

Dealing with Abandoned Lines One Operator's Approach

Virginia Damage Prevention Conference
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2011 Damage Prevention Conference

Abandoned Lines Break Out Session

- Problems with abandoned lines discussed
- Stakeholders
 - Excavators
 - Operators
 - Regulators and Public Officials
- Why is it important?
 - Space in the right-of-way is limited and filling up fast
 - Excavators need to know what they are dealing with so that appropriate action can be taken (i.e. 2' separation)
 - Utilities need to ensure reliability of their services
 - Ultimately, its about **safety** for all concerned

This is why it's important!



2011 Damage Prevention Conference

Abandoned Lines Break Out Session

- Outcomes
 - Proposed Rules
 - Operator Response
 - Continued record keeping of facilities
 - Recognition that a timely initial response is required
 - A timely and accurate determination of abandoned or live facilities is needed
 - Natural gas operators and SCC partnership team formed
 - Education track
 - *New technology/best practices track*

Technology – VNG's Experience

Data and information gained at past Damage Prevention Conferences

- VDOT Project Presentation
- Vender presentations and booth discussions
- Discussions with other operators

VNG embarked on a trial of marker ball technology



Technology – EMS Tools and Equipment



Equipment

- 3M Dynatel 2550
- Trimble GeoXH 60003M with sub-meter accuracy

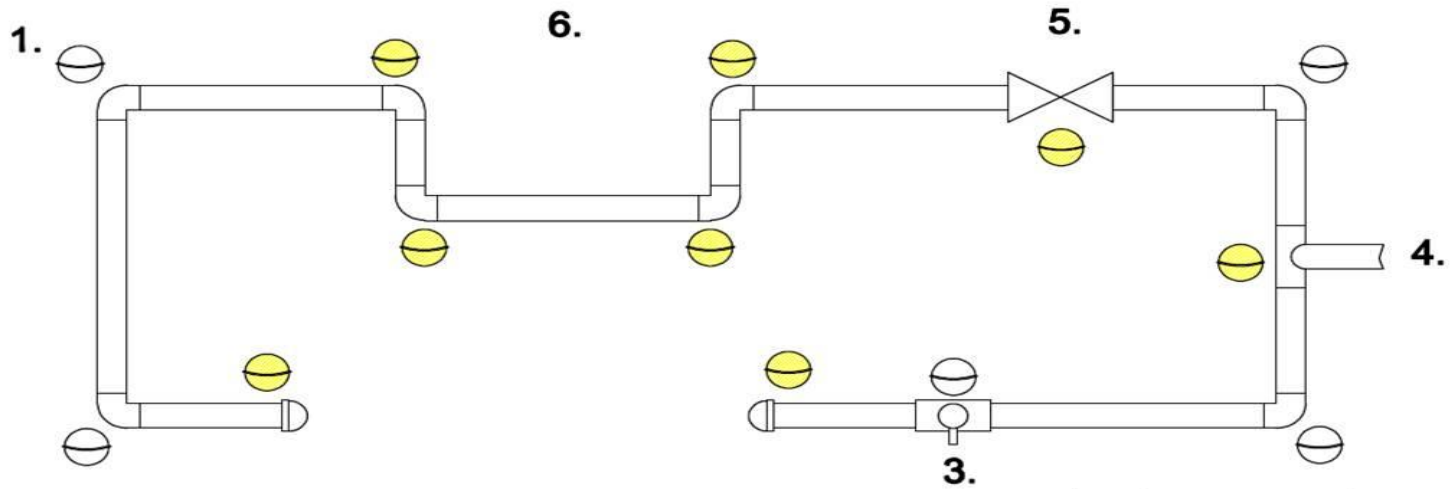
3M Markers

- Marker balls for depths up to 5 feet
- Marker disks for depths to 8 feet
- Near surface markers used for temporary and unique situations









