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2 Maps - soil and groundwater maps - drawings F12 and F13

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Rev. 07/10/02

WARZYN

164385 K.4
2010355004
Beloit
SF/tech

June 22, 1993

Mr. Eric D. Runkel, Project Manager
Illinois Environmental Protection Agency
Bureau of Land
2200 Churchill Road
Springfield, Illinois 62794-9276

Re: Work Plan Addendum - Phase 2
Remedial Investigation/Feasibility Study (RI/FS)
Beloit Corporation

Dear Mr. Runkel:

On behalf of Beloit Corporation, Warzyn Inc. is providing four copies of the following outline of the proposed Work Plan Addendum for Phase 2 of the Beloit Corporation Remedial Investigation for your review.

This outline addresses additional work to be performed as part of Task 2, Site Investigation (SI), as presented in the Work Plan (Vol. 1, Planning Documents) for the Beloit Corporation Blackhawk Facility (Facility), dated June 1992. The primary objectives of Phase 2 of the RI are to identify and characterize possible source areas, soil and groundwater contamination, and evaluate potential migration pathways. This outline is based on recommendations discussed at the Phase 2 project meeting (refer to Attachment A for meeting summary notes) held on May 10, 1993.

SCOPE OF WORK

Phase 2 work will be conducted in accordance with the IEPA approved planning documents previously prepared for this RI/FS. Drawing F12 shows the location of proposed soil borings, deep groundwater quality borings, and monitoring wells. Drawing F13 shows proposed soil gas, soil borings, and deep groundwater quality boring locations inside the Beloit Corporation Plant (BCP). Table 1 describes the proposed locations and provides rationale for selection of these locations.

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The following areas are to be targeted for Phase II work.

I. Beloit Corporation Plant Building (BCP)

This task is intended to identify and characterize potential sources within or adjacent to the BCP. Work will include a limited soil gas survey, soil borings, deep groundwater quality borings, and installation of wells. Locations proposed in this addendum may be modified based on field GC screening of the soil gas, soils, or groundwater collected during this phase. Locations proposed inside the BCP consist of 12 soil gas samples, soil borings SB22, SB23, and SB24, and one or two (dependent on the soil and groundwater GC screening results) deep groundwater quality borings (W35C and W36C). Locations around the southern perimeter of the BCP include 11 soil gas samples, two deep groundwater quality borings (W30C and W31C) and one soil boring (SB25).

Soil gas samples are to be collected and analyzed in accordance with the protocol established and approved in the Phase 1 scope of work, with the following two exceptions. It is proposed that soil gas samples be collected at an approximate depth of 6 ft. This will help to collect soil gas representative of subsurface conditions and not the soil gas that is construction fill material placed below the concrete floor. Because of the depth to which the sampling probe must be advanced, it will be necessary to utilize a hydraulically driven probe (such as a "Geoprobe") as opposed to a hand-driven probe. Each soil gas sample will be analyzed for target VOCs using a field GC.

Soil borings will be drilled and sampled following the protocol established and approved in the scope of work prepared for Phase 1 of this RI. Soil VOC screening will be accomplished with a field GC as opposed to a PID. A minimum of two soils from each soil boring will be submitted for Contract Laboratory Program (CLP) analysis. In addition, one groundwater sample will be collected from each soil boring, at the water table, and submitted for VOC screening using a field GC.

If the GC results for both soil and groundwater are below detection limits for all the target VOCs, a groundwater sample collected from the water table would be submitted for CLP-Level 4 VOC analysis, in accordance with the approved planning documents, to confirm the GC results, drilling and sampling would be terminated, and the borehole would be abandoned, and no deep groundwater quality boring would be performed at this location. However, if GC results show that one or both (soil or groundwater) are above detection limits then, drilling would be terminated,

and a deep groundwater quality boring would be drilled as close to this location as possible. The BCP building height and internal operations limit the locations where the larger rig, needed for the deep groundwater borings, can be placed.

