

# GIS REGISTRY

## Cover Sheet

March, 2010  
(RR 5367)

### Source Property Information

BRRTS #:

ACTIVITY NAME:

PROPERTY ADDRESS:

MUNICIPALITY:

PARCEL ID #:

CLOSURE DATE:

FID #:

DATCP #:

COMM #:

#### \*WTM COORDINATES:

X:  Y:

*\* Coordinates are in  
WTM83, NAD83 (1991)*

#### WTM COORDINATES REPRESENT:

- Approximate Center Of Contaminant Source  
 Approximate Source Parcel Center

Please check as appropriate: (BRRTS Action Code)

#### Contaminated Media:

Groundwater Contamination > ES (236)

Contamination in ROW

Off-Source Contamination

*(note: for list of off-source properties  
see "Impacted Off-Source Property" form)*

Soil Contamination > \*RCL or \*\*SSRCL (232)

Contamination in ROW

Off-Source Contamination

*(note: for list of off-source properties  
see "Impacted Off-Source Property" form)*

#### Land Use Controls:

N/A (Not Applicable)

Soil: maintain industrial zoning (220)

*(note: soil contamination concentrations  
between non-industrial and industrial levels)*

Structural Impediment (224)

Site Specific Condition (228)

Cover or Barrier (222)

*(note: maintenance plan for  
groundwater or direct contact)*

Vapor Mitigation (226)

Maintain Liability Exemption (230)

*(note: local government unit or economic  
development corporation was directed to  
take a response action)*

#### Monitoring Wells:

Are all monitoring wells properly abandoned per NR 141? (234)

Yes  No  N/A

*\* Residual Contaminant Level*

*\*\*Site Specific Residual Contaminant Level*

This Adobe Fillable form is intended to provide a list of information that is required for evaluation for case closure. It is to be used in conjunction with Form 4400-202, Case Closure Request. The closure of a case means that the Department has determined that no further response is required at that time based on the information that has been submitted to the Department.

**NOTICE: Completion of this form is mandatory** for applications for case closure pursuant to ch. 292, Wis. Stats. and ch. NR 726, Wis. Adm. Code, including cases closed under ch. NR 746 and ch. NR 726. The Department will not consider, or act upon your application, unless all applicable sections are completed on this form and the closure fee and any other applicable fees, required under ch. NR 749, Wis. Adm. Code, Table 1 are included. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than reviewing closure requests and determining the need for additional response action. The Department may provide this information to requesters as required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

BRRTS #:  PARCEL ID #:   
ACTIVITY NAME:  WTM COORDINATES: X:  Y:

**CLOSURE DOCUMENTS** (the Department adds these items to the final GIS packet for posting on the Registry)

- Closure Letter**
- Maintenance Plan** (if activity is closed with a land use limitation or condition (land use control) under s. 292.12, Wis. Stats.)
- Continuing Obligation Cover Letter** (for property owners affected by residual contamination and/or continuing obligations)
- Conditional Closure Letter**
- Certificate of Completion (COC)** (for VPLE sites)

**SOURCE LEGAL DOCUMENTS**

- Deed:** The most recent deed as well as legal descriptions, for the **Source Property** (where the contamination originated). Deeds for other, off-source (off-site) properties are located in the **Notification** section.  
**Note:** If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.
- Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. (lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).  
**Figure #:**                      **Title: Property Map, CSM Volume 24, Page 63, April 14, 2010**
- Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description accurately describes the correct contaminated property.

**MAPS** (meeting the visual aid requirements of s. NR 716.15(2)(h))

Maps must be no larger than 11 x 17 inches unless the map is submitted electronically.

- Location Map:** A map outlining all properties within the contaminated site boundaries on a U.S.G.S. topographic map or plat map in sufficient detail to permit easy location of all parcels. If groundwater standards are exceeded, include the location of all potable wells within 1200 feet of the site.  
**Note:** Due to security reasons municipal wells are not identified on GIS Packet maps. However, the locations of these municipal wells must be identified on Case Closure Request maps.  
**Figure #: 1**                      **Title: Skana Location**
- Detailed Site Map:** A map that shows all relevant features (buildings, roads, individual property boundaries, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding a ch. NR 140 Enforcement Standard (ES), and/or in relation to the boundaries of soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Levels (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.  
**Figure #: 2**                      **Title: Property Map of Skana, Well Locations, Screen Depths & Soil Sample Locations**
- Soil Contamination Contour Map:** For sites closing with residual soil contamination, this map is to show the location of all contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.  
**Figure #:**                      **Title:**

BRRTS #: 02-36-550138

ACTIVITY NAME: Skana (K&V) Sitewide

**MAPS (continued)**

- Geologic Cross-Section Map:** A map showing the source location and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL). If groundwater contamination exceeds a ch. NR 140 Enforcement Standard (ES) when closure is requested, show the source location and vertical extent, water table and piezometric elevations, and locations and elevations of geologic units, bedrock and confining units, if any.

**Figure #: 5 Title: West to East and North to South Geologic Cross Sections**

**Figure #: Title:**

- Groundwater Isoconcentration Map:** For sites closing with residual groundwater contamination, this map shows the horizontal extent of all groundwater contamination exceeding a ch. NR140 Preventive Action Limit (PAL) and an Enforcement Standard (ES). Indicate the direction and date of groundwater flow, based on the most recent sampling data.

**Note:** This is intended to show the total area of contaminated groundwater.

**Figure #: 9, 10 11 Title: Summary of concentrations\_\_ 9: Arsenic\_\_ 10: Aluminum\_\_ 11: PAH\_\_**

- Groundwater Flow Direction Map:** A map that represents groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit 2 groundwater flow maps showing the maximum variation in flow direction.

**Figure #: 8 Title: Groundwater Contours August 27, 2011**

**Figure #: Title:**

**TABLES (meeting the requirements of s. NR 716.15(2)(h)(3))**

Tables must be no larger than 11 x 17 inches unless the table is submitted electronically. Tables must not contain shading and/or cross-hatching. The use of **BOLD** or *ITALICS* is acceptable.

- Soil Analytical Table:** A table showing remaining soil contamination with analytical results and collection dates.  
**Note:** This is one table of results for the contaminants of concern. Contaminants of concern are those that were found during the site investigation, that remain after remediation. It may be necessary to create a new table to meet this requirement.

**Table #: Title:**

- Groundwater Analytical Table:** Table(s) that show the most recent analytical results and collection dates, for all monitoring wells and any potable wells for which samples have been collected.

**Table #: 4, 5 Title: 4. Aluminum, 5. Arsenic, individual well tables, analyticals for wells #11B, TW06.26**

- Water Level Elevations:** Table(s) that show the previous four (at minimum) water level elevation measurements/dates from all monitoring wells. If present, free product is to be noted on the table.

**Table #: Title: see Tables for individual wells**

**IMPROPERLY ABANDONED MONITORING WELLS**

For each monitoring well not properly abandoned according to requirements of s. NR 141.25 include the following documents.

**Note:** If the site is being listed on the GIS Registry for only an improperly abandoned monitoring well you will only need to submit the documents in this section for the GIS Registry Packet.

- Not Applicable**

- Site Location Map:** A map showing all surveyed monitoring wells with specific identification of the monitoring wells which have not been properly abandoned.

**Note:** If the applicable monitoring wells are distinctly identified on the Detailed Site Map this Site Location Map is not needed.

**Figure #: 15 Title: Damaged/Lost Wells August 27, 2011**

- Well Construction Report:** Form 4440-113A for the applicable monitoring wells.

- Deed:** The most recent deed as well as legal descriptions for each property where a monitoring well was not properly abandoned.

- Notification Letter:** Copy of the notification letter to the affected property owner(s).

BRRTS #: 02-36-550138

ACTIVITY NAME: Skana (K&V) Sitewide

## NOTIFICATIONS

### Source Property

**Not Applicable**

**Letter To Current Source Property Owner:** If the source property is owned by someone other than the person who is applying for case closure, include a copy of the letter notifying the current owner of the source property that case closure has been requested.

**Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying current source property owner.

### Off-Source Property

Group the following information per individual property and label each group according to alphabetic listing on the "Impacted Off-Source Property" attachment.

**Not Applicable**

**Letter To "Off-Source" Property Owners:** Copies of all letters sent by the Responsible Party (RP) to owners of properties with groundwater exceeding an Enforcement Standard (ES), and to owners of properties that will be affected by a land use control under s. 292.12, Wis. Stats.

**Note:** Letters sent to off-source properties regarding residual contamination must contain standard provisions in Appendix A of ch. NR 726.

**Number of "Off-Source" Letters:**

**Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying any off-source property owner.

**Deed of "Off-Source" Property:** The most recent deed(s) as well as legal descriptions, for all affected deeded **off-source property(ies)**. This does not apply to right-of-ways.

**Note:** If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.

**Letter To "Governmental Unit/Right-Of-Way" Owners:** Copies of all letters sent by the Responsible Party (RP) to a city, village, municipality, state agency or any other entity responsible for maintenance of a public street, highway, or railroad right-of-way, within or partially within the contaminated area, for contamination exceeding a groundwater Enforcement Standard (ES) and/or soil exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).

**Number of "Governmental Unit/Right-Of-Way Owner" Letters:**



January 20, 2012

VPLE #06-36-556282

(sent via email to Ken.Kazmierczak@skanaaluminum.com)

Kenneth Kazmierczak CFO, VP Administration  
Skana Aluminum Company  
PO Box 1477  
Manitowoc, WI 54220

**KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS**

SUBJECT: Final Case Closure with Continuing Obligations  
Skana (K&V) "Site Wide" miscellaneous historic impacts  
2009 Mirro Drive, Manitowoc, WI  
WDNR BRRTS Activity #: 02-36-550138

Dear Mr. Kazmierczak:

The Department of Natural Resources (DNR) considers the "Site Wide" site closed, with continuing obligations. No further investigation or remediation is required at this time. However, you and future property owners must comply with the continuing obligations as explained in the conditions of closure in this letter. Please read over this letter closely to ensure that you comply with all conditions and other on-going requirements. Provide this letter and the attached maintenance plan to anyone who purchases this property from you.

This final closure decision is based on the correspondence and data provided, and is issued under ch. NR 726, Wisconsin Administrative Code. The Northeast Region Closure Committee reviewed this site for closure on Dec 2, 2011, January 13 and 20, 2012. The Closure Committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. The project manager, Annette Weissbach, discussed the conditional closure requirements with your Consultant Mike Hebert and the following documents have been submitted.

- NR 141 Wis. Adm. Code Abandonment Forms for monitoring wells: MW4.1, MW4.2, MW4.3, MW06.14, MW06.18, MW06.07, MW06.17, MW06.12, MW06.21, MW13.1, MW06.10, MW03.01, MW06.13, MW06.06, MW06.15, MW06.11, MW03.03, MW06.09, MW06.04, MW06.20, TW06.01, TW06.02, TW06.03, TW06.04, TW06.05, TW06.06, TW06.07, TW06.08, TW06.09, TW06.10, TW06.11, TW06.12, TW06.13, TW06.15, TW06.16, TW06.17, TW06.27, TW06.28, TW06.29, TW06.30, TW11A, TW11B, TW11C, 14/15 SB1, 14/15/SB/2 SB-3/MW-3, and 11/13/17 SB-1
- Cap maintenance Plan: Joint maintenance plan with BRRTS case #02-36-544601

The Property is a former Mirro-Newell Rubbermaid facility that was built in the early 1960-70s with 575,000 ft<sup>2</sup> of buildings under manufacturing. The Aluminum rolling mill is operated by Skana and Tramontina leases building space for the production of aluminum pots and pans. Over the last eight years, several Phase I, Phase II, and site investigations have been completed which included soil and groundwater sampling from dozens of soil borings, 31 monitoring wells and 14 temporary wells. Site wide impacts associated with industrial activities at the site include common contaminants such as polycyclic aromatic hydrocarbons, arsenic, aluminum and trace detect of trichloroethylene. Limited areas of contaminated soil were excavated and properly disposed of.

The conditions of closure and continuing obligations required were based on the property being used for **industrial purposes**.

### **Continuing Obligations**

The continuing obligations for this site are summarized below. Further details on actions required are found in the section **Closure Conditions**.

