan notified the Division of the fire at 3 Magnolia Way, Peabody at 3:57 p.m.
10. Approximately 15 feet from the gas facilities was a Comcast Cable vault and two air-conditioning units. The vault suffered fire damage.
11. KeySpan pressure test the portion of the service line from the curb valve to the service riser valve. The service line did not hold the 10 psig pressure test. There was leakage on the service riser valve and the insulating fitting above the

3 Magnolia Way, Peabody (March 8, 2007)

- valve.
12. KeySpan removed the service riser from the service line and tested the service from the building to the curb valve. The pressure test held at 62 psig for 23 minutes.
 13. KeySpan met the odorization requirements of the state and federal pipeline safety regulations.
 14. KeySpan did not perform any maintenance or repair work on the main and service at 3 Magnolia Way.
 15. There were no service calls to the four accounts at 3 Magnolia Way, Peabody
 16. KeySpan conducted a walking survey of its mains and services on Magnolia Way the week of August 25, 2006.
 17. After the Incident, KeySpan conducted a leak survey of the main and service to 3 Magnolia Way and no leaks were detected

B. Conclusions

1. The analysis in the MMR report was based upon substantial evidence and the report conclusions are reasonable.
 2. MMR concludes that the source of fire may have been upstream of the regulator, but it was at or very near to the vertical standpipe assembly side of the gas equipment.
 3. The MMR report stated that there were no anomalies in the available gas equipment that could have caused the release of natural gas at 3 Magnolia Way.
 4. The breach in the transition fitting on the service line may have resulted from latent heat after the fire was put out.
 5. MMR determined that the high pressure cock on the service line did not fail.
-

Exhibits

1. United States Department of Transportation Incident Report dated April 6, 2007
2. Peabody Fire Department Report
3. KeySpan Post Incident Preliminary Report (March 15, 2007)
4. Installation Records for the main and services near 3 Magnolia Way
5. Pressure in main at time of incident
6. Accident Investigation Memo from Paul Grieco - March 15, 2007
Photos: 3 Magnolia Way - Fire Damage
7. Photos: Service Riser, Regulator and Four Meters
8. Photo: Gas Service Curb Valve
9. Photos: Damage to Service Riser
10. Photo: Melted Tracer Wire
11. Photo: Bubbled Section of the Service Riser
12. Photo: Underground Facilities
13. Evidence and Custody Log
14. Odorant levels near 3 Magnolia Way on or after March 8, 2007
15. Main maintenance history
16. Service calls to 3 Magnolia Way
17. Leakage Survey results before March 8, 2007
18. Leakage Survey results after March 8, 2007

EXHIBIT 1

**United States Department of Transportation Incident Report
dated April 6, 2007**

EXHIBIT 1

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES
PIPELINE ENGINEERING AND SAFETY DIVISION

FIRST SET OF INFORMATION REQUESTS FROM
THE PIPELINE ENGINEERING AND SAFETY DIVISION OF
THE DEPARTMENT OF PUBLIC UTILITIES TO
KEYSPAN ENERGY DELIVERY

RE: Investigation of Incident at 3 Magnolia Way, Peabody – March 8, 2007

Respondent: Counsel

IR-PL-1

- Q. Provide a copy of the incident reporting form that KeySpan submitted to the U. S. Department of Transportation.
- A. Attached please find a copy of the incident reporting forms filed with the U.S Department of Transportation. (Exhibit 1)



KEYSPAN
Legal Department
52 Second Avenue, 4th Fl.
Waltham, MA 02451
Facsimile (781) 290-4965

FAX

FROM: Thomas R. Teehan

DATE: April 6, 2007

Phone: 781-466-5137

NUMBER OF PAGES TRANSMITTED

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TO: Jefferson Tancil

COMPANY: Office of Pipeline Safety

FAX #: 202-366-4566

MESSAGE:

Attached is Incident Report – Gas Distribution System regarding Peabody, MA.

FACSIMILE TRANSMITTAL SHEET

TRANSACTION REPORT

P.01

APR-06-2007 FRI 11:08 AM

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DF
APR-06	11:07 AM	12023684566	1' 36"	4	SEND	OK	330	

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KEYSPAN
 Legal Department
 52 Second Avenue, 4th Fl.
 Waltham, MA 02451
 Facsimile (781) 290-4965

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FROM: Thomas R. Teehan

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Phone: 781-466-5137

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TO: Jefferson Tancil



U.S. Department of Transportation
Pipeline and Hazardous Materials Safety
Administration

INCIDENT REPORT - GAS DISTRIBUTION SYSTEM

Report Date

No.

(DOT Use Only)

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 Office Of Pipeline Safety Web Page at <http://ops.dot.gov>.

PART A - GENERAL REPORT INFORMATION

Check: ☒ Original Report ☐ Supplemental Report ☐ Final Report

1. Operator Name and Address

a. Operator's 5-digit Identification Number / 1 / 6 / 4 / 0 / /

b. If Operator does not own the pipeline, enter Owner's 5-digit Identification Number / / / / /

c. Name of Operator Boston Gas Company d/b/a KeySpan Energy Delivery New England

d. Operator street address 52 Second Avenue

e. Operator address Waltham, Middlesex County, MA 02451

City, County or Parish, State and Zip Code

2. Time and date of the incident

/ 1 / 3 / 4 / 7 / / 0 / 3 / / 0 / 8 / / 0 / 7 /
hr. month day year

3. Incident Location

a. Building 3, Units 325, 326, 335, and 336, Magnolia Way
Street or nearest street or road

b. Peabody
City and County or Parish

c. Massachusetts
State and Zip Code

d. Latitude: / / / / / Longitude: / / / / /
(if not available, see instructions for how to provide specific location)

e. Class location description
☐ Class 1 ☐ Class 2 ☒ Class 3 ☐ Class 4

f. Incident on Federal Land ☐ Yes ☒ No

4. Type of leak or rupture

☐ Leak: ☐ Pinhole ☐ Connection Failure (complete sec. F5)
☐ Puncture, diameter or cross section (inches) _____

☐ Rupture (if applicable):
☐ Circumferential - Separation
☐ Longitudinal

- Tear/Crack, length (inches) _____

- Propagation Length, total, both sides (feet) _____

☐ N/A

☒ Other: At the site of a building fire, meters and regulators were found melted. Evidence of burn damage was also observed on the above-ground riser valve and insulating union and on the below ground riser sweep.

5. Consequences (check and complete all that apply)

a. Fatality Total number of people: / / / /

Employees: / / / / General Public: / / / /

Non-employee Contractors: / / / /

b. ☐ Injury requiring inpatient hospitalization

Total number of people: / / / /

Employees: / / / / General Public: / / / /

Non-employee Contractors: / / / /

c. ☒ Property damage/loss (estimated) Total in excess of \$100,000

Gas loss \$ _____ Operator damage \$ _____

Public/private property damage \$ _____

d. ☐ Gas ignited ☐ Explosion ☐ No Explosion

e. Gas did not ignite ☐ Explosion ☐ No Explosion

f. ☐ Evacuation (general public only) / / / / / people

Evacuation Reason:

☐ Unknown

☐ Emergency worker or public official ordered, precautionary

☐ Threat to the public

☐ Company policy

6. Elapsed time until area was made safe:

/ / / hr. / 2 / 6 / min.

7. Telephone Report

/ 8 / 2 / 8 / 6 / 4 / 0 / 3 / / 0 / 9 / / 0 / 7 /
NRC Report Number month day year

8. a. Estimated pressure at point and time of incident:

55 PSIG

b. Max. allowable operating pressure (MAOP): 60 PSIG

c. MAOP established by:

X Test Pressure 90 psig

X 49 CFR § 192. 619 (a)(3)

PART B - PREPARER AND AUTHORIZED SIGNATURE

Thomas R. Teehan, Snr Counsel
(type or print) Preparer's Name and Title

Tteeahan@keyspanenergy.com
Preparer's Email Address

Thomas Teehan
Authorized Signature

Thomas Teehan SNR Counsel
(type or print) Name and Title

4/6/07
Date

(781) 466-5137
Area Code and Telephone Number

781-290-4965
Area Code and Facsimile Number

781-466-5137
Area Code and Telephone Number

PART C - ORIGIN OF THE INCIDENT

1. Incident occurred on
 - ☐ Main
 - ☐ Service
 - ☐ Pressure Limiting and Regulating Facility
 - ☐ Meter Set
 - ☐ Other: _____
2. Failure occurred on
 - ☐ Body of pipe
 - ☐ Joint
 - ☐ Other: _____
 - ☐ Pipe Seam
 - ☐ Component

3. Material involved (pipe, fitting, or other component)
 - ☐ Steel
 - ☐ Cast/Wrought Iron
 - ☐ Polyethylene Plastic (complete all items that apply in a-c)
 - ☐ Other Plastic (complete all items that apply in a-c)
 - Plastic failure was: ☐ a. ductile ☐ b. brittle ☐ c. joint failure
 - ☐ Other material: _____
4. Year the pipe or component which failed was installed: ____/____/____

PART D - MATERIAL SPECIFICATION (if applicable)

1. Nominal pipe size (NPS) ____/____/____/____ in.
2. Wall thickness ____/____/____/____ in.
3. Specification _____ SMYS ____/____/____/____/____/____
4. Seam type _____
5. Valve type _____
6. Pipe or valve manufactured by _____ in year ____/____/____

PART E - ENVIRONMENT

1. Area of incident
 - ☐ Under pavement
 - ☒ Under ground
 - Inside/under building
 - ☐ In open ditch
 - ☒ Above ground
 - ☐ Under water
 - ☐ Other: _____
2. Depth of cover: _____ inches

PART F - APPARENT CAUSE

Important: There are 25 numbered causes in this section. Check the box to the left of the primary cause of the incident. Check one circle in each of the supplemental items to the right of or below the cause you indicate. See the instructions for this form for guidance.

F1 - CORROSION

- If either F1 (1) External Corrosion, or F1 (2) Internal Corrosion is checked, complete all subparts a - e.*
- a. Pipe Coating
 - ☐ Bare
 - ☐ Coated
 - ☐ Unknown
 - b. Visual Examination
 - ☐ Localized Pitting
 - ☐ General Corrosion
 - ☐ Other: _____
 - c. Cause of Corrosion
 - ☐ Galvanic
 - ☐ Stray Current
 - ☐ Improper Cathodic Protection
 - ☐ Microbiological
 - ☐ Other: _____
 - d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering incident?
 - ☐ No
 - ☐ Yes
 - ☐ Unknown
 - e. Was pipe previously damaged in the area of corrosion?
 - ☐ No
 - ☐ Yes
 - ☐ Unknown
- Year Protection Started: ____/____/____
- How long prior to incident: ____/____/____ years ____/____/____ months

1. ☐ External Corrosion

2. ☐ Internal Corrosion

F2 - NATURAL FORCES

3. ☐ Earth Movement ⇒ ☐ Earthquake ☐ Subsidence ☐ Landslide ☐ Other: _____
4. ☐ Lightning
5. ☐ Heavy Rains/Floods ⇒ ☐ Washouts ☐ Flotation ☐ Mudslide ☐ Scouring ☐ Other: _____
6. ☐ Temperature ⇒ ☐ Thermal stress ☐ Frost heave ☐ Frozen components ☐ Other: _____
7. ☐ High Winds

F3 - EXCAVATION

8. ☐ Operator Excavation Damage (including their contractors) / Not Third Party
9. ☐ Third Party Excavation Damage (complete a-d)
 - a. Excavator group
 - ☐ General Public
 - ☐ Government
 - ☐ Excavator other than Operator/subcontractor
 - b. Type: ☐ Road Work ☐ Pipeline ☐ Water ☐ Electric ☐ Sewer ☐ Phone/Cable/Fiber ☐ Landowner ☐ Railroad
 - c. Did operator get prior notification of excavation activity?
 - ☐ No
 - ☐ Yes: Date received: ____/____/____ mo. ____/____/____ day ____/____/____ yr.
 - d. Was pipeline marked?
 - ☐ No
 - ☐ Yes (If Yes, check applicable items i - iv)
 - i. Temporary markings: ☐ Flags ☐ Stakes ☐ Paint
 - ii. Permanent markings: ☐ Yes ☐ No
 - iii. Marks were (check one) ☐ Accurate ☐ Not Accurate
 - iv. Were marks made within required time? ☐ Yes ☐ No

F4 - OTHER OUTSIDE FORCE DAMAGE

10. ☐ Fire/Explosion as primary cause of failure ⇒ Fire/Explosion cause: ☐ Man made ☐ Natural Describe in Part G
11. ☐ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ☐ Rupture of Previously Damaged Pipe
13. ☐ Vandalism

F5 - MATERIAL OR WELDS

Material

14. ☐ Body of Pipe ⇒ ☐ Dent ☐ Gouge ☐ Wrinkle Bend ☐ Arc Burn ☐ Other: _____
15. ☐ Component ⇒ ☐ Valve ☐ Fitting ☐ Vessel ☐ Extruded Outlet ☐ Other: _____
16. ☐ Joint ⇒ ☐ Gasket ☐ O-Ring ☐ Threads ☐ Fusion ☐ Other: _____

Weld

17. ☐ Butt ⇒ ☐ Pipe ☐ Fabrication ☐ Other: _____
18. ☐ Fillet ⇒ ☐ Branch ☐ Hot Tap ☐ Fitting ☐ Repair Sleeve ☐ Other: _____
19. ☐ Pipe Seam ⇒ ☐ LF ERW ☐ DSAW ☐ _____ ☐ Flash Weld ☐ Other: _____
- ☐ HF ERW ☐ SAW ☐ _____ ☐ Spiral

Complete a-f if you indicate **any** cause in part F5.

a. Type of failure:

- ☐ Construction Defect ⇒ ☐ Poor Workmanship ☐ Procedure not followed ☐ Poor Construction Procedures
- ☐ Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ☐ Yes ☐ No

c. Was part which leaked pressure tested before incident occurred? ☐ Yes, complete d-f, if known ☐ No

d. Date of test: ____/____/____ mo. ____/____/____ day ____/____/____ yr.

e. Time held at test pressure: ____/____/____ hr.

f. Estimated test pressure at point of incident: _____ PSIG

F6 - EQUIPMENT OR OPERATIONS

20. ☐ Malfunction of Control/Relief Equipment ⇒ ☐ Valve ☐ Instrumentation ☐ Pressure Regulator ☐ Other: _____
21. ☐ Threads Stripped, Broken Pipe Coupling ⇒ ☐ Nipples ☐ Valve Threads ☐ Mechanical Couplings ☐ Other: _____
22. ☐ Leaking Seals

23. ☐ Incorrect Operation

- a. Type: ☐ Inadequate Procedures ☐ Inadequate Safety Practices ☐ Failure to Follow Procedures ☐ Other: _____
- b. Number of employees involved in incident who failed post-incident drug test: ____/____/____ Alcohol test: ____/____/____
- c. Was person involved in incident qualified per OQ rule? ☐ Yes ☐ No d. Hours on duty for person involved: ____/____/____

F7 - OTHER

24. Miscellaneous, describe: _____

25. X Unknown

- ☐ Investigation Complete ☒ Still Under Investigation (submit a supplemental report when investigation is complete)

PART G - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

At 1347 Key Span received a call from the Peabody Fire Department to shut off gas to 19 Dearborn Road, Peabody, MA due to a working fire. Dispatch was able to determine the correct address to be on Magnolia Way, and a PFR tech was dispatched at 1354, arriving at approximately 1410. Fire Department personnel shut off gas at the riser at approximately 1420. The PFR tech shut off the service valve in the street. The Peabody Fire Department, Massachusetts Dept. of Telecommunications and Energy (DTE), and State Fire Marshal personnel conducted an on-site investigation. Units 325, 326, 335, and 336 at the building were fed by a one-inch plastic service to four outside meters through a two-inch manifold. The meters and regulator were melted. Evidence of burn damage was also observed on the above-ground riser valve and insulating union and on the below-ground riser sweep. Under the direction of the DTE and fire officials, subsequent pressure testing from the service valve to the riser valve revealed leakage at the riser valve possibly from the fire. Approximately 35 feet of underground service line was pressure tested from the service valve to approximately five feet from the riser valve, and it held. The remaining five feet of underground service to the riser valve, the regulator, the above-ground riser, and the meter manifold were removed from the site by the Fire Marshal. Per DTE request, the removed equipment will be examined and tested.