The deep groundwater quality borings will be advanced to the top of the upper most clay unit in order to respond to IEPA's request to evaluate for the presence of a dense non-aqueous phase liquid (DNAPL). Groundwater quality screening while drilling will be performed at 10-ft intervals to the top of the clay. A monitoring well will be installed in each deep groundwater quality boring in the zone of highest contamination only if the VOC GC screening results for that particular boring indicate the presence of VOCs above MCLs in the groundwater.

This Phase 2 investigative effort has been designed (with Phase 1 data considered) to collect data of sufficient quantity and quality to support the Feasibility Study if subsurface contamination is present only in the aqueous phase. If the results of the soil boring and deep groundwater quality boring program show that groundwater contamination is originating at the BCP, and has formed a DNAPL, then additional investigative effort will be put forth during Phase 2 in order to investigate the migration pathways that the DNAPL could follow. The scope of work for this additional efort will be determined during the Phase 2 investigation and presented as an addendum to the Phase 2 scope of work.

II. Storage Yard Area (SYA)

This work will consist of performing two soil borings (SB26 and SB27) and one groundwater quality boring (W33C) in areas where VOC detections were made during the Phase 1 soil gas investigation. It is proposed that soil boring SB26 be located at soil gas location SG107, and that soil boring SB27 be located midway between soil gas locations, SG130 and SG131. These borings will be drilled and sampled following the protocol established and approved in the scope of work prepared for Phase 1 of this RI with the exceptions proposed in item I of this outline.

III. Beloit Corporation Eastern Property Line

This work will consist of the installation of two deep groundwater quality borings (W32C and W34C) along Beloit Corporation's east property line between monitoring well nest W13/W14 and W9/W10. These borings will be drilled and sampled following the protocol established and approved in the scope of work prepared for Phase 1 of this RI.

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IV. Well abandonment

Monitoring wells W4 and W12 will be abandoned and replaced because they have been either dry or found to contain only 6 in. of water during most sampling and water level collection events. The new wells will be constructed in accordance with the approved Phase 1 Work Plan except that their screen lengths will be 15 ft instead of 10 ft.

V. Evaluate Impact of Beloit Corporation Production Wells

This work will consist of evaluating the potential impact of the Beloit Corporation Production wells on local shallow groundwater flow. A recording device will be placed on production well 441G, since it is the shallower of the two currently active production wells, to monitor duration of pumping and flow rate. A water level recording device will be placed in monitoring wells W28, W9, W10, W23, W23B, and well nests W32C, W34C, W35C, and W36C, if installed. Water level measurements would be recorded every hour for approximately two weeks. Results will be presented as graphs of pumping rates and water levels through time.

VI. Round 2 Monitoring Well Groundwater Sampling

This work will consist of collecting groundwater samples from the existing monitoring wells and new wells listed in Table 2. These samples will be collected and analyzed for the parameters listed in Table 2 in accordance with the Phase I planning documents. The total number of potential sampling points is 33 (This includes an estimated nine new wells).

VII. Background Surface Soil Samples

Five, mutually agreeable locations will be selected off-site for the collection of additional background soil samples for statistical analysis in the risk assessment. Five additional surface soil samples will be collected from each of the Foundry Sand Disposal and Fiber Sludge Spreading Areas.

VIII. Private Well Groundwater Sampling

Private wells with contaminant levels exceeding MCLs during Round 1 will be sampled during Round 2.

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IX. Foundry Sand Disposal Area

Two additional soil borings (SB28 and SB29) will be drilled, in accordance with the approved Phase 1 Planning Documents, in order to collect additional analytical data to support the feasibility study and to better define the horizontal and vertical limits.

The work performed to date under the Consent Decree has followed the Statement of Work, and has utilized current guidance, including U.S. EPA's RI/FS guidance (1988). It is Beloit Corporation's intent to carry out Phase 2 activities in a manner consistent with that of Phase 1.

