

**Response to Comments USACE-Nashville, Tennessee  
Draft WWTP1, WWTP3, WWTP1-TNTA and  
WWTP1-TNTB Sewer Lines Site Characterization Report  
Former Plum Brook Ordnance Works, Sandusky, Ohio  
(Report dated November 2010)**

**Shaded** – Comment not applicable to the TNTA/WWTP1 Sewer Lines Site Characterization Report.

*Reference: Comments from Lannae Long, email dated February 7, 2011.*

**Comment 1:**      **Section 4.2.1 1<sup>st</sup> Sentence: Include the month and year of the EPA-ORNL RBSC used, and include the EPA-ORNL RBSC reference in the Reference List at the end of this document. I am assuming version May 2010 was used for analysis in this document. After receiving this draft document in LRN, EPA-ORNL issued a November 2010 version, which would have been impossible to use to screen data in this document. Because this portion of the RI was started before the November 2010 version of RBSCs, I suggest staying with the May 2010 RBSCs for publishing the document. For the risk assessments, I would use the current RBSCs during the time of production, so if the risk assessment is due in May 2011, than the current RBSCs are November 2010 for the risk assessment, even if EPA-ORNL issues a May 2011 version.**

**Response 1:**      Agreed. May 2010 will be inserted into the sentence and included in the list of references.

**Comment 2:**      **Section 5.2.2.2, paragraph 2, 1<sup>st</sup> sentence: Change “RBSC limits” to “RBSC levels” or just “RBSCs”. Please globally change the word “limit” or “limits” when associated with screening levels to “levels” or just “RBSCs”.**

**Response 2:**      Agreed. “Limits” will be changed globally to “RBSC(s).”

**Comment 3:**      **Cover: Include what this report is on the cover which is “Site Characterization Report” of the RI phase.**

**Response 3:**      Agreed. The Site Characterization Report will be included on the cover.

*Reference: Comments from Chris Stoltz, email dated February 7, 2011.*

**Comment 1:**      **Page 3-8, line 4: Delete one of the double periods at the end of the sentence with two periods.**

**Response 1:**      Agreed. Shaw will delete one of the periods at the end of the sentence on Pg 3-8, line 4.

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*Reference: Comments from Jim Beaujon, email dated February 7, 2011.*

**Comment 1:** Please reorganize the report, including the tables, figures and appendices if necessary, so as to present a unified site characterization for each of the four areas of concern as independent AOCs much like the Executive Summary is organized. The top organizational tier should be the AOC not something like the media sampled. I recognize that there may be some introductory sections that could remain relatively unchanged as they present information common to all four AOCs but once those are concluded the report should move to individual Site Characterization sections for each AOC. If someone wanted/needed to understand our investigations of WWTP 3 for instance, they shouldn't have to dig through several different subsections to follow the analysis and conclusions. The associated appendix material is likewise troublesome to wade through under the current report organizational set up. I hope the risk assessments aren't going to be organized like this report was.

**Response 1:** The Draft WWTP1, WWTP3, WWTP1-TNTA and WWTP1-TNT B Sewer Lines Site Characterization Report will be reorganized into individual reports as recommended.

**Comment 2:** Page (pg) ES-2, paragraph (pph) at bottom of pg: Change "WTTP1" to "WWTP1".

**Response 2:** Agreed. Shaw will change WTTP to WWTP.

**Comment 3:** Pg ES-3, second to last line of Soil paragraph: Change "the both surface" to "both the surface".

**Response 3:** Agreed. The sentence fragment "the both surface" will be changed to "both the surface."

**Comment 4:** Pg ES-4, 1<sup>st</sup> sentence of Sediment pph: Edit the sentence for clarity. Perhaps you need only say "Four sediment samples were collected from the locations where surface water sampling had been planned, including from the three locations which lacked surface water at the time of sampling."

**Response 4:** Agreed. The sentence will be revised as suggested.

**Comment 5:** Pg ES-4, final line of Piezometer Groundwater pph: Change "installation were warranted" to "installation was warranted".

**Response 5:** Agreed. Shaw will change "installation were warranted" to "installation was warranted."

**Comment 6:** Pg ES-5, 2<sup>nd</sup> to last line on pg, “trenches used for transport”: As written this says the TNT waste was run through trenches. Please edit for clarity so that it’s understood the trenches held the woodstave pipeline which transported the TNT waste.

