



PHMSA Workshop on Integrity Assessments of Cased Pipe Segments

April 28, 2010

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Outline of Presentation

- Observations about Transmission Integrity Management (TIMP)
- Field challenges
- Costs for Conducting Assessments
- Specific concerns with Guidance document
 - I. Technical
 - II. Regulatory
- Suggestions for PHMSA to consider
- Final comments

AGA Infomercial

- Founded in 1918
- Represents over 200 local energy companies that deliver natural gas throughout the U.S.
- There are nearly 70 million residential, commercial and industrial natural gas customers in the U.S.; 92% receive their gas from AGA members.

TIMP and Casings

- The rule was (and still is) all about Risk Management.
- The rule did not fully take into account for unpiggable cased pipelines. The cost-benefit analysis did not include the added costs.
- What governs an integrity assessment by ECDA under Subpart O? ECDA must follow 192.925 and NACE RP0502 / ASME B31.8S.
- Operators are better at ECDA now than they were in 2003. ECDA procedures for all HCA pipelines will continue to improve.
- These casings are often in difficult locations and not accessible without huge expense, often exposing our employees/contractors to extremely unsafe conditions. (roadways, etc.)

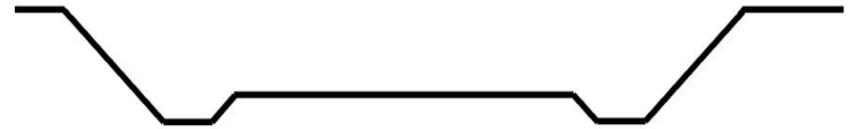
Casings are Often in Difficult Locations to Access

24" Carrier

30" Casing 125' long

Installed 1958

Ends relocated in 2001



16" Casing crossing state roadway in NY



View of new test station and vent pipe as built.

14" Casing across 4 Lane State Highway

Test station TP-111A installed and wired up (one anode was buried in the bottom of the trench, but not immediately hooked up to the pipe). Also, the casing vent was trimmed and completed. Vent piping and test station protected by utility pole.

Test station TP-111 can be seen in the background on the other side of South Plank Road.



July 10, 2009 (Day 4 of 4)