- Groundwater contamination (arsenic, aluminum, polycyclic aromatic hydrocarbons) is present above ch. NR 140 Wis Adm. Code enforcement standards.
- One or more monitoring wells were not located and must be properly filled and sealed if found.
- Building 5C and asphaltic pavement must be maintained over contaminated soil and the state must approve any changes to this barrier.
- Before the land use may be changed from industrial to non-industrial, additional environmental work must be completed.

### **GIS Registry**

This site will be listed on the Remediation and Redevelopment Program's internet accessible Geographic Information System (GIS) Registry, to provide notice of residual contamination and of any continuing obligations. DNR approval prior to well construction or reconstruction is required for all sites shown on the GIS Registry, in accordance with s. NR 812.09(4) (w), Wis. Adm. Code. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at <http://dnr.wi.gov/org/water/dwg/3300254.pdf> or at the web address listed below for the GIS Registry.

All site information is also on file at the Northeast Regional DNR office, at 2984 Shawano Ave in Green Bay. This letter and information that was submitted with your closure request application, including the maintenance plan, will be included on the GIS Registry in a PDF attachment. To review the site on the GIS Registry web page, visit the RR Sites Map page at <http://dnr.wi.gov/org/aw/rr/gis/index.htm>.

### **Prohibited Activities**

Certain activities are prohibited at closed sites because maintenance of a barrier is intended to prevent contact with any remaining contamination. When a barrier is required, the condition of closure requires notification of the DNR before making a change, in order to determine if further action is needed to maintain the protectiveness of the remedy employed. The following activities are prohibited on any portion of the property where the building foundation and pavement is required, as shown on the **attached map**, unless prior written approval has been obtained from the DNR.

- removal of the existing barrier;
- replacement with another barrier;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure;
- changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings;

### Closure Conditions

Compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter and the attached maintenance plans are met. If these requirements are not followed, the DNR may take enforcement action under s. 292.11, Wisconsin Statutes to ensure compliance with the specified requirements, limitations or other conditions related to the property.

#### Residual Groundwater Contamination (ch. NR 140, Wis. Adm. Code)

Groundwater contamination greater than enforcement standards is present on this property as shown on the attached maps. If you intend to construct a new well, or reconstruct an existing well, you'll need prior DNR approval.

#### Residual Soil Contamination (ch. NR 718, or ch. 289, Stats.; chs. 500 to 536, Wis. Adm. Code)

Due to the long term use of this large property for manufacturing purposes residual soil contamination remains various locations. Anyone planning any future excavation activity should know that contaminated soil and groundwater may be encountered and appropriate action should be taken according to the conditions encountered. If conditions warrant and sampling confirms that contamination is present, the property owner at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

#### Monitoring wells that could not be properly filled and sealed (ch. NR 141, Wis. Adm. Code)

Temporary monitoring well(s) TW-06.01, TW-06.03 TW-06.04, TW-06.05, TW06.11, TW-06.17 located on the Skana Aluminum property as shown on the attached map, could not be properly filled and sealed because they could not be found. Your consultant made a reasonable effort to locate the wells and to determine whether they were properly filled and sealed, but was unsuccessful. You may be held liable for any problems associated with the monitoring wells if they create a conduit for contaminants to enter groundwater. If any of the groundwater monitoring wells are found, the then current owner of the property on which the well is located is required to notify the DNR, to properly fill and seal the wells and to submit the required documentation to the DNR.

Cover or Barrier (s. 292.12 (2) (a), Wis. Stats)

Building 5C and pavement that exists in the location shown on the attached map shall be maintained in compliance with the **attached maintenance plan** in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code.

A cover or barrier for industrial land uses may not be protective if use of the property were to change such that a residential exposure would apply. This may include, but is not limited to single or multiple family residences, a school, day care, senior center, hospital or similar settings. Before using the property for such purposes, you must notify the DNR to determine if additional response actions are warranted. A request may be made to modify or replace a cover or barrier. The replacement or modified cover or barrier must be protective of the revised use of the property, and must be approved in writing by the DNR prior to implementation. The **attached maintenance plan and inspection log** are to be kept up-to-date and on-site. Submit the inspection log to the DNR only upon request.

**Chapter NR 140, Wis. Adm. Code Exemption**

Recent groundwater monitoring data at this site indicates that for trichloroethylene at monitoring well MW 4.2 previously located directly east of Building 2, the Rolling Mill, and at contaminant levels exceed the NR 140 preventive action limit (PAL) but are below the enforcement standard (ES). The DNR may grant an exemption to a PAL for a substance of public health concern, other than nitrate, pursuant to s. NR 140.28 (2) (b), Wis. Adm. Code, if all of the following criteria are met:

1. The measured or anticipated increase in the concentration of the substance will be minimized to the extent technically and economically feasible.
2. Compliance with the PAL is either not technically or economically feasible.
3. The enforcement standard for the substance will not be attained or exceeded at the point of standards application. [Note: at this site the point of standards application is all points where groundwater is monitored.]
4. Any existing or projected increase in the concentration of the substance above the background concentration does not present a threat to public health or welfare.

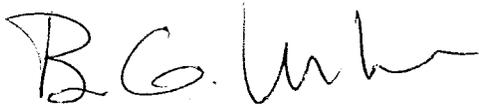
Based on the information you provided, the DNR believes that these criteria have been or will be met. Therefore, pursuant to s. NR 140.28, Wis. Adm. Code, an exemption to the PAL is granted for trichloroethylene at the location of former monitoring well MW 4.2. Please keep this letter, because it serves as your exemption.

DNR fact sheet, "Continuing Obligations for Environmental Protection", RR-819, is included with this letter to help explain a property owner's responsibility for continuing obligations on their property. If the fact sheet is lost, you may obtain a copy at <http://dnr.wi.gov/org/aw/rr/archives/pubs/RR819.pdf>.

Please send written notifications in accordance with the above requirements to the DNR's Northeast Regional office, to the attention of the Remediation & Redevelopment Environmental Program Associate.

We appreciate your efforts to restore the environment at this site and enroll the property in the Voluntary Party Liability Exemption (VPLE) process. Your Certificate of Completion will be issued in the next several weeks. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Annette Weissbach at 920-662-5165.

Sincerely,

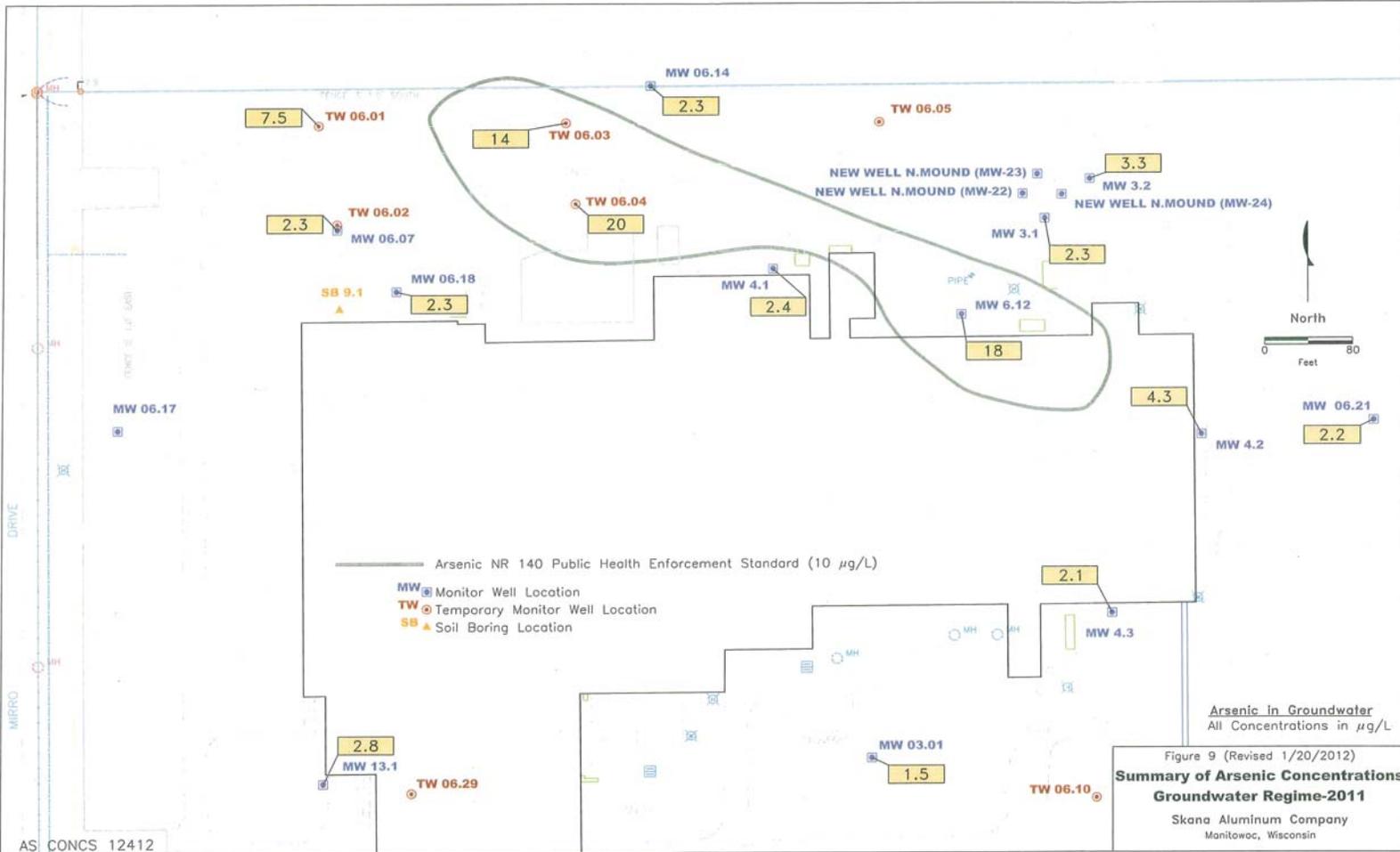
A handwritten signature in black ink, appearing to read "B.G. Urban". The signature is fluid and cursive, with a long horizontal stroke at the end.

Bruce Urban Air and Waste Division Leader  
Northeast Region

Attachments:

- Remaining groundwater contamination maps
- Missing monitoring well location map
- Maintenance plan
- Publication RR-819 Continuing Obligations

cc: Paul Kuplic – paulk@communitybankandtrust.com  
James Bolger – JBI Inc., jim@jbidata.com  
Michael Hebert – ECT, Inc., MHebert@ectinc.com  
Michael Prager – RR/5  
Bill Phelps – DG/5