(Attach additional sheets as necessary)



KeySpan Energy Delivery
52 Second Avenue
Waltham, MA 02451
Tel 781 466-5137
Fax 781 290-4965
E-mail tteeahan@keyspanenergy.com

Via Federal Express

Thomas R. Teehan
Senior Counsel

April 24, 2007

Angela Dow
Office of Pipeline Safety
Information Resource Manager
DPS-13
407th Street, S.W.
Washington, DC 20590

Re: Magnolia Way, Peabody

Dear Ms. Dow:

Per your request, I have enclosed a supplemental incident report regarding the above-captioned matter.

Please note that I had tried to fax this to you for (2) days unsuccessfully at fax number 202-366-4566.

Thank you.

Very truly yours,

Thomas R. Teehan

TRT/dmo
Enclosure



U.S. Department of Transportation
Pipeline and Hazardous Materials Safety
Administration

INCIDENT REPORT - GAS DISTRIBUTION SYSTEM

Report Date
No.

(DO NOT USE ONLY)

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 Office Of Pipeline Safety Web Page at <http://ops.dot.gov>.

PART A - GENERAL REPORT INFORMATION

Check: ☐ Original Report ☒ Supplemental Report ☐ Final Report

1. Operator Name and Address

- a. Operator's 5-digit Identification Number 1 / 6 / 4 / 0 / 1
- b. If Operator does not own the pipeline, enter Owner's 5-digit Identification Number
- c. Name of Operator Boston Gas Company d/b/a KeySpan Energy Delivery New England
- d. Operator street address 52 Second Avenue
- e. Operator address Waltham, Middlesex County, MA 02451
City, County or Parish, State and Zip Code

2. Time and date of the incident

1 / 3 / 4 / 7 / 0 / 3 / 0 / 8 / 0 / 7
hr. month day year

3. Incident Location

- a. Building 3, Units 325, 326, 335, and 336, Magnolia Way
Street or nearest street or road
- b. Peabody
City and County or Parish
- c. Massachusetts
State and Zip Code
- d. Latitude: / / / / / Longitude: / / / / /
(if not available, see instructions for how to provide specific location)
- e. Class location description
☐ Class 1 ☐ Class 2 ☒ Class 3 ☐ Class 4
- f. Incident on Federal Land ☐ Yes ☒ No

4. Type of leak or rupture

- ☐ Leak: ☐ Pinhole ☐ Connection Failure (complete sec. F5)
☐ Puncture, diameter or cross section (inches)
- ☐ Rupture (if applicable):
☐ Circumferential - Separation
☐ Longitudinal
- Tear/Crack, length (inches)
- Propagation Length, total, both sides (feet)
- ☐ N/A
- ☒ Other: At the site of a building fire, meters and regulators were found melted. Evidence of burn damage was also observed on the above-ground riser valve and insulating union and on the below ground riser sweep.

5. Consequences (check and complete all that apply)

- a. Fatality Total number of people: / / / / /
- Employees: / / / / / General Public: / / / / /
- Non-employee Contractors: / / / / /

- b. ☐ Injury requiring inpatient hospitalization

Total number of people: / / / / /

Employees: / / / / / General Public: / / / / /

Non-employee Contractors: / / / / /

- c. ☐ X Property damage/loss (estimated) Total in excess of \$100,000

Gas loss \$0.00 Operator damage \$0.00
Public/private property damage \$ in excess of \$100,000

- d. ☐ Gas ignited ☐ Explosion ☐ No Explosion

- e. Gas did not ignite ☐ Explosion ☐ No Explosion

- f. ☐ Evacuation (general public only) / / / / / people

Evacuation Reason:

- ☐ Unknown
☐ Emergency worker or public official ordered, precautionary
☐ Threat to the public
☐ Company policy

6. Elapsed time until area was made safe:

 / / hr. 2 / 6 / min.

7. Telephone Report

8 / 2 / 8 / 6 / 4 / 0 / 3 / 0 / 9 / 0 / 7 /
NRC Report Number month day year

8. a. Estimated pressure at point and time of incident:

55 PSIG

- b. Max. allowable operating pressure (MAOP): 60 PSIG

- c. MAOP established by:

X Test Pressure 90 psig
X 49 CFR § 192. 619 (a)(3)

PART B - PREPARER AND AUTHORIZED SIGNATURE

Thomas R. Teehan, Snr Counsel
(type or print) Preparer's Name and Title

TTeehan@keyspanenergy.com
Preparer's E-mail Address

TR Teehan
Authorized Signature

Snr Counsel
(type or print) Name and Title

4/23/07 (781) 466-5137
Date Area Code and Telephone Number

(781) 466-5137
Area Code and Telephone Number
(781) 290-4965
Area Code and Facsimile Number

Material

14. ☐ Body of Pipe ⇒ ☐ Dent ☐ Gouge ☐ Wrinkle Bend ☐ Arc Burn ☐ Other: _____

15. ☐ Component ⇒ ☐ Valve ☐ Fitting ☐ Vessel ☐ Extruded Outlet ☐ Other: _____

16. ☐ Joint ⇒ ☐ Gasket ☐ O-Ring ☐ Threads ☐ Fusion ☐ Other: _____

Weld

17. ☐ Butt ⇒ ☐ Pipe ☐ Fabrication ☐ Other: _____

18. ☐ Fillet ⇒ ☐ Branch ☐ Hot Tap ☐ Fitting ☐ Repair Sleeve ☐ Other: _____

19. ☐ Pipe Seam ⇒ ☐ LF ERW ☐ DSAW ☐ SAW ☐ Flash Weld ☐ Other: _____

☐ HF ERW ☐ Spiral

a. Type of failure:

☐ Construction Defect ⇒ ☐ Poor Workmanship ☐ Procedure not followed ☐ Poor Construction Procedures

☐ Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site?

c. Was part which leaked pressure tested before incident occurred? ☐ Yes, complete d-f, if known ☐ No ☐ No

d. Date of test: / / mo. / / day / / yr.

e. Time held at test pressure: 1 / 1 / 1 hr.

f. Estimated test pressure at point of incident: _____ PSIG

F6 – EQUIPMENT OR OPERATIONS

20. ☐ Malfunction of Control/Relief Equipment ⇒ ☐ Valve ☐ Instrumentation ☐ Pressure Regulator ☐ Other: _____

21. ☐ Threads Stripped, Broken Pipe Coupling ⇒ ☐ Nipples ☐ Valve Threads ☐ Mechanical Couplings ☐ Other: _____

22. ☐ Leaking Seals

23. ☐ **Incorrect Operation**

a. Type: ☐ Inadequate Procedures ☐ Inadequate Safety Practices ☐ Failure to Follow Procedures ☐ Other: _____

b. Number of employees involved in incident who failed post-incident drug test: / / Alcohol test: / /

c. Was person involved in incident qualified per OQ rule? ☐ Yes ☐ No d. Hours on duty for person involved: / /

F7 - OTHER

24. Miscellaneous, describe:

25. X Unknown

☐ Investigation Complete ☒ Still Under Investigation (submit a supplemental report when investigation is complete)

PARTIAL NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT
At 1:47 PM, Special Agent called from Peabody Fire Department to stop
off gas on 19. Deception Road, Peabody, MA due to a working fire. Dispatch
was able to determine the correct address to be on Magdalen Way, and a
PFR truck was dispatched at 1:54, arriving at approximately 1:58. The
Department personnel shut off gas at the meter at approx. 1:58. The
PFR truck shut off the service valve in the street. The Peabody Fire
Department, Massachusetts Dept. of Telecommunications and Control
(DTC), and State Fire Marshal personnel conducted an investigation.
Units 225, 336, 346, and 354 in the building were affected by above ground leaks.
Service to four outside meters through a two-inch mainline. The meters and
regulator were shut off. Evidence of burn damage was also observed on the
above ground riser and on the existing main and on the below ground
main spread. It noted the direction of the DHB and fire origins, and the
pressure reading from the service valve to the meter valve revealed that
the meter valve possibly from the fire. Approximately 35 feet of
main spread at mainline was pressure tested from fire service valve to
approximately 100 feet from the riser valve and a half. The remaining 50
feet of underground service to the riser valve, the mainline, the above
ground riser, and the meter manifold were removed from the site by the
Fire Marshal. Per DHB request, the removed equipment will be examined
and tested.

(Attach additional sheets as necessary)

EXHIBIT 2

Peabody Fire Department Report

A		MM DD YYYY	FDID		State	Incident Date	Station	Incident Number	Exposure	Delete Change No Activity		NFIRS -1 Basic
			09229	MA	03	08	2007		07-0001320	000		
B Location*												
<input type="checkbox"/> Check this box to indicate that the address for this incident is provided on the Wildland Fire Module in Section B "Alternative Location Specification". Use only for Wildland fires.												
Census Tract												
<input checked="" type="checkbox"/> Street address												
<input type="checkbox"/> Intersection												
<input type="checkbox"/> In front of												
<input type="checkbox"/> Rear of												
<input type="checkbox"/> Adjacent to												
<input type="checkbox"/> Directions												
Cross street or directions, as applicable												
C Incident Type *												
111 Building fire												
Incident Type												
D Aid Given or Received*												
1 <input checked="" type="checkbox"/> Mutual aid received												
2 <input type="checkbox"/> Automatic aid recv.												
3 <input type="checkbox"/> Mutual aid given												
4 <input type="checkbox"/> Automatic aid given												
5 <input type="checkbox"/> Other aid given												
N <input type="checkbox"/> None												
E1 Date & Times												
Midnight is 0000												
Check boxes if dates are the same as Alarm Date.												
ALARM always required												
Alarm *												
ARRIVAL required, unless canceled or did not arrive												
Arrival *												
CONTROLLED Optional, Except for wildland fires												
Controlled												
LAST UNIT CLEARED, required except for wildland fires												
Last Unit												
Cleared												
E2 Shift & Alarms												
Local Option												
2 01												
Shift or Alarms District												
E3 Special Studies												
Local Option												
Special Study ID#												
Special Study Value												
F Actions Taken *												
20 Search & rescue, Other												
Primary Action Taken (1)												
11 Extinguishment by fire												
Additional Action Taken (2)												
12 Salvage & overhaul												
Additional Action Taken (3)												
G1 Resources *												
<input type="checkbox"/> Check this box and skip this section if an Apparatus or Personnel form is used.												
Apparatus Personnel												
Suppression												
EMS												
Other												
<input type="checkbox"/> Check box if resource counts include aid received resources.												
G2 Estimated Dollar Losses & Values												
LOSSES: Required for all fires if known. Optional for non fires.												
Property \$												
Contents \$												
PRE-INCIDENT VALUE: Optional												
Property \$												
Contents \$												
Completed Modules												
<input checked="" type="checkbox"/> Fire-2												
<input checked="" type="checkbox"/> Structure-3												
<input type="checkbox"/> Civil Fire Cas.-4												
<input type="checkbox"/> Fire Serv. Cas.-5												
<input type="checkbox"/> EMS-6												
<input type="checkbox"/> HazMat-7												
<input type="checkbox"/> Wildland Fire-8												
<input checked="" type="checkbox"/> Apparatus-9												
<input checked="" type="checkbox"/> Personnel-10												
<input type="checkbox"/> Arson-11												
H1 Casualties												
Deaths Injuries												
Fire Service												
Civilian												
H2 Detector												
Required for Confined Fires.												
1 <input checked="" type="checkbox"/> Detector alerted occupants												
2 <input type="checkbox"/> Detector did not alert them												
U <input type="checkbox"/> Unknown												
H3 Hazardous Materials Release												
N <input type="checkbox"/> None												
1 <input type="checkbox"/> Natural Gas: slow leak, no evacuation or HazMat actions												
2 <input type="checkbox"/> Propane gas: <21 lb. tank (as in home BBQ grill)												
3 <input type="checkbox"/> Gasoline: vehicle fuel tank or portable container												
4 <input type="checkbox"/> Kerosene: fuel burning equipment or portable storage												
5 <input type="checkbox"/> Diesel fuel/fuel oil: vehicle fuel tank or portable												
6 <input type="checkbox"/> Household solvents: home/office spill, cleanup only												
7 <input type="checkbox"/> Motor oil: from engine or portable container												
8 <input type="checkbox"/> Paint: from paint cans totaling < 55 gallons												
0 <input type="checkbox"/> Other: Special HazMat actions required or spill > 55gal.. Please complete the HazMat form												
I Mixed Use Property												
NN <input type="checkbox"/> Not Mixed												
10 <input type="checkbox"/> Assembly use												
20 <input type="checkbox"/> Education use												
33 <input type="checkbox"/> Medical use												
40 <input type="checkbox"/> Residential use												
51 <input type="checkbox"/> Row of stores												
53 <input type="checkbox"/> Enclosed mall												
58 <input type="checkbox"/> Bus. & Residential												
59 <input type="checkbox"/> Office use												
60 <input type="checkbox"/> Industrial use												
63 <input type="checkbox"/> Military use												
65 <input type="checkbox"/> Farm use												
00 <input type="checkbox"/> Other mixed use												
J Property Use*												
Structures												
131 <input type="checkbox"/> Church, place of worship												
161 <input type="checkbox"/> Restaurant or cafeteria												
162 <input type="checkbox"/> Bar/Tavern or nightclub												
213 <input type="checkbox"/> Elementary school or kindergarten												
215 <input type="checkbox"/> High school or junior high												
241 <input type="checkbox"/> College, adult education												
311 <input type="checkbox"/> Care facility for the aged												
331 <input type="checkbox"/> Hospital												
Outside												
124 <input type="checkbox"/> Playground or park												
655 <input type="checkbox"/> Crops or orchard												
669 <input type="checkbox"/> Forest (timberland)												
807 <input type="checkbox"/> Outdoor storage area												
919 <input type="checkbox"/> Dump or sanitary landfill												
31 <input type="checkbox"/> Open land or field												
341 <input type="checkbox"/> Clinic, clinic type infirmary												
342 <input type="checkbox"/> Doctor/dentist office												
361 <input type="checkbox"/> Prison or jail, not juvenile												
419 <input type="checkbox"/> 1-or 2-family dwelling												
429 <input checked="" type="checkbox"/> Multi-family dwelling												
439 <input type="checkbox"/> Rooming/boarded house												
449 <input type="checkbox"/> Commercial hotel or motel												
459 <input type="checkbox"/> Residential, board and care												
464 <input type="checkbox"/> Dormitory/barracks												
519 <input type="checkbox"/> Food and beverage sales												
936 <input type="checkbox"/> Vacant lot												
938 <input type="checkbox"/> Graded/care for plot of land												
946 <input type="checkbox"/> Lake, river, stream												
951 <input type="checkbox"/> Railroad right of way												
960 <input type="checkbox"/> Other street												
961 <input type="checkbox"/> Highway/divided highway												
962 <input type="checkbox"/> Residential street/driveway												
539 <input type="checkbox"/> Household goods, sales, repairs												
579 <input type="checkbox"/> Motor vehicle/boat sales/repair												
571 <input type="checkbox"/> Gas or service station												
599 <input type="checkbox"/> Business office												
615 <input type="checkbox"/> Electric generating plant												
629 <input type="checkbox"/> Laboratory/science lab												
700 <input type="checkbox"/> Manufacturing plant												
819 <input type="checkbox"/> Livestock/poultry storage (barn)												
882 <input type="checkbox"/> Non-residential parking garage												
891 <input type="checkbox"/> Warehouse												
981 <input type="checkbox"/> Construction site												
984 <input type="checkbox"/> Industrial plant yard												
Lookup and enter a Property Use code only if you have NOT checked a Property Use box:												
Property Use												
Multifamily dwelling												

NFIRS-1 Revision 03/11/99

K1 Person/Entity Involved

Local Option

Business name (if applicable)

Area Code

Phone Number

☐ Check This Box if same address as incident location. Then skip the three duplicate address lines.