**Response 6:** Agreed. The paragraph will be edited for clarity.

**Comment 7:** Pg ES-6 and ES-9, Test Pit Excavation pph, 2<sup>nd</sup> line: Change “settling tanks in areas” to “settling tanks area”.

**Response 7:** Agreed. The sentence fragment “settling tanks in areas” will be changed to “settling tanks area.”

**Comment 8:** Pg ES-7, Sediments pph, 2<sup>nd</sup> line: Change “Brook in October 30, 2010” to “Brook on October 30, 2010.”

**Response 8:** Agreed. Shaw will change “Brook in October 30, 2010” to “Brook on October 30, 2010.”

**Comment 9:** Pg ES-7, Piezometer Groundwater pph, 3<sup>rd</sup> line from end: Change “may be have been” to “may have been.”

**Response 9:** Agreed. Shaw will change “may be have been” to “may have been.”

**Comment 10:** Pg ES-9, Test Pit pph: For some reason beginning in this section of the ES and within the report text the usual terms “QA” and “QC” have been supplanted with “FD” and “FS”. If there is some need for this then you need to identify whether the “FD” is the QA sample or the QC, likewise for the “FS”. It would be best if you just used the usual “QA” and “QC” throughout the report.

**Response 10:** Agreed. Identification of FD and FS samples will be replaced by the usual QA and QC sample references.

**Comment 11:** Pg ES-9, Soil pph, final sentence: Change appropriate to read “The soil appears not to have been impacted by the presence”.

**Response 11:** Agreed. The final sentence will be changed to your suggestion.

**Comment 12:** Pg ES-12, final sentence on pg: Change “not to have impacted by” to “not to have been impacted by”.

**Response 12:** Agreed. The final sentence will be changed from “not to have impacted by” to “not to have been impacted by”.

**Comment 13:** Pg 1-2, pph beginning with “Groundwater”: Delete the “T” in the 3<sup>rd</sup> line and in the 5<sup>th</sup> line change “seasons were determined to exist” to “seasons exist at PBOW”.

**Response 13:** Agreed. Shaw will delete the T in the 3<sup>rd</sup> line and will change “seasons were determined to exist” to “seasons exist at PBOW.”

**Comment 14:** Pg 1-6, pph beginning with “On April 18”: Change appropriate portions to read (changes are underlined)- “46 acres of the excess acreage” ... “retains the remaining excess acreage” ... “NASA presently uses the non-excessed portion of”.

**Response 14:** Agreed. Underlined words will be changed per your suggestions.

**Comment 15:** Pg 1-6, Section 1.4.1: Change appropriate to read “WWTP2, which received waste water from TNTC, is located.”

**Response 15:** Agreed. Shaw will edit Pg 1-6, Section 1.4.1 per your suggestion.

**Comment 16:** Pg 1-7, Section 1.4.1.1, end of 1<sup>st</sup> pph: Did you mean to say “A former PBOW building”?

**Response 16:** Acronym “PBOW” will be inserted prior to building.

**Comment 17:** Pg 1-7 and onto 1-8: USACE collected ten surface soil samples, including only one quality control (QC) sample. Likewise, they collected one sediment QC sample. They were QC samples, not QA, because they were analyzed by the same lab that analyzed the primary samples.

**Response 17:** QA and QC designations will be reversed when talking about the soil samples the USACE collected and throughout the remainder of the document.

**Comment 18:** Pg 1-8, pph midway down the page: In the 3<sup>rd</sup> line, change “PRG in from a sample” to “PRG in a sample”. In the 5<sup>th</sup> line, is “TNW” suppose to be “TNT”?

**Response 18:** Agreed. Sentence fragment “PRG in from a sample” will be changed to “PRG in a sample” and “TNW” will be changed to “TNT”.

**Comment 19:** Pg 3-1, 8<sup>th</sup> line up from end: Change appropriate to read “survey was not conducted because the results from the WWTP1-TNTA sewer line survey were inconclusive”.