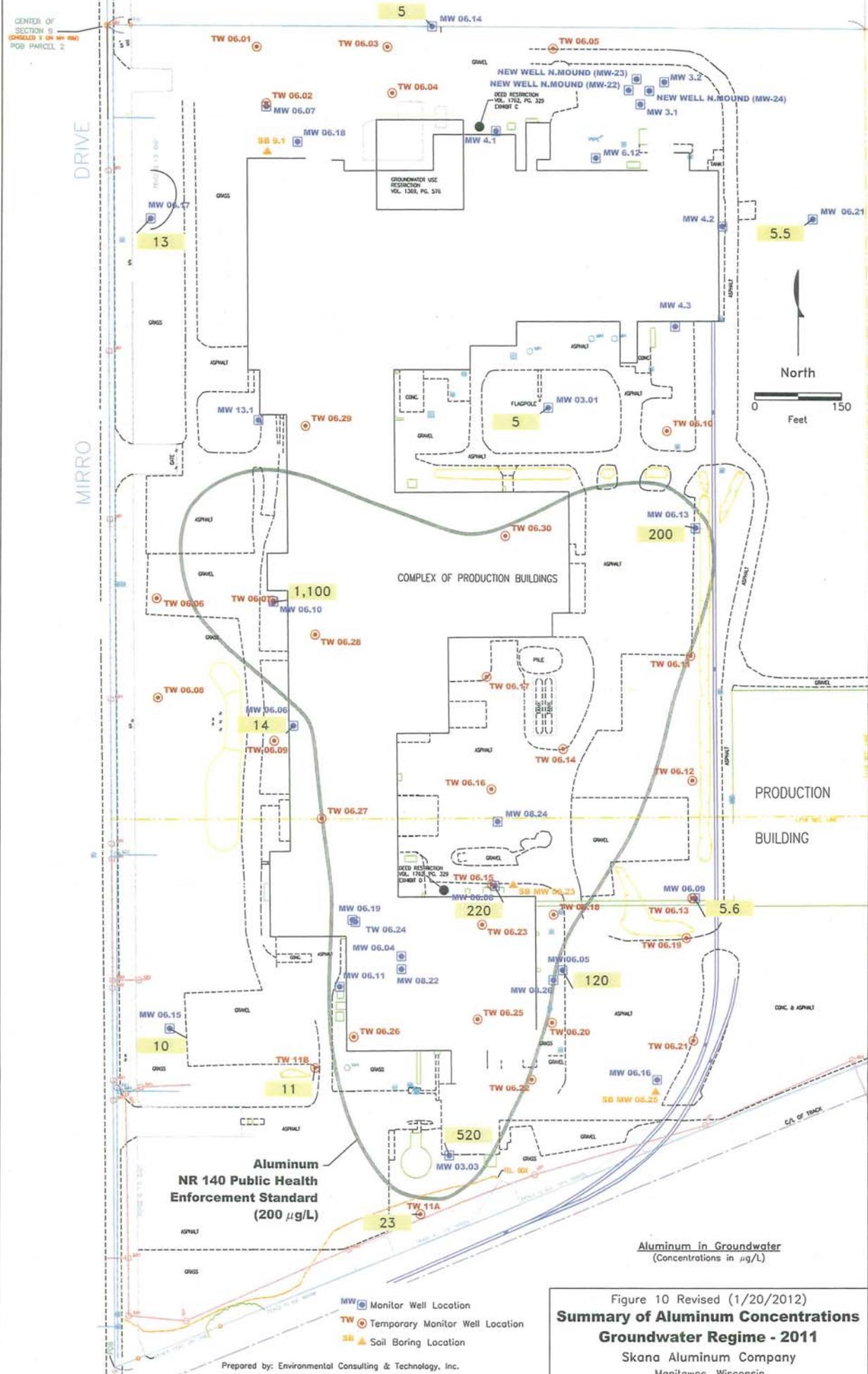


Figure 10 Revised (1/20/2012)  
**Summary of Aluminum Concentrations**  
**Groundwater Regime - 2011**  
 Skana Aluminum Company  
 Manitowoc, Wisconsin

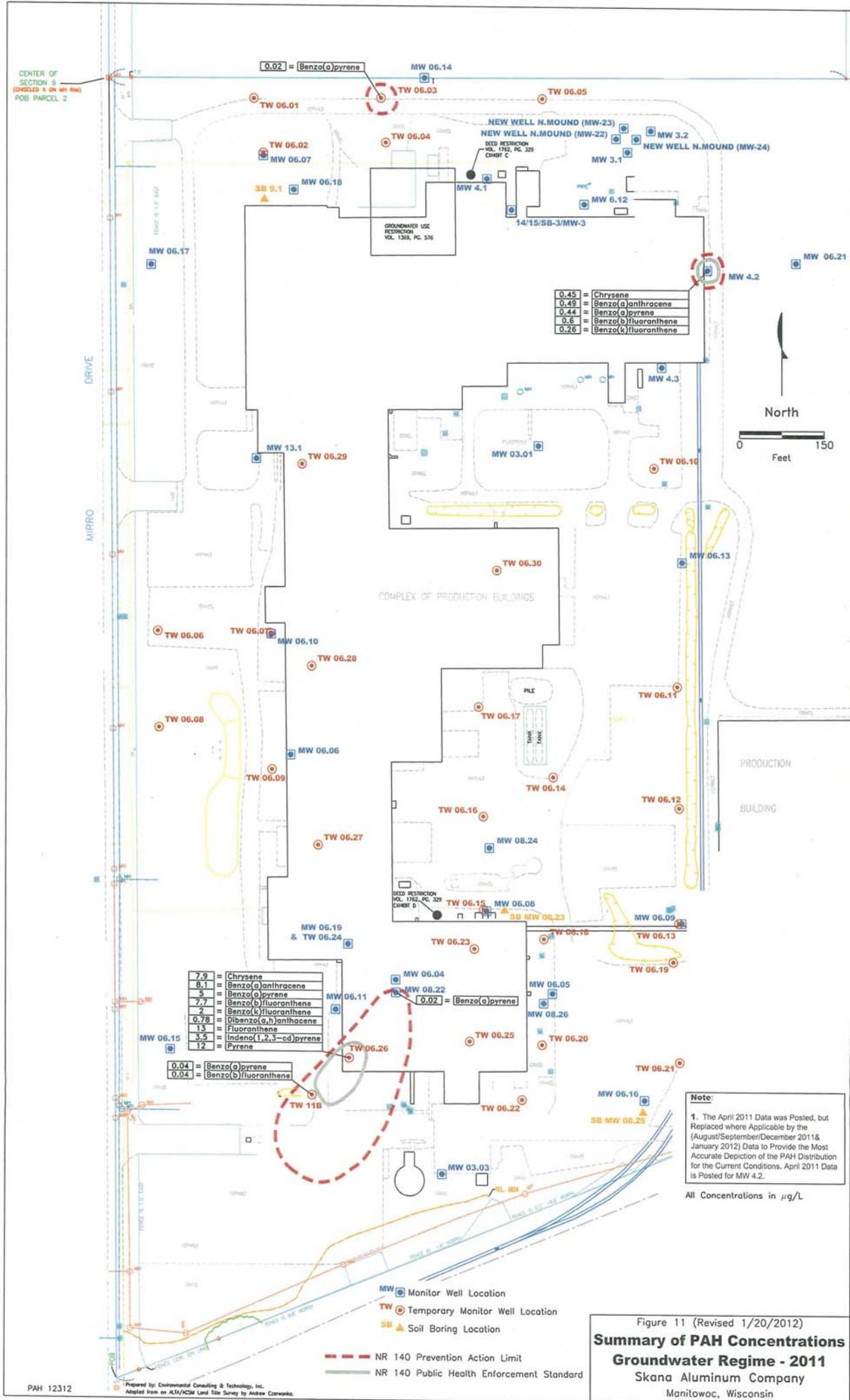


Figure 11 (Revised 1/20/2012)  
**Summary of PAH Concentrations**  
**Groundwater Regime - 2011**  
 Skana Aluminum Company  
 Manitowoc, Wisconsin



LOSTWELLS 12412

Prepared by: Environmental Consulting & Technology, Inc.  
Adapted from an ALTA/ACSM Land Title Survey by Andrew Czerwonka.

Figure 15 (1/20/2012)  
**Damaged/Lost Wells**  
**August 27, 2011**  
Skana Aluminum Company  
Manitowoc, Wisconsin

**BARRIER/CAP MAINTENANCE PLAN**

Date of Preparation: 25 January 2012  
Date of Initiation: 15 February 2012

**Subject Property:** SKANA ALUMINUM COMPANY  
2009 Mirro Drive  
Manitowoc, Wisconsin 54221

VLPE #06-36-556282  
WI DNR Environmental Repair Activity # 02-36-544601/02-36-550138  
Facility ID# 436106110

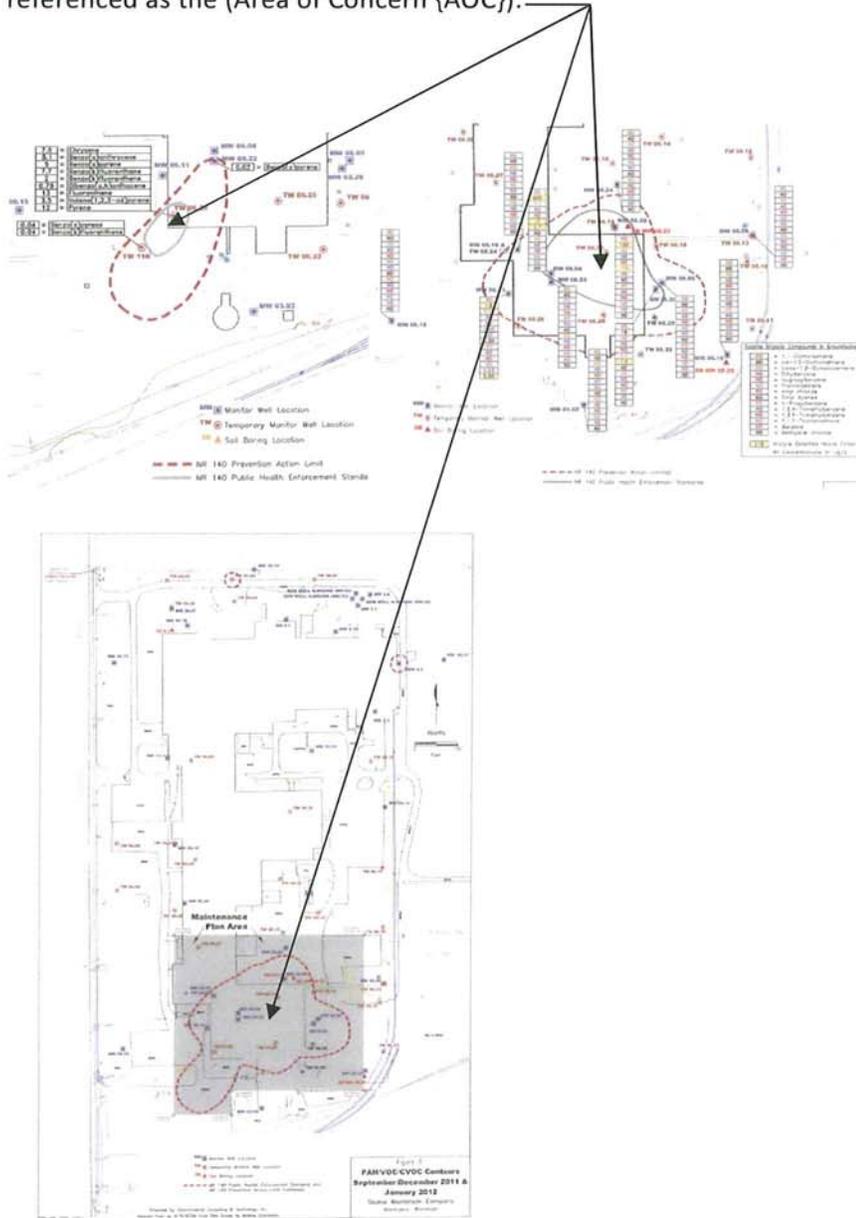
**Legal Description:** All that part of the Southeast Quarter (SE ¼) of Section Nine (9) North, Range Twenty-four (24) East, lying North of the Chicago and Northwestern Railway Company right of way, partially in the City of Manitowoc and partially in the Town of Manitowoc, County of Manitowoc, State of Wisconsin, EXCEPTING THEREFROM Lot One (1) of a Certified Survey recorded in Volume 24 of Certified Survey Maps, Page 63 as Document No.967193. ALSO EXCEPTING portion conveyed for street purposes by Quit Claim Deeds recorded in Volume 1995, Page 230, Document No. 969539 and in Volume 1995, Page 231 as Document No. 969540.

The Southwest Quarter (SW ¼) of the Northeast Quarter (NE ¼) and the South Half (S ½) of the Northwest Quarter (NW ¼) of the Northeast Quarter (NE ¼) of Section Nine (9), Township Nineteen (19) North, Range Twenty-four (24) East, in the City of Manitowoc, County of Manitowoc, State of Wisconsin. EXCEPTING portion conveyed for street purposes by Quit Claim Deed recorded in Volume 1995, Page 230, as Document No. 969539.



**Introduction**

This document (BARRIER/CAP MAINTENANCE PLAN) is herein referenced as the **Maintenance Plan** for the existing concrete floors associated with Building 5C and those existing asphalt pavement areas surrounding Building 5C. These structures (concrete floors/asphalt pavement) are referenced as engineering controls (vapor-contact barrier/water infiltration cover) at the referenced subject property in accordance with the requirements of NR 724.13(2), Wisconsin Administrative Code. The maintenance activities relate to the existing (concrete floors associated with Building 5C and those asphalt pavement areas surrounding Building 5C) occupying the area over the residual contaminated groundwater/soil regimes associated with WI DNR Repair Activities #02-36-544601/02-36-550138, is hereafter referenced as the (Area of Concern {AOC}).



No contamination associated with this Maintenance Plan has extended off site is likely to migrate off site under the current conditions.