Mr., Ms., Mrs. First Name

MI

Last Name

Suffix

Number

Prefix

Street or Highway

Street Type

Suffix

Post Office Box

Apt./Suite/Room

City

State

Zip Code

☐ More people involved? Check this box and attach Supplemental Forms (NFIRS-1S) as necessary

K2 Owner

☐ Same as person involved? Then check this box and skip The rest of this section.

Local Option

Business name (if Applicable)

Area Code

Phone Number

☐ Check this box if same address as incident location. Then skip the three duplicate address lines.

Mr., Ms., Mrs. First Name

MI

Last Name

Suffix

Number

Prefix

Street or Highway

Street Type

Suffix

Post Office Box

Apt./Suite/Room

City

State

Zip Code

L Remarks

Local Option

rransom ; 2007/03/08 13:40:01 - CAR_2 AT EVENT MANNING IS 1
rransom ; 2007/03/08 13:40:16 - E3 AT EVENT MANNING IS 2
rransom ; 2007/03/08 13:43:35 - T1 AT EVENT MANNING IS 1
rransom ; 2007/03/08 13:43:42 - E5 AT EVENT MANNING IS 3
rransom ; 2007/03/08 13:45:36 - E1 AT EVENT MANNING IS 4
rransom ; 2007/03/08 13:45:40 - L1 AT EVENT MANNING IS 3
rransom ; 2007/03/08 13:48:49 - E7 AT EVENT MANNING IS 4
ransom ; 2007/03/08 13:49:28 - CAR_1 AT EVENT MANNING IS 1
rransom ; 2007/03/08 13:51:21 - _LFD-E AT EVENT MANNING IS 4
rransom ; 2007/03/08 13:58:54 - E4 AT EVENT MANNING IS 3
rransom ; 2007/03/08 14:05:14 - _LYN-E AT EVENT MANNING IS 3
ddean ; 2007/03/08 14:36:18 - _SAL_E AT EVENT MANNING IS 0

ddean ; 2007/03/08 14:19:30 - GAS COMPANY NOTIFIED
ddean ; 2007/03/08 14:22:51 - ELECTRIC LIGHT NOTIFIED
ddean ; 2007/03/08 14:27:35 - BUILDING INSPECTOR NOTIFIED

interfaces ; 2007/03/08 13:33:12
ALARM SIGNAL: HIGHLANDS (19 MAGNOLIA WAY), 875, MB875
rransom ; 2007/03/08 13:49:43
C-4 STATES FIRE SHOWING ON D SIDE OF BUILDING
ddean ; 2007/03/08 14:19:47
GAS SHUT DOWN BY GAS COMPANY
ddean ; 2007/03/08 14:20:09
C-4 STATES EXTERIOR FIRE EXTINGUISHED

L Authorization

6675

Officer in charge ID

Nelson, Richard P

Signature

DC

Position or rank

Car 2

Assignment

03

Month

10

Day

2007

Year

Check Box if same as Officer making report ID

2107

Desmond, Thomas M

Signature

FF

Position or rank

E4

Assignment

03

Month

08

Day

2007

Year

09229

MA

MM

DD

YYYY

3

8

2007

07-0001320

000

Complete
Narrative

Narrative:

ransom ; 2007/03/08 13:40:01 - CAR_2 AT EVENT MANNING IS 1
ransom ; 2007/03/08 13:40:16 - E3 AT EVENT MANNING IS 2
ransom ; 2007/03/08 13:43:35 - T1 AT EVENT MANNING IS 1
ransom ; 2007/03/08 13:43:42 - E5 AT EVENT MANNING IS 3
ransom ; 2007/03/08 13:45:36 - E1 AT EVENT MANNING IS 4
ransom ; 2007/03/08 13:45:40 - L1 AT EVENT MANNING IS 3
ransom ; 2007/03/08 13:48:49 - E7 AT EVENT MANNING IS 4
ransom ; 2007/03/08 13:49:28 - CAR_1 AT EVENT MANNING IS 1
ransom ; 2007/03/08 13:51:21 - LFD-E AT EVENT MANNING IS 4
ransom ; 2007/03/08 13:58:54 - E4 AT EVENT MANNING IS 3
ransom ; 2007/03/08 14:05:14 - LYN-E AT EVENT MANNING IS 3
dDean ; 2007/03/08 14:36:18 - SAL_E AT EVENT MANNING IS 0

dDean ; 2007/03/08 14:19:30 - GAS COMPANY NOTIFIED
dDean ; 2007/03/08 14:22:51 - ELECTRIC LIGHT NOTIFIED
dDean ; 2007/03/08 14:27:35 - BUILDING INSPECTOR NOTIFIED

interfaces ; 2007/03/08 13:33:12
ALARM SIGNAL: HIGHLANDS (19 MAGNOLIA WAY), 875, MB875
ransom ; 2007/03/08 13:49:43
C-4 STATES FIRE SHOWING ON D SIDE OF BUILDING
dDean ; 2007/03/08 14:19:47
GAS SHUT DOWN BY GAS COMPANY
dDean ; 2007/03/08 14:20:09
C-4 STATES EXTERIOR FIRE EXTINGUISHED
dDean ; 2007/03/08 14:21:12
C-4 OVERHAULING D SIDE
dDean ; 2007/03/08 14:55:30
ALL COMPANIES DOING OVERHAUL, ENGINE 4 DOING SECONDARY SEARCH
dDean ; 2007/03/08 15:06:54
C-4 STATES SECONDARY SEARCH ALL CLEAR.

Peabody Fire receives MB 875 for the Highland Apts. at Dearborn Road with E-1-3 and L-1 responding with C-4. Enroute several calls reporting possible explosion and reports of a working fire from route 128 by vehicle passer byes. C-4 on scene finds three story wood frame attached Apt. building on fire on the D side exterior of the building. The fire is two fold with the natural gas main to the building on fire at the base of the building and extension up three levels of the exterior and entering the cockloft area on the D side. E-7 (fourth pump called to the scene initially named RIC team later changed to advance line to Division 2. Fifth pump E-4 to scene named RIC team after activating E-7. E-3 was first pump in located past the A/D corner tagged the hydrant on the A/D corner found inoperable (frozen). L-1 set up on the A/D corner behind E-3. E-5 on arrival assisted laying LDH into second hydrant approx. 500 ft before fire building to E-3 pump truck.

First tactical assignment was primary search of building L-1 Division 3, E-1 Division 2 and 1 getting all clear report after forcing entry to several apts. E-3 and L-1 assigned to attic Division with 1 3/4 inch line to cut fire off in the D side cockloft. E-7 has 1 3/4 line to Division 2 for fire attack. E-5 stretches 2 1/2 line as a backup to attic Division. E-1 assists other crews in the attic division relieving E-5.

Keyspan Energy was notified to come to the scene shortly after initial size up. Approx. fifteen minutes into the incident after second call to Keyspan initial tactic to have Gas company shut the flow of gas off at the street C-4 consulted with Safety Officer Capt. McGuire about secondary plan to stop flow using one company with fog pattern shutting down flow at petcock. Shortly after Keyspan arrival E-4 three man crew used fog pattern and tool to shut gas down at petcock stopping flow and extinguishing the fire. E-4 wet down Dside of the building and would later conduct secondary search all clear as its last tactical activity. The fire was cut off in the attic and extinguished by several companies with the truss structure weakened on Division 3 by fire and heavy water load.

The fire building was a sprinkled building on division 1-3 and no sprinklers present in

09229	MA	MM 3	DD 8	YYYY 2007		07-0001320	000	Complete Narrative
FDID *	State *	Incident Date *			Station	Incident Number *	Exposure *	

Narrative:

the attic. The sprinkler system was supported by E-3 with one head reported operating on Division 2. Supporting of the sprinkler system for this incident was not effective from extinguishing standpoint due to the main body of the fire on the exterior or in the cockloft. Fire Alarm was active on arrival. The Fire is currently under investigation through the State Fire Marshalls Office and Peabody Fire Dept. Damages Estimated at \$1 million.

Resources on scene:

C-1 Chief Steven Pasdon assisted in tactical deployment
 K-1 Capt. Sampson Fire Prevention Investigator
 K-2 Inspector Joe DiFranco Fire Prevention Investigator
 State Fire Marshalls Office Trooper Peter Cummings and Trooper Bossy
 Numerous Keyspan Reps.
 T-1 Safety Officer Capt. Jeff McGuire

FDID	09229	State	MA	Incident Date	MM DD YYYY	3 8 2007	Station	Incident Number	07-0001320	Exposure	000	Complete Narrative
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Narrative:

ransom ; 2007/03/08 13:40:01 - CAR_2 AT EVENT MANNING IS 1
ransom ; 2007/03/08 13:40:16 - E3 AT EVENT MANNING IS 2
ransom ; 2007/03/08 13:43:35 - T1 AT EVENT MANNING IS 1
ransom ; 2007/03/08 13:43:42 - E5 AT EVENT MANNING IS 3
ransom ; 2007/03/08 13:45:36 - E1 AT EVENT MANNING IS 4
ransom ; 2007/03/08 13:45:40 - L1 AT EVENT MANNING IS 3
ransom ; 2007/03/08 13:48:49 - E7 AT EVENT MANNING IS 4
ransom ; 2007/03/08 13:49:28 - CAR_1 AT EVENT MANNING IS 1
ransom ; 2007/03/08 13:51:21 - LFD-E AT EVENT MANNING IS 4
ransom ; 2007/03/08 13:58:54 - E4 AT EVENT MANNING IS 3
ransom ; 2007/03/08 14:05:14 - LYN-E AT EVENT MANNING IS 3
dDean ; 2007/03/08 14:36:18 - SAL_E AT EVENT MANNING IS 0

dDean ; 2007/03/08 14:19:30 - GAS COMPANY NOTIFIED
dDean ; 2007/03/08 14:22:51 - ELECTRIC LIGHT NOTIFIED
dDean ; 2007/03/08 14:27:35 - BUILDING INSPECTOR NOTIFIED

interfaces ; 2007/03/08 13:33:12
ALARM SIGNAL: HIGHLANDS (19 MAGNOLIA WAY), 875, MB875
ransom ; 2007/03/08 13:49:43
C-4 STATES FIRE SHOWING ON D SIDE OF BUILDING
dDean ; 2007/03/08 14:19:47
GAS SHUT DOWN BY GAS COMPANY
dDean ; 2007/03/08 14:20:09
C-4 STATES EXTERIOR FIRE EXTINGUISHED
dDean ; 2007/03/08 14:21:12
C-4 OVERHAULING D SIDE
dDean ; 2007/03/08 14:55:30
ALL COMPANIES DOING OVERHAUL, ENGINE 4 DOING SECONDARY SEARCH
dDean ; 2007/03/08 15:06:54
C-4 STATES SECONDARY SEARCH ALL CLEAR.

Peabody Fire receives MB 875 for the Highland Apts. at Dearborn Road with E-1-3 and L-1 responding with C-4. Enroute several calls reporting possible explosion and reports of a working fire from route 128 by vehicle passer byes. C-4 on scene finds three story wood frame attached Apt. building on fire on the D side exterior of the building. The fire is two fold with the natural gas main to the building on fire at the base of the building and extension up three levels of the exterior and entering the cockloft area on the D side. E-7 (fourth pump called to the scene initially named RIC team later changed to advance line to Division 2. Fifth pump E-4 to scene named RIC team after activating E-7. E-3 was first pump in located past the A/D corner tagged the hydrant on the A/D corner found inoperable (frozen). L-1 set up on the A/D corner behind E-3. E-5 on arrival assisted laying LDH into second hydrant approx. 500 ft before fire building to E-3 pump truck.

First tactical assignment was primary search of building L-1 Division 3, E-1 Division 2 and 1 getting all clear report after forcing entry to several apts. E-3 and L-1 assigned to attic Division with 1 3/4 inch line to cut fire off in the D side cockloft. E-7 has 1 3/4 line to Division 2 for fire attack. E-5 stretches 2 1/2 line as a backup to attic Division. E-1 assists other crews in the attic division relieving E-5.

Keyspan Energy was notified to come to the scene shortly after initial size up.

Approx. fifteen minutes into the incident after second call to Keyspan initial tactic to have Gas company shut the flow of gas off at the street C-4 consulted with Safety Officer Capt. McGuire about secondary plan to stop flow using one company with fog pattern shutting down flow at petcock. Shortly after Keyspan arrival E-4 three man crew used fog pattern and tool to shut gas down at petcock stopping flow and extinguishing the fire. E-4 wet down Dside of the building and would later conduct secondary search all clear as its last tactical activity. The fire was cut off in the attic and extinguished by several companies with the truss structure weakened on Division 3 by fire and heavy water load.