**Response 19:** Agreed. Shaw will edit Pg 3-1, 8<sup>th</sup> line up from end per your suggestion.

**Comment 20:** Pg 3-2, pph beginning with “Prior to”, 2<sup>nd</sup> to last line: Change “or hand dug” to “or the boring was hand dug”.

- Response 20:** Agreed. Shaw will change “or hand dug” to “or the boring was hand dug.”
- Comment 21:** **Pg 3-3, 1<sup>st</sup> pph on pg: Change appropriate to read “The southern line was located based on aerial photographs and linear ground surface depressions observed during site walks.” Further down the pph add a comma after “pronounced”.**
- Response 21:** Agreed. Pg 3-3, 1<sup>st</sup> pph on pg will be edited per your suggestion and Shaw will also add a comma after “pronounced.”
- Comment 22:** **Pg 3-3, 2<sup>nd</sup> pph: Change appropriate to read “A total of 18 test pits were excavated perpendicular to the sewer line trace using a track mounted “mini” excavator.”**
- Response 22:** Agreed. Shaw will change Pg 3-3, 2<sup>nd</sup> pph, per your suggestion.
- Comment 23:** **Pg 3-3, bottom of page: Change appropriate to read “were collected from the test pits during”.**
- Response 23:** Agreed. Shaw will change Pg 3-3, bottom of page, per your suggestion.
- Comment 24:** **Pg 3-4: In the second line, change “depicted by aerial” to “depicted in aerial”. In the 6<sup>th</sup> line of Section 3.4 change “The direct” to “The October 2010 direct”.**
- Response 24:** Agreed. The changes will be made as suggested.
- Comment 25:** **Pg 3-6, sentence ending partial pph at top of pg: Rather than grout, weren’t the borings abandoned using granular bentonite, like when the piezometer holes were abandoned?**
- Response 25:** No, the boreholes were abandoned using grout. Due to the extreme cold temperatures, a pressure grouter was not able to be used so the grout was mixed by hand and the boreholes filled.
- Comment 26:** **Section 3.5 will need to be rewritten/split up with the AOC as the primary organizational factor. Relative to the unsampled piezometers, mention whether they were simply dry or what was done to try to sample them (such as, they were pumped/bailed dry but did not recover sufficiently for water collection).**
- Response 26:** Agreed. Information why a water sample was not able to be collected will be included in the text.
- Comment 27:** **Pg 3-7: In the 5<sup>th</sup> line from the end, rather than “did not recharge at 50 mL/min” say “did not recharge at a rate of 50 mL/min or greater”. And**

further down, rather than “Groundwater from piezometers ... did not recharge” say “Groundwater at piezometers ... did not recharge”.

**Response 27:** Agreed. Shaw will edit the text per your suggestions.

**Comment 28:** Pg 3-8, 4<sup>th</sup> line: Delete extra period after “day”.

**Response 28:** Agreed. Shaw will delete the extra period after “day”.

**Comment 29:** Pg 3-10, final pph on pg, 1<sup>st</sup> line: Change the pilot borehole” to “the 8-inch OD HSA pilot borehole”.

**Response 29:** Agreed. Shaw will change pilot borehole” to “the 8-inch OD HSA pilot borehole.”

**Comment 30:** Pg 3-11, pph beginning with “All pressure”, 4<sup>th</sup> line: Change “2 to 3 inches prior to the drilled depth” to “2 to 3 inches above the drilled depth”.

**Response 30:** Agreed. Shaw will change “2 to 3 inches prior to the drilled depth” to “2 to 3 inches above the drilled depth.”

**Comment 31:** Pg 3-11: Didn’t you finish the concrete pad with a donut hole or collar of bentonite around the black steel surface casing for frost heave protection? Mention it.

**Response 31:** Mention of the frost heave protection for the monitoring wells will be made (bentonite collar for a select few and wrapping of the steel protective casing base in plastic prior to concrete pouring for most).

**Comment 32:** Pg 3-12, Section 3.7: The first mention of “Waterra” is missing one of the “r”s.

**Response 32:** Agreed. Shaw will change the spelling of “Waterra” by adding an “r” to the word.

**Comment 33:** Pg 3-12, Section 3.8: There is no Table of Contents entry and no text in the SWSAP (Shaw, 2008b) describing well abandonment procedures. Please describe how wells were abandoned for this investigation.

