Central Wire Union, *Illinois* Plant Responses are embedded in the EPA Comments, below

General Comment: For all reports and submittals spell out all abbreviations the first time, it is used. All maps, charts, tables, and spreadsheets are required to have a title, site name, location, date(s), and a legend if needed.

United States Environmental Protection Agency (EPAs) comments on the August-2013, Monthly Report from the Techalloy site, Union, Illinois:

Monthly Report, Progress Made--According to the attachment for the August 31, 2013, Discharge Monitoring Report (DMR) report water was analyzed for pH, [HYPERLINK "http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=2&cad=rja&sqi=2&ved=0CDQQFjAB&url=http%3A%2F%2Fwww.atsdr.cdc.gov%2Ftoxprofiles%2Ftp.asp%3Fid%3D432%26tid%3D76&ei=j3SOUqq7NoqNkAe6j4DoDw&usg=AFQjCNHdTOcWkW6GIwilSWujVkxJ0ck92g&bvm=bv.56988011,d.cWc"] (1,1,1-TCA), Tetrachloroethane (TCA) and Perchloric Acid (PCA). The analyses should have been for pH, 1,1,1-TCA, Trichloroethene TCE and Tetrachloroethene (PCE). EPA requires Techalloy to provide copies of the actual analyses delivered from the lab for verification of what analyses performed.

Illinois EPA made a mistake in issuing the NPDES permit two cycles ago. Central Wire has always been analyzing for 1,1,1-TCA, TCE and PCE. IEPA include Trichloroethane in addition to 1,1,1-Trichloroethane and Tetrachloroethane instead of Tetrachloroethene. We pointed out the error to IEPA this fall and they asked us to write them a letter pointing that out to them. The letter is attached as Attachment 1. The NPDES permit is attached as Attachment 2 and the August laboratory analytical report is attached as Attachment 3, see tab 5 first entry. Since IEPA mistaken put the wrong chemicals into the permit, the eDMR reflects those chemicals and we cannot change them. IEPA has to do that.

<u>I'm fine with this explanation, so long as the error is being fixed.</u>

There is no discussion of the data from well DGW-1D, only a mention of MCL exceedences. Data from this well, especially the June 2013 detection of vinyl chloride, provide a discussion of the results.

See revised August 2013 RCRA CMI Progress Report in Attachment 4.

<u>I'm fine with the change to the referenced report.</u>

Monthly report, Summary of Validated Data and Results--The text in this section states the sampling results will be presented in the August monthly progress report. The sample results from the monitoring wells were documented in the August monthly progress report. Update the text. Move this section, according to the title, the discussion of the sampling results presented in the previous section.

See revised August 2013 RCRA CMI Progress Report in Attachment 4.

I'm fine with the change to the referenced report.

Where is the discussion of the results of the residential well sampling? Some mention of the residential wells sampled and the results is appropriate.

The text in this section should be deleted and substituted with the discussion of the sampling results for both the monitoring wells and the residential supply wells.

See revised August 2013 RCRA CMI Progress Report in Attachment 4.

I'm fine with the change to the referenced report.

Plot of water level and precipitation: The graph would be improved, if the precipitation data were presented on a secondary y-axis. Provide dates and water levels. Putting precipitation and pumping totals at the bottom of the file with no clear relation to dates and water levels is not informative.

See Attachment 5.

The changes made to attachment 5 are not what we asked for. We asked for precipitation amount to be plotted, CW plotted hours of pumping. Because amount of precipitation is known to the day it is better suited for plotting n the secondary y axis. Because the hours of pumping corresponds to a week-plus time period it should be presented as a line within the body of the plot corresponding to the period of the reading and present the number of hours pumped on the line. This method of presentation will allow for the hours of pumping and the time period the data applies to to be easily understood by the reader.

Minor points: 1. Add a location to the title (Techalloy site). 2. Change the title this data does not include part of August and stretches into September. 3. The label for the x-axis should be "Date" or something like it, "August 2013" is inaccurate and redundant. 4. From the graph remove the hours "0:00" in the labels for the tick marks on the x-axis. The date is good enough and adding hours just clutters the figure.

See Attachment 5.

I'm fine with the changes.