Technology – EMS Placement Version 1.0

Marker Locations

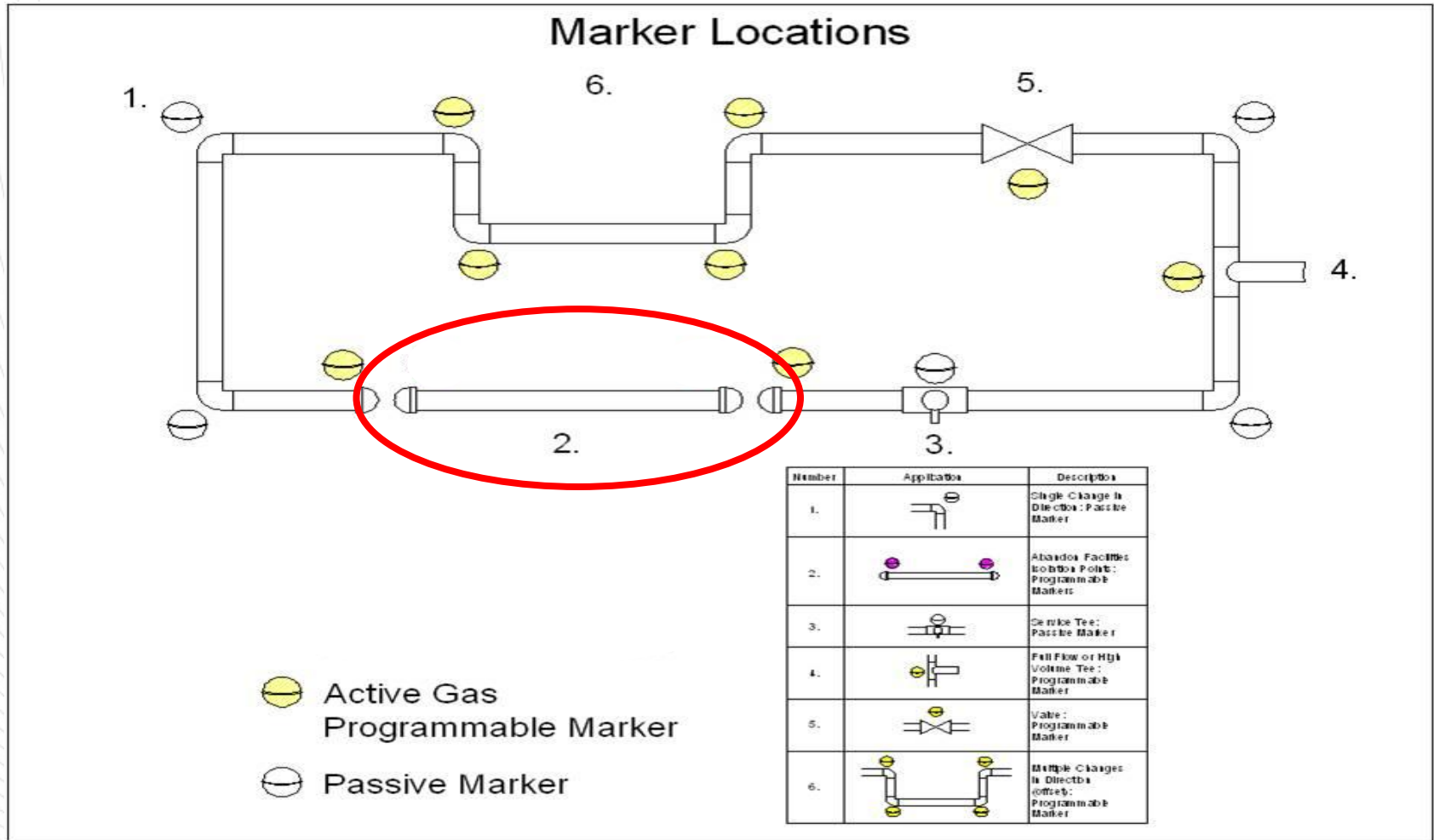


 Programmable Marker

 Passive Marker

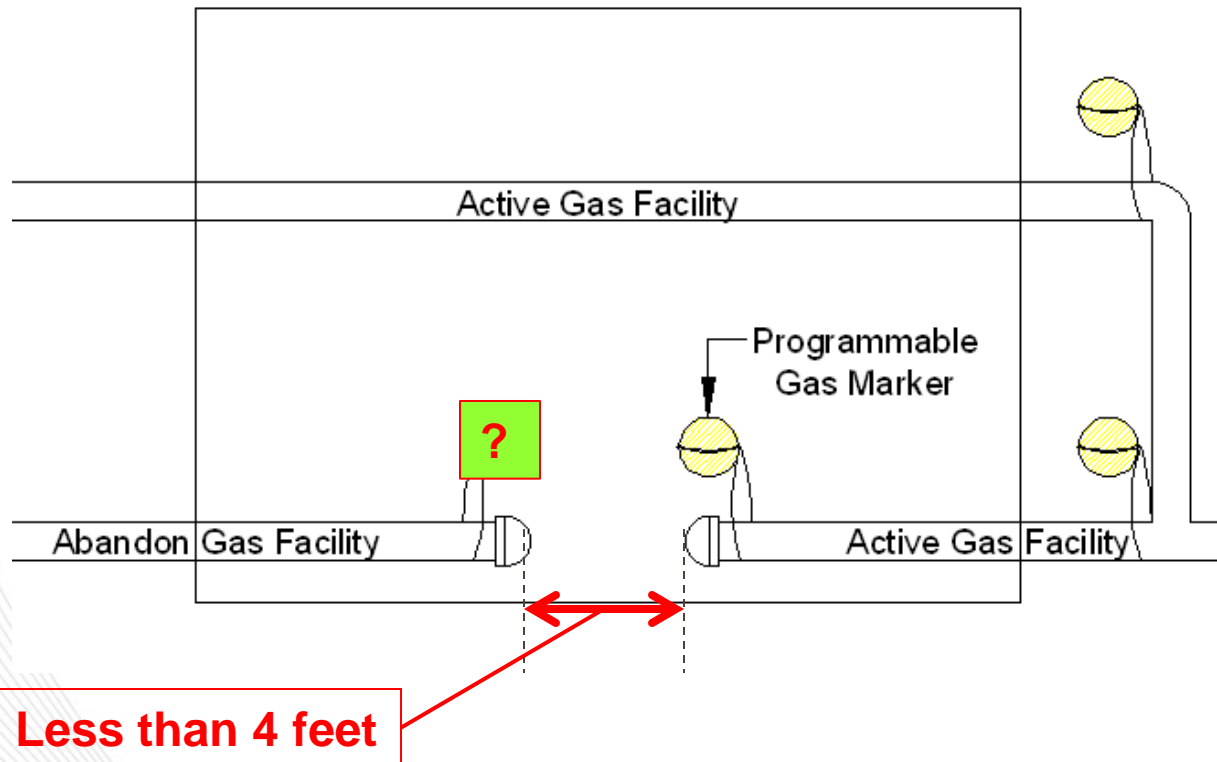
Number	Application	Description
1.		Single Change in Direction: Passive Marker
2.		Abandon Facilities Isolation Points: Programmable Markers
3.		Service Tees: Passive Marker
4.		Full Flow or High Volume Tees: Programmable Marker