The fire building was a sprinkled building on division 1-3 and no sprinklers present in the attic. The sprinkler system was supported by E-3 with one head reported operating on Division 2. Supporting of the sprinkler system for this incident was not effective from

A FDID <u>09229</u> * State <u>MA</u> * Incident Date <u>03/08/2007</u> * Station <u>07-0001320</u> * Incident Number * Exposure * <u>000</u>		<input type="checkbox"/> Delete <input type="checkbox"/> Change <input type="checkbox"/> No Activity NFIRS -2 Fire	
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B Property Details B1 <u>0042</u> <input type="checkbox"/> Not Residential Estimated Number of residential living units in building of origin whether or not all units became involved B2 <u>001</u> <input type="checkbox"/> Buildings not involved Number of buildings involved B3 <u> </u> <input checked="" type="checkbox"/> None Acres burned (outside fires) <input type="checkbox"/> Less than one acre	C On-Site Materials or Products <input checked="" type="checkbox"/> None Complete if there were any significant amounts of commercial, industrial, energy or agricultural products or materials on the Property, whether or not they became involved Enter up to three codes. Check one or more boxes for each code entered. <div style="display: flex;"> <div style="flex: 1;"> <u>NNN</u> <u>None</u> On-site material (1) <u> </u> <u> </u> On-site material (2) <u> </u> <u> </u> On-site material (3) </div> <div style="flex: 1;"> 1 <input type="checkbox"/> Bulk storage or warehousing 2 <input type="checkbox"/> Processing or manufacturing 3 <input type="checkbox"/> Packaged goods for sale 4 <input type="checkbox"/> Repair or service 1 <input type="checkbox"/> Bulk storage or warehousing 2 <input type="checkbox"/> Processing or manufacturing 3 <input type="checkbox"/> Packaged goods for sale 4 <input type="checkbox"/> Repair or service 1 <input type="checkbox"/> Bulk storage or warehousing 2 <input type="checkbox"/> Processing or manufacturing 3 <input type="checkbox"/> Packaged goods for sale 4 <input type="checkbox"/> Repair or service </div> </div>
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D Ignition D1 <u>76</u> <u>Wall surface: exterior</u> Area of fire origin * D2 <u>UU</u> <u>Undetermined</u> Heat source * D3 <u>UU</u> <u>Undetermined</u> Item first ignited * 1 <input type="checkbox"/> Check Box if fire spread was confined to object of origin D4 <u>UU</u> <u>Undetermined</u> Type of material first ignited Required only if item first ignited code is 00 or <70	E1 Cause of Ignition <input type="checkbox"/> Check box if this is an exposure report. Skip to section C 1 <input type="checkbox"/> Intentional 2 <input type="checkbox"/> Unintentional 3 <input type="checkbox"/> Failure of equipment or heat source 4 <input type="checkbox"/> Act of nature 5 <input checked="" type="checkbox"/> Cause under investigation U <input type="checkbox"/> Cause undetermined after investigation	E3 Human Factors Contributing To Ignition Check all applicable boxes 1 <input type="checkbox"/> Asleep <input checked="" type="checkbox"/> None 2 <input type="checkbox"/> Possibly impaired by alcohol or drugs 3 <input type="checkbox"/> Unattended person. 4 <input type="checkbox"/> Possibly mental disabled 5 <input type="checkbox"/> Physically Disabled 6 <input type="checkbox"/> Multiple persons involved 7 <input type="checkbox"/> Age was a factor Estimated age of person involved <u> </u> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female
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F1 Equipment Involved In Ignition <input type="checkbox"/> None If Equipment was not involved, Skip to Section G <u> </u> <u> </u> Equipment Involved Brand <u> </u> Model <u> </u> Serial # <u> </u> Year <u> </u>	F2 Equipment Power <u> </u> <u> </u> Equipment Power Source F3 Equipment Portability 1 <input type="checkbox"/> Portable 2 <input type="checkbox"/> Stationary Portable equipment normally can be moved by one person, is designed to be use in multiple locations, and requires no tools to install.	G Fire Suppression Factors Enter up to three codes. <input type="checkbox"/> None <u>723</u> <u>Ice</u> Fire suppression factor (1) <u>714</u> <u>Temperature, low</u> Fire suppression factor (2) <u>452</u> <u>Hydrants</u> Fire suppression factor (3)
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H1 Mobile Property Involved <input type="checkbox"/> None 1 <input type="checkbox"/> Not involved in ignition, but burned 2 <input type="checkbox"/> Involved in ignition, but did not burn 3 <input type="checkbox"/> Involved in ignition and burned	H2 Mobile Property Type & Make <u> </u> <u> </u> Mobile property type <u> </u> <u> </u> Mobile property make <u> </u> <u> </u> Mobile property model Year <u> </u> <u> </u> <u> </u> License Plate Number State VIN Number	Local Use <input type="checkbox"/> Pre-Fire Plan Available Some of the information presented in this report may be based upon reports from other Agencies <input type="checkbox"/> Arson report attached <input type="checkbox"/> Police report attached <input type="checkbox"/> Coroner report attached <input type="checkbox"/> Other reports attached
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NFIRS-2 Revision 01/19/99

I1. Structure Type * <small>If fire was in enclosed building or a portable/mobile structure complete the rest of this form</small> 1 <input checked="" type="checkbox"/> Enclosed Building 2 <input type="checkbox"/> Portable/mobile structure <input type="checkbox"/> Open structure <input type="checkbox"/> Air supported structure 5 <input type="checkbox"/> Tent 6 <input type="checkbox"/> Open platform (e.g. piers) 7 <input type="checkbox"/> Underground structure (work areas) 8 <input type="checkbox"/> Connective structure (e.g. fences) 0 <input type="checkbox"/> Other type of structure	I2. Building Status * 1 <input type="checkbox"/> Under construction 2 <input checked="" type="checkbox"/> Occupied & operating 3 <input type="checkbox"/> Idle, not routinely used 4 <input type="checkbox"/> Under major renovation 5 <input type="checkbox"/> Vacant and secured 6 <input type="checkbox"/> Vacant and unsecured 7 <input type="checkbox"/> Being demolished 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined	I3. Building * Height <small>Count the ROOF as part of the highest story</small> <div style="border: 1px solid black; padding: 2px; display: inline-block;">004</div> <small>Total number of stories at or above grade</small> <div style="border: 1px solid black; padding: 2px; display: inline-block;"></div> <small>Total number of stories below grade</small>	I4. Main Floor Size* <div style="text-align: right;">NFIRS-3 Structure Fire</div> <div style="display: flex; justify-content: space-between;"> <div><div style="border: 1px solid black; padding: 2px;"> </div> , <div style="border: 1px solid black; padding: 2px;">006</div> , <div style="border: 1px solid black; padding: 2px;">000</div></div> <small>Total square feet</small> <div style="text-align: center; margin: 10px 0;">OR</div> <div style="display: flex; justify-content: space-between;"> <div><div style="border: 1px solid black; padding: 2px;"> </div> , <div style="border: 1px solid black; padding: 2px;">100</div> BY <div style="border: 1px solid black; padding: 2px;"> </div> , <div style="border: 1px solid black; padding: 2px;">060</div></div> <div style="display: flex; justify-content: space-between;"> <small>Length in feet</small> <small>Width in feet</small> </div> </div></div>
J1. Fire Origin * <div style="display: flex; justify-content: space-between;"> <div><div style="border: 1px solid black; padding: 2px;">001</div></div> <div><input type="checkbox"/> Below Grade</div> </div> <small>Story of fire origin</small>	J3. Number of Stories Damaged By Flame <small>Count the ROOF as part of the highest story</small> <div style="display: flex; justify-content: space-between;"> <div><div style="border: 1px solid black; padding: 2px;"> </div></div> <div><small>Number of stories w/ minor damage (1 to 24% flame damage)</small></div> </div> <div style="display: flex; justify-content: space-between;"> <div><div style="border: 1px solid black; padding: 2px;">001</div></div> <div><small>Number of stories w/ significant damage (25 to 49% flame damage)</small></div> </div> <div style="display: flex; justify-content: space-between;"> <div><div style="border: 1px solid black; padding: 2px;">001</div></div> <div><small>Number of stories w/ heavy damage (50 to 74% flame damage)</small></div> </div> <div style="display: flex; justify-content: space-between;"> <div><div style="border: 1px solid black; padding: 2px;"> </div></div> <div><small>Number of stories w/ extreme damage (75 to 100% flame damage)</small></div> </div>	K. Material Contributing Most To Flame Spread <input type="checkbox"/> Check if no flame spread OR same as material first ignited OR unable to determine Skip To Section L K1 <div style="border: 1px solid black; padding: 2px;">12</div> <div style="border: 1px solid black; padding: 2px;">Exterior wall covering</div> <small>Item contributing most to flame spread</small> K2 <div style="border: 1px solid black; padding: 2px;">63</div> <div style="border: 1px solid black; padding: 2px;">Sawn wood, including</div> <div style="display: flex; justify-content: space-between;"> <small>Type of material contributing most of flame spread</small> <small>Required only if item contributing code is 00 or <70</small> </div>	
J2. Fire Spread * 1 <input type="checkbox"/> Confined to object of origin 2 <input type="checkbox"/> Confined to room of origin 3 <input type="checkbox"/> Confined to floor of origin 4 <input checked="" type="checkbox"/> Confined to building of origin 5 <input type="checkbox"/> Beyond building of origin	L1. Presence of Detectors * <small>(In area of the fire)</small> N <input type="checkbox"/> None Present Skip to section M 1 <input checked="" type="checkbox"/> Present U <input type="checkbox"/> Undetermined		
T.2. Detector Type 1 <input checked="" type="checkbox"/> Smoke 2 <input type="checkbox"/> Heat 3 <input type="checkbox"/> Combination smoke - heat 4 <input type="checkbox"/> Sprinkler, water flow detection 5 <input type="checkbox"/> More than 1 type present 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined	L3. Detector Power Supply 1 <input type="checkbox"/> Battery only 2 <input type="checkbox"/> Hardwire only 3 <input type="checkbox"/> Plug in 4 <input checked="" type="checkbox"/> Hardwire with battery 5 <input type="checkbox"/> Plug in with battery 6 <input type="checkbox"/> Mechanical 7 <input type="checkbox"/> Multiple detectors & power supplies 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined	L5. Detector Effectiveness <small>Required if detector operated</small> 1 <input checked="" type="checkbox"/> Alerted Occupants, occupants responded 2 <input type="checkbox"/> Occupants failed to respond 3 <input type="checkbox"/> There were no occupants 4 <input type="checkbox"/> Failed to alert occupants U <input type="checkbox"/> Undetermined	
	L4. Detector Operation 1 <input type="checkbox"/> Fire too small to activate 2 <input checked="" type="checkbox"/> Operated (Complete Section L5) 3 <input type="checkbox"/> Failed to Operate (Complete Section L6) U <input type="checkbox"/> Undetermined	L6. Detector Failure Reason <small>Required if detector failed to operate</small> 1 <input type="checkbox"/> Power failure, shutoff or disconnect 2 <input type="checkbox"/> Improper installation or placement 3 <input type="checkbox"/> Defective 4 <input type="checkbox"/> Lack of maintenance, includes cleaning 5 <input type="checkbox"/> Battery missing or disconnected 6 <input type="checkbox"/> Battery discharged or dead 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined	
M1. Presence of Automatic Extinguishment System * N <input type="checkbox"/> None Present 1 <input checked="" type="checkbox"/> Present Complete rest of Section M	M3. Automatic Extinguishment System Operation <small>Required if fire was within designed range</small> 1 <input type="checkbox"/> Operated & effective (Go to M4) 2 <input checked="" type="checkbox"/> Operated & not effective (M4) 3 <input type="checkbox"/> Fire too small to activate 4 <input type="checkbox"/> Failed to operate (Go to M5) 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined	M5. Automatic Extinguishment System Failure Reason. <small>required if system failed</small> 1 <input type="checkbox"/> System shut off 2 <input type="checkbox"/> Not enough agent discharged 3 <input type="checkbox"/> Agent discharged but did not reach fire 4 <input type="checkbox"/> Wrong type of system 5 <input type="checkbox"/> Fire not in area protected 6 <input type="checkbox"/> System components damaged 7 <input type="checkbox"/> Lack of maintenance 8 <input type="checkbox"/> Manual Intervention 0 <input checked="" type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined <div style="text-align: right;">NFIRS-3 Revision 01/19/99</div>	
M2. Type of Automatic Extinguishment System * <small>Required if fire was within designed range of AES</small> 1 <input checked="" type="checkbox"/> Wet pipe sprinkler 2 <input type="checkbox"/> Dry pipe sprinkler 3 <input type="checkbox"/> Other sprinkler system 4 <input type="checkbox"/> Dry chemical system 5 <input type="checkbox"/> Foam system 6 <input type="checkbox"/> Halogen type system 7 <input type="checkbox"/> Carbon dioxide (CO ₂) system 0 <input type="checkbox"/> Other special hazard system U <input type="checkbox"/> Undetermined	M4. Number of Sprinkler Heads Operating <small>Required if system operated</small> <div style="border: 1px solid black; padding: 2px; display: inline-block;">001</div> <small>Number of sprinkler heads operating</small>		

A		FDID		State		Incident Date		Station		Incident Number		Exposure		Delete <input type="checkbox"/> Change <input type="checkbox"/>		NFIRS - 9 Apparatus or Resources	
		09229		MA		3 8		2007		07-0001320		000					

B Apparatus or * Resource		Date and Times					Sent <input checked="" type="checkbox"/>	Number of * People	Use <small>Check ONE box for each apparatus to indicate its main use at the incident.</small>	Actions Taken	
		Check if same as alarm date Month Day Year			Hour Min						
1 ID Car 1 Type 92	Dispatch	<input type="checkbox"/>	3	8	2007	13:49	<input checked="" type="checkbox"/>	1	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input checked="" type="checkbox"/> Other		
	Arrival	<input type="checkbox"/>	3	8	2007	13:49					
	Clear	<input type="checkbox"/>	3	8	2007	15:20					
2 ID Car 2 Type 92	Dispatch	<input type="checkbox"/>	3	8	2007	13:33	<input checked="" type="checkbox"/>	1	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input checked="" type="checkbox"/> Other		
	Arrival	<input type="checkbox"/>	3	8	2007	13:40					
	Clear	<input type="checkbox"/>	3	8	2007	17:59					
3 ID E1 Type 11	Dispatch	<input type="checkbox"/>	3	8	2007	13:33	<input checked="" type="checkbox"/>	0	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input checked="" type="checkbox"/> Other		
	Arrival	<input type="checkbox"/>	3	8	2007	13:45					
	Clear	<input type="checkbox"/>	3	8	2007	15:44					
4 ID E3 Type 11	Dispatch	<input type="checkbox"/>	3	8	2007	13:33	<input checked="" type="checkbox"/>	2	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input checked="" type="checkbox"/> Other		
	Arrival	<input type="checkbox"/>	3	8	2007	13:40					
	Clear	<input type="checkbox"/>	3	8	2007	17:00					
5 ID E4 Type 11	Dispatch	<input type="checkbox"/>	3	8	2007	13:58	<input checked="" type="checkbox"/>	0	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input checked="" type="checkbox"/> Other		
	Arrival	<input type="checkbox"/>	3	8	2007	13:58					
	Clear	<input type="checkbox"/>	3	8	2007	15:34					
6 ID E5 Type 11	Dispatch	<input type="checkbox"/>	3	8	2007	13:35	<input checked="" type="checkbox"/>	4	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input checked="" type="checkbox"/> Other		
	Arrival	<input type="checkbox"/>	3	8	2007	13:43					
	Clear	<input type="checkbox"/>	3	8	2007	15:44					
7 ID E7 Type 11	Dispatch	<input type="checkbox"/>	3	8	2007	13:48	<input checked="" type="checkbox"/>	1	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input checked="" type="checkbox"/> Other		
	Arrival	<input type="checkbox"/>	3	8	2007	13:48					
	Clear	<input type="checkbox"/>	3	8	2007	15:30					
8 ID L1 Type 12	Dispatch	<input type="checkbox"/>	3	8	2007	13:33	<input checked="" type="checkbox"/>	3	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input checked="" type="checkbox"/> Other		
	Arrival	<input type="checkbox"/>	3	8	2007	13:45					
	Clear	<input type="checkbox"/>	3	8	2007	15:58					
9 ID T1 Type 10	Dispatch	<input type="checkbox"/>	3	8	2007	13:43	<input checked="" type="checkbox"/>	0	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input checked="" type="checkbox"/> Other		
	Arrival	<input type="checkbox"/>	3	8	2007	13:43					
	Clear	<input type="checkbox"/>	3	8	2007	16:47					

Type of Apparatus or Resources

Ground Fire Suppression 11 Engine 12 Truck or aerial 13 Quint 14 Tanker & pumper combination 16 Brush truck 17 ARF (Aircraft Rescue and Firefighting) 10 Ground fire suppression, other Heavy Ground Equipment 21 Dozer or plow 22 Tractor 24 Tanker or tender 20 Heavy equipment, other Aircraft 41 Aircraft: fixed wing tanker 42 Helitanker 43 Helicopter 40 Aircraft, other	Marine Equipment 51 Fire boat with pump 52 Boat, no pump 50 Marine apparatus, other Support Equipment 61 Breathing apparatus support 62 Light and air unit 60 Support apparatus, other Medical & Rescue 71 Rescue unit 72 Urban Search & rescue unit 73 High angle rescue unit 75 BLS unit 76 ALS unit 70 Medical and rescue unit, other
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**More Apparatus?
Use Additional
Sheets**

Other 91 Mobile command post 92 Chief officer car 93 HazMat unit 94 Type 1 hand crew 95 Type 2 hand crew 99 Privately owned vehicle 00 Other apparatus/resource NN None UU Undetermined	NFIRS-9 Revision 11/17/98
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EXHIBIT 3

KeySpan Post Incident Preliminary Report (March 15, 2007)



Date: Thursday, March 15, 2007

To: John Higgins, Director Field Operations – NE Maintain
Doc Kildare, Director Field Operations – NE Service

From: William E. Costigan, Manager Field Operations – North Shore Div.