Precipitation Data NOAA Marengo August-2013: Contrary to the file name, this data is only for part of September. It is useless for deciphering effects on water levels in most of August. Techalloy should either omit this file entirely or (preferably) present the NOAA data for the period during which the water levels were plotted (ideally Aug. 1 through Sept. 3).

Central Wire prints the NOAA Marengo precipitation report for the month that was predominantly monitored. On the excel file (Groundwater Elevation Precip – 8-2013) for any overlap of days of another month, the NOA table are reviewed and data is added as needed.

If CW is going to present precipitation and water-level data, and relate water levels to precipitation events, it should be done in a manner that allows it to be useful to the reader. Present the precipitation data corresponding to **all** of the period you have water level data for, ideally in a single plot to allow for a more complete assessment. If CW doesn't have the precipitation data for a given part of the monitoring period (say early Sept.), I have no objection to restricting the water level and precipitation data presented in the August monthly report to the period from August 1-31 and presenting the September data in the monthly report for September. This procedure actually would make the data display cleaner in some ways.

MW-2-6-13: Provide the data from the June sampling event. File and plots end with data for March 2013. Should March 2013 be June 2013?

See Attachment 6 for revised Figure 1.

I'm fine with the changes.

Some (most?) of the concentrations presented on the graph and in the table do not seem to agree. The TCA concentration in June 1995 is as 510 ppb in the table. The graph puts it at more like 570 parts per billion (ppb). For April 2002, the table puts TCA concentration at 59 ppb. The graph puts it at more than 100 ppb. There are other apparent errors with the early TCA and probably at least some of the TCE.

See Attachment 6 for revised Figure 1.

I'm fine with the changes.

EPA is not sure if these apparent errors are related to the method of plotting or some other software issue because when you click on the actual data points in the graph the values agree with what is in the table, but the data points does not agree with the scale for some reason. Furthermore, it seems like only some of the analytes are reported incorrectly, and only for some of the sampling period. Correct these plots (or tables).

See Attachment 6 for revised Figure 1.

I'm fine with the changes.

MW-4-6-2013: Provide a site name to the graph in the title.
X-axis ends at March 2013. Presumably, it should be June 2013.

See Attachment 7 for revised Figure 2.

The plot of the figure and table is hard to access in the attachment. Can CW fix this problem? Other than that, I'm OK with the changes.

MW-5-6-2013: Again, data ends at March 2013. Presumably it should end at be June 2013.

Add the June 1995 data to the graph. I understand it will skew the y-axis, but it would provide a complete depiction of the data.

Un-bold the 2007 concentrations of DCE, these concentrations do not exceed the MCL.

See Attachment 8 for revised Figure 3.

I'm OK with the changes.

MW-5D-13: No comments.

MW-6-6-2013: In figure caption, "2012" should be "2013".

? The Central Wire version looks good. Copy attached as Attachment 9.

OK

MW-7-6-2013: Why is the MCL at the end of the plot? Is it due to the scale and it is presentation as a dot at the end of the plot, it does not really provide any information. Techalloy should consider deleting it.

See Attachment 10 for revised Figure 6.

OK

MW-8-6-13: X-axis ends at December 2012. Extend the axis to June 2013, as does the date on the figure caption.

PCE concentrations on the graph do not agree with those in the table for most, maybe all, of the reporting period. Fix the graphs at least some of the TCE values also seem to plot incorrectly.

Central Wire copy looks fine. We have added December to this file. See Attachment 11.

OK

MW-9-6-13. There is a stray "e" on the label for the y-axis. In addition, the graph should indicate the analyses are for PCE--not "series 1".

See Attachment 12 for revised Figure 8.

OK

MW-HBR-6--13. No comments.

DGW-1D-6-13: Un-bold the DCA and TCE data in the table for June 2013.

See Attachment 13 for revised Figure 11.

OK

DGW-1I-6-13. No comments.
EPAs review of the October 2013 Monthly Progress Report for Central Wire, (CW) Union, IL submitted by Autumwood Consultants (referred to as AC in the comments).

October-2013 Monthly Report:

1. AC states "The Ex. 6 Personal Privacy (PP) well was not used in October 2013 and has been removed and stored for the winter. How you remove and store a well? A well pump, yes, a well, no. Did Ex. 6 Personal Privacy (PP) actually remove the well pump and store it? Alternatively, did they just decommission the well for the winter? EPA requires AC to clarify what actually went on in the text.