More site-specific information about this property may be found in:

- The case-file retained by the regulatory agency
  - State of Wisconsin
  - Department of Natural Resources
  - Northeast Regional Headquarters
  - 2984 Shawano Avenue
  - Green Bay, WI 54313-6727
  
- BRRTS on the Web (WI DNR's internet based data base of contaminated sites):
  - <http://dnr.wi.gov/botw/SetUpBasicSearchForm.do>

02-36-544601 SKANA (K&V) (SUMPS)						
ERP - OPEN						
Location Name <small>Click Name to View Details and Other Activities</small>				County	WDNR Region	
SKANA ALUMINUM CO				MANITOWOC	NORTHEAST	
Address				Municipality		
2009 MIRRO DR				MANITOWOC CITY		
Public Land Survey System			Latitude	Google Maps™	RR Sites Map	
NW 1/4 of the SE 1/4 of Sec 09, T19N, R24E			44.128693	<a href="#">CLICK TO VIEW</a>	<a href="#">CLICK TO VIEW</a>	
Additional Location Description				Longitude	Facility ID	Size (Acres)
NONE				-87.6286078	436106110	> 100 Acres
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action	
DNR RR			2005-12-12		2011-12-02	
Characteristics						
EPA NPL Site?	DSPS Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry? <sup>17</sup>
No	No	No	No	No	No	No

02-36-550138 SKANA (K&V) SITEWIDE						
ERP - OPEN						
Location Name <small>Click Name to View Details and Other Activities</small>				County	WDNR Region	
SKANA ALUMINUM CO				MANITOWOC	NORTHEAST	
Address				Municipality		
2009 MIRRO DR				MANITOWOC CITY		
Public Land Survey System			Latitude	Google Maps™	RR Sites Map	
NW 1/4 of the SE 1/4 of Sec 09, T19N, R24E			44.12948	<a href="#">CLICK TO VIEW</a>	<a href="#">CLICK TO VIEW</a>	
Additional Location Description				Longitude	Facility ID	Size (Acres)
NONE				-87.6273142	436106110	> 100 Acres
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action	
DNR RR			2005-12-12		2011-12-05	
Characteristics						
EPA NPL Site?	DSPS Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry? <sup>17</sup>
No	No	No	No	No	No	No

- GIS Registry PDF file for further information on the nature and extent of contamination: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=brrts2>; and
  
- The WI DNR project manager for Manitowoc County (County Code 36):
  - State of Wisconsin
  - Department of Natural Resources
  - Northeast Regional Headquarters
  - Remediation & Redevelopment Program

2984 Shawano Avenue  
Green Bay, WI 54313-6727  
Phone: (920) 662-5100

**Description of Contamination**

The shallow unconsolidated/vadose zone soils and saturated zone(s) within the AOC have been identified as contaminated by one or more of the following:

CAS 56553	Benzo(a)anthracene	CAS 50328	Benzo(a)pyrene
CAS 205992	Benzo(b)fluoranthene	CAS 207089	Benzo(k)fluoranthene
CAS 107-06-2	Cis-1, 2-Dichloroethene	CAS 218019	Chrysene
CAS 53703	Dibenzo(a,h)anthacene	CAS 193395	Indeno(1,2,3-cd)pyrene
CAS 129000	Pyrene	CAS 79016	Trichloroethylene
CAS 75014	Vinyl Chloride		

The unconsolidated vadose zone soils are defined as those soils in the AOC which are not saturated with groundwater below the elevation of (+/- 605 ft MSL) and limited to a maximum depth of 30 ft below ground surface or 575 ft MSL). Saturated zone(s) or those sediments which have the potential to produce non-potable and/or potable water (groundwater) within the AOC defined in the unconsolidated soils above the elevation of 575 ft MSL.

The following figures are presented as Exhibit A to support and define the AOC:

- Well Locations, Screen Depths & Soil Sample Locations  
*(All wells points within the AOC have been sealed before the Initiation date of this Maintenance Plan)*
- VOC Contour September 2011  
*NR 140 Public Heath Enforcement Standards*  
*NR 140 Prevention Action Limits*
- Summary of PAH Concentrations Groundwater Regime -2011  
*NR 140 Public Heath Enforcement Standards*  
*NR 140 Prevention Action Limits*
- PAH/VOC/CVOC Contour September/December 2011 & January 2012  
*Inspection Area for this Maintenance Plan, (Light Grey)*

**Description of the Surface Structures to be Maintained**

The concrete floor/surface structures supporting Building 5C and those existing asphalt pavement areas surrounding Building 5C are herein described and consists of the following matrix:

**Building 5C Floor/Surface Structures Supporting Building 5C**

Existing Floors (typical 8-12 inches of concrete {3,200 psi})  
*(minimum maintained cover 6 inch of concrete)*

Effective February 15, 2012, an inspection of the concrete floors within the AOC will be conducted and any voids not occupied by sealed equipment will be sealed to comply with the minimum 6 inch maintained concrete cover.

Concrete surfaces will be maintained/repared in accordance with the Wisconsin Department of Transportation Specifications for Concrete Pavement (Section 415), reference Annotated 2012 Edition of Standard Specifications. (Attachment No. 1)

**Asphalt Pavement Areas Surrounding Building 5C**

Asphalt Pavement (typical 4 inches of asphalt cover)  
(minimum thickness 4 inches of asphalt)

Effective June 15, 2012, an inspection of the asphalt pavement within the AOC will be conducted and any voids through the pavement will be repaired and/or sealed before August 15, 2012 to comply with the minimum 4 inch maintained asphalt cover.

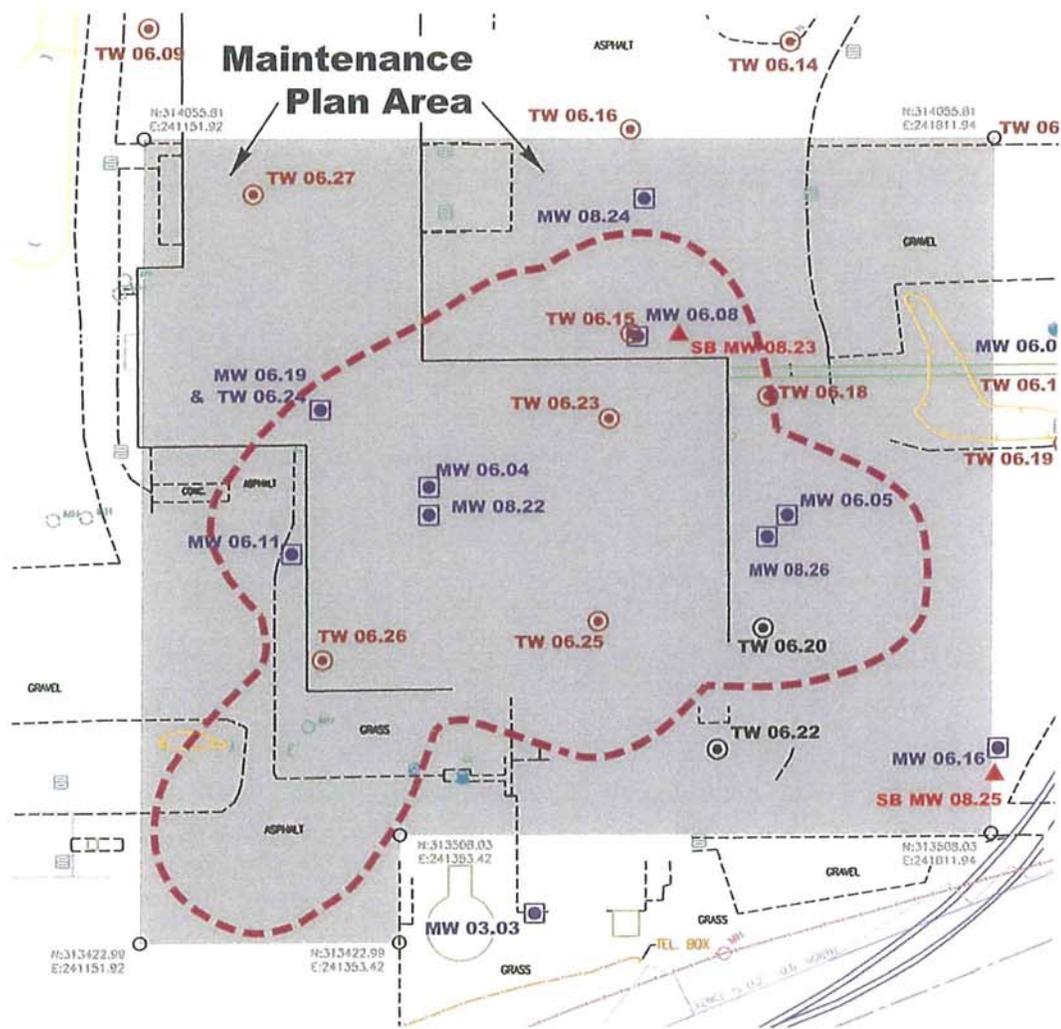
Asphalt surfaces will be maintained/repared in accordance with the Wisconsin Department of Transportation Specifications for Asphaltic Pavement/Surface (Sections 450 and 465), reference Annotated 2012 Edition of Standard Specifications. (Attachment No. 2)

Existing surface structures (concrete for Building 5C and those asphalt areas surrounding Building 5C) as defined within the AOC are those structures that cover earth within the area shown on the Figure entitled: PAH/VOC/CVOC Contour September/December 2011 & January 2012 (Light Grey). These surface structures are subject to the controls as referenced, and may not be removed with written receipt of authorization from the WI DNR.

The concrete/asphalt over the contaminated groundwater and soil regimes serve as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. These concrete/asphalt cover(s) also act as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. In addition, the concrete floor within Building 5C acts as a barrier to prevent accumulation of chlorinated solvents/PAHs within the ambient air space of said Building 5C. Based on the current and future use of the property, the barrier(s) should function as intended unless disturbed.

**Annual Inspection**

The concrete/asphalt structures overlying the contaminated groundwater and soil regimes as depicted in the flowing figures entitled (VOC Contour September 2011, and Summary of PAH Concentrations Groundwater Regime -2011) and/or as outlined in light grey on the figure entitled ( PAH/VOC/CVOC Contour September/December 2011 & January 2012,) will be inspected once a year, normally in the spring after all snow and ice is gone (*i.e. no later than June 15 of each year*), for deterioration, cracks and other potential problems that can cause additional surface water infiltration/subsurface erosion/ or allow human exposure to the underlying soils.



The inspections will be performed by SKANA ALUMINUM COMPANY (property owner) or their designated engineering representative. The inspection(s) will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed and/or where surface water infiltration is being or likely to become exacerbated will be documented. A log of the inspections and any repairs will be maintained by the SKANA ALUMINUM COMPANY. The Inspection Log is included as Exhibit B. The Inspection Log will include recommendations for necessary repair of any areas where underlying soils are exposed [and] where infiltration from the surface will not be effectively minimized. Once repairs are completed, (i.e. before August 15 of each year) they will be documented/photographed and incorporated in the Inspection Log/ Maintenance Plan. A copy of the Inspection Log will be kept at the subject property (SKANA ALUMINUM COMPANY, 2009 Mirro Drive, Manitowoc, WI) and be available for inspection by WI DNR representatives upon their request. In addition, no later than September 1 of each year a copy of the Inspection Log, photographic documentation of repairs/condition of the barrier(s)/cover(s)/surface structure(s) and general statement

documenting the condition of said barrier(s)/cover(s)/surface structure(s) will be forward by SKANA ALUMINUM COMPANY to the WI DNR:

State of Wisconsin  
Department of Natural Resources  
Northeast Regional Headquarters  
Remediation & Redevelopment Program  
2984 Shawano Avenue  
Green Bay, WI 54313-6727  
Phone: (920) 662-5100

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical.

- Exterior - Repairs can include patching and filling or larger resurfacing or construction operations.
- Interior - Repairs can include industrial epoxy crack sealing (full depth), patching or larger resurfacing or construction.

In the event that necessary maintenance activities expose the underlying soil, or maintenance crews enter into a defined confined space which is below the ground surface elevation, SKANA ALUMINUM COMPANY will inform maintenance workers of the direct contact exposure hazard, vapor potential and provide them with appropriate personal protection equipment ("PPE"). The SKANA ALUMINUM COMPANY will also sample any soil that is excavated from the AOC prior to conducting off-site disposal activities to ascertain data concerning the levels of any residual contamination. The soil will be treated, stored and disposed of by SKANA ALUMINUM COMPANY in accordance with applicable local, state and federal law.