We anticipate a teleconference, or a meeting will be necessary to address your comments on this outline. Please call me to discuss the schedule for your review, and any other questions you may have.

Sincerely,

WARZYN INC.

James E. Moser
Task Manager

Kevin J. Domack
Project Manager

Enclosures: Attachment A
Table 1 - Proposed Boring and Well Locations
Table 2 - Analytical Parameters
Drawings F12 and F13

cc: Mr. Michael Radcliffe, Harnischfeger Industries, Inc.
Ms. Jennifer Nijman, Coffield, Ungaretti & Harris

JEM/cah/KJQ/KJD
[mad-106-283]
1526892/15197

ATTACHMENT A

WARZYN

May 25, 1993

Mr. Eric D. Runkel, Project Manager
Illinois Environmental Protection Agency
Federal Sites Management Unit
Division of Remediation Management
Bureau of Land
2200 Churchill Road
Springfield, Illinois 62794-9276

Re: Meeting Summary; May 10, 1993
Beloit Corporation-Rockton Facility

Dear Eric:

This letter contains a brief summary of the May 10 meeting held at U.S. Environmental Protection Agency (U. S. EPA) Region V offices in Chicago. Those in attendance included:

Wayde Hartwick, U.S. EPA
Craig Thomas, U.S. EPA
Eric Runkel, Illinois Environmental Protection Agency (IEPA)
Ron Wells, Ebasco
Hallie Serazin, Ebasco
Kara McGuirk, Ebasco
Michael Radcliffe, Harnischfeger Industries
Ken Quinn, Warzyn
James Moser, Warzyn
Kevin Domack, Warzyn

DRAFT

Much of the discussion focused on the potential source area near the Beloit Corporation Plant. As a result of Phase 1 volatile organic compound (VOC) concentration data for well nest W23, this area near the plant merits further investigation. The IEPA's concern is that the potential source area has yet to be fully defined, and additional investigation is necessary to determine whether migration pathways exist. IEPA expressed its concern that a dense non-aqueous phase liquid (DNAPL) exists at the site on the basis of recent U. S. EPA guidance. IEPA stated their belief that there are "preferential pathways", possibly "river channels", which may be connecting the contamination on Beloit Corporation property with that found in the Blackhawk Acres Subdivision.

Beloit Corporation agreed to perform additional investigation in the area near the Beloit Corporation Plant. Beloit Corporation will perform some investigation inside the plant to determine if a source exists directly beneath the plant. It appears that a drill rig could operate in some locations within the plant. This will be confirmed by Warzyn before proceeding with Phase 2 activities. If a source is located and sufficient data is collected to characterize the source, Beloit Corporation stated its interest in pursuing an expedited and appropriate remedy.

IEPA agreed that interviews with Beloit Corporation employees are not necessary, because Mr. Doug Mcleish and Mr. Russ Heeb of Beloit Corporation have

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previously provided an accounting of chemical use at the facility. These individuals have been around longer than most other individuals at the plant, and have the most knowledge in this regard.

As regards to the DNAPL issue, Beloit Corporation took the position that the groundwater contamination at the site (as defined by the Work Plan) is one of an aqueous phase and not a DNAPL. This position was based on current data, experience at Region V sites with similar characteristics, and VOC concentrations. The IEPA, however, maintained that current guidance suggests investigating the possible existence of a DNAPL if 1% of the solubility of the chemical is detected in groundwater. It was agreed that investigation activities in Phase 2 will include an evaluation of the area near the Beloit Corporation Plant to determine the potential for the presence/absence of a DNAPL.

The IEPA suggested a large scale investigation of the clay layer over a large area of the site as a way in which to further define the potential for preferential migration pathways and the existence of a DNAPL. It was generally agreed that this level of effort was not necessary, because if a DNAPL were to exist, it would likely be beneath or very near the source. Phase 2 activities will focus only on the potential source area near the plant when evaluating the potential existence of a DNAPL.