It should have read "irrigation well pump motor" and, yes, they do remove it and store it for the winter.

OK

2. AC states, "Note that between 10/31/2013 and 11/2/2013 (3 days) there was 1.1 inches of precipitation. In that time frame the water levels in monitoring well DGW-2I went from the monthly low to the monthly, increasing 1.346 inches which seems to indicate that water levels are more susceptible to precipitation than groundwater pumping". The report should specify water levels were at a recorded HIGH on 11/2 (current text appears to omit a word or two). Technically, the period covered in the graph is not a month.

The monthly report has been revised to reflect this.

Text has not been altered to comply with the comment.

10-31-13 DMR: Per comments on previous monthly reports, this document reports sample results for Trichloroethane and Tetrachloroethane when the actual results appear to be for Trichloroethene and Tetrachloroethene. Correct this error for the current and future reports. It may be worthwhile to make the correction to previously submitted DMRs as well. Technically, CW appears to be submitting false information to EPA and is subject to penalties as a result.

Answered above.

OK

Provide the actual date of sample collection to the document, or at the very least the date of sample collection was presented in the monthly report.

The report has been revised to reflect the sample collection date. The revised October RCRA CMI Monthly Progress Report is provided in Attachment 14.

As near as I can tell the sampling date is not presented in attachment 14. Is CW sure this is the **revised** Oct. report? It seems possible this is the pre-revision version.

Water Elevation & Perception: Per comments on previous graphs for previous months, putting the pumping and precipitation data below the bottom of the graph makes it impossible to correlate water levels with pumping or precipitation even if that data could be related to a date on the graph--which does not appear to be the case. AT A MINIMUM, daily precipitation totals are required be plotted on the graph using a secondary y-axis and the dates the pumping totals were read should be provided with the pumping values at the bottom of the graph.

A secondary axis has been set up for precipitation. See Attachment 15 for revised figure.

As near as I can tell I did not receive attachment 15.

Well DWG-2I Data Logger Plot: No comments.

NOAA Precipitation Date-Marengo: No comments:

Comments on the Central Wire Status Report from Autumnwood Consultants dated October 2013.

General Comments: Add a section to the early part of the report detailing the hydrogeology of the area.

At some point in this report, there should be a map with contours of the total concentration of VOCs during the most recent sampling events that would provide a depiction of the plume throughout its full extent. Provide separate contours of the concentrations of TCE, PCE, TCA, DCE. Provide at least one figure contouring total VOCs concentrations. Provide separate figures contouring PCE, TCE, TCA, DCE) in cross section along the centerline of the plume from the site to either DGW-2. Depicting these data will enable a fuller understanding of conditions at the site. There appear to be some anomalies to the location of some of the contaminants that might help identify natural attenuation processes such and biodegradation or hydrolysis.

This report could use some editorial review. There is numerous instances of redundant, vague, or irrelevant text that detract from the coherence of the report.

Section 1: The terminology for the wells and geoprobe locations in the text should match the terminology in the figures and tables. For example, the text refers to "extraction well no. 1" and

"extraction well no. 2". Figure 1-2 shows EW-1 and EW-2, associated with a symbol the legend (which has faint symbols) does not clearly describe. This presentation is confusing to the reader. CW should be clear and be consistent with their terminology.

Addressed in revised text.

To the best of my knowledge I have not received a document with this "revised text".

p. 1: This report also should cover:
a. the nature and extent of contamination at and near the site, not just at the downgradient edge.
b. trends in contaminant concentration through time in the plume.
c. factors influencing the nature and extent of contamination and trends in concentration--plume capture, biodegradation, source remediation, etc.

CentralWire seems to be generally addressing the first two topics in the text, but it would be best to state that they are being addressed. It would also help guide the report if all of these topics were explicitly dealt with in the report.

p. 2: Much of the text, especially the third paragraph, is difficult to decipher and EPA requires CW to be clarified text. There is a bit of a mash up of what was sampled for where and when put in with the sample results from different Volatile Organic Compounds (VOC) schedules in different wells? EPA suggests breaking up the discussion into a more distinct presentation of what analytes sampled and from which well during a given sampling event. Provide a separate presentation of analytes detected in what wells, and what the trends in concentration were in those wells. The current text goes back and forth on the discussion of the different types of contaminants, which is confusing.

