

MAINLINE INSPECTION REPORT SUMMARY -- 2014

of daily inspection reports in 2014: 180

<u>Subject of Inspection</u>	<u># of Reported Inspections</u>	<u># of apparent violations</u>
1. Was bottom of trench graded before bedding or pipe was placed on it?	0	
2. Was pipeline separated from trench bottom by bedding material?	0	Entire pipeline (Curtis & DPS notes)
3. Was the bedding material 6" deep above soil trench bottom and 9" deep above rock trench bottom?	0	
4. Was sand used as the bedding material? ⁵	0	Entire pipeline (no sand purchased)
5. Was pipeline covered with 12" of sand before backfill?	0	Entire pipeline (no sand purchased)
6. Was all padding or backfill screened for rocks?	0	
7. Was padding or backfill compacted?	9?	
8. Was compaction tested?	0	Entire pipeline (no testing equipment)

Explanation of Data

Reports Tabulated: 180 is the total number of reports by VGS inspectors pertaining to preparation of the trench, bedding, lowering in of the pipe, covering the pipe, backfilling and compaction. The reports reviewed are listed by Mr. Byrd on p.3 of "ANGP Inspection Reports – WRB Reviewed." They consist of: 2014 Inspection Joey Wilson (42 pages), 2013 ML Inspection JL Reid (105 pages), 2014 ML Inspection Adam Crawford (219 pages), ML Inspection JR Kelch (351 pages), 2014 ML Inspection R Jaenisch (294 pages) and 2014 Utility Inspection B. Kemp (294 pages).

The total of 180 excludes reports of inspections of weldings, coatings, HDD, jeeping, Gate Stations and EPSC/Corps of Engineers requirements.

I also reviewed the DPS's weekly summaries (pdf 11 pages) and its 12/10/24 summary of 2014 violations (pdf of 19 pages -- no actual inspection reports are available) and VGS Inspector Curtis' book of handwritten Field Notes, but did not include these three documents as daily inspection reports in the tally of 180 daily reports. They are not daily inspection reports.

The DP's reports and Mr. Curtis' handwritten field notes provide context for the daily reports. The 12/10/14 19-page DPS report asked: "Are comprehensive written construction specifications available and adhered to?" The inspector checked "U" for unsatisfactory.

Item 1. Grading of Trench Bottom. “Grading” as used here refers to grading of trench bottom. “Grading” was noted on several inspection reports but only during “Clearing & Grubbing,” which was before the trench was dug. On those reports in 2014 which pertained to excavating or preparing the trench, “Grading” was never checked.

Item 2. Bedding Beneath Pipe. The 2014 reports did not include any place for inspectors to note whether the pipeline had been separated from trench bottom by bedding material or had been laid directly on trench bottom. There was a category labelled “Padding & Compaction” but the padding that was noted, in each case, was added after the pipe had been lowered into trench (usually padding was added the day after), so it was padding placed alongside or over the pipe, not bedding onto which the pipeline was lowered.

Mr. Curtis’ book of handwritten notes indicates that instead of bedding, sandbags were being used (11/3/14 -- 11/4/14, pdf pp.72-73). DPS notes agree (12/10/14 pdf pp.10 and 19).

The daily inspection reports for 2014 created no record of when pipe was being laid directly on trench bottom, when sandbags were being used under the pipe, when sand was purchased for sandbags, nor of the spacing between the sandbags when sandbags were being used.

Item 3. 6” to 9” Depth of Bedding. The 2014 reports did not include any place for inspectors to note the depth of the bedding substance that was used beneath the pipeline. It appears that bedding depth is a moot point, since no bedding was used. Sandbags every 20 feet were used. See Note 2, above.

Item 4. 6” to 9” of Sand Bedding. The 2014 reports did not include any place for inspectors to note the nature of the bedding substance used beneath the pipeline. This too may be a moot point, because no bedding was used. See Note 2, above.

However, the 2014 Inspection Manual required inspectors to report on the amount of sand purchased, and each report contained a box for that specific report. None of the inspection reports that documented preparation of the trench or lowering the pipe into the trench included any report that sand had been purchased. (Several reports did note that during restoration of the surface of the ground, sand was purchased.) Mr. Curtis’ handwritten notes for 11/3/14-11/4/14, state that sandbags were being used every 20 feet (where the pipe was not being laid on trench bottom) and then, after the State inspector complained, would be used every 16 feet(pdf pp.72-73).

Item 5. 12” Sand Cover Over Pipe. The 2014 reports did not include any place for inspectors to note whether sand was used to cover the pipeline 12” deep. However, the 2014 reports included reporting the quantity of sand or select fill purchased, and each report contained a box for that specific report. None of the inspection reports that documented “Backfill” or “Padding & Compaction” noted included any report that sand had been purchased.

Item 6. Backfill Screened for Rocks. The 2014 reports did not include any place for inspectors to note whether backfill was screened for rocks.

Item 7. Compaction of Backfill. The 2014 reports include “Padding & Compaction” as a single category. This report assumes that on the 9 occasions when this box was checked, the inspector had found both that padding was installed and that the subsequent backfill had been compacted. The other 171 reports

contain no indication that backfill was compacted; if it was, the inspector failed, each time, to check the appropriate box.

Item 8. Testing of Compaction. The CPG plans required testing of compaction of all backfill and in 2014 VGS's 2014 Specifications section 3.9 (pdf p. 251 of 462) mandated use of the Nuclear Method of testing of compaction for every 12 inches of backfill. (Nuclear Method testing uses a machine that emits radioactive particles.) Each inspection report listed the equipment used. The 2014 reports did not include any place for inspectors to note whether backfill compaction had been tested or the results of the tests. However, none of the 180 inspection reports included Nuclear Method testing equipment on the list of equipment used.