In the event the concrete/asphalt materials overlying the contaminated groundwater/soil regimes are removed or required replacement, the replacement barrier must be of equal impervious and consistent with the minimum thickness specified in this document. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WI DNR or its successor. SKANA ALUMINUM COMPANY, in order to maintain the integrity of the concrete/asphalt barrier(s), will maintain a copy of this Maintenance Plan on-site and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

**Prohibition of Activities and Notification of WI DNR**

These prohibitions may not be violated unless prior written approval has been obtained from the **WI DNR** on any portion of the property defined as part of the AOC which supports a surface cover/barrier structure which limits human exposure to the underlying residual contaminated and limits surface water infiltration:

- removal of the existing barrier
- replacement with another barrier (that does not comply with this Maintenance Plan)
- excavating or grading of the land surface
- filling on capped or paved areas
- plowing for agriculture
- installation of wells for the purpose of generating a water source

It is herein noted that this written approval requirement, does not justify the owner/responsible parties to not undertake actions should an immediate dangerous environment/condition develop in the AOC which poses an immediate risk to the general public or the environment. Under these conditions emergency trained personnel may take actions to protect the general public and the environment, but concurrently SKANA ALUMINUM COMPANY administration (property owner) must take immediate actions (defined as 24 hours) to notify the WI DNR of said emergency condition.

**Amendment or Withdrawal of Maintenance Plan**

This Maintenance Plan can be amended or withdrawn by the SKANA ALUMINUM COMPANY (current property owner) and its successors with the written approval of WI DNR.

**Maintenance Plan Contact Information**

The following contact information is herein provided to WI DNR. In the event the contact information must be amendments, the existing property owner or the contact listed below is responsible for notifying the WI DNR within +/-15 days of the amendment.

**Contact Information**

[January 2012 - \_\_\_\_\_]

Site Owner and Operator: SKANA ALUMINUM COMPANY  
2009 Mirro Drive, P.O. Box 1477  
Manitowoc, WI 54221 USA  
Phone: 920.482.0599 / Fax: 920.482.1039

Name: Kenneth Kazmierczak  
Title: CFO, VP Administration  
Email: Ken.Kazmierczak@skanaaluminum.com

Environmental Consultant: Cardinal Environmental  
3303 Paine Ave  
Sheboygan, WI 53081  
Phone: 800.413.7225  
Scott Hanson

Environmental Consulting & Technology, Inc.  
3125 Sovereign Drive  
Lansing, Michigan 48911  
Phone: 517.272.9200  
Michael T. Hebert, CPG, CHMM, PG, CUSTP

WI DNR Project Manager:  
(Manitowoc County) Annette Weissbach  
State of Wisconsin  
Department of Natural Resources  
Northeast Regional Headquarters  
Remediation & Redevelopment Program  
2984 Shawano Avenue  
Green Bay, WI 54313-6727  
Phone: 920.662.5100 or (5165)

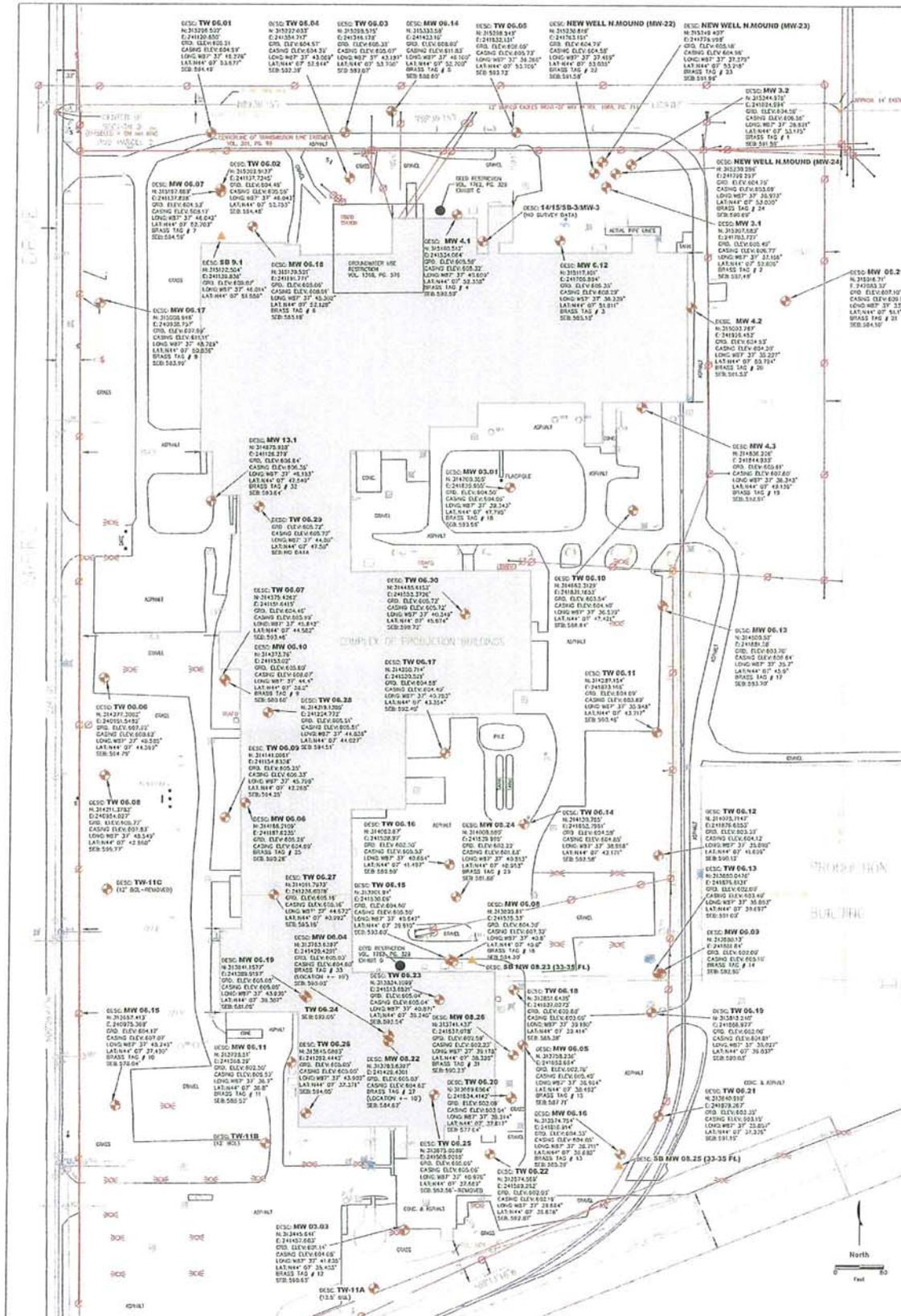
**EXHIBIT A**

**Well Locations, Screen Depths & Soil Sample Locations**

**VOC summary of Last Reported Data Available**

**Summary of PAH Concentrations Groundwater Regime 2011**

**PAH/VOC/CVOC Contour September/December 2011 & January 2012**



**Well Locations, Screen Depths & Soil Sample Locations (SB MW 08.23 & SB MW 08.25)**  
 Skana Aluminum Company  
 Manitowoc, Wisconsin  
 (Nov 2011)

MONITORING WELL DATA ACQUIRED BY STERNBERGER & MENAUE, INC., DECEMBER 3, 2010.  
 NOTE: THE LATITUDE AND LONGITUDE SHOWN IS BASED ON A COORDINATION FROM THE MANITOWOC COUNTY COORDINATE. THE ELEVATION DATUM IS USGS (NAVD83).  
 SOL BORING LOCATION (SB MW 08.23, SB MW 08.25) (SAMPLE DEPTH IN FEET)  
 SB - WELL SCREEN BOTTOM ELEVATION  
 Prepared by: Environmental Consulting & Technology, Inc.  
 Adapted from an ALTA/ACSM Land Title Survey by Andrew Czerwanka.

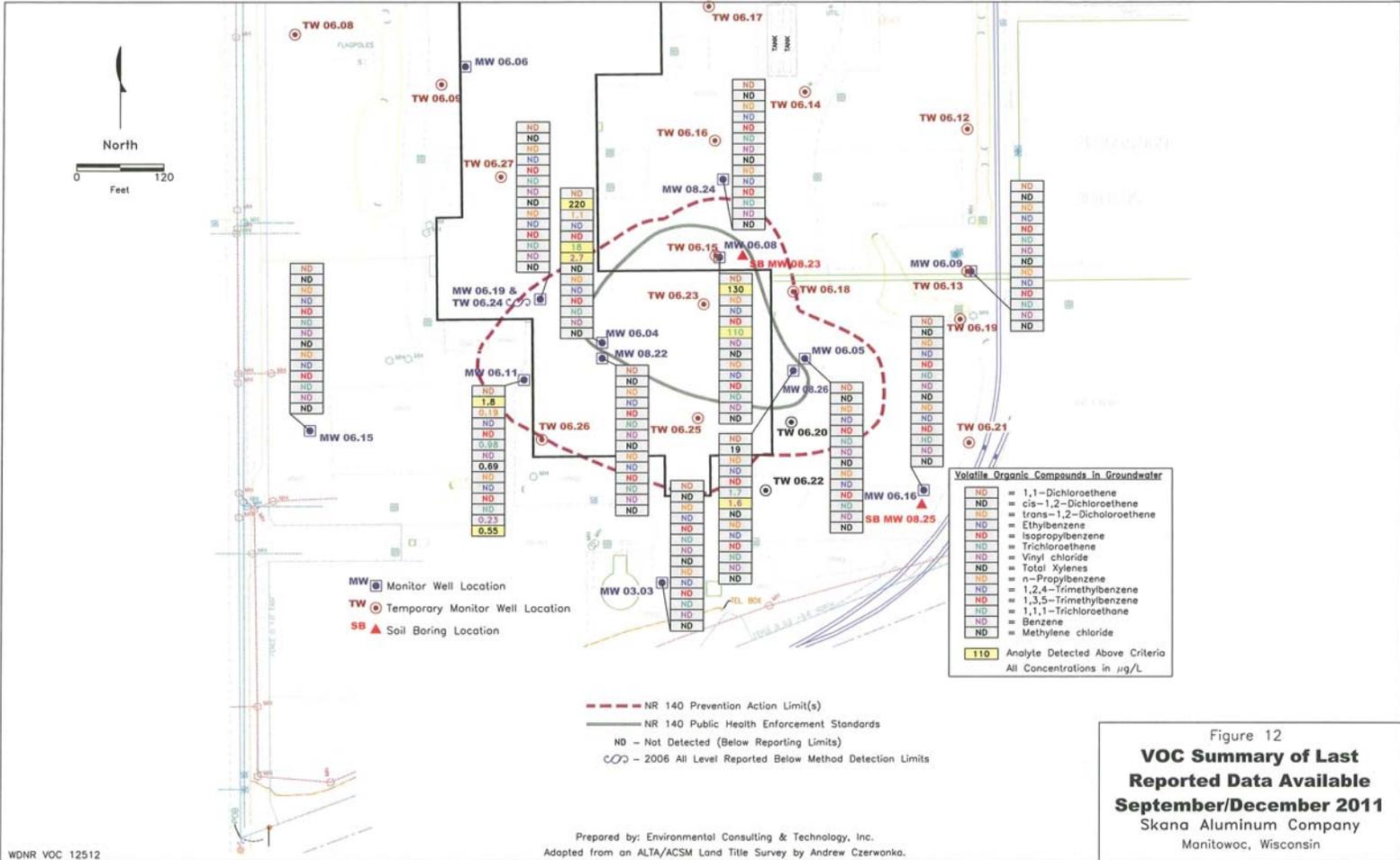


Figure 12  
**VOC Summary of Last Reported Data Available September/December 2011**  
Skana Aluminum Company  
Manitowoc, Wisconsin