U. S. EPA also suggested the use of seismic refraction and/or reflection techniques to evaluate the clay. Warzyn has discussed this possibility with an expert in geophysics, and there apparently would be difficulty in obtaining proper resolution for this approach to provide meaningful results. U. S. EPA indicated there may be an alternate geophysical technique being employed at another site they are working on. They will gather information of this technique and inform the IEPA.

IEPA raised the issue of potential effects on the Rock River. This issue had been discussed at a previous meeting in which Ebasco indicated that investigation west, towards the River, was not practicable or necessary.

It was agreed that the next submission for Phase 2 would contain only the data, and no text. This will expedite the review process, as well as discussions regarding the findings and further actions.

IEPA/Ebasco suggested that sediment sampling in the Rock River be performed for the ecological assessment. Warzyn and Beloit Corporation responded by stating that data collected from the Rock River will not provide meaningful results for the investigation, including the ecological study. Data obtained would provide, at best, Rock River water quality without the benefit of knowing what the source is; even if background samples were taken. The Rock River is a large, high energy river that has a multitude of hydrologic characteristics that of themselves, would preclude meaningful interpretation of the data. Warzyn would be happy to further discuss with IEPA the inability to obtain meaningful samples. If sediment sampling is still an option for IEPA, Warzyn would request input into the locations of samples and sampling methods.

It was agreed that Warzyn and Beloit Corporation would provide IEPA with an outline of Phase 2 activities for review to expedite the Work Plan process. Methods of investigation and analysis will be implemented in the same manner as Phase 1. A reduced set of wells and parameters will be considered for Phase 2.

In summary, the following concepts/Phase 2 activities were discussed and agreed to:

- Investigation beneath and near the Beloit Corporation Plant - The investigation will include soils and groundwater analyses. Borings will be advanced to the clay layer to evaluate the potential existence of a DNAPL. The number of borings or possible monitoring wells was not specified, nor were analytical parameters. These will be proposed by Warzyn in an outline of Phase 2 activities.

- Migration pathway analysis between the Beloit Corporation Plant and Blackhawk Acres Subdivision - An unspecified number of water quality borings will be performed between the Beloit Corporation Plant and the Blackhawk Acres Subdivision to assess potential migration pathways. The number and location of these borings will rely on information obtained from the source characterization, described above. If a DNAPL is found in the source characterization activities, then modifications to the Phase 2 Work Plan will be required, or a Phase 3 plan will be prepared and implemented.

- A Beloit Corporation production well and monitoring wells (selected by Warzyn) will be equipped with automatic recorders. Data from the recorders will be used to evaluate potential influences on water table configuration by the production well.

- Additional soil borings will be proposed for the Foundry Sand Disposal Area (FSDA) and the Storage Yard Area (SYA). Samples in the FSDA will be used to support the Feasibility Study. Samples collected in the SYA will be used to evaluate the existence of a potential source, as determined by the results from soil gas detections in Phase 1.

- Additional soil background samples will be collected, as necessary, for statistical analysis in the risk assessment.

- A water table well will be installed at well nest W26, and W4 will be abandoned.

- A second round of water quality analysis will be performed at an unspecified number of wells for a reduced set of parameters, based on Phase 1 data.

- A second round of private well water quality analyses will be performed at certain private wells for a reduced set of parameters, based on Phase 1 data.

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- Inorganic concentrations at W15 are elevated. This appears to be an isolated incident possibly associated with infiltration of residual road salt. This well will be sampled in the second round to confirm first round results.

- Data will be submitted to the IEPA without the formal generation of a second technical memorandum. Further direction of the RI/FS will be discussed post-Phase 2. It is anticipated that the data from Phases 1 and 2 will be sufficient to support the Risk assessment and Feasibility Study such that a RI Report can then be prepared, and we can proceed to the Feasibility Study.

