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LETTER REGARDING U S EPA REGION III COMMENTS ON DRAFT FINAL TECHNICAL  
MEMORANDUM FOR SITE 1 FORMER PIT DISPOSAL INVESTIGATION RESULTS  
SUMMARY NIROP ROCKET CENTER WV  
4/30/2013  
U S EPA REGION III



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

SUBJECT: Draft Final Technical Memorandum April 30, 2013  
Site 1 – Former Disposal Pit 1 Investigation  
Results Summary  
Allegany Ballistics Laboratory  
Rocket Center, VA

FROM: Mark Leipert, Hydrogeologist  
Technical Support Branch, 3HS41

TO: Sarah Kloss, Remedial Project Manager  
NPL/BRAC/Fed Fac, 3HS11

I have reviewed the above document and have the following concerns and comments:

1. Page 3, Section 2.2.4, 2<sup>nd</sup> paragraph, what was the oxidant used in the pilot study? Please add to the details in the paragraph.  
Response: Sodium persulfate was the oxidant applied to the alluvial aquifer and potassium permanganate was the oxidant applied to the bedrock aquifer. This information will be added to the paragraph in this section.
2. How do you explain the high value at SB-77? The boring falls outside what was thought to be the Former Disposal Pit #1 known boundary.  
Response: Although SB-77 falls outside the FDP 1 boundary, the boring is located down gradient of the former disposal pit and is located within the area of highest groundwater concentrations, as shown of Figure 4-2.
3. Page 8, Section 4.1 Subsurface Soil Investigation, 1<sup>st</sup> paragraph, is cobble sized gravel equivalent to coarse gravel or small cobbles?  
Response: The cobble sized gravel is equivalent to a well-rounded coarse gravel.
4. Page 9, Section 4.2, what is the depth to groundwater within the vicinity of FDP 1?  
Response: The depth to groundwater as identified from the borings logs was in between 13-15 feet bgs.
5. Page 13, Section 5 Conclusions and Recommendations, concur with the recommendation that a pilot study would be necessary for reagent to evaluate the effectiveness of each reagent in degrading the TCE in both groundwater and soil.  
Response: None required.



6. Page 13, Section 5, Conclusions and Recommendations, concur with the recommendation based on the results of the aquifer testing and hydraulic simulations that a pilot study would be necessary. The pilot study would be designed to verify the simulation that if an alluvial well were to be placed in or near FDP #1, it would capture the VOC groundwater contamination in both the alluvial and bedrock aquifers.

Response: None required.

7. Figure 2-3, the legend needs to be reformatted so that it's legible.

Response: The legend has been revised.

Thanks for the opportunity to review the above document. Feel free to contact me if you should have any questions at 215-814-3341.

Mark Leipert