**Response 33:** The reference to the 2008 SWSAP will be removed from the text and information for well abandonment included.

**Comment 34:** Pg 3-14, Section 3.11: In the 5<sup>th</sup> line change “other 1999 SI locations” to “other 1999 WWTP1 SI locations”. In the 7<sup>th</sup> line change “one surface water and one sediment sample was collocated” to “one surface water and one sediment sample were collocated”.

**Response 34:** Agreed. Shaw will change the sentences per your suggestions.

**Comment 35:** Pg 3-15, Section 3.13: Staff gauges were not mentioned prior to this section. Please discuss the staff gauges in Section 3.11.

**Response 35:** Agreed. Text will be added to discuss staff gauges in the Surface Water and Sediment section (Section 3.11).

**Comment 36:** Pg 4-1, Section 4.1.1, 1<sup>st</sup> pph: Since analyses were split between Test America labs, be specific as to what analyses were run in the Canton, Ohio lab. Also, change “FD” and “FS” to the appropriate “QA” or “QC”.

**Response 36:** Agreed. Shaw will add text to specify which analyses were ran in Canton, Ohio. Although Mao Chung-Rei recommends using FD and FS nomenclature, text will be changed to identify FD samples as QC’s and FS samples as QA’s.

**Comment 37:** Pg.4-4, Section 4.1.5: Aside from the “FD” and “FS” as commented on earlier, this section states all the “FS” samples went to North Canton, Ohio. Section 4.1.1 said the “FS” samples went to 3 different labs. If the samples wound up being analyzed in 3 different labs explain why here.

**Response 37:** Test America made a business decision to discontinue “unprofitable” analytical methods on a laboratory-by-laboratory basis. Shaw was not notified of the changes until after the analysis was performed. It is strongly agreed the lab should have given written notice in advance and provide a list of current analytical capabilities and accreditations on test-by-test basis by the laboratory. However, there was little to no impact on data quality. Most of the sample analysis was performed prior to implementation of DoD QSM 4.1. The Test America laboratories that performed analyses of Plum Brook field splits all passed their DoD ELAP audits for the prescribed methods and maintained NELAP and Navy Certifications prior to DoD ELAP inspections.

**Comment 38:** Pg 5-2, Section 5.1.1.3: At the end of 1<sup>st</sup> pph change “relevant for this effort” to “relevant to this effort”. In the 2<sup>nd</sup> line from the end of the page change “in the near vicinity” to “in the vicinity”.

**Response 38:** Agreed. Shaw will change the text per your suggestions.

**Comment 39:** Pg 5-3, long pph, 2<sup>nd</sup> sentence: Change to begin with “No water-bearing fractures were encountered during bedrock drilling for WTP1-BEDGW-001” ...

**Response 39:** Agreed. Shaw will change the text per your suggestion.

**Comment 40:** Pg 5-3, long pph, 3<sup>rd</sup> sentence: Change appropriate to read “a local interpretation based on only”. Also, for clarity if water levels were measured in all the PBOW Delaware Limestone wells then change appropriate to read “recorded from all PBOW site wide bedrock”.

**Response 40:** Agreed. “Screened within the Delaware Limestone” will be removed from the sentence.

**Comment 41:** Pg 5-3, long pph, 12<sup>th</sup> line: Add a period between “fractures” and “Previously”. Also, further down in the pph “amsl” is used, if this is its first occurrence please define it.

**Response 41:** Agreed. A period will be added between “fractures” and “Previously” and “amsl” will be defined since it was the first use of the acronym.

**Comment 42:** Pg 5-5: In 3<sup>rd</sup> line of 1<sup>st</sup> pph, change “regarding/backfilling” to “regrading/backfilling”. And don’t let spell check automatically change the spelling back. Also, on the final line of the 2<sup>nd</sup> pph, change “former surface horizon” to “former ground surface horizon”.

**Response 42:** Agreed. Shaw will edit text per your suggestions and monitor spell check.

**Comment 43:** Pg 5-6: Change appropriate to read “TOC was 36.1 ppm in the one surface soil sample (boring SB01, sample WW0001) that was analyzed for TOC.”