Additional detail regarding Phase 2 activities will be provided in the outline. The delivery date for the outline was originally scheduled for May 25, 1993. After further discussions between IEPA and Warzyn, this date has been rescheduled for June 10, 1993.

Please call me if you have any disagreements with or questions regarding the information contained herein.

Sincerely,

WARZYN INC.

Kevin J. Domack

Kevin J. Domack
Project Manger

cc: Michael Radcliffe, Harnischfeger Industries, Inc
Jennifer Nijman, Coffield, Ungaretti & Harris
Wayde Hartwick, U.S. EPA
Kara McGuirk, Ebasco

KJD/ms/DWH
[mad-105a-283]
1526892/15155

DRAFT

TABLE 1

Soil Gas, Soil Boring, Deep Groundwater Quality Boring and Monitoring Well Location and Rational Summary
Beloit Corporation - Rockton Facility RI/FS
Phase 2
Rockton, Illinois

Soil Gas/ Well/Boring Number	Approximate Depth	Approximate[1] Location	Rational for Placement
Soil Gas			
SG300	6-8 ft	Inside the BCP along south side of former exterior wall and drum loading/unloading area.	Area where potential leakage or spills may have occurred.
SG301	6-8 ft	Inside the BCP along south side of former exterior wall and drum loading/unloading area.	Area where potential leakage or spills may have occurred.
SG302	6-8 ft	Inside the BCP along south side of former exterior wall and drum loading/unloading area.	Area where potential leakage or spills may have occurred.
SG303	6-8 ft	Inside the BCP along south side of former exterior wall and drum loading/unloading area.	Area where potential leakage or spills may have occurred.
SG304	6-8 ft	Inside the BCP along south side of former exterior wall and drum loading/unloading area.	Area where potential leakage or spills may have occurred.
SG305	6-8 ft	Inside the BCP along south side of former exterior wall and drum loading/unloading area.	Area where potential leakage or spills may have occurred.
SG306	6-8 ft	Inside the BCP at southwest corner of former exterior wall doorway to outside.	Area where potential leakage or spills may have occurred.
SG307	6-8 ft	Inside BCP along former exterior wall.	Area where potential leakage or spills may have occurred.
SG308	6-8 ft	Inside the BCP at end of former exterior wall-doorway to outside.	Area where potential leakage or spills may have occurred.
SG309	6-8 ft	Inside the erection biulding along east wall that separates erection building and the BCP.	Area where potential leakage or spills may have occurred.

TABLE 1 (continued)

Soil Gas/ Well/Boring I.D.	Approximate Depth	Approximate[1] Location	Rationale
SG310	6-8 ft	Inside the erection building along east wall that separates erection building and the BCP.	Area where potential leakage or spills may have occurred.
SG311	6-8 ft	Inside the erection building along east wall that separates erection building and the BCP.	Area where potential leakage or spills may have occurred.
SG312	6-8 ft	Outside east entrance into erection building.	Evaluate for potential source area upgradient of well nest W23.
SG313	6-8 ft	Outside bay door west of lunch room.	Evaluate for potential source area upgradient of well nest W23.
SG314	6-8 ft	South of lunch room.	Evaluate for potential source area upgradient of well nest W23.
SG315	6-8 ft	East of lunch room.	Evaluate for potential source area upgradient of well nest W23.
SG316	6-8 ft	West of shed in storage yard.	Evaluate for potential source area based on soil boring analytical results for SB21.
SG317	6-8 ft	West of shed in storage yard.	Evaluate for potential source area based on soil boring analytical results for SB21.
SG318	6-8 ft	East of shed in storage yard.	Evaluate for potential source area based on soil boring analytical results for SB21.
SG319	6-8 ft	East of shed in storage yard.	Evaluate for potential source area based on soil boring analytical results for SB21.
SG320	6-8 ft	West of paint room area.	Evaluate for potential source area.