RE: Fire Incident – Highlands at Dearborn, #3 Magnolia Way, Peabody

PRELIMINARY – PENDING METALURGICAL TEST RESULTS

At 13:47 hrs on Thursday March 8, 2007, KED NE Dispatcher Mark Connolly received a call from the Peabody Fire Department to shut off gas service to #19 Dearborn Rd, Peabody due to a working fire. Serviceperson Steve Mahoney was dispatched at 13:54 hrs and arrived on-site at 14:10 hrs. The Serviceperson immediately reported back that natural gas could have contributed to the fire and requested management personnel be dispatched to the scene. Maintain Supervisor Glen McIntosh, Service Supervisor Scott Crooker, Field Operations Manager Bill Costigan and Senior Investigator John Gatherum all reported to the scene to investigate. Also at the scene were State Fire Marshall Peter Cummings, Massachusetts Department of Telecommunications and Energy Inspector Paul Grieco. Media coverage was also in the area.

Upon arrival, Serviceman Mahoney was shown a location of a shutoff in the general area of the building at was on fire. Unsure if this shut-off was a main or service valve; Serviceman Mahoney requested assistance from his Supervisor and Operations Engineering. Con-currently, Peabody Fire Department personnel shut the gas flow at the riser valve at approximately 14:20 hrs. At approximately 14:25, Serviceman Mahoney shut the service valve to secure the area.

The State Fire Marshall and Local Fire Department personnel denied KED personnel access to the site until approximately 17:30 hrs. When allowed the opportunity to investigate, KED Field Manager Bill Costigan and Supervisor Scott Crooker were the only persons allowed by the State Fire Marshall to view the scene. Upon visual observation, it was determined the units in question were #325, #326, #335 and #336 Building #3 Magnolia Way. These units were fed by a 1" HP (60#) plastic service to four (4) outside meters fed through a 2" manifold. All meters and regulator were melted, thus we were unable to obtain actual meter numbers (Exhibit#1). Meter numbers were obtained by review of meter set records.

KED records show the main and service was installed in October, 2005 by R.J. Devereaux. This development was an E.B.B.O. (excavate and backfill by other) job. All four (4) meters were installed on October 6, 2006. Observations made while uncovering the service to perform the pressure test revealed the service to be approximately two and a half feet (2.5') deep at the service valve and approximately two feet (2') deep at the riser.

The service from the valve to the riser was properly bedded in sand with tracing wire and caution tape installed to Company specifications. The riser and riser sweep were backfilled with gravel material.

KED Service personnel performed leakage survey of the area. This leakage survey was performed after the service valve was shut-off and with the valve still in the 'off' position. Survey results found no leaks. KED Pressure Control personnel performed odorant level checks. Odorant level checks were within acceptable limits. The system pressure was reported by Engineering to be operating at approximately 55# at the time of the incident.

At approximately 18:30 hrs, Mass D.T.E. Inspector Grieco requested KED personnel to report back on site on Friday March 9, 2007 at 08:00 hrs to perform a pressure test on the 1" plastic service.

On Friday, March 9, 2007 at 08:00 hrs KED Service and Maintain personnel, Supervisors McIntosh and Crooker, Legal Investigator Gatherum, Field Operations Manager Bill Costigan and QA/QC Manager Kevin Mahoney reported to assist in the investigation under the observation of the State Fire Marshall's Office, City of Peabody Fire Department and Mass D.T.E. inspectors Paul Grieco, Bill Stevens and Ron Danielson.

At 09:00 hrs, Peabody Fire Department Inspector Joseph DiFranco and the Mass D.T.E. Inspector Paul Grieco requested the KED Maintain Crew excavate and cut-off the 1" plastic service at the service valve. The service was tested at 10# between the service valve and the riser valve (Exhibit #2). The air test failed immediately. Soap testing of the riser valve revealed leakage due to the prior heat endured during the fire. The failure of the riser valve was not unexpected and clearly communicated to the Peabody Fire Investigator Joseph DiFranco and Mass D.T.E. Inspector Paul Grieco prior to the test. It is possible for leakage at the core of the valve body if exposed to high heat (Exhibit#3).

Next, the riser was excavated by hand and cut and capped at the base of the riser sweep. The service was tested between the service valve and an end cap at 62# for approximately 15 minutes. The test held with no leakage on this section of the service.

Note – there remains approximately four (4) feet of 1" plastic not pressure tested (Exhibit#4). The section not tested is between the base of the plastic riser sweep and the stab fitting at the base of the riser valve. State Fire Marshall Cummings confiscated the meter manifold and the remaining riser section not tested as evidence for further testing.

Evidence of burn damage was observed on the above ground riser valve, the insulating union and on the below ground riser sweep (Exhibit#5, Exhibit#6, Exhibit #7).

The burn damage of the below ground riser sweep appears to be in an area where the tracer wire also revealed burn damage (Exhibit#6). Melting of the riser sweep coating at this location indicated a high heat source. The condition of the 1" plastic service beneath was could not be determined through visual inspection. Please note this burn pattern could not have been the result of the above ground fire.

Exhibit#6 clearly shows an isolated burn pattern with unaffected sheathing above and below the affected area. This section of service piping was approximately two feet (2') below grade and protected from direct impact of any above ground flames.

A focal point of fire officials during their investigation was a cable television amplifier located approximately three (3) feet to the right of the last meter in the four meter manifold. A 2'x3' vented utility box containing a cable amplifier and electrical leads was found extremely damaged by an obvious powerful force. This area was a likely ignition source and potential cause for the unexplained damage to the below ground riser sweep (Exhibit#8).

The riser and manifold are currently at a DTE approved independent metallurgical testing lab for analysis. Results are expected in the near future.

Legal Investigator John Gatherum was able to take the pictures detailing the entire chronology stated above.

Cc: Steve Bell, Manager Emergency Dispatch – NE
Kevin Mahoney, QA/QC Manager, NE
Glen McIntosh, Senior Supervisor – North Shore Div.
Scott Crooker, Senior Supervisor – North Shore Div.
John Gatherum, Senior Investigator



DTE INCIDENT REPORT

TODAY'S DATE: March 15, 2007

DATE/TIME OF INCIDENT: March 8, 2007 @ 1347

Mr. Christopher Bourne
Department of Telecommunications and Energy
Pipeline Safety and Engineering Division
One South Station
Boston, MA 02110

INCIDENT LOCATION	TYPE OF INCIDENT	# PEOPLE AFFECTED	DATE/TIME CALLED	DOT NOTIFIED
Building 3 Units 325, 326, 335, and 336 Magnolia Way Peabody, MA	Leak: X Outage: Evacuation: Time Out: Time In:	Unknown	To Dispatch: 13:47 To DTE: 15:57	Yes <u>X</u> Date 3/9/07 No.: 82864

PROBABLE CAUSE: At 1347 KeySpan received a call from the Peabody Fire Department to shut off gas to 19 Dearborn Road, Peabody, MA due to a working fire. Dispatch was able to determine the correct address to be on Magnolia Way, and a PFR tech was dispatched at 1354, arriving at approximately 1410. Fire Department personnel shut off gas at the riser at approximately 1420. The PFR tech shut off the service valve in the street. The Peabody Fire Department, DTE, and State Fire Marshal personnel conducted an onsite investigation. Units 325, 326, 335, and 336 at the building were fed by a one-inch plastic service to four outside meters through a two-inch manifold. The meters and regulator were melted. Evidence of burn damage was also observed on the above-ground riser valve and insulating union and on the below-ground riser sweep. Under the direction of the DTE and fire officials, subsequent pressure testing from the service valve to the riser valve revealed leakage at the riser valve possibly from the fire. Approximately 35 feet of underground service line was pressure tested from the service valve to approximately five feet from the riser valve, and it held. The remaining five feet of underground service to the riser valve, the regulator, the above ground riser, and the meter manifold were removed from the site by the Fire Marshal. Per DTE request, the removed equipment will be examined and tested.

PERSON(S) INJURED	TYPE OF EMERGENCY CARE
N/A	

PROPERTY DAMAGES:

LOCATION OF DAMAGE	TYPE OF DAMAGE
Exterior wall and the attic roof of building	Fire, smoke, and water

KEYSPAN ENERGY DELIVERY NEW ENGLAND
LEGAL SERVICES
(781) 466-5137

KEYSPAN

Energy Delivery

INCIDENT / LEAK FORM

Date	Time	Reported By	Taken By	Area	Job #	Leak #	Grade
3-8	14:35	S. Mahoney	21853				
Customer Name	Street #	Pre	Street Name	Pre	Intersecting Street	Suf	Suite
	3		Silver Lake			Way	
Remarks Gas Spume was on fire - No meters here yet. Shut off @ Gate.							
S-rep Mahoney							
Crew Name/Number	Time	Ref By	Dig Safe #	Time	Ref By		
Supervisor	Time	Ref By	Legal Dept	Time	Ref By		
Supervisor	13:47	21853					
Supervisor	Time	Ref By	Public Relations	Time	Ref By		
Dispatch Manager	14:35	21853					
Director	Time	Ref By	Gas Supply	Time	Ref By		
V.P.	Time	Ref By	Fire Dept	Time	Ref By		
Damage Prevention	Time	Ref By	Police Dept	Time	Ref By		
Repair Information	Time	Ref By	Other/Follow-up	Time	Ref By		

EXHIBIT 4

**Installation Records for the main and services
near 3 Magnolia Way**

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES
PIPELINE ENGINEERING AND SAFETY DIVISION

FIRST SET OF INFORMATION REQUESTS FROM
THE PIPELINE ENGINEERING AND SAFETY DIVISION OF
THE DEPARTMENT OF PUBLIC UTILITIES TO
KEYSPAN ENERGY DELIVERY

RE: Investigation of Incident at 3 Magnolia Way, Peabody – March 8, 2007

Respondent: Stephen J. Morse

IR-PL-5

- Q. Provide all installation records for the main and service near 3 Magnolia Way.
- A. Attached please find installation records for the main and service near 3 Magnolia Way. (Exhibit 3).

BLDG. 3-Riser 1 SERVICE INFORMATION FORM

5# 1442902

NEW	STUB	STUB EXT.	INSERT	RELAY	RELOCATE	RECONNECT	ABANDON			
<input checked="" type="checkbox"/>							AT MAIN	WITH MAIN	AT VALVE	OTHER LOC.

Service Address: No. 3 Street: MAGNOLIA WAY Town: PEABODY

Service No.: Street: Date: 10 / 12 / 05

Tap From: NM DD YYYY

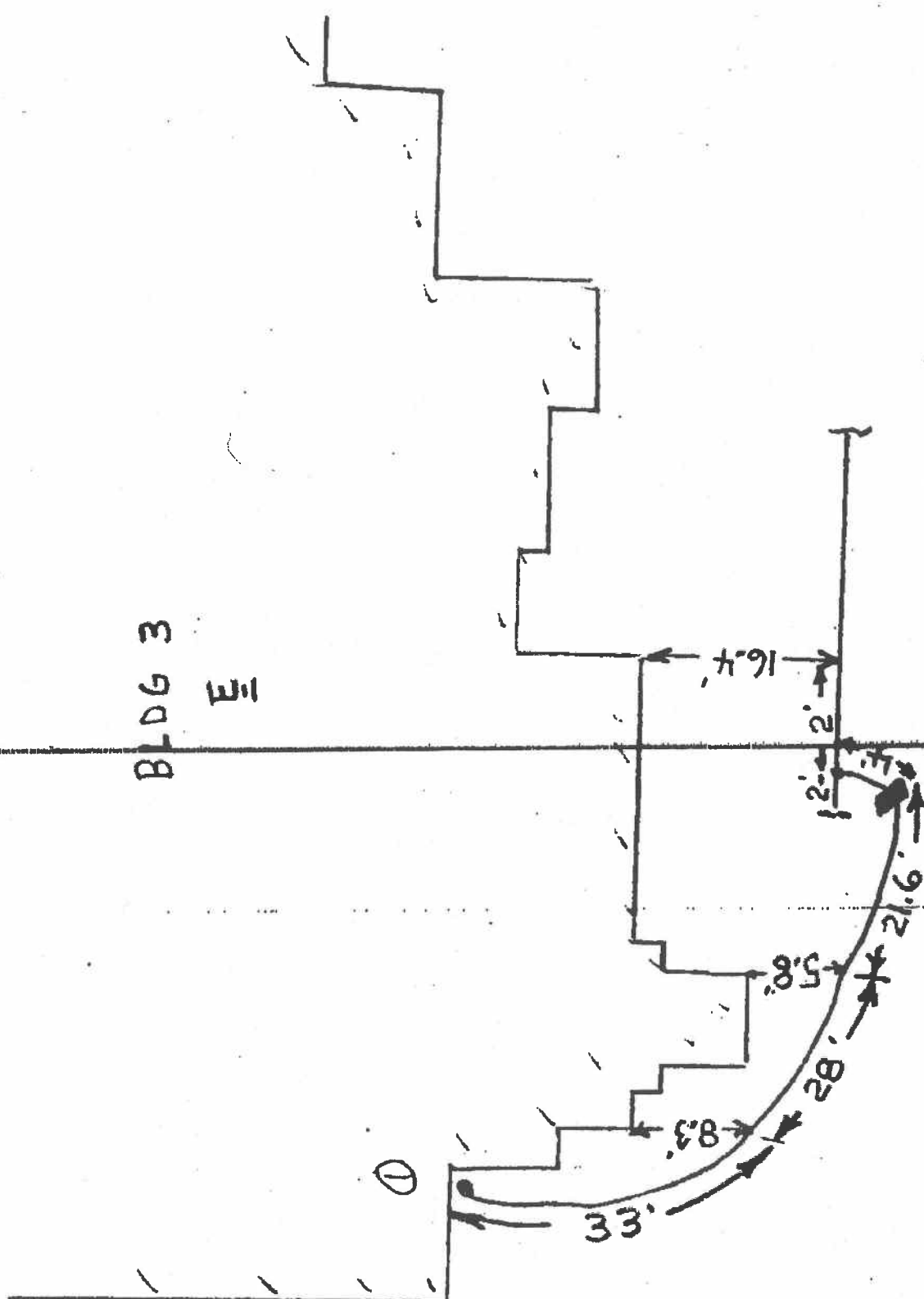
SERVICE DATA	SIZE	1"	MATERIAL	PL	FOOTAGE	601b	INSTALLED FOOTAGE	86.6	PRESSURE TEST	19	MINUTES	96
	ABANDON/SLEEVE PIPE DATA	SIZE	2"	MATERIAL	PL	FOOTAGE						

Installer: Devo Work Order # 412940 Task 7521 OP

METER	LOCATION	PROTECTION		NO. OF ACTIVE METERS		EXCESS FLOW VALVE		ANODE		INSULATED	
	IN	OUT	YES	NO	DATE MM DD YYYY	YES	NO	RISER	T.S.	MAIN	RISER

Other Data: Main to Bldg.