**Response 43:** Shaw will change pg 5-6, per your suggestion.

**Comment 44:** Pg 5-7, Section 5.1.3, 3<sup>rd</sup> line: Change “drainage north” to “drainage ditch north”.

**Response 44:** Agreed. Shaw will change “drainage north” to “drainage ditch north”.

**Comment 45:** Pg 5-8, Section 5.1.4: Change appropriate to read “presents the sediment sample locations and corresponding analytical results along with RBSCs”.

**Response 45:** Agreed. Shaw will edit the text per your suggestions.

**Comment 46:** Pg 5-10, pph beginning with “Eight metals”, 4<sup>th</sup> line: Change “12.7 ppm, respectively, above” to “12.7 ppm, above”.

**Response 46:** Agreed. Shaw will change “12.7ppm, respectively, above” to “12.7 ppm, above”.

**Comment 47:** Pg 5-11: At the end of 2<sup>nd</sup> pph, change “above value of 309 ppb” to “above the BSC value of 309 ppb”. In 2<sup>nd</sup> line of 3<sup>rd</sup> pph, change “as the

**unfiltered” to “as with the unfiltered”. Finally, in the 5<sup>th</sup> line of 4<sup>th</sup> pph, change “a some potential” to “a potential”.**

**Response 47:** Agreed. Shaw will edit the text per your suggestions.

**Comment 48:** Pg 5-12, Section 5.1.6, 1<sup>st</sup> sentence: Change “groundwater ... were also sampled” to groundwater ... was also sampled”.

**Response 48:** Agreed. Shaw will edit the text per your suggestion.

**Comment 49:** **Pg 5-16, 2<sup>nd</sup> pph, 3<sup>rd</sup> line from end: Change “borings piezometer borings” to “piezometer borings”.**

**Response 49:** Agreed. Shaw will change “boring piezometer borings” to Piezometer borings.”

**Comment 50:** **Pg 5-17, Section 5.2.1.3, 2<sup>nd</sup> sentence: Change to read “Groundwater was not encountered in six of the borings, probably due to the typically stiff, silty clay present at those boring locations.”**

**Response 50:** Agreed. Shaw will edit the text per your suggestion.

**Comment 51:** **Pg 5-19, Section 5.2.2.1, 5<sup>th</sup> line from end: Change “include areas” to “including areas”.**

**Response 51:** Agreed. The sentence fragment “include areas” will be changed to “including areas”

**Comment 52:** **Pg 5-20, 2<sup>nd</sup> pph, 2<sup>nd</sup> line: Change “while 2 samples were” to “while 2 were”.**

**Response 52:** Agreed. The sentence fragment “while 2 samples were” will be changed to “while 2 were”.

**Comment 53:** **Pg 5-21: In the 4<sup>th</sup>-5<sup>th</sup> lines, change “soil boring (SB01” to “soil sample (boring SB01”. In the 2<sup>nd</sup> line of the 3<sup>rd</sup> pph, change “while two samples were” to “while two were”.**

**Response 53:** Agreed. Edits will be made to the text per your suggestions.

**Comment 53:** **Pg 5-22, pph beginning with “Confirmation”: In the 1<sup>st</sup> line, change “as well as a number of two low” to “as well as two low”. In the 5<sup>th</sup> line, change “data indicate that some that” to “data indicate that”.**

**Response 53:** Agreed. Edits will be made to the text per your suggestions.

**Comment 54:** Pg 5-24, single sentence pph at bottom of page: Edit for proper grammar and analyte list then join it with the next pph.

**Response 54:** Agreed. Edits in the single sentence will be made and joined with the following paragraph.

**Comment 55:** Pg 5-25, Section 5.2.5.1, 5<sup>th</sup> line: Give the concentration of 2,4,6-TNT in SL-PZ08.

**Response 55:** Agreed. The concentration of 59.9 ppb will be added to the text for SL-PZ08.

**Comment 56:** Pg 5-26, large pph at bottom of pg: Split into two pphs, the first being about the unfiltered sample results and the second about the filtered sample results. The split looks like it should be made in the 7<sup>th</sup> line from the bottom, between “1SLA-MW02.” and “Eleven filtered”.