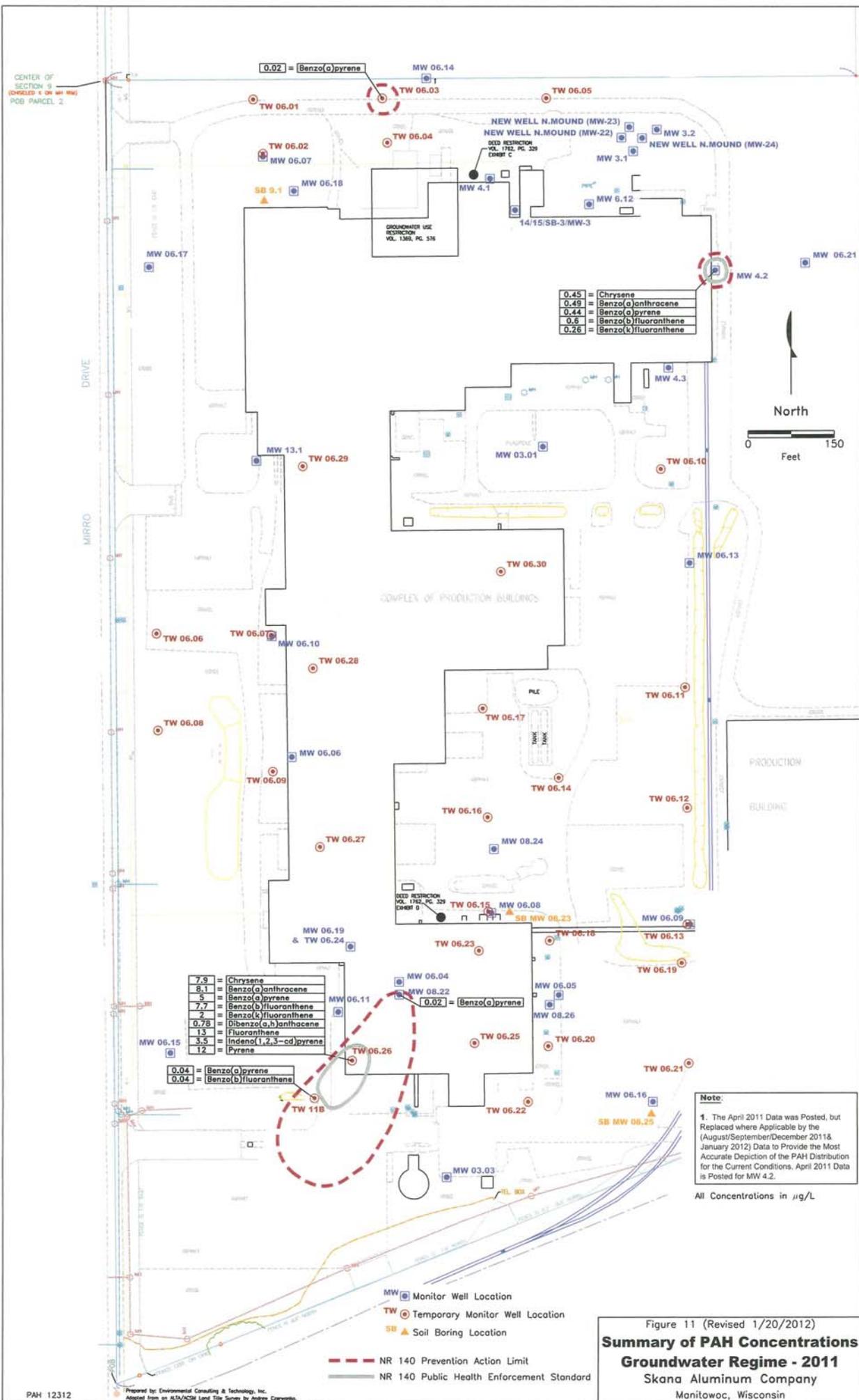


Figure 11 (Revised 1/20/2012)  
**Summary of PAH Concentrations**  
**Groundwater Regime - 2011**  
 Skana Aluminum Company  
 Manitowoc, Wisconsin

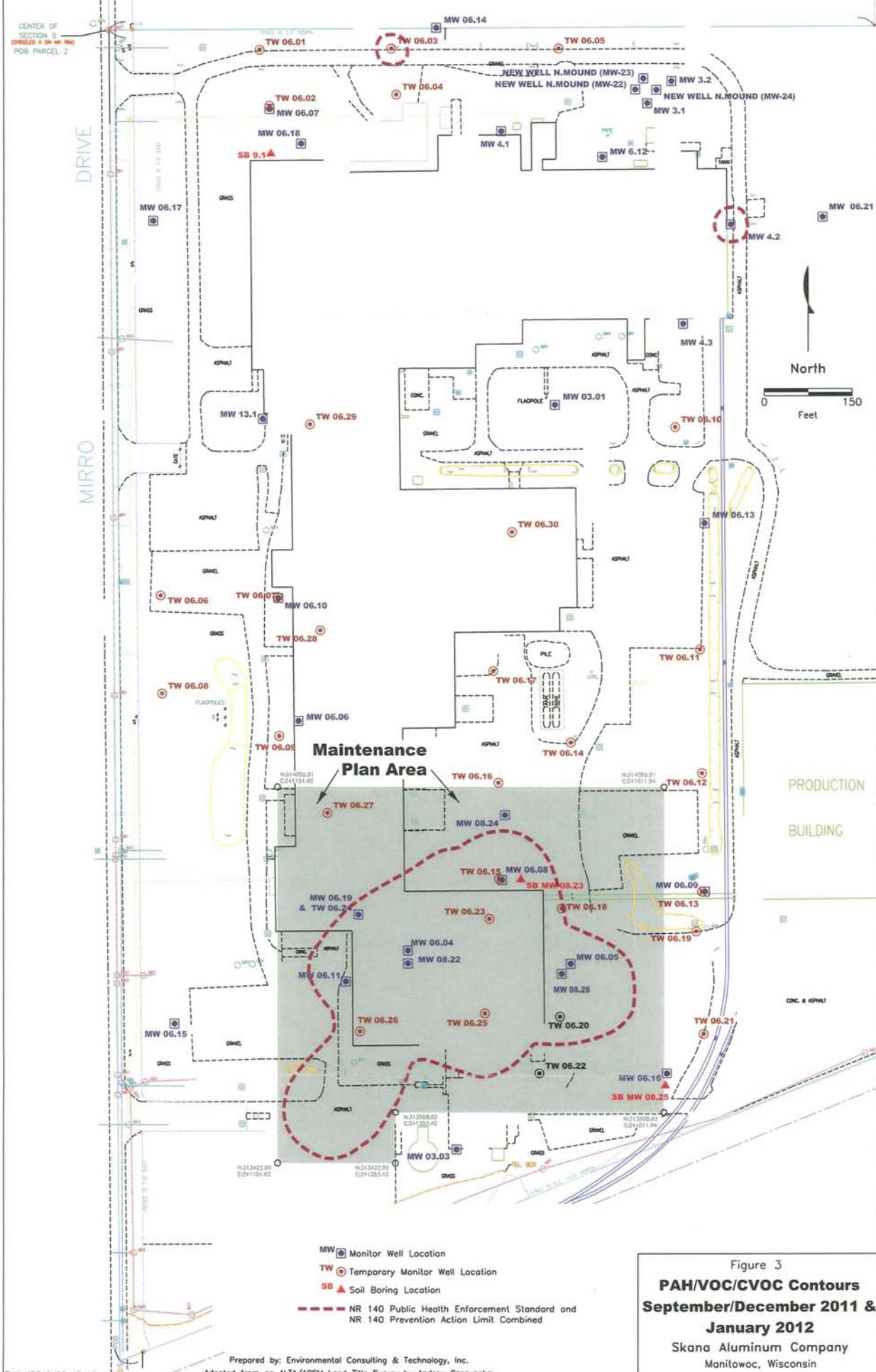


Figure 3  
**PAH/VOC/CVOC Contours**  
**September/December 2011 &**  
**January 2012**  
 Skana Aluminum Company  
 Manitowoc, Wisconsin



**INSPECTION LOG**

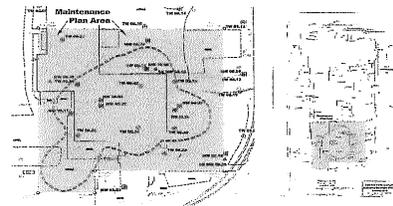
SKANA ALUMINUM COMPANY  
2009 Morro Drive  
Manitowoc, Wisconsin 54221

VLPE #06-36-556282  
WI DNR Environmental Repair Activity # 02-36-544601/02-36-550138  
Facility ID# 436106110

Date: / /20

INSPECTOR \_\_\_\_\_  
NAME: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(May Attach Business Card)

Concrete - Building 5C  
Asphalt - Exterior Building 5C



**Barrier INSPECTION and MAINTENANCE LOG** Item No.#

General Area			Condition of Surface		New or Old Condition (location)
Interior/Exterior	Location Marked w/Paint Yes / No	Good	Need Repair	Describe Condition (crack/void/settling, ...)	
Describe Location:					
Recommended Repair:					
Date Repair was Conducted : / /20			Name Documenting Repair Completed:		

**Barrier INSPECTION and MAINTENANCE LOG** Item No.#

General Area			Condition of Surface		New or Old Condition (location)
Interior/Exterior	Location Marked w/Paint Yes / No	Good	Need Repair	Describe Condition (crack/void/settling, ...)	
Describe Location:					
Recommended Repair:					
Date Repair was Conducted : / /20			Name Documenting Repair Completed:		

**Barrier INSPECTION and MAINTENANCE LOG** Item No.#

General Area			Condition of Surface		New or Old Condition (location)
Interior/Exterior	Location Marked w/Paint Yes / No	Good	Need Repair	Describe Condition (crack/void/settling, ...)	
Describe Location:					
Recommended Repair:					
Date Repair was Conducted : / /20			Name Documenting Repair Completed:		



### INSPECTION LOG

SKANA ALUMINUM COMPANY  
2009 Morro Drive  
Manitowoc, Wisconsin 54221

VLPE #06-36-556282  
WI DNR Environmental Repair Activity # 02-36-544601/02-36-550138  
Facility ID# 436106110

Date: \_\_\_\_\_ / \_\_\_\_\_ /20\_\_\_\_\_

Item No \_\_\_\_\_  
  
If subcontractor used for repairs (attach Invoice)  
WI DNR Approval Required (attach Approval Letter)

Condition At Time of Inspection	Repair Conducted (if needed)

Item No \_\_\_\_\_  
  
If subcontractor used for repairs (attach Invoice)  
WI DNR Approval Required (attach Approval Letter)

Condition At Time of Inspection	Repair Conducted (if needed)

Item No \_\_\_\_\_  
  
If subcontractor used for repairs (attach Invoice)  
WI DNR Approval Required (attach Approval Letter)

Condition At Time of Inspection	Repair Conducted (if needed)



March 15, 2012

VPLE #06-36-556282

Kenneth Kazmierczak CFO, VP Administration  
Skana Aluminum Company  
PO Box 1477  
Manitowoc, WI 54220

**SUBJECT:** Certificate of Completion for Skana Aluminum Company, 2009 Mirro Drive, Manitowoc  
Parcel #s: 052-809-401-010.00, 052-809-102-011.00,  
052-809-103-011.00, 009-109-013-002.00

Dear Mr. Kazmierczak:

Congratulations! Your Certificate of Completion is attached. It has been a pleasure working with you and your consultant on this Voluntary Party Liability Exemption (VPLE) process.

In November 2010, the Department of Natural Resources ("the Department") has received your request for issuance of a *Certificate of Completion* for the property owned by Skana Aluminum Company, located at 2009 Mirro Drive Manitowoc, Wisconsin and herein after referred to as "the Property". You have requested that the Department determine whether Skana Aluminum Company has met the requirements under s. 292.15(2), Wis. Stats., for issuance of a *Certificate of Completion*.

The Property subject of this *Certificate of Completion* is real property owned by Skana Aluminum Company, encompassing approximately 132 acres. The Property is further described more or less as:

Parcel 1: All that part of the southeast Quarter (SE ¼) of Section 9 (9) Township Nineteen (19) north, Range twenty-four (24) east, lying north of Chicago and Northwestern Railway Company right of way, partially in the City of Manitowoc and partially in the Town of Manitowoc, County of Manitowoc, State of Wisconsin.

Parcel 2: the Southwest Quarter (SW ¼) of the Northeast Quarter (NE ¼) and South Half (S ½) of the Northwest Quarter (NW ¼) of the Northeast Quarter (NE ¼) of Section Nine (9) Township Nineteen (19) North, Range Twenty-four (24) East, in the City of Manitowoc, County of Manitowoc, State of Wisconsin.