5.		Valves: Programmable Marker
6.		Multiple Changes in Direction (elbows): Programmable Marker

Technology – EMS Applied to Abandoned Lines?



Technology - EMS Applied to Abandoned Lines?

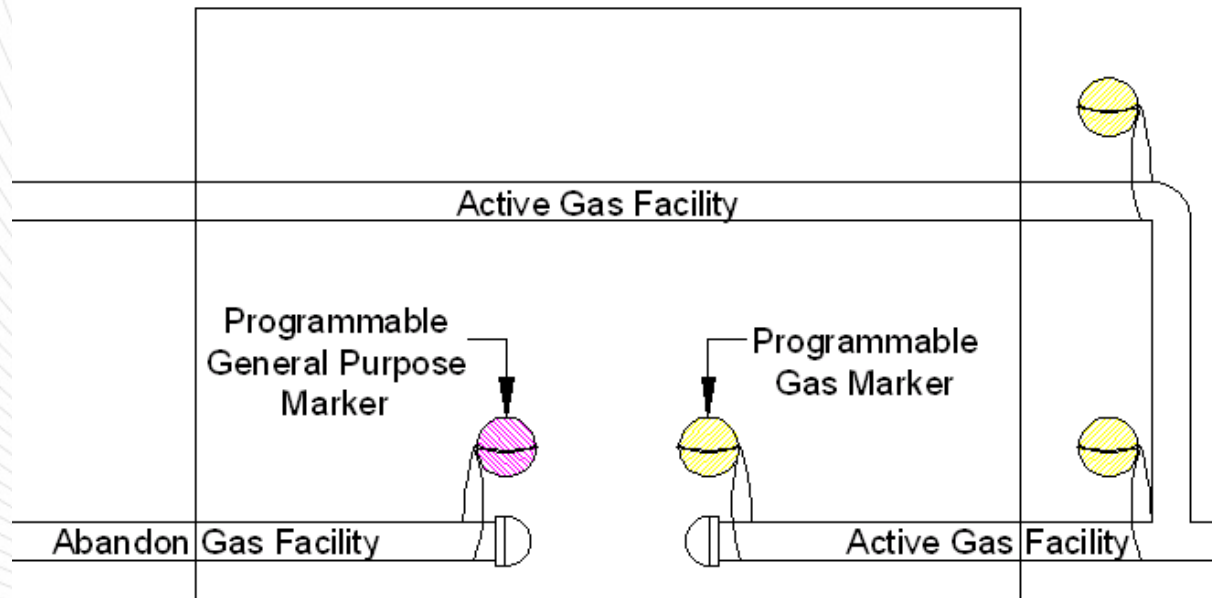
Another gas marker in close proximity could cause signal interference and risk the possibility of confusion during future locating.