Where is the actual "other VOC" data discussed in the third paragraph? EPA requires CW to provide the VOC data discussed in the third paragraph in a figure or table referenced in the text, so the reader can verify it.

"Central Well" probably should be changed to "Central Wire".

Provide the average pumping rate for each of the extraction wells for every month the well operated. This information will help with assessing trends in VOC concentrations and the extent of capture.

PCE concentrations at EW-2 have been increasing overall, not just since December 2011. Why was December 2011 chosen as the reference event?

They were increasing though September 2011 and seem to have leveled off at around 35 ug/L.

TCE concentrations at EW-2 are essentially stable overall.

Concentrations have gone from a high of 42 ug/l in June 2009 to a low of 20 in June 2013. The author considers that a downward trend. The average over the past five years has been 27.7 ug/L.

Discussion of the effluent concentrations should include the entire period of operation, not just the three events in 2013. This discussion also should be supported by actual data that is presented in the report, or at least supported by a reference to the actual documents containing the data.

Central Wire was attempting to show a representative example of the high degree of treatment of the groundwater still being provided 20 years after treatment of the groundwater started.

p. 4: Somewhere in the text, not necessarily in this section, there needs to be some discussion and a figure showing the location of the capture zone for the Pump & Treat wells relative to the extent of the plume. How does CW know the plume is being captured--putting aside that part of the plume that was beyond capture when the wells were installed? The efficacy of the extraction wells is an important consideration and needs to be assessed in detail.

This information was provided in the design stage by Weston Solutions, Inc. EPA should have this information. Neither Autumnwood Consultants nor Central Wire has this information.

Why has the deeper Ex. 6 Personal Privacy (PP) not been sampled? The fact that it was deepened does not in and of itself, negates the need for ongoing sampling at this location.

They have basically refused us access and since the Ex. 6 Personal Privacy (PP) *across the street nor any other residences upgradient have any contamination, including the closest well, the* Ex. 6 Personal Privacy (PP) Ex. 6 Personal Privacy (PP) *well, it seems logical to abide by the* Ex. 6 Personal Privacy (PP) *wishes.*

Provide at least some overall discussion of the sampling and results from the Union municipal wells. It is my recollection that at least one of these wells has shown VOCs in the past, and that these VOCs are attributed to another source. Present these facts, ideally including reference to a document that verifies CW is not the source of contamination at these wells, are already in the site literature.

Neither Autumnwood Consultants nor Central Wire have any knowledge of the quality of the municipal water supply in Union, Illinois. We have heard it said that Aubrey Manufacturing contaminated the groundwater with TCE and they are upgradient of the well that was closed down. Autumnwood Consultants has called the village twice (office hours are from 10 am to 42 pm on Tuesdays) and we have not received a response to our requests.

CW should note the aquifer penetrated by the residential and municipal wells.

Autumnwood Consultants knows nothing about the construction of the Union municipal well construction. The residential wells are reportedly

Data supporting the statements about the lack of VOC detections in the residential wells should be provided in a referenced table or appendix to this report.

p. 5: EPA is not sure what "field well stabilization parameters" are. EPA requires the final (stable) values of the field parameters presented in an appendix for all the sampling events. This information can be used to provide insight into the processes affecting VOC concentrations. Suggest the data in table 3-2 be included in one of the monthly summary reports so we can review the stabilization data, and that the final values be added to the comprehensive list.

Revised August 2013 report, future report? What is wrong with it being in this report?

A well with detectable VOCs, even if below the MCL, is still within the plume. CW should re-write the discussion for conditions at wells MW-2 and perhaps MW-9 to reflect the difference between detection and a MCL exceedances.

See revised text.

MW-5, it is 190 ppb of PCE in January 2005, not 90 ppb. CW should consider depicting the decrease in PCE concentrations at this well as occurring from December 2003, when PCE concentrations were 210 ppb, through June 2013. TCA concentrations, although typically below MCLs, also show an overall decrease since June 2003.

Was corrected to 190.