### **Determination**

As you are aware, s. 292.15, Wis. Stats., authorizes the Department to issue a *Certificate of Completion* to a voluntary party that conducts an approved environmental investigation of a property and restores the environment to the extent practicable and minimizes the harmful effects with respect to hazardous substance discharges on or originating from the property. Based on the information received by the Department, the Department has determined that the investigation and restoration (to the extent practicable) of the Property is complete and that all

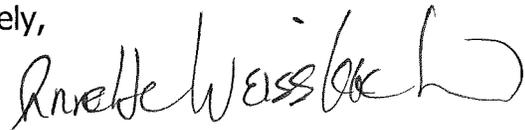
the conditions in s. 292.15(2), Wis. Stats., have been met. Attached is the *Certificate of Completion* for this Property.

While the conditions for issuance of a *Certificate of Completion* have been met, impervious barriers consisting of portions of buildings and "capped" areas consisting of pavement, gravel and grass surfaces must be maintained. In addition a groundwater use restrictions remain in place at the Property.

### **Conclusions**

The Department appreciates the work undertaken by Skana Aluminum Company, to investigate and restore to the extent practicable the contamination associated with the Property. The exemption provided by the *Certificate of Completion* applies to any successor or assignee of Skana Aluminum Company, if the successor or assignee complies with the appropriate conditions, pursuant to s. 292.15(3), Wis. Adm. Code. If you have any questions or concerns regarding this letter or the *Certificate of Completion*, please call me at (920) 662-5165.

Sincerely,

A handwritten signature in black ink that reads "Annette Weissbach". The signature is written in a cursive style with a large, looping initial "A".

Annette Weissbach, Hydrogeologist  
Remediation & Redevelopment Program

Attachment: *Certificate of Completion*

e-cc: Michael Prager – RR/5  
Jim Bolger – Cardinal Environmental  
Mike Hebert – Environmental Consulting & Technology, Inc.

*State of Wisconsin*  
*Department of Natural Resources*

**CERTIFICATE OF COMPLETION  
OF RESPONSE ACTIONS  
UNDER SECTION 292.15(2)(ae), WIS. STATS.**

*Whereas*, **Skana Aluminum Company** has applied for an exemption from liability under s. 292.15, Wis. Stats., for the property located at 2009 Mirro Drive, Manitowoc, Wisconsin, further described in the legal description found on Attachment A (the "Property");

*Whereas*, an environmental investigation of the Property has been conducted and the Wisconsin Department of Natural Resources ("WDNR") has determined that environmental contamination exists at the Property;

*Whereas*, **Skana Aluminum Company** has submitted to the WDNR certain investigation reports and a remedial action plan for the Property which comply with the requirements set forth in chs. NR 700-754, Wis. Adm. Code, consisting of the documents and reports listed in Attachment B;

*Whereas*, in accordance with s. 292.15(2)(ae)1, Wis. Stats., the WDNR has determined that an environmental investigation has been conducted which adequately identified and evaluated the nature and extent of the hazardous substance discharges on the Property. The WDNR approved of the site investigation on September 8, 2011;

*Whereas*, the Property contains soil contamination that exceeds site-specific and/or generic residual contaminant levels ("RCLs") under ch. NR 720, Wis. Adm. Code, and groundwater contamination that exceeds a groundwater quality enforcement standard under ch. NR 140, Wis. Adm. Code. Therefore, the Property will be included on the WDNR's Geographical Information System data base ("the GIS Registry") pursuant to s. 292.12(3), Wis. Stats. **Skana Aluminum Company** has submitted to the WDNR all the information necessary to be included on the GIS Registry, pursuant to Wis. Adm. Code;

*Whereas*, on January 20, 2012, the WDNR issued recent case closure letters

for the Property (Attachment C). In addition, several other older closure letters are also applicable for this Property. The owner of this Property shall adhere to, abide by, and maintain the continuing obligations and other requirements that are specified in the attached state case closure letters and maintenance plans;

The closure letters require maintenance of cover or barriers at certain locations on the Property in order to prevent direct contact with contaminated soil and to prevent water infiltration through residual soil contamination that might otherwise pose a threat to public health and the environment. The closure letters require that if soil with residual contamination is excavated in the future, the Property owner at the time of excavation must manage the soil in accordance with applicable federal and state laws; and

The closure letter states that chlorinated solvents remain in subslab and groundwater beneath building 5C at levels that, depending on construction and occupancy, may be of concern for vapor intrusion in the future. The case closure letter for the chlorinated solvents in the sump area of building 5C (02-36-544601) and this Certificate describes requirements that must be followed if changes in land use or construction is planned in this area to limit exposure to vapors;

*Whereas*, the WDNR has determined that the response action is complete and this determination is based on the Property being used as an industrial facility. In the event that the covers or barriers that currently exist are removed, the replacement barrier must be equally protective. Because of the residual contamination and certain continuing obligations for this site, before use of this site can be changed to residential use, or use by certain sensitive populations, such as a day care center, school, a senior center, hospital or a similar use, notification of the WDNR is required at a minimum. Additional sampling and/or cleanup may be required to ensure that the residual contamination levels, existing remedial action, and land use is protective. In that event, a new closure letter and Certificate of Completion may need to be issued;

*Whereas*, if the requirements of s. 292.15, Wis. Stats., this Certificate, the case closure letters or the maintenance plans are not followed, or if the land use changes, the WDNR may take actions under ss. 292.11 or 292.12, Wis. Stats., to ensure compliance with the specified requirements, and the person who owns or controls the Property may no longer qualify for the liability protections under s. 292.15, Wis. Stats.;

*Whereas*, on January 20, 2012, the WDNR determined that response actions necessary to restore the environment were completed, except with respect to groundwater contaminated with aluminum, arsenic, polycyclic aromatic hydrocarbons, trichloroethylene (TCE), tetrachloroethylene (PCE), and PCBs above the ch. NR 140, Wis. Adm. Code, groundwater quality enforcement standards. The WDNR has determined that this groundwater contamination will be brought into compliance through natural attenuation, in accordance with administrative rules promulgated by the WDNR; and

*Whereas*, **Skana Aluminum Company** has paid to WDNR the appropriate insurance fee and has submitted a complete insurance application form to obtain coverage for the Property under the state's master insurance contract in accordance with s. 292.15(2)(ae)3m., Wis. Stats., and ch. NR 754, Wis. Adm. Code, based on their desire to use natural attenuation to remediate groundwater contamination that exceeds ch. NR 140, Wis. Adm. Code, groundwater quality enforcement standards;

*Therefore*, based upon the information that has been submitted, the WDNR hereby certifies that the response actions set forth in the WDNR approved remedial action plan for the Property and any other necessary response actions have been completed, except with respect to aluminum, arsenic, polycyclic aromatic hydrocarbons, trichloroethylene (TCE), tetrachloroethylene (PCE), and PCBs contaminated groundwater above ch. NR 140, Wis. Adm. Code, enforcement standards that WDNR has determined will be brought into compliance through natural attenuation, in accordance with rules promulgated by WDNR.

Upon issuance of this Certificate, **Skana Aluminum Company** and the persons qualified for protection under s. 292.15(3), Wis. Stats., are exempt from the provisions of ss. 289.05(1), (2), (3) and (4), 289.42(1), 289.67, 291.25(1) to (5), 291.29, 291.37, 292.11(3), (4), and (7)(b) and (c) and 292.31(8), Wis. Stats., with respect to the existence of hazardous substances on or originating from the Property, the release of which occurred prior to the date the WDNR approved the environmental investigation required under s. 292.15(2)(ae)1., Wis. Stats. However, the person who owns or controls the Property would no longer qualify for this liability exemption if that person fails to maintain or monitor the Property as required by the conditions in this Certificate, the **January 20, 2012** case closure letters, the older case closure letters included in Attachment C, s. 292.15(7) and s. 292.12, Wis. Stats., and administrative rules promulgated by the WDNR. Any discharges of a hazardous substance to or from the Property that occur after the date that the environmental investigation was approved will be the responsibility of the current Property owner and any other person who possesses or controls that discharge and any person who caused the discharge.

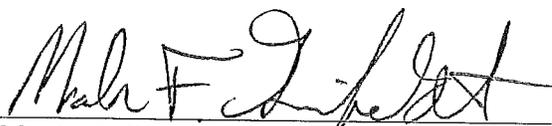
If natural attenuation of contaminated groundwater fails, the insurance coverage under s. 292.15(2)(ae)3m., Wis. Stats., may be used by the state to cover the costs of complying with s. 292.11(2), Wis. Stats., with respect to groundwater quality.

The protection from liability provided under s. 292.15(2), Wis. Stats., does not apply to any person who has obtained a Certificate of Completion by fraud or misrepresentation, or by knowingly failing to disclose material information or under circumstances in which **Skana Aluminum Company** knew or should have known about more discharges of hazardous substances than was revealed by the investigation approved by the WDNR.

Nothing in this Certificate or in s. 292.15, Wis. Stats., affects the authority of the WDNR to exercise any powers or duties under applicable laws other than ss. 289.05(1), (2), (3) and (4), 289.42(1), 289.67, 291.25(1) to (5), 291.29, 291.37, 292.11(3), (4), and (7)(b)

and (c) and 292.31(8), Wis. Stats., with respect to any release or threatened release of contaminants at the Property, or the right of the WDNR to seek relief available against any person who is not entitled to protection from liability under s. 292.15, Wis. Stats., with respect to such release or threatened release.

SIGNED AND CERTIFIED this 5th day of March, 2012.

A handwritten signature in black ink, appearing to read "Mark F. Giesfeldt", written over a horizontal line.

Mark F. Giesfeldt, Director  
Bureau for Remediation and Redevelopment  
Wisconsin Department of Natural Resources

**ATTACHMENT A  
LEGAL DESCRIPTION  
Skana Aluminum Company**

Parcel No.: 052-809-401-010, a 71.1 acre developed parcel  
Parcel No.: 052-809-103-011.00, a 40 acre undeveloped parcel  
Parcel No.: 052-809-102-011.00, a 20 acre undeveloped parcel  
Parcel No.: 009-109-013-002.00, a 1.12 undeveloped wooded parcel

Parcel 1: All that part of the southeast Quarter (SE  $\frac{1}{4}$ ) of section 9 (9) Township nineteen (19) north, range twenty-four (24) east, lying north of Chicago and Northwestern Railway Company right of way, partially in the City of Manitowoc and partially in the Town of Manitowoc, County of Manitowoc, State of Wisconsin.

EXCEPTING THEREFROM Lot one (1) of a Certified Survey recorded in Volume 24 of Certified Survey Maps, Page 63, as document No. 967193.

EXCEPTING portion conveyed for street purposes by Quit Claim Deed recoded in Volume 1995, Page 230, as Document No. 969539, and by Quit Claim Deed recorded in Volume 1995, Page 231, Document No. 969540.

Parcel 2: the Southwest Quarter (SW  $\frac{1}{4}$ ) of the Northeast Quarter (NE  $\frac{1}{4}$ ) and South Half (S  $\frac{1}{2}$ ) of the Northwest Quarter (NW  $\frac{1}{4}$ ) of the Northeast Quarter (NE  $\frac{1}{4}$ ) of Section Nine (9) Township Nineteen (19) North, Range Twenty-four (24) East, in the City of Manitowoc, County of Manitowoc, State of Wisconsin.

EXCEPTING portion conveyed for street purposes by Quit Claim Deed recorded in Volume 1995, Page 230, as Document No. 969539

See attached Quit Claim Deed signed on April 14, 2010 and Certified Survey Map Volume 24 Page 63.

State Bar of Wisconsin Form 3-2003  
QUIT CLAIM DEED

DOC# 1081280

Document Name



VOL 2550 PG 286

THIS DEED, made between Michael S. Polsky as Receiver for Koenig & Vits, Inc.

("Grantor," whether one or more), and Skana Aluminum Company, a Wisconsin corporation

("Grantee," whether one or more).

Grantor quit claims to Grantee the following described real estate, together with the rents, profits, fixtures and other appurtenant interests, in Manitowoc

County, State of Wisconsin ("Property") (if more space is needed, please attach addendum):

STATE OF WI - MTWC CO  
PRESTON JONES REG/DEEDS  
RECEIVED FOR RECORD  
04/30/2010 3:00:16 PM

Recording Area

13+6075 dld

Name and Return Address

Titte Trends, Inc.  
Godfrey & Kahn S.C. TK-6265  
Attorney Charles Vogel  
700 N. Water Street  
Milwaukee, WI 53202-3590

052-809-401-010.00, 052-809-102-011.00,  
052-809-103-011.00, 009-109-013-002.00

Parcel Identification Number (PIN)

This is not homestead property.  
(is) (is not)

TRANSFER  
\$ 1075.00  
FEE

See legal description attached.