TABLE 1 (continued)

Soil Gas/ Well/Boring I.D.	Approximate Depth	Approximate[1] Location	Rationale
SG321	6-8 ft	South of paint room area.	Evaluate for potential source area.
SG322	6-8 ft	East of paint room area.	Evaluate for potential source area.
Soil Borings			
SB22 [2]	25 ft	Inside the BCP near former exit along old exterior wall.	Evaluate for potential source area.
SB23[2]	25 ft	Inside the BCP adjacent to former external delivery door.	Evaluate for potential source area.
SB24[2]	25 ft	Inside the BCP approximately 40 ft east of SB23.	Evaluate for potential source area.
SB25[2]	25 ft	South of lunch room.	Evaluate for potential source area.
SB26	33 ft	Storage yard at soil gas SG107.	Source characterization at soil gas location with detection.
SB27	33 ft	Storage yard midway between soil gas SG131 and SG130.	Source characterization at soil gas location with detection.
SB28	30 ft	FSDA	To support Feasibility Study.
SB29	30 ft	FSDA	To support Feasibility Study.
Deep Borings			
W30C	(3)	South side of lunch room.	Evaluate for potential source area.

TABLE 1 (continued)

Soil Gas/ Well/Boring I.D.	Approximate Depth	Approximate[1] Location	Rationale
W31C	(3)	Outside southern perimeter of BCP near storage shed southwest of location of soil boring SB20 and 21.	Migration pathway characterization, source characterization.
W32C	(3)	Along eastern property line east of BCP between well nests W9/W10 and W13/W14.	Migration pathway characterization.
W33C	(3)	Storage yard area, near soil boring SB27.	Migration pathway and source characterization based on soil gas detections.
W34C	(3)	Along eastern property line east of BCP between well nests W9/W10 and W13/W14.	Migration pathway characterization.
W35C	(3)	Inside the BCP south of former loading/unloading area. Exact location will be determined after review of soil and groundwater GC screening results.	Migration pathway characterization, source characterization.
W36C	(3)	Inside the BCP near former dry well. Exact location will be determined after review of soil and groundwater GC screening results.	Migration pathway characterization, source characterization.
Monitoring Wells			
W26 (W4)	35 ft	Nested with well W26C.	Replaced water table well W04.
W37	40 ft	North-east corner of Watts Ave. and Kile Dr. intersection.	Water table control point.
W12R	35 ft	Location of well W12.	Replacement.

(1) See Drawings 1526892 F12 and F13 for proposed boring and well locations.
(2) Grab groundwater sample at water table for G.C. analysis.
(3) Determined by in-field gas chromatograph results of soil groundwater samples.

NOTES:
BCP = Beloit Corporation Plant

JEM/jlv/KJD
[jlv/Beloit/Table1]
1526892/15197

TABLE 2

Summary of Analytical Parameters (1)
Phase 2

Beloit Corporation-Blackhawk Facility
Remedial Investigation/Feasibility Study

Well ID	GC Field Screening Volatiles	TCL Volatiles	TCL Semi-volatiles	TCL Pesticides/ PCB	TAL Metals	Groundwater Indicator Parameters	Soil Physical Parameters
Existing Groundwater Monitoring Wells (2)							
W03R		X			X		
W05R		X					
W06		X	X	X	X	X	
W08R (Bkgd)		X	X	X	X	X	
W11R (Bkgd)		X	X	X	X	X	
W12							
W13							
W14		X		X	X		
W15					X	X	
W16R							
W17							
W18		X					
W19		X					
W19B							
W20		X					
W20B		X		X	X		
W21		X					
W21B		X	X	X			
W22							
W22B		X		X			
W22C		X		X			
W23		X					
W23B		X	X				
W24 (bkgd)		X	X	X	X	X	
W25C		X					
W26C		X	X	X			
G103D							
G103S							
G104		X					
G107 (Bkgd)		X	X	X	X	X	
G108D							
G109		X					
G110		X		X			