**Response 56:** Agreed. The paragraph will be split into two halves, with one focusing on unfiltered sample results and the second filtered sample results.

**Comment 57:** Pg 5-27, Section 5.2.6, 1SLA-BEDGW-001: Change appropriate to read “The water and hydrocarbon were bailed from the well and due to minimal water recharge by the following day, no groundwater sample was collected.” Also, further down in the pph change “a H<sub>2</sub>S” to “an H<sub>2</sub>S”.

**Response 57:** Agreed. Edits will be made to text per your suggestions.

**Comment 58:** Pg 5-29, 1<sup>st</sup> line: Split the discussions of the filtered metals from that for the unfiltered metals at “Twelve filtered metals”.

**Response 58:** Agreed. Filtered metals and unfiltered metals will be split into two discussions per your suggestion, starting at “Twelve filtered metals.”

**Comment 59:** Pg 5-29: In 2<sup>nd</sup> line, change “monitoring well” to “monitoring wells”. In 7<sup>th</sup> line, change “ppb in at both” to “ppb at both”.

**Response 59:** Agreed. Shaw will change “monitoring well” to “monitoring wells” and “ppb in at both” to “ppb at both” in the 7<sup>th</sup> line.

**Comment 60:** Pg 5-30, 3<sup>rd</sup> line from bottom: Split the discussions of the filtered metals from that for the unfiltered metals at “Eleven filtered metals”.

**Response 60:** Agreed. Filtered metals and unfiltered metals will be split into two discussions per your suggestion, starting at “Eleven filtered metals.”

**Comment 61:** Pg 5-32, Section 5.3.1.3, 2<sup>nd</sup> sentence: Change to read “Groundwater was not encountered in eight of the borings possibly due to the dry conditions

**or as a result of the stiff silt at these locations serving as a groundwater barrier.”**

**Response 61:** Agreed. Text will be edited on Pg 5-32, Section 5.3.1.3, 2<sup>nd</sup> sentence per your suggestion.

**Comment 62:** Pg 5-33, middle of pg: Change “back material” to “black material”.

**Response 62:** Agreed. Shaw will change “back material” to black material.”

**Comment 63:** Pg 5-35, middle of pg: Change “soil boring TNTB-SL-DP01 (sample DP0100)” to “soil sample (boring TNTB-SL-DP01, sample DP0100”.

**Response 63:** Agreed. Shaw will edit the text per you suggestions.

**Comment 64:** Pg 5-39, 1<sup>st</sup> two pphs: The first part of the 1<sup>st</sup> pph indicates there is probably no fill at WWTP3 yet the end of the 1<sup>st</sup> pph and in the 2<sup>nd</sup> pph it suggests there is as much as 4 feet of fill at WWTP3. Please edit for clarity. Also, in 1<sup>st</sup> pph, HTRW what can be found in Appendix C?

**Response 64:** Agreed. The sentence will be edited for clarity informing the reader that “disturbed 1940” soil had been added above the native soil ground surface. In addition, “borelogs” will be added following HTRW in the reference.

**Comment 65:** Pg 5-39, 6<sup>th</sup> line: Delete second occurrence of “installation”.

**Response 65:** Agreed. Shaw will delete the second occurrence of “installation.”

**Comment 66:** Pg 5-40, Section 5.4.1.3, 1<sup>st</sup> pph: After mentioning the groundwater contour figures 5-18 and 5-19 there are two sentences that say no contour map was drawn and elevations “are not believed to be correct for an unknown reason”, then the final sentence repeats flow direction information given earlier in the pph. If the data is incorrect, why do you believe it to be incorrect and what are Figures 5-18 and 5-19? Edit the pph for clarity and/or missing information.

**Response 66:** Agreed. The information will be clarified stating “The November 2009 contour map was drawn using the three overburden/shale monitoring wells but is not believed to be correct because it depicts groundwater flow in an opposite direction of the May 2009 groundwater flow (groundwater from temporary piezometers was not able to be measured because they were removed in July 2009).