Bldg 3
E



SERVICE INFORMATION FORM

BLDG. 3-Riser 2

#1442900

NEW	STUB	STUB EXT.	INSERT	RELAY	RELOCATE	RECONNECT	ABANDON			
<input checked="" type="checkbox"/>							AT MAIN	WITH MAIN	AT VALVE	OTHER LOC.

Service Address: No. Bldg 3 Street: 3 STREET ~~WY~~ MAGNOLIA WY

Town: Peabody

Date: 10/13/2005

Top Front

SERVICE DATA	SIZE	MAT'L	TAP SIZE	LP	IP	HP	INSTALLED FOOTAGE	PRESSURE TEST	MINUTES	PRESSURE
	1"	P/A	1"			X			16	97
ABANDON/SLEEVE PIPE DATA	SIZE	MATERIAL	FOOTAGE	VINTAGE	MAIN DATA		SIZE	MATERIAL	DEPTH	
							2"	P/A	31	

Work Order #

Task

OP

Installer: Devco 412941 7521

METER	LOCATION	PROTECTION		NO. OF ACTIVE METERS		EXCESS FLOW VALVE		ANODE	INSULATED	
	IN	OUT	YES	NO	DATE	YES	NO	RISER	T.S.	MAIN RISER
	<input checked="" type="checkbox"/>									

Main to Bldg.

Other Data:

Form No. 246 Rev. 11/04

Bldg. 3-Riser 6

SERVICE INFORMATION FORM

1442890

NEW	STUB	STUB EXT.	INSERT	RELAY	RELOCATE	RECONNECT	ABANDON			
<input checked="" type="checkbox"/>							AT MAIN	WITH MAIN	AT VALVE	OTHER LOC.

Service

Address: No.: 3

Street: MAGNOLIA WAY

Town: PEABODY

Service No.: _____

Street: _____

Date: 10 / 12 / 06
MM DD YYYY

Top From: _____

DATA	1"	PL	1"	IP	60 lb	20.5'	INSTALLED FOOTAGE	PRESSURE TEST	MINUTES	PRESSURE
ABANDON / SLEEVE PIPE DATA	SIZE	MATERIAL	FOOTAGE	VINTAGE	MAIN DATA	SIZE	MATERIAL	DEPTH		
						2"	PL	3'		

Installer: DEVCO

Work Order #

412943

Task

7521

OP

M E T E R	LOCATION		PROTECTION		NO. OF ACTIVE METERS		EXCESS FLOW VALVE		ANODE		INSULATED					
	IN	OUT	YES	NO	DATE	MM	DD	YYYY	YES	NO	RISER	T.S.	MAIN	RISER	METER	
	<input checked="" type="checkbox"/>															

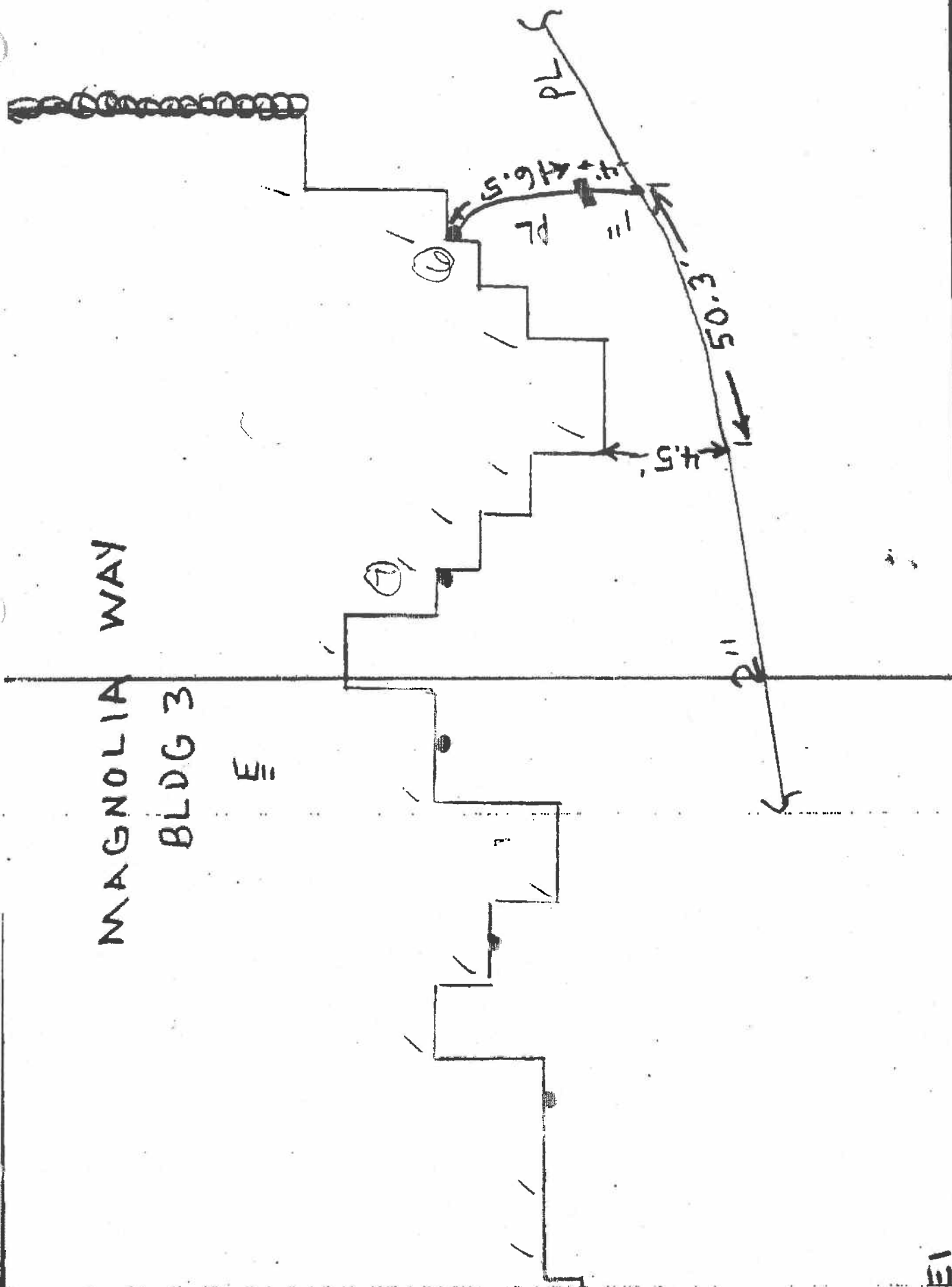
Other Data: _____

Main to Bldg.

MAGNOLIA

BLDG 3

444



BLDG. 3-RISER 7

SERVICE INFORMATION FORM

SH 1442889

NEW	STUB	STUB EXT.	INSERT	RELAY	RELOCATE	RECONNECT	ABANDON			
<input checked="" type="checkbox"/>							AT MAIN	WITH MAIN	AT VALVE	OTHER LOC.

Service Address: No.: 3 Street: MAGNOLIA WAY Town: PEABODY
Service No.: _____ Date: 10/12/05
Tap From: _____

SIZE	DATE	TAP SIZE	IP	IP	HP	INSTALLED	TEST	MINUTES	PRESSURE
1"	PL	1"				60 lb	14.5'	17	98
ABANDON/ IN SERVICE	SIZE	MATERIAL	FOOTAGE	VINTAGE	MAIN DATA		SIZE	MATERIAL	DEPTH
							2"	PL	3'

Installer: DEVCO Work Order# 412949 Task 7521 OP

METER	LOCATION		PROTECTION		NO. OF ACTIVE METERS		EXCESS FLOW VALVE		ANODE		INSULATED			
	IN	OUT	YES	NO	DATE	MM	DD	YYYY	YES	NO	RISER	T.S. MAIN	RISER	METER
	<input checked="" type="checkbox"/>													

Other Data: _____ Main to Bldg. _____
Form No. 246 Rev. 11/04

MAGNOLIA WAY
BLDG 3

E

⑦

0.4'

10.5'

PL

2.3'

4'

11'

4.5'

PL

2"

28'

F2

Bldg. 3-Riser 3

6842751#5

Service

Address: No. 3

street: MAGNOLIA WAY

Town: PEABODY

Date: 10/12/05

INSTALLED FOOTAGE	MINUTES	PRESSURE
16	41	
	ATRIUM	
	DATA	3

2000

Work Order

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Task

7	5	2	1
---	---	---	---

20

[illegible]

Other Data:

Main to Bldg.

Form No. 246 Rev. 11/04

MAGNOLIA WAY
BLDG 3

E

2"

END CAP

2.8

4'

60

#S 872771

ABANDON

Town: PEABODY

Date: 10/12/05

FOOTAGE

09

4	1	2	9	5	2
---	---	---	---	---	---

ΣΥΛΛΟΓΗ

Main to Bldg.

Form No. 246 Rev. 11/04

十

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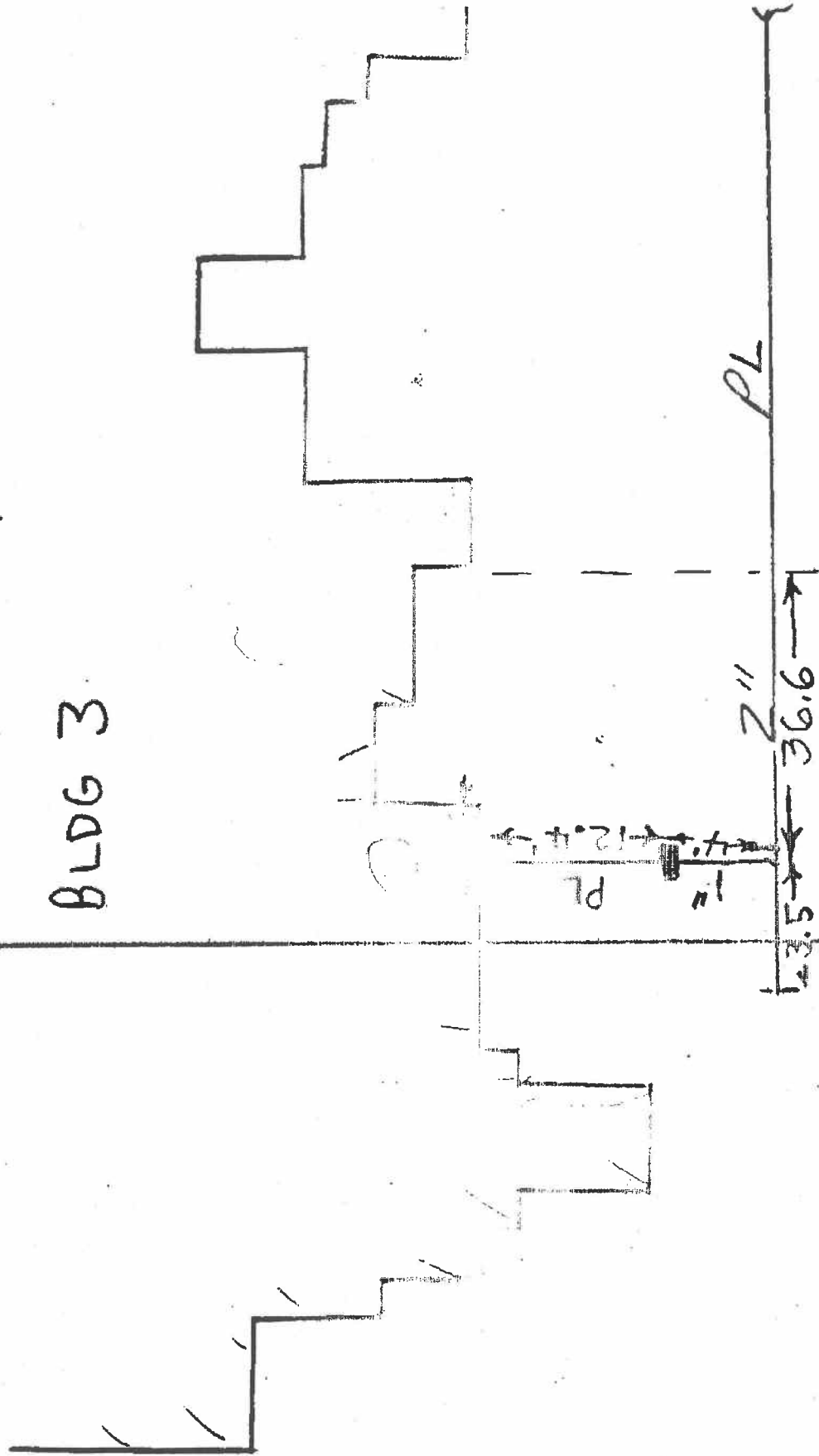
十

十

~~4.32.7 + 14 18.8~~~~4.32.7 + 14 18.8~~

MAGNOLIA WAY

BLDG 3



RES: RATONS
(OPENINGS)

Opening Site #1

<u>Opening Site</u>	Paving
<input type="checkbox"/> Street	Contr. <input type="checkbox"/> Yes
<input type="checkbox"/> Sidewalk	Notified <input type="checkbox"/> No
<input type="checkbox"/> Lawn (Priv. Prop.)	

Original Surface Length: ____ ft.
☐ Asphalt Width: ____ ft.
☐ Concrete
☐ Gravel Thickness: ____ in.
☐ Cobblestone
☐ Grass # DCP Drops: ____
☐ Brick # Conc. & Asph.
☐ Brick & Cobble. # of Lifts:

Paving Method

Opening Site #2

Opening Site

☐ Street

☐ Sidewalk

☐ Lawn (Priv. Prop.)