Technology – The General Purpose Marker

Advantages of using the general purpose marker

- Can be installed in close proximity to gas marker without interference
- Reduces the risk of being marked as an active line
- Ties specific valuable information to the abandoned main
- Assists the operator in timely determination of abandoned vs. live lines



Technology – Simulated Field Installation



Technology - Electronic Marker Systems (EMS)



Technology – Locator Screen

Abandoned Facility

Company: VNG

Size: 1.5”

Material: Bare Steel

Facility: Retired

Active Facility

Description: HV Tee

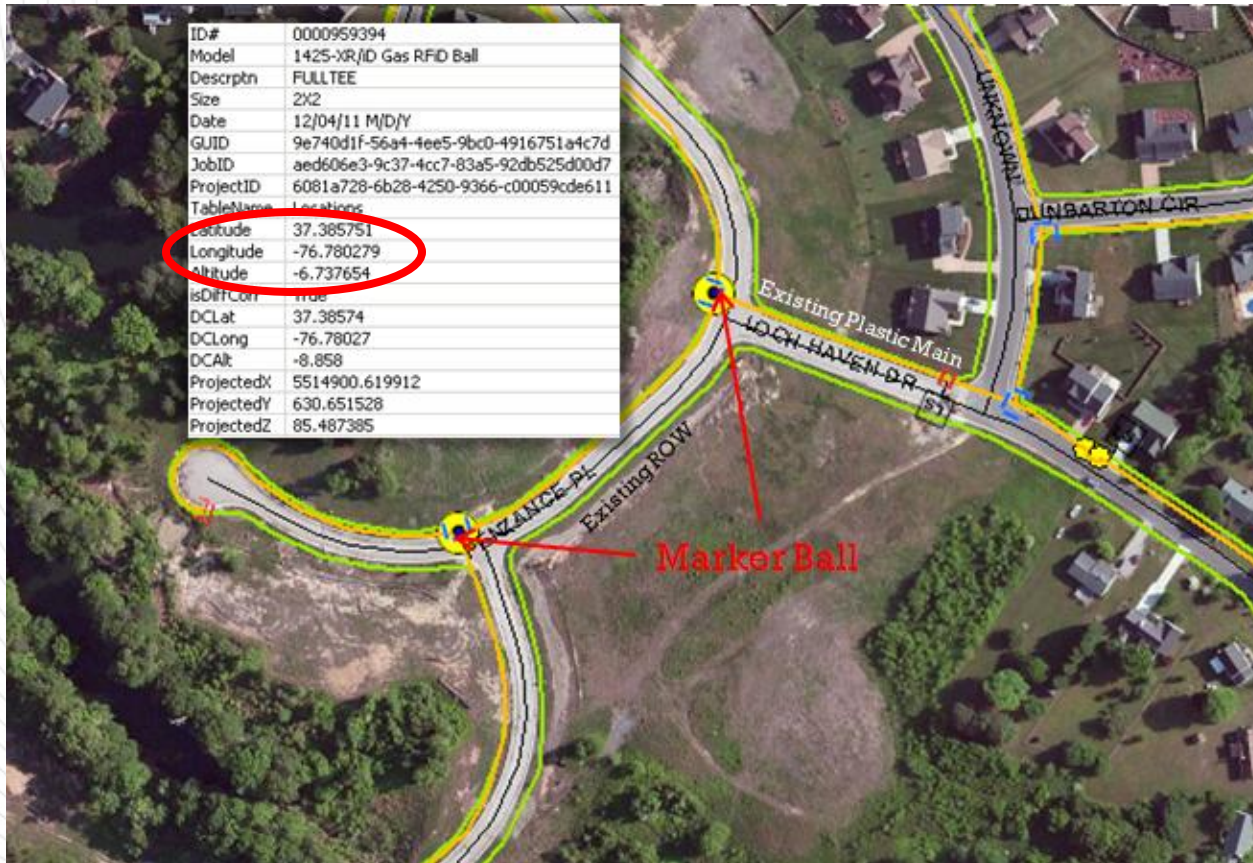
Size: 4”x2”

Job#: Retirement Job#

Date: Date Installed

Information from programmable marker further enhances determination of live and abandoned facilities

Technology – Additional Benefits



- GPS coordinates listed as a marker ball attribute in GIS
- Applies to both active and abandoned facility markers
- GPS coordinates further enhance identification of live and abandoned facilities

Technology – Questions for the Industry

- What do we do with the active line gas markers when the line they were installed on needs to be abandoned?
 - Is there a way to deactivate the marker from the surface?
 - Will each marker need to be removed?
- Could a marker be developed specifically for abandoned utility facilities?
- Are marker balls leading us to a GPS solution?

Thank You

Discussion and Questions?

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