Boulder Hwy Casing Overview



Area 2 Boulder Hwy near Russell

Area 1 Tulip Falls at Boulder Hwy

Close up of Casing 1: Tulip falls

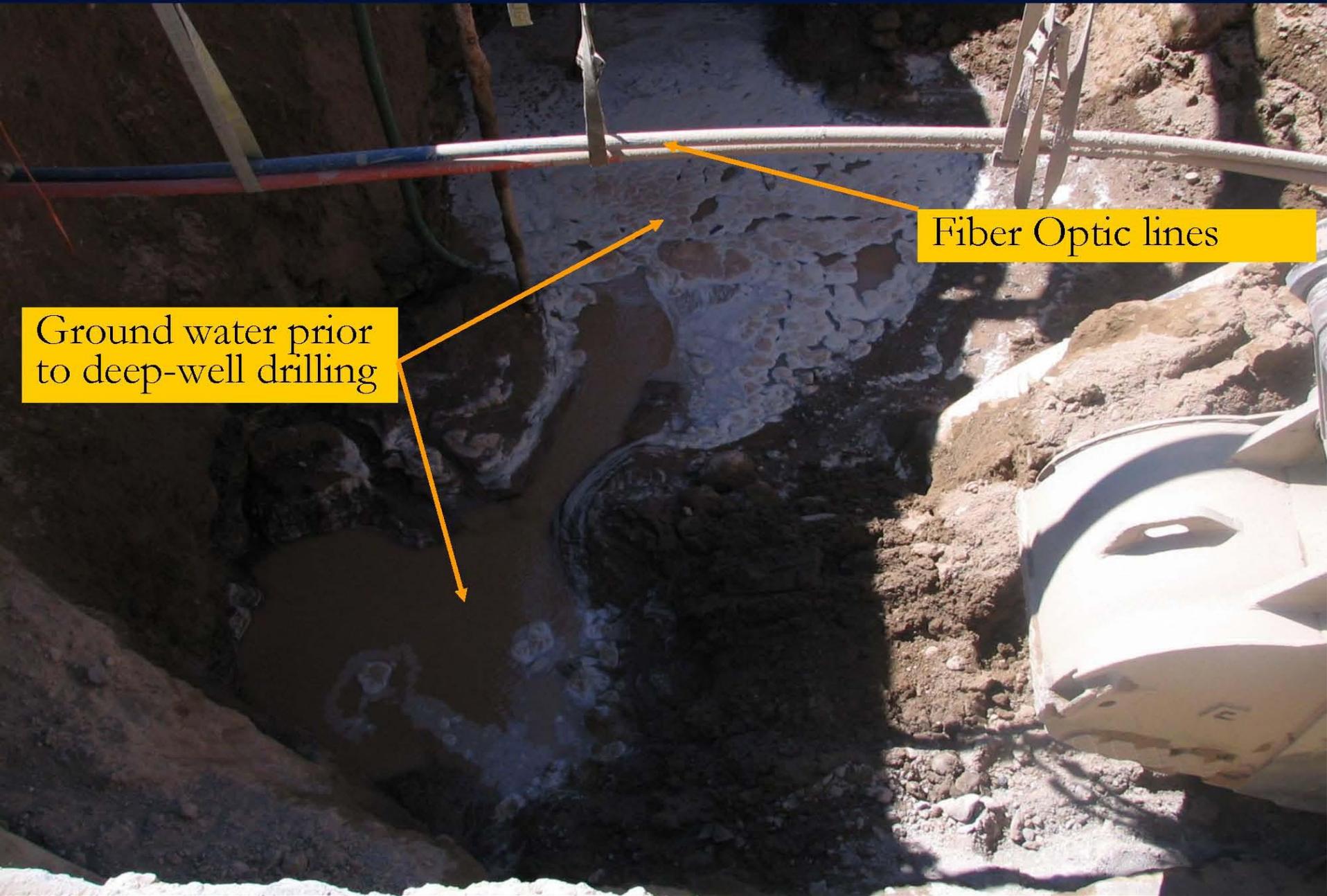


Tulip Falls (West Side)

Traffic restrictions on West Tulip Falls



Russell Rd. (West Side)



Fiber Optic lines

Ground water prior to deep-well drilling

Russell Rd. (West Side)



24" pipeline

45° ell down

90° ell into shoring
box

Russell Rd. (East Side)



Discharge hose
from water
pump

Street light footing
after street light was
removed

Summary

	Tulip Falls	Russell Road
Length	198 ft	192 ft
Feed	1-way to Power Plant	1-way to Power Plant
Depth	20 ft	20 ft
Shoring	5 x 10 x 10 boxes	5 x 10 x 10 boxes
Fittings	45° & 90° ells	45° & 90° ells & Tee
Ground Water	1 end - 1 well	Both ends - 4 wells
Other Challenges	Environmental Permitting	Environmental Permitting
	24/7 traffic control 2 1/2 months	Street Light / Fiber Optic lines / Storm Drain
Indications	None	None

Assessment Costs of Cased Pipe Segments

AGA member survey:

- Many LDCs have not completed cased pipe assessments. Waiting for Guidance.
- Majority are spending 1/3 of entire TIMP budget on managing/assessing unpiggable cased pipe. 35% are spending > 50% of budget.
- Average: One casing every 0.9 miles of HCA pipe.
- The cost of excavation and maintaining the excavation can be incredibly high.

Question: If TIMP is truly risk assessment, are we placing resources in the right place?

Technical Concerns

- PHMSA document does not allow an operator to consider the external corrosion threat as inapplicable, even if the segment had an acceptable baseline assessment (with Direct Examination if done by ECDA) with a quality fill AND a monitoring procedure implemented to ensure no conditions are changing.
(note: this is particularly detrimental for operators that have made it a practice of filling their casings with wax)
- The use of Guided Wave UT in the ECDA process is as an indirect inspection tool “*to screen cased pipe and select pipe for direct examination*” on page 6.
- PHMSA Guidance is silent on what would constitute a Direct Examination.

Technical Concerns

- PHMSA Guidance has prescriptive language on criteria for establishing classification of indications and in prioritization of indications for Direct Examination.
- PHMSA provided no technical basis for a 10% maximum deviation for fill volume in comparing fill material pumped into casing and vents and the volume expected by calculation. (page 29)

Concerns

- December 2012 is approaching quickly. No exemptions exist for assessing integrity of cased pipeline segments.
- The final guidance cannot be used as a basis for nullifying past assessments already completed by use of ECDA methodology, if it was performed in accordance with Subpart O and NACE RP0502.
- The tone of the guidance is too prescriptive and does not acknowledge that technically based alternative approaches can be used.
- The Guidance clearly over-extends and tries to address the “quality of casing installations” in page 8 under “Other Assessment Activities Associated with Unfilled Casings” and in Section D.2 and D.2.1 on pages 32-33.

Regulatory Concerns

- No language in the Guidance addresses legacy casings which were installed and wax-filled prior to 2002, so it is very unclear what PHMSA expects from operators on this subset of pipe segments.

Suggestions for PHMSA to Consider

1. Revise the Guidance so it is consistent with the language from the CASQAT effort
2. In the Guidance, add language that addresses legacy-filled casings
3. Revisit the 18-point checklist used for Guided Wave UT under the banner of “Other Technology”
4. Allow NACE to develop industry documents that govern how ECDA is applied to cased pipe
5. Work with operators in an effort to expand the TIMP data collected on cased pipe segments

Final Comments and Concerns

- Cost, service continuity and employee/contractor safety must be considered, in addition to technical issues.
- The guidance contains practices and actions that exceed the language contained in the Federal Code and NACE RP documents incorporated by reference.
- The risk level for each cased pipeline segment is different and based upon many factors. A direct examination should be determined necessary by ECDA rather than having one arbitrarily imposed.
- Does the guidance dictate the only way to assess unpiggable cased pipe and are alternatives violation?