Paving

Contr. ☐ Yes ☐ No

Notified ☐ Yes ☐ No

Original Surface Length: ____ ft.
☐ Asphalt Width: ____ ft.
☐ Concrete Thickness: ____ in.
☐ Gravel # DCP Drops: ____
☐ Cobblestone # of Lifts: ____
☐ Grass
☐ Brick
☐ Conc. & Asphalt
☐ Brick & Cobble.

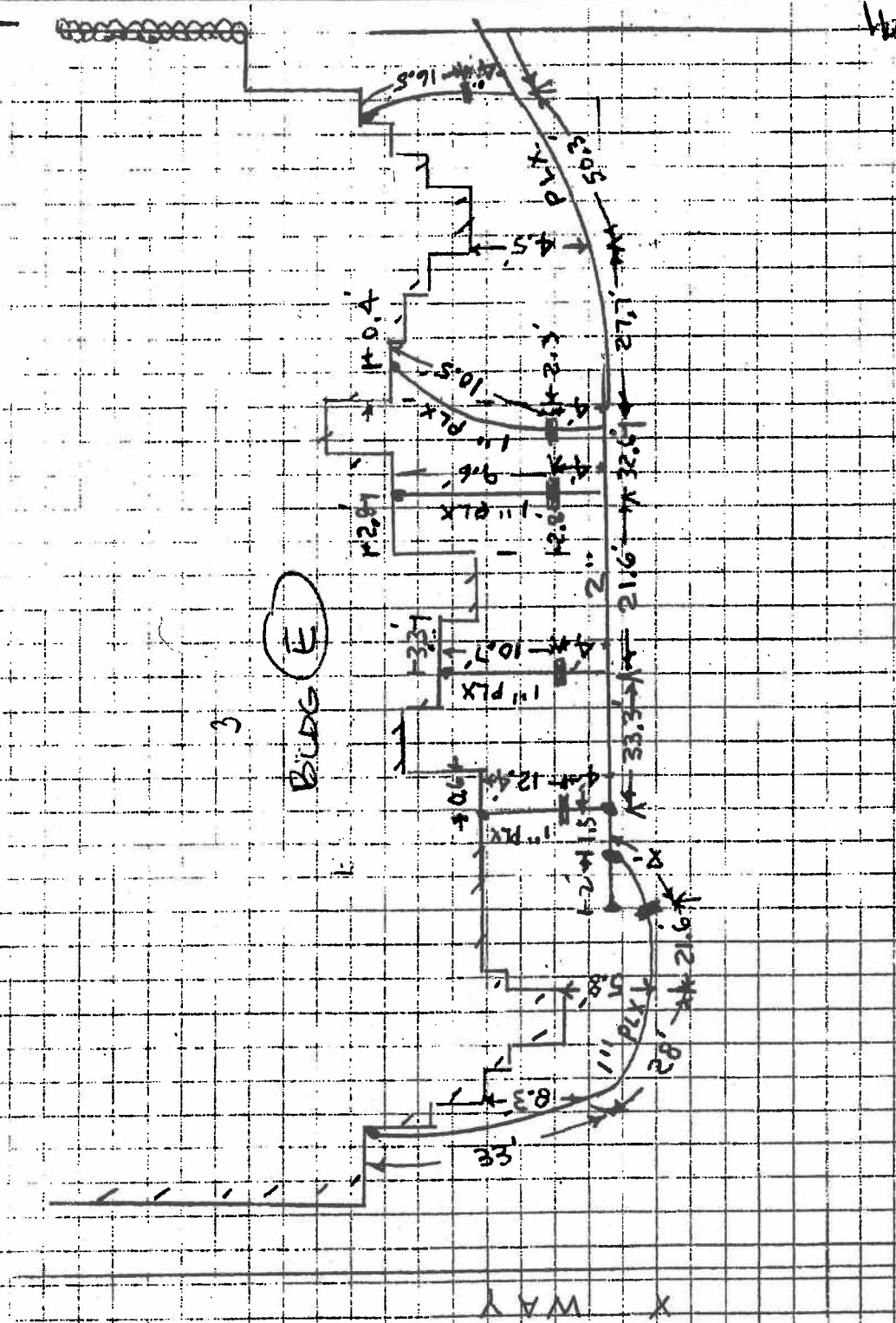
Paving Method

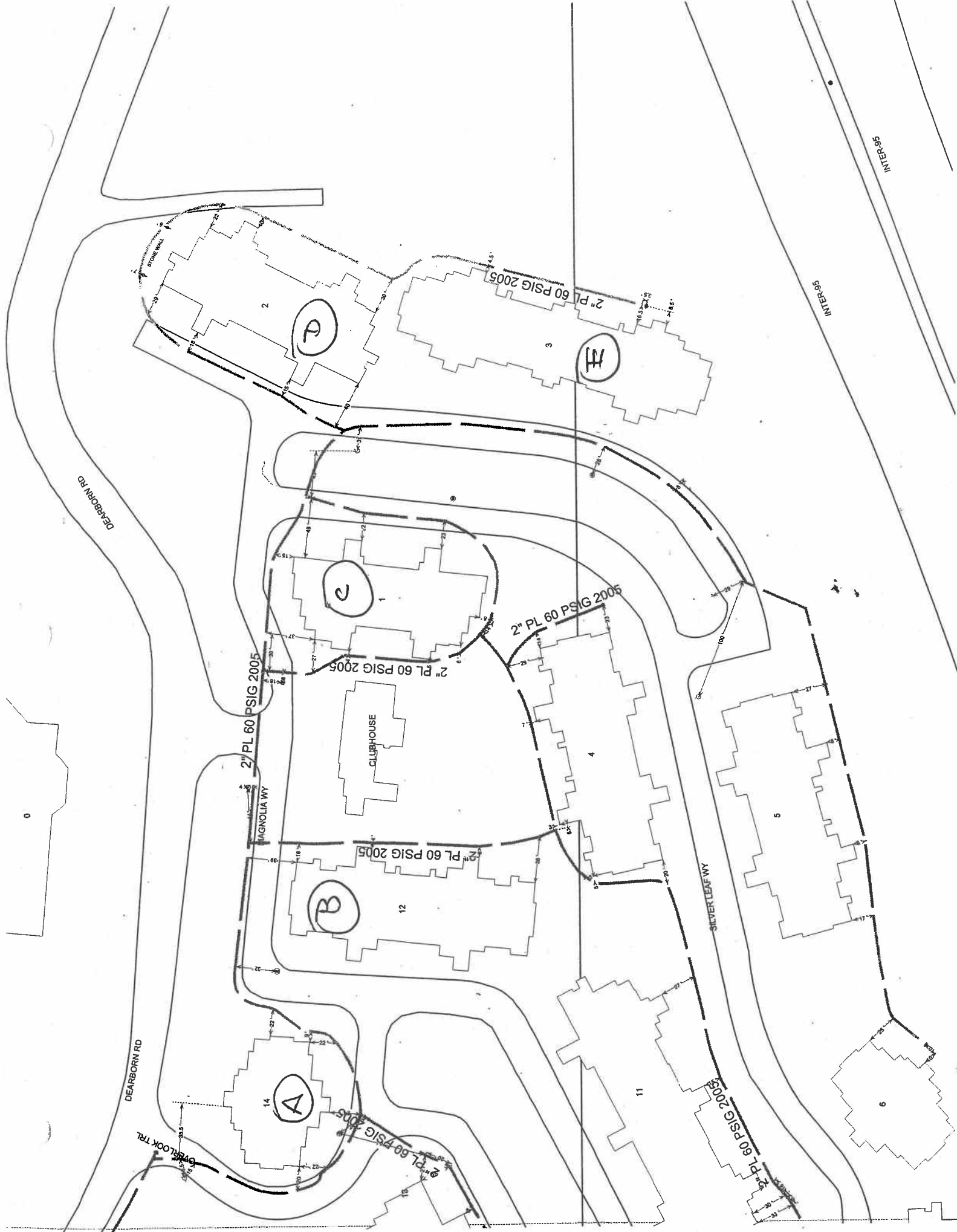
Opening Site 13

<u>Opening Site</u>	Paving
<input type="checkbox"/> Street	Contr. <input type="checkbox"/> Yes
<input type="checkbox"/> Sidewalk	Notified <input type="checkbox"/> No
<input type="checkbox"/> Lawn (Priv. Prop.)	

Original Surface Length: _____ ft.
☐ Asphalt Width: _____ ft.
☐ Concrete Thickness: _____ in.
☐ Gravel # DCP Drops: _____
☐ Cobblestone # of Lifts: _____
☐ Grass
☐ Brick
☐ Conc. & Asphalt
☐ Brick & Cobble.

Paving Method





0

DEARBORN RD

OVERLOOK TRL

2" PL 60 PSIG 2005

MAGNOLIA WY

CLUBHOUSE

2" PL 60 PSIG 2005

2" PL 60 PSIG 2005

2" PL 60 PSIG 2005

SILVER LEAF WY

2" PL 60 PSIG 2005

INTER-95

INTER-95

D

C

B

A

H

2

3

12

14

11

5

6

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES
PIPELINE ENGINEERING AND SAFETY DIVISION

FIRST SET OF INFORMATION REQUESTS FROM
THE PIPELINE ENGINEERING AND SAFETY DIVISION OF
THE DEPARTMENT OF PUBLIC UTILITIES TO
KEYSPAN ENERGY DELIVERY

RE: Investigation of Incident at 3 Magnolia Way, Peabody – March 8, 2007

Respondent: William Costigan

IR-PL-10

- Q. Provide information concerning the type of service regulator installed at 3 Magnolia Way, including the set point and maximum inlet pressure.
- A. Regulator installed: Actaris B42R with 3/16" orifice and Blue Outlet spring (8-14" w.c., part # 762646). Set Point = 13" w.c. MAOP of this unit is 125#. Blanket 1703 requesting set point of 13" w.c. available.

EXHIBIT 5

Pressure in main at time of incident

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES
PIPELINE ENGINEERING AND SAFETY DIVISION

FIRST SET OF INFORMATION REQUESTS FROM
THE PIPELINE ENGINEERING AND SAFETY DIVISION OF
THE DEPARTMENT OF PUBLIC UTILITIES TO
KEYSPAN ENERGY DELIVERY

RE: Investigation of Incident at 3 Magnolia Way, Peabody – March 8, 2007

Respondent: William Costigan

IR-PL-9

- Q. Provide documentation of the pressure in the main or service at the time of the fire.
- A. Closest Take Station = Danversport Take Station. Average outlet pressure at Danversport between 12pm and 2pm on 3/8/2006 = 54.96 p.s.i.

EXHIBIT 6

Accident Investigation Memo from Paul Grieco - March 15, 2007

Photos: 3 Magnolia Way - Fire Damage

Department of Telecommunications and Energy

Pipeline Safety Division

MEMO

DATE: March 15, 2007

TO: Christopher Bourne

FROM: Paul Grieco

RE: 19 Dearborn Rd, Peabody

On March 8, 2007 at 4:00 PM I was notified of a fire and possible explosion at 19 Dearborn Road, Peabody. I arrived at the location at 6:00 PM and made contact with the State Fire Marshall, the Peabody FD and KeySpan. At this time I did not notice any evidence of an explosion.

The building was a wood frame three story apartment complex with twelve or more units. The damage to the building was directly above the keySpan facilities. There was an outside service riser with a regulator and four meters. The regulator and meters were melted by the fire. The fire destroyed the side of the building and a portion of the roof. There was a Comcast cable vault and two air conditioning units within 15 feet of the gas facilities. The Comcast vault was melted. The gas was initially shut off at the service riser and then shut off at the curb valve. KeySpan stated that the operating pressure in this area of Peabody was 60 PSI. KeySpan also stated that a leakage survey was conducted and no leakage was discovered and odorant testing will be conducted either on this date or on March 9, 2007.

At this time it was agreed to return on the next day to continue the investigation. A fire Dept and Police Dept detail were assigned for overnight security.

On March 9, 2007 it was agreed by all parties to pressure test the service. The service was .5" plastic. KeySpan excavated the service at the curb valve and tested the service from downstream of the valve to the service riser valve. The test did not hold at 10 psig. There were soap bubbles on the service riser valve and the insulating fitting above the valve.

The service was then excavated at the building. The next test would be from near the curb valve area to the building. The service riser was removed with the intension of having a lab conduct further testing. The new test was adequate, the service line held pressure at 62 psig for 23 minutes.

The State Police took custody of the KeySpan facilities for storage. Arrangements will have to be made to move the facilities to the lab.