MW-5D, CW should note apparent increase in TCE plume strength from June 1995 through June 2003, then an overall decrease from June 2003 through June 2013, although concentrations have been mostly stable since Dec ember 2005. CW also should note that the non-detects for TCE in Jan. and June 2005 were associated with large spikes in PCE concentrations, potentially indicating an absence of PCE degradation during this period. CW should check the field parameters to determine if there were anomalous geochemical conditions during this time-period.

See revised text. Field parameter file from 2005 sampling event is not available.

MW-6, note PCE is the analyte being discussed here. In figure 8, change "series 1" to "PCE". In addition, why is CW picking the time periods they are picking to compare trends in concentration for this well and a number of others? They do not appear to be the optimal times for comparison. For example, CW notes changes in concentration for well MW-6 from December 2005 through the most recent sampling. Why was December 2005 chosen? There is nothing particularly significant about the concentration on that date; it is just a continuation of the apparent overall downward trend in concentration since June 1995--with essentially stable concentrations for most of the period from June 2003 through more or less December 2010. CW should present concentration trends relative to time-periods providing clearer, more compelling, trends.

See revised text.

MW-HBR, CW is correct that the overall trend in PCE concentration in this well is down since 1995, but concentrations have been stable beginning in June 04.

See revised text.

p. 5/6: Does the discussion of VOC trends that straddle these pages refer to DGW-1I or 1D? CW needs to clarify what data applies to what well.

See revised text.

p. 6: EPA disagrees that there is a downward trend in VOC concentrations at the DGW 1 well cluster. The overall concentration trend at DGW1-I is clearly upward for DCE, and TCE from the start of the monitoring period and from about June 2007, at "best" concentrations have been essentially stable for the past 4-5 years. These patterns also hold, to a lesser extent, for TCA. This data suggests prolonged plume movement to the cluster beginning in late 2007, with an overall increase, to stable concentrations for the past few years.

OK

At DGW-1D the concentration of DCE is clearly down through time, but the concentration of TCE is up (with the exception of the last sampling date). This data also suggest plume movement into the area by early 2002, with increasing to stable concentrations in the past few years. The decline in DCE coupled with the increase in TCE suggests less PCE/TCE biodegradation, or perhaps less hydrolysis of 1,1,1-TCA through time.

See revised text.

Add a paragraph describing the implications of the data shown in figure 3-1. It's not enough to show a figure, CW needs to explain what the figure shows (flow to the northwest) and what that means (plume movement to the northwest). This discussion should be included in the hydrogeology section suggested earlier in the report.

See revised text.

Section 4.0: This section would be easier to understand if background information on the hydrogeology, nature, and extent of contamination, and well information (define what aquifer is being used by the residential wells) was provided earlier in the report, including appropriate figures. Showing the leading edge of the plume is not sufficient. CW should add the requested information.

See revised text.

Provide references for the 2007-2008 transport modeling of VOC extent and the plume time-of-travel estimates presented in this section.

See revised text.

As near, as EPA can tell there is no figure 4-1 (or 4-2) in the report. What CW is calling figure 4-1 appears to be labeled figure 4-3. CW is required to provide accurately label the figures.

See revised figure numbering.

Section 4.1.b: The first sentence could use a re-write. Where is "...this well cluster..."?

See revised text.

Figure 4-3 referenced in the text, was labeled figure 4-4 in the figures. CW needs to revise their figure captions.

See revised figure numbering.

Section 4.2: CW should either discuss the TCE and TCA detections at the GP-22 location or omit discussion of the other VOCs detected and GP18 and GP22, or lead with the TCE and TCA. The current text is hard to follow and burying the discussion of the important data further obscures the discussion.

See revised text.

Figure 4-2 provides data and plots of VOC concentrations through time at some of the Geoprobe locations. Contrary to the text, it does not include "...plots of sampling locations...?" CW needs to re-write this text to accurately reflect the contents of the figure.

See revised text.

Figure 4-3 is a series of cross sections showing VOC concentrations at the various Geoprobe locations sampled in 2013, not fence diagrams. Provide the correct terminology in the text and the figures.

See revised text and figures.

The contouring in figure 4-3 is incorrect in a number of locations.

Let's discuss

There is no need for most of these cross sections. They contain largely redundant data and are poorly oriented relative to the leading edge of the plume and the line of section. CW should delete figure 4-3, and revise it to show conditions transverse to the plume along GP16-GP3-GP20, and along GP17-GP18-GP8-GP19.