Summary of Analytical Parameters (1)
Phase 2

Beloit Corporation-Blackhawk Facility
Remedial Investigation/Feasibility Study

Well ID	GC Field Screening Volatiles	TCL Volatiles	TCL Semi-volatiles	TCL Pesticides/ PCB	TAL Metals	Groundwater Indicator Parameters	Soil Physical Parameters
Proposed Groundwater Monitoring Wells (4)							
W12R	X	X	X	X	X	X	
W26	X	X	X	X	X	X	
All New Wells	X	X	X	X	X	X	
(number and location							
of new wells will be							
based on soil gas,							
soil and groundwater							
quality screening; up							
to 9 wells anticipated)							
Proposed Soil Borings (5)							
SB22	X	X	X	X	X		X
SB23	X	X	X	X	X		X
SB24	X	X	X	X	X		X
SB25	X	X	X	X	X		X
SB26	X	X	X	X	X		X
SB27	X	X	X	X	X		X
SB28	X	X	X	X	X		X
SB29	X	X	X	X	X		X
Proposed Background Surface Soil Samples (6)							
SU14		X	X	X	X		X
SU15		X	X	X	X		X
SU16		X	X	X	X		X
SU17		X	X	X	X		X
SU18		X	X	X	X		X
Proposed FSSA Surface Soil Samples (6)							
SU19		X	X	X	X		X
SU20		X	X	X	X		X
SU21		X	X	X	X		X
SU22		X	X	X	X		X
SU23		X	X	X	X		X
Proposed FSDA Surface Soil Samples (6)							
SUSB28		X	X	X	X		X
SUSB29		X	X	X	X		X
SU24		X	X	X	X		X
SU25		X	X	X	X		X
SU26		X	X	X	X		X

Summary of Analytical Parameters (1)
Phase 2

Beloit Corporation-Blackhawk Facility
Remedial Investigation/Feasibility Study

(1) This table presents a summary of analytical parameters for Phase 2 of the Beloit Corporation Blackhawk Facility RI/FS. An "X" indicates the well is to be sampled for the indicated parameter. A blank space indicates the analysis will not be performed during Phase 2. The following discussion details the rationale for parameter selection.

(2) If a TCL compound for volatile, semivolatile, or pesticide/PCB analysis was detected in a well during the Phase 1 investigation, the well is to be sampled and analyzed for that analysis in Phase 2. If any TAL analyte was detected above the MCL in a well during the Phase 1 investigation, the well is to be sampled and analyzed for TAL analytes in Phase 2. Indicator parameters are required for W15 to confirm results from Phase I. Indicator parameters include alkalinity, chloride, sulfate, Nitrate + Nitrite-Nitrogen, Ammonia-Nitrogen, phenolics, and total dissolved solids.

Background wells W08R, W11R, W24, and G107 are to be analyzed for full TCL, TAL, and indicator parameters.

Wells sampled during Phase 1 that had no detects of TCL parameters, or TAL metals above the MCL, will not be included for sampling and analysis during Phase 2.

(3) Private wells with detects above the MCL for any given compound during Phase 1 will be analyzed for CLP TCL Volatiles during Phase 2.

(4) Proposed Monitoring wells include both predetermined wells and Deep groundwater quality borings. Deep groundwater quality borings will be screened for volatiles by field GC during drilling. Complete CLP TCL/TAL analysis will be conducted on samples from the developed monitoring wells to be installed at selected deep borings, as presented in the Proposed Groundwater Monitoring Well section of this table.

(5) Soil borings are to be screened for volatiles by field GC during drilling. Selected samples from each boring will be analyzed for CLP TCL/TAL parameters. In addition, soil samples will be analyzed for physical parameters, including grain size analysis and total organic carbon.

(6) Surface soil samples for evaluation of background metals concentrations will be collected at 5 mutually agreeable locations. Surface soil samples will also be collected at 5 locations in the FSSA, and at 5 locations (including 2 from soil borings) in the FSDA. These samples will be analyzed for CLP TCL/TAL parameters.

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