3 Magnolia Way - Fire Damage



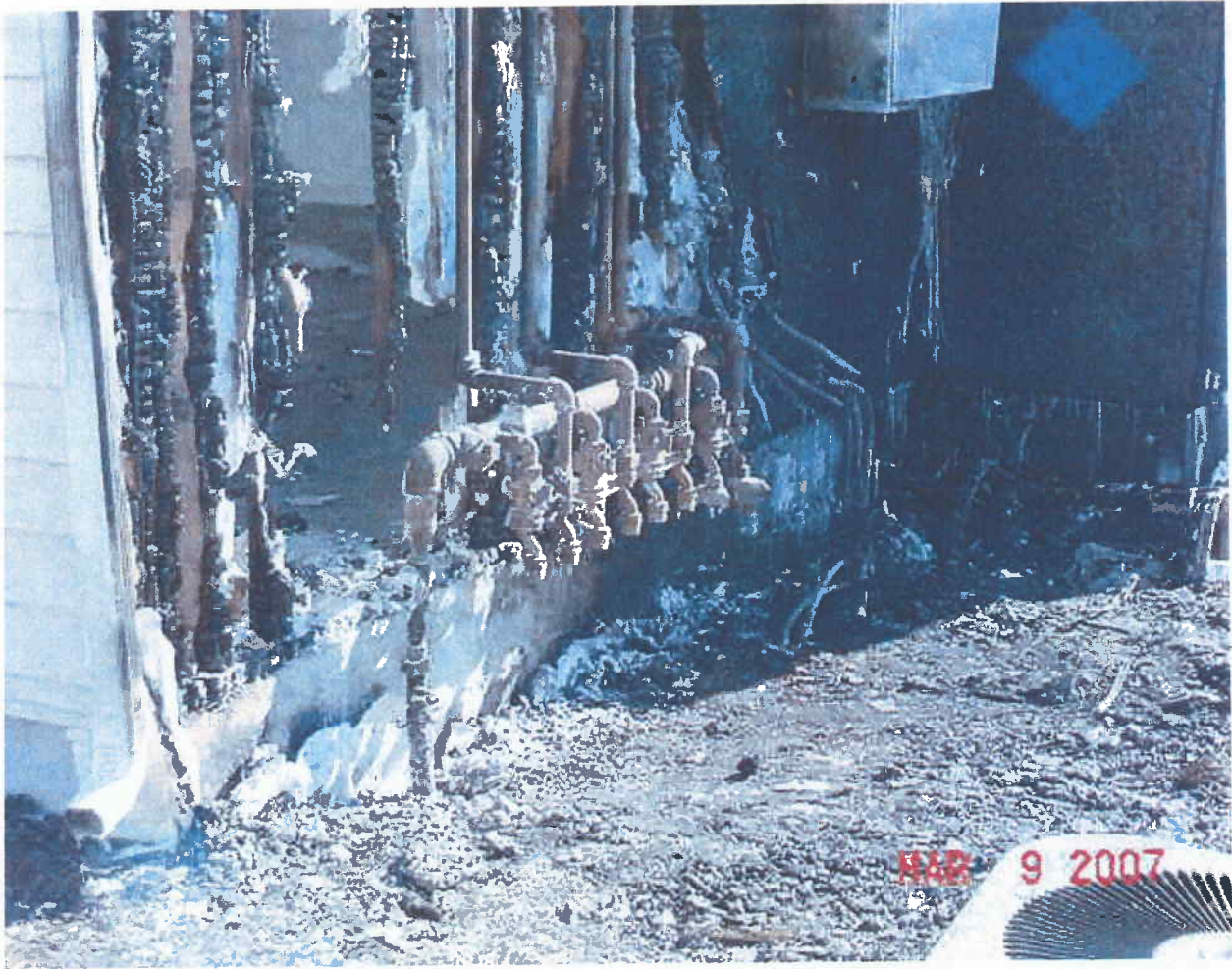
3 Magnolia Way - Fire Damage



Service Riser Valve and Insulating Fitting

EXHIBIT 7

Photo: Service Riser, Regulator and Four Meters



Service Riser, Regulator and Four Meters



Service Riser, Regulator and Four Meters

EXHIBIT 8

Photo: Gas Service Curb Valve



Gas Service Curb Valve

EXHIBIT 9

Photo: Damage to Service Riser



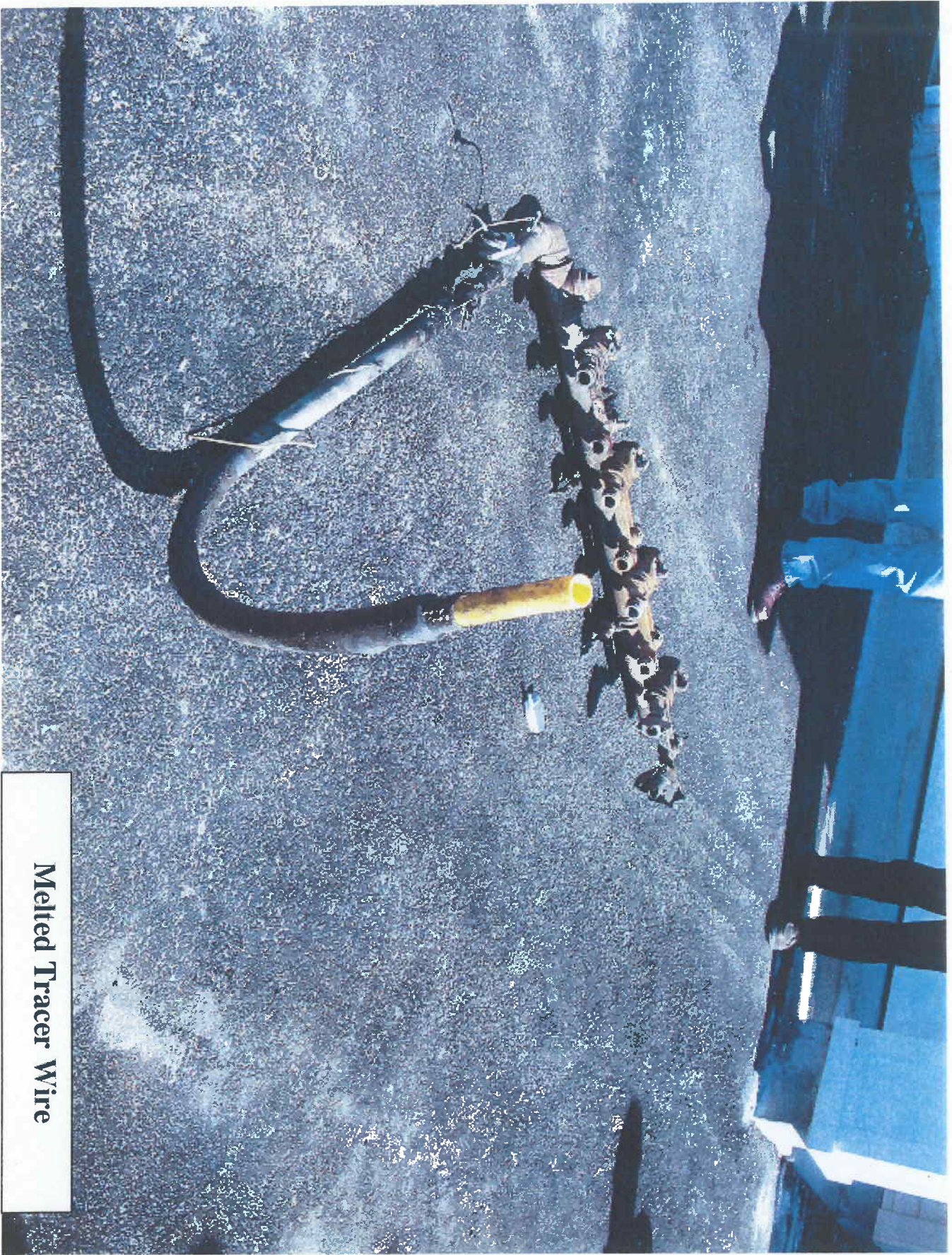
Damage to Service Riser



Damage to Service Riser

EXHIBIT 10

Photo: Melted Tracer Wire



Melted Tracer Wire

EXHIBIT 11

Photo: Bubbled Section of the Service Riser

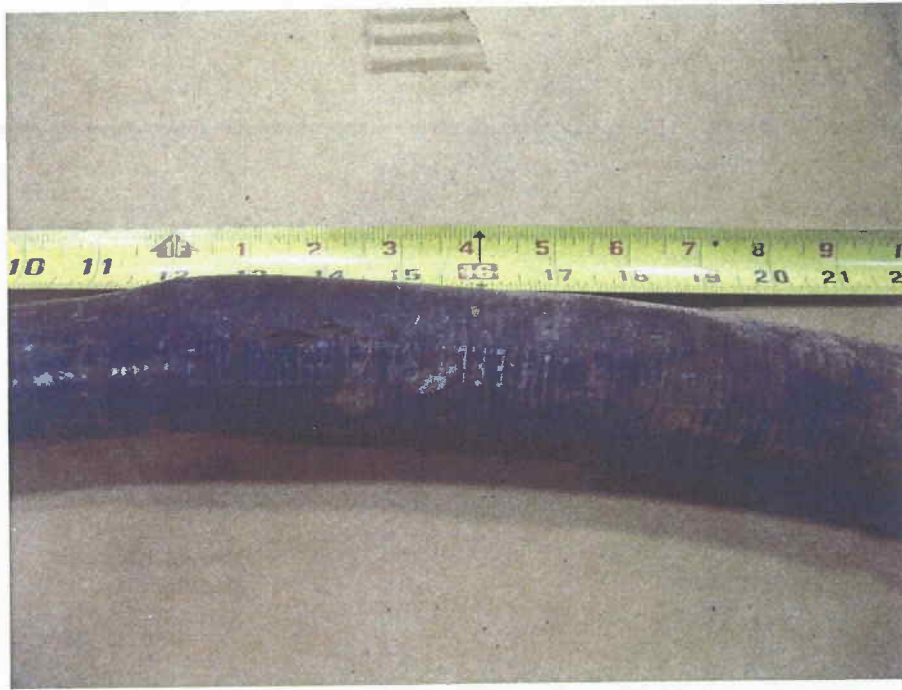


Figure 25: A split and bubbled region on the pigtail cover.



Figure 26: A bubbled region with mark that fits the tracer wire, arrow.

EXHIBIT 12

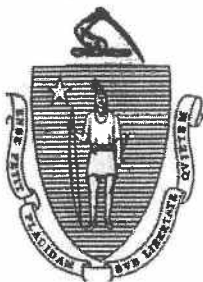
Photo: Underground Facilities



Underground Facilities

EXHIBIT 13

Evidence and Custody Log



The Commonwealth of Massachusetts

DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

EVIDENCE AND CUSTODY LOG	
Incident date/location:	March 8, 2007, reported as 19 Dearborn Rd, Peabody
Date Collected:	March 9, 2007
Collected By:	Pete Cummings, State Trooper, State Police, Fire Marshal
Operator:	KeySpan Energy
Disposition:	Received From: <i>Peter Cummings</i>
	Received By: <i>Paul Grieco</i>
	Date: <i>3/28/07</i>
	Time: <i>11:50 AM</i>
Where the evidence is to be taken and by whom (e.g. origin; destination; shipper).	Received From: <i>PAUL GRIECO</i>
	Received By: <i>Vicki-Anne Wlodek</i>
	Date: <i>4-12-07</i>
	Time: <i>945 AM</i>
As evidence custody is transferred, each receiver shall sign form and identify their agency.	Received From:
	Received By:
	Date:
	Time:
	Received From:
	Received By:
	Date:
	Time:
Item Description and Notes	Service riser with shut off valve, an insulator, remains of the regulator, four meter manifold and the melted meters.



The Commonwealth of Massachusetts Department of State Police

DEVAL L. PATRICK
GOVERNOR

TIMOTHY P. MURRAY
LIEUTENANT GOVERNOR

KEVIN M. BURKE
SECRETARY

COLONEL MARK F. DELANEY
SUPERINTENDENT

Fire & Explosion Investigation Section
Box 1025 State Road
Stow, Mass. 01775

Evidence Return Receipt

Case Number: 2007-117-0371
Incident Address: 3 Magnolia Way Peabody, MA
Case Officer: Tpr. Donald R. Bossi #2130

Item #	Description
1.	gas line and meter feeds (CONTAINING FOUR melted meters);
2.	gas line riser and "elephant nose" connector (service riser);
3.	ONE CARDBOARD BOX CONTAINING VARIOUS GAS LINE / P.P.C CONNECTORS AND DEBRIS AND VARIOUS METER DEBRIS.

Paul Grieco
Released to (Print)

DTE
Agency

Paul Grieco
Released to (Signature)

3-28-07
Date

Peter C. Ammones, Trooper, M.S.P.
Excellence In Service Through Quality Policing



A Subsidiary of THE MMR GROUP, INC.

Massachusetts Materials Research, Inc.

P.O. BOX 810 • 1500 CENTURY DRIVE • WEST BOYLSTON, MA 01583 • TEL. 508-835-6262 • FAX 508-835-9025

EVIDENCE OF TRANSFER DOCUMENTATION

Re: 3 Silver Leaf Way, Peabody, MA ^{Paul}
Outside Service Riser, ^{Paul} Meter Manifold, Meter ^{Paul} Remnants

I, Veda-Anne Ulčickas, have received the referenced sample from Paul Grieco of Department of Telecommunications & Energy, One South Station, Boston, MA 02110 on this 12th day of April 2007.

Released by:

Paul Grieco

Department of Telecommunications & Energy

4-12-07

Date

Received by:

Veda-Anne Ulčickas

Senior Materials Engineer

Massachusetts Materials Research, Inc.

12 April 2007

Date

EXHIBIT 14

Odorant levels near 3 Magnolia Way on or after March 8, 2007

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES
PIPELINE ENGINEERING AND SAFETY DIVISION

FIRST SET OF INFORMATION REQUESTS FROM
THE PIPELINE ENGINEERING AND SAFETY DIVISION OF
THE DEPARTMENT OF PUBLIC UTILITIES TO
KEYSPAN ENERGY DELIVERY

RE: Investigation of Incident at 3 Magnolia Way, Peabody – March 8, 2007

Respondent: John Barrett

IR-PL-2

- Q. Provide odorant level readings taken near 3 Magnolia Way on or after March 8, 2007.
- A. Attached please find results of odorant levels taken near 3 Magnolia Way on or after March 8, 2007. (Exhibit 2)



Inter-office Memo
Instrumentation & Regulation NE

To: File
From: John Barrett
Date: March 12, 2007
Subject: **3 Magnolia Way, Peabody**

On March 8, 2007 at approximately 7:00 p.m. Tim Driscoll, Instrumentation and Regulation Supervisor, was notified of a possible gas related incident at 3 Magnolia Way, Peabody. Jacque Moron and Jim Muldowney (Instrumentation & Regulation Control Technicians) and Tim Driscoll went to the site. Distinct Odor Level tests were conducted at 3 Magnolia Way, Peabody. This condo is located next to the affected condos at the complex.

The results of these tests are listed below:

Date	Time	Location	Threshold Odor Level (% Gas in Air)	Distinct Odor Level (% Gas in Air)	Test Equip. ID	Test Equip. Calibration Date	Test By
8/2007	9:30 p.m.	3 Magnolia Way Peabody	0.06 0.01	0.09 0.06	1991-3 1991-3	3/2006 3/2006	Moron Muldowney

cc: J. Higgins
W. Kildare
T. Vigeant

EXHIBIT 15

Main maintenance history

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES
PIPELINE ENGINEERING AND SAFETY DIVISION

FIRST SET OF INFORMATION REQUESTS FROM
THE PIPELINE ENGINEERING AND SAFETY DIVISION OF
THE DEPARTMENT OF PUBLIC UTILITIES TO
KEYSPAN ENERGY DELIVERY

RE: Investigation of Incident at 3 Magnolia Way, Peabody – March 8, 2007

Respondent: William Costigan

IR-PL-8

Q. Provide documentation of any and all maintenance history for the main and service to 3 Magnolia Way.

A. None.

EXHIBIT 16

Service calls to 3 Magnolia Way

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES
PIPELINE ENGINEERING AND SAFETY DIVISION

FIRST SET OF INFORMATION REQUESTS FROM
THE PIPELINE ENGINEERING AND SAFETY DIVISION OF
THE DEPARTMENT OF PUBLIC UTILITIES TO
KEYSPAN ENERGY DELIVERY

RE: Investigation of Incident at 3 Magnolia Way, Peabody – March 8, 2007

Respondent: Margaret Dunne

IR-PL-7

Q. Provide documentation of any and all service calls to the four accounts at 3 Magnolia Way.

A. None.

EXHIBIT 17

Leakage Survey results before March 8, 2007

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES
PIPELINE ENGINEERING AND SAFETY DIVISION

FIRST SET OF INFORMATION REQUESTS FROM
THE PIPELINE ENGINEERING AND SAFETY DIVISION OF
THE DEPARTMENT OF PUBLIC UTILITIES TO
KEYSPAN ENERGY DELIVERY

RE: Investigation of Incident at 3 Magnolia Way, Peabody – March 8, 2007

Respondent: Philip Quan

IR-PL-3

- Q. Provide leakage survey results for any leakage survey completed on the main or service for 3 Magnolia Way before March 8, 2007.
- A. KeySpan conducted a walking survey of the main and service for 3 Magnolia Way the week of August 25, 2006. No leaks were found.

EXHIBIT 18

Leakage Survey results after March 8, 2007

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES
PIPELINE ENGINEERING AND SAFETY DIVISION

FIRST SET OF INFORMATION REQUESTS FROM
THE PIPELINE ENGINEERING AND SAFETY DIVISION OF
THE DEPARTMENT OF PUBLIC UTILITIES TO
KEYSPAN ENERGY DELIVERY

RE: Investigation of Incident at 3 Magnolia Way, Peabody – March 8, 2007

Respondent: William Costigan

IR-PL-4

Q. Provide leakage survey results for any leakage survey completed on the main or service for 3 Magnolia Way on or after March 8, 2007

A. On March 8, 2007, KeySpan performed leakage survey of the area and found no leaks.