**Comment 67:** Pg 5-41, 1<sup>st</sup> pph on pg, beginning about the middle of pph: Change appropriate to read “a local interpretation based on only”. Also, for clarity if water levels were measured in all the PBOW Delaware

**Limestone wells then change appropriate to read “recorded from all PBOW site wide bedrock”.**

**Response 67:** Agreed. “A local interpretation based on only” and “recorded from all PBOW site wide bedrock” will replace appropriate text.

**Comment 68:** **Pg 5-41, 1<sup>st</sup> pph, 7<sup>th</sup> line: The dry season regional water level measurements were taken in August not October and the figures to reference are Figures 5-4 and 5-5 not 5-8 and 5-9.**

**Response 68:** Correct. August will replace October in the text and Figure 5-4 and 5-5 will replace reference to 5-8 and 5-9.

**Comment 69:** **Pg 5-43, end of long pph: Change “soil boring SB-01 (sample WW0001” to “soil sample (boring SB-01, sample WW0001”.**

**Response 69:** Agreed. Edits will be made to the text per your suggestions.

**Comment 70:** **Pg 5-45, Section 5.4.3, 3<sup>rd</sup> & 4<sup>th</sup> sentences: Change to read “Two of the surface water sample locations were at or near the same two” ... “The third surface water sample location was upstream (north) of the previous”.**

**Response 70:** Agreed. Shaw will edit the text per your suggestions.

**Comment 71:** **Pg 5-45, Section 5.4.4, final line on pg: Change to read ... “was located upstream (north) of the previous”.**

**Response 71:** Agreed. Shaw will edit the text at the noted location per your suggestion.

**Comment 72:** **Pg 5-50, line of text preceding Section 5.4.6: Delete extra “(“.**

**Response 72:** Agreed. Shaw will delete the extra “(“ per your suggestion.

**Comment 73:** **Pg 5-50, Section 5.4.6, near end of pg: Change appropriate to read “The November groundwater sample collected from well WTP3-BEDGW-003 was the only WWTP3 bedrock groundwater sample that was collected using the low-flow sampling methodology.”**

**Response 73:** Agreed. Shaw will edit the text per your suggestion.

**Comment 74:** **Pg 5-51, “May” pph, 6<sup>th</sup>–8<sup>th</sup> lines: The sentence starting on the 6<sup>th</sup> line begins with “In the three groundwater samples”, which three samples, there were 5 collected? Then at the end of the sentence only two benzene results are presented.**

**Response 74:** Three will be changed to five at the noted location and benzene results for all exceedances will be included.

**Comment 75:** Pg 6-5, Section 6.1.7, Soil pph: Change “impacted the both” to “impacted both”.

**Response 75:** Agreed. Shaw will change “impacted the both” to “impacted both.”

**Comment 76:** Pg 6-8, 2<sup>nd</sup> bulleted item: Is that suppose to be “3,260 ppm”?

**Response 76:** Agreed. Shaw will check the data and clarify.

**Comment 77:** Pg 6-9, Downgradient pph: Delete “were.”

**Response 77:** Agreed. Shaw will delete “were” as noted.

**Comment 78:** Pg 6-12, Bedrock groundwater pph: Change “This unit in known” to “This unit is known”.

**Response 78:** Agreed. Shaw will change “This unit in known” to “This unit is known.”

**Comment 79:** Pg 6-13, Section 6.3.3, 3<sup>rd</sup> line: Change “the four of the groundwater” to “the four groundwater”.

**Response 79:** Agreed. Shaw will change the sentence fragment “the four of the groundwater” to “the four groundwater.”

**Comment 80:** Pg 6-14, Soil pph: Change both occurrences of “present in at” to “present at”.

**Response 80:** Agreed. Shaw will edit the text as suggested.

**Comment 81:** Pg 6-14, Overburden/shale pph: Change “-TNTA” to “-TNTB”.

**Response 81:** Agreed. Shaw will change “-TNTA” to “-TNTB.”

**Comment 82:** Pg 6-17, Source Area pph: Change “filtered and filtered” to “filtered and unfiltered”.

**Response 82:** Agreed. Shaw will change “filtered and filtered” to “filtered and unfiltered.”

**Comment 83:** Pg 6-19, Section 6.4.7: Change both occurrences of “WWTP1” to “WWTP3”.

**Response 83:** Agreed. Shaw will change both occurrences of “WWTP1” to WWTP3.”