Let's discuss

A cross section along the direction of plume movement GP3-GP8-GP22 (or DGW2), in combination with a figure showing a map view of the TVOC concentrations in the Geoprobe locations during the 2013 sampling would provide a much clearer depiction of the leading edge of the plume and should be added to the report. This map view figure would be similar to figure 4-3, but would provide more detail on the concentrations.

Let's discuss

There is a gap between GP22 and GP19 where contamination near GP8 in excess of MCLs could migrate. This area should be sampled during future work.

Let's discuss

Section 4.3: Revise the text to note the following: Data from the wells and geoprobe locations are consistent with a plume emanating from the CW site to the northwest. This plume is slowly attenuating in most of the area between CW and the extraction wells. The plume looks to be of stable to increasing strength at MW-HBR, EW-2, and the DGW1 cluster, and likely decreasing in strength at EW-1. The plume has migrated into the Geoprobe area and is increasing in strength at parts of the GP3 and GP8 clusters. It appears the plume has not migrated a substantial distance beyond the GP8 location as of 2013. The plume also has migrated to the vicinity of the Kishwaukee River near GP-9, but does not appear to have migrated north of the river in this area.

OK

Depending on what is verifiable about the capture zone of EW-1 and EW-2, CW needs to discuss if the plume is or is not at least partly evading capture as it moves to the northwest.

See previous discussion about design information

Once the plume is beyond the capture zone, natural attenuation processes affect its ongoing movement. These processes need to be discussed and their affect on the plume should be qualitatively verified.

What are you asking Central Wire to do here???

Figures: Most (all?) of the figures showing maps are upside down. They should be oriented correctly.

What do you mean here?

A number of figures appear to be missing or mislabeled. Where is figure 1-1? Where is figure 4-1? Provide all of figures correctly labeled and presented in order. This is a reoccurring problem.

Figure 1-1 is in the AC copy. Figure 4-1 was mistakenly labeled 4-3.

Many of the figures contained: “Notes" sections. Information presented in notes would be more useful if it was presented elsewhere--mostly in the figure caption or within parts of the Legend—or deleted.

OK

Many of the figures do not have location information (Central Wire Site, Union, Illinois) or time information (date of measurement of water levels for figure 3-1, date of sampling for figure 4-3). This information is required and inserted wherever needed.

OK

Figure 1.2: Unless CW wishes to discuss the data from the SEMW wells in the text (and if they have it, perhaps they should, at least for depicting the plume), they should delete the symbols from the figure.

See revised figure.

Again, the symbols for the various data-collections points are faint in the legend and difficult to differentiate particularly without the abbreviations that help differentiate them (MW, EW, GP, etc.). The symbols need to be clear more useful.

OK

It is my recollection that the Kishwaukee River and a Geoprobe location north of the river in the vicinity of GP-9 were sampled. The locations of these sampling points needs to be shown on the figure, the data needs to be shown in a table, and some discussion of this data and its implications as to the nature and extent of contamination and the impacted media needs to be provided in the text.

This is/was intended to be a status report reporting on the current status at the site. The sample at GP-21 was collected in 2010 and was deemed not to be impacted by the contaminant plume. The data presented in the first report in 2012 was commented on a year ago and Central Wire was asked to provide data and plot where MCLs were exceeded and GP-21 provided irrelevant data that was not above the MCL. Do you want Central Wire to include that information in this revised report?

Figure 2-1 and elsewhere: Non-detections should be depicted in the table as "ND" or better still "< detection limit value" rather than "0".

The plots in excel will not plot correctly without a value.

Figure 3-1: Note the date the measurements were taken in the title.

OK

Note "no data" from irrigation wells in the Legend (or just delete the wells you didn't get data from).

OK

What is the "Note" below the Legend? The "sand and gravel aquifer" part of the note needs more explanation to be useful, or better yet it should be deleted.

See revised figure.

That the potentiometric surface is presented in feet above mean sea level should be presented in the legend, not the note.

See revised figure.

Figure 4-3: Provide a time period for the chemical conditions depicted on this figure.

See revised figure.

Much of the chemistry stuff in the Legend is not pertinent to this figure. It should be deleted and presented in figures 4-3a or 4-3b.

See revised figure.

In the notes, check the units of concentration, it's more likely to be ug/L than mg/L. Again, this level of chemistry doesn't belong in this figure anyway, so it would be best to just delete it.

See revised figure.

Again, "sand and gravel aquifer" has no meaning as the report is currently written and it of limited utility in the notes anyway. Delete it.

See revised figure.

Figures 4-3a and 4-3b: See previous comments about shortcomings in these cross sections. Of special importance to the cross sections themselves is the depiction of the "Extent of Plume". The depiction in the figures is in direct contradiction to the presentation of the data for the geoprobe locations. EPA thinks CW is attempting to depict the plume along A-A' rather than at the geoprobe locations, but this presentation is confusing given the presentation of the data for the geoprobes. In any event, the location of the plume at A-A' is unknown because there are no data points on the line of section. Per earlier comments the cross sections should be revamped, and when revamped the depiction of the extent of the plume should be based on the data from the sample locations rather than some extrapolation.

Talk to Steve Grant.

If the yellow line is meant to depict land surface, it should be noted.

See revised figure.

The water table should be depicted as being present over the entire line of section.

See revised figure.

Per comments on earlier versions of the cross sections, the screen interval for the geoprobe samples should be depicted and defined. Geologic information should be provided.

Central Wire has no information on the specific geological profile at each of these geoprobe locations since no soil samples were collected in this sampling process.

These titles are not very informative. Suggest something like "Results of VOC sampling from Geoprobe locations along the leading edge of the plume, Central Wire site, Union Illinois, October, 2012". At a minimum the date of sampling should be provided somewhere.

OK

Figure 4-2: This figure should be presented before figure 4-3.

Again, the title is a bit confusing. EPA suggest something like "Concentrations of VOCs exceeding MCLs in Geoprobe wells....".

See revised figure.

Delete ug/L from the end of the figure caption.

See revised figure.

Figure 4-4: Per comments on earlier graphs, presenting the precipitation and hours pumped data at the bottom of the plot is confusing and difficult to relate to a time period. At a minimum, precipitation should be plotted on a secondary y axis to better show the relation between precipitation events and water levels.

See revised figure.

Again, a location (Central Wire, Union Illinois) would be appropriate in the title.

See revised figure.

Tables: there should be a master table (or appendix) of the pertinent features of all the wells and geoprobe locations--name, land surface altitude, altitude of top and bottom of screen, water level elevation for each measurement date, etc.

Let's discuss.

Table 3-1: Again, this table is fine as far as it goes, but the information is probably better presented in a table or appendix with the data from all the other sampling points rather than as a standalone effort.

Let's discuss.

Delete "Only chemicals with ...." here. Nothing is being plotted on this table.

OK

Tables 3-2 and 4-2: Again, this detailed information should have been presented in a monthly sampling summary. The final, stable values should be presented in an appendix with all the other chemical data.

Let's discuss

Table 4-1: This data should be included in an appendix with all the data from all the sampling points.

Let's discuss

ATTACHMENTS

1 *Letter to IEPA Requesting Permit Modification to Correct Analytical Parameter*
2 *Central Wire Union Plant NPDES Permit - 6/18/2013*
3 *Test America Laboratory Analytical Report for Central Wire NPDES Discharge Samples*
4 *Revised August 2013 RCRA CMI Progress Report, December19, 2013*
5 *Water Elevation in ft. Above MSL in Monitoring Well DGW-2I, August 6 to September 3, 2013 Downgradient from Central Wire Union, Illinois Plant*
6 *Revised Figure 1, MW-2 – 6-13*
7 *Revised Figure 2, MW-4 – 6-13*
8 *Revised Figure 3, MW-5 – 6-13*
9 *Figure 5, MW-6 – 6-13*
10 *Revised Figure 6, MW-7 – 12-13*
11 *Revised Figure 7, MW-8 – 12-13*
12 *Revised Figure 8, MW-9 – 12-13*
13 *Revised Figure 11, DGW-1D – 12-13*
14 *Revised October 2013 RCRA CMI Progress Report, December 20, 2013*
15 *Revised October Groundwater Elevation & Precipitation Chart.*
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