WS-7

Dated April 14, 2010.

Michael S. Polsky as Receiver for Koenig & Vits, Inc.

\_\_\_\_\_  
(SEAL) [Signature] (SEAL)  
\* Michael S. Polsky, Receiver

\_\_\_\_\_  
(SEAL) \_\_\_\_\_ (SEAL)  
\* \_\_\_\_\_

AUTHENTICATION

Signature(s) \_\_\_\_\_

authenticated on \_\_\_\_\_

ACKNOWLEDGMENT

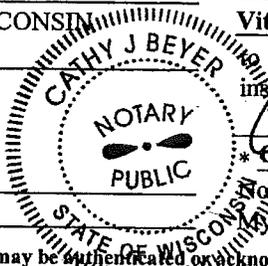
STATE OF Wisconsin )

Milwaukee ) ss.  
COUNTY )

Personally came before me on April 14, 2010,  
the above-named Michael S. Polsky as Receiver for Koenig & Vits, Inc.

me known to be the person(s) who executed the foregoing instrument and acknowledged the same.

Cathy J. Beyer  
\* Cathy J. Beyer  
Notary Public, State of Wisconsin  
commission (is permanent) (expires: December 16, 2012)



TITLE: MEMBER STATE BAR OF WISCONSIN  
(If not, \_\_\_\_\_  
authorized by Wis. Stat. § 706.06)

THIS INSTRUMENT DRAFTED BY:  
Michael R. Stein, Esq.  
Beck, Chaet, Bamberger & Polsky, S.C.

(Signatures may be authenticated or acknowledged. Both are not necessary.)

NOTE: THIS IS A STANDARD FORM. ANY MODIFICATION TO THIS FORM SHOULD BE CLEARLY IDENTIFIED.

QUIT CLAIM DEED

©2003 STATE BAR OF WISCONSIN

FORM NO. 3-2003

\*Type name below signatures.

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**ATTACHMENT B  
INVESTIGATION AND REMEDIAL ACTION PLAN REPORTS  
Skana Aluminum Company**

<i>02-36-555268 North Mound Site (PCBs)</i>		
5/13/2010	Test Pit Results	AECOM Andrew Mott
5/25/2010	Interim Remedial Action Work Plan	AECOM Andrew Mott
8/20/2010	Revised Work Plan	Cardinal Environmental Jim Bolger
11/17/2010	Phase I ESA	AECOM Environment Jeanne Tarvin
11/17/2010	Phase II ESA	AECOM Environment Jeanne Tarvin
1/11/2011	SI Report	Cardinal Environmental Jim Bolger
4/27/2011	Remedial Action Documentation	Cardinal Environmental Jim Bolger
11/11/2011	SI Summary Report Rounds 1, 2, 3	Cardinal Environmental Jim Bolger
11/11/2011	Request for Case Closure	Cardinal Environmental Jim Bolger
<i>02-36-544601 Sumps (VOC)</i>		
9/30/2003	Phase II report ESA	JB Jim Bolger
11/3/2005	Phase I ESA	Terracon Mylan Koski
12/12/2005	Limited Site Assessment	Terracon Mylan Koski
1/26/2006	SI Report	Cardinal Environmental Jim Bolger
3/6/2006	SI Work Plan	Cardinal Environmental Jim Bolger
9/16/2006	Interim SI report	JB Jim Bolger
8/8/2007	Final SI report	JB, LLC Jim Bolger
1/15/2008	Supplemental SI Work plan	GLEC John Barkach
7/14/2008	Supplemental SI Work plan	GLEC John Barkach
11/17/2010	Phase I ESA	AECOM Environment Jeanne Tarvin
11/17/2010	Phase II ESA	AECOM Environment Jeanne Tarvin
1/11/2011	SI Report	Cardinal Environmental Jim Bolger

5/9/2011	Supplemental SI Round 2	Cardinal Environmental Jim Bolger
8/22/2011	SI Work Plan Round 3	Cardinal Environmental Jim Bolger
11/11/2011	SI Summary Report Rounds 1, 2, 3	Cardinal Environmental Jim Bolger
11/11/2011	Request for Case Closure	Cardinal Environmental Jim Bolger
<b>02-36-550138 Site wide (misc metals, PAH)</b>		
9/30/2003	Phase II report ESA	JBI Jim Bolger
11/3/2005	Phase I ESA	Terracon Mylan Koski
12/12/2005	Limited Site Assessment	Terracon Mylan Koski
1/26/2006	SI Report	Cardinal Environmental Jim Bolger
3/6/2006	SI Work Plan	Cardinal Environmental Jim Bolger
9/16/2006	Interim SI report	JBI Jim Bolger
8/8/2007	Final SI report	JBI, LLC Jim Bolger
1/15/2008	Supplemental SI Work plan	GLEC John Barkach
7/14/2008	Supplemental SI Work plan	GLEC John Barkach
11/17/2010	Phase I ESA	AECOM Environment Jeanne Tarvin
11/17/2010	Phase II ESA	AECOM Environment Jeanne Tarvin
1/11/2011	SI Report	Cardinal Environmental Jim Bolger
5/9/2011	Supplemental SI Round 2	Cardinal Environmental Jim Bolger
8/22/2011	SI Work Plan Round 3	Cardinal Environmental Jim Bolger
11/11/2011	SI Summary Report Rounds 1, 2, 3	Cardinal Environmental Jim Bolger
11/11/2011	Request for Case Closure	Cardinal Environmental Jim Bolger
<b>02-36-000497 Mirro Co Plant 2 (VOC)</b>		
2/26/1991	SI Work Plan	STS Consultants Roger Miller
1/5/1994	SI Report	STS Consultants Roger Miller
11/10/1998	Closure Request submitted Groundwater use restriction-PCE	STS Consultants Roger Miller

<b>02-36-220607 Mirro Co Plt 2 (Oil &amp; PCB)</b>		
7/21/1999	SI Work Plan	Northern Environmental Lynelle Caine
8/27/1999	SI Report	Northern Environmental Lynelle Caine
5/01/2001	Closure Request submitted Cap maintenance required Residual soil remaining	Northern Environmental Lynelle Caine
<b>03-36-170638 Mirro Corp (UST)</b>		
10/28/1997	SI Report	Northern Environmental Clint Wendt
11/3/1997	Tank Closure Site Assessment	Northern Environmental Clint Wendt
<b>03-36-280532 Mirro CO (UST)</b>		
8/20/2001	Tank closure assessment	Northern Environmental Lynelle Caine
1/23/2002	Tank closure ESA report	Northern Environmental Lynelle Caine
1/30/2002	SI report	Northern Environmental Lynelle Caine
4/23/2002	Closure request Soils thinspread on site	Northern Environmental Lynelle Caine

**ATTACHMENT C**  
**Closure Letter and Cap Maintenance Plan**  
**Skana Aluminum Company**

See Attached Case Closure Letters and cap maintenance plans for the Skana Aluminum Property.

Closure Date	BRRTS site #	activity	Continuing Obligation
January 20, 2012	02-36-544601	Sumps (Chlorinated Solvents) Building 5C	Cap maintenance
January 20, 2012	02-36-550138	Site-Wide Misc Historic	Cap Maintenance
January 20, 2012	02-36-555268	N Mound PCB (plant 02)	Groundwater use restriction
January 31, 2003	02-36-220607	DRO(oil) / PCBs (plant 02) Oil/water separator	Cap Maintenance Plan
April 23, 2002	03-36-280532	2 Fuel oil tank (plant 02)	none
January 27, 2003	03-36-170638	Fuel oil tank (Plant 5)	Deed notice residual contamination
January 13, 1999	02-36-000497	Naphtha tank-PCE (Plant 2)	Conditional Closure Groundwater use restriction



January 20, 2012

VPLE #06-36-556282

(sent via email to Ken.Kazmierczak@skanaaluminum.com)

Kenneth Kazmierczak CFO, VP Administration  
Skana Aluminum Company  
PO Box 1477  
Manitowoc, WI 54220

**KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS**

Subject: Final Case Closure with Continuing Obligations  
Skana Aluminum (K&V) Sumps (chlorinated solvents)  
Building 5C at 2009 Mirro Drive, Manitowoc Wisconsin  
WDNR Environmental Repair Activity # 02-36-544601

Dear Mr. Kazmierczak:

The Department of Natural Resources (DNR) considers the "sumps" (chlorinated solvents) case closed, with continuing obligations. No further investigation or remediation is required at this time. However, you and future property owners must comply with the continuing obligations as explained in the conditions of closure in this letter. Please read over this letter closely to ensure that you comply with all conditions and other on-going requirements. Provide this letter and the attached maintenance plan to anyone who purchases this property from you.

This final closure decision is based on the correspondence and data provided, and is issued under ch. NR 726, Wisconsin Administrative Code. The Northeast Region Closure Committee reviewed the request for Closure on December 2, 2011. The Closure Committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. A conditional closure letter was issued by the DNR on December 6, 2011 and documentation that the conditions in that letter were met was received on January 9, 2012.

The following documentation was received:

- NR 141 Wis Adm. Code well abandonment forms: MW-06.16, MW-06.05, MW-06.08, MW-06.11, MW-06.19, MW-08.22, MW-08.24, MW-08.26, TW-06.18, TW-06.19, TW-06.20, TW-06.21, TW-06.22, TW-06.23, TW-06.24, TW-06.25, TW-06.26
- Cap Maintenance Plan
- DOT specifications for concrete pavement and asphaltic surfaces
- VOC contour map for GIS Registry documentation

The "Sumps" case is an apparent historic release of chlorinated solvents (primarily trichloroethylene) in the vicinity of Building 5C of this former Mirro facility now owned and operated by Skana Aluminum. The conditions of closure and continuing obligations required were based on the property being used for **Industrial purposes.**

### Continuing Obligations

The continuing obligations for this site are summarized below. Further details on actions required are found in the section Closure Conditions.

- Groundwater contamination is present above ch. NR 140 enforcement standards.
- Residual soil contamination exists that must be properly managed should it be excavated or removed.
- Building 5C and the surrounding pavement must be maintained over contaminated soil and the state must approve any changes to this barrier.
- Before the land use may be changed from industrial to non-industrial, additional environmental work must be completed.
- Site-specific exposure assumptions were used. Current industrial land or property use must be maintained to be protective. If changes to the current property use or land use are planned, an assessment must be made of whether the closure is still protective.
- Remaining soil contamination could result in vapor intrusion if future construction activities occur. If new building construction is planned, vapor control technologies will be required for occupied buildings, unless the property owner assesses the potential for vapor intrusion, and the DNR agrees that conditions are protective of the new use.

### GIS Registry

This site will be listed on the Remediation and Redevelopment Program's internet accessible Geographic Information System (GIS) Registry, to provide notice of residual contamination and of any continuing obligations. DNR approval prior to well construction or reconstruction is required for all sites shown on the GIS Registry, in accordance with s. NR 812.09(4) (w), Wis. Adm. Code. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at <http://dnr.wi.gov/org/water/dwg/3300254.pdf> or at the web address listed below for the GIS Registry.

All site information is also on file at the Northeast Regional DNR office, at 2984 Shawano Avenue in Green Bay. This letter and information that was submitted with your closure request application, including the maintenance plan, will be included on the GIS Registry in a PDF attachment. To review the site on the GIS Registry web page, visit the RR Sites Map page at <http://dnr.wi.gov/org/aw/rr/gis/index.htm>.

### Prohibited Activities

Certain activities are prohibited at closed sites because maintenance of a barrier is intended to prevent contact with any remaining contamination. When a barrier is required, the condition of closure requires notification of the DNR before making a change, in order to determine if further action is needed to maintain the protectiveness of the remedy employed. The following activities are prohibited on any portion of the property where pavement and the building foundation are required, as shown on the shaded area of attached Figure 2, unless prior written approval has been obtained from the DNR:

- removal of the existing barrier;
- replacement with another barrier;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure;

- changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings;

### Closure Conditions

Compliance with the requirements of this letter is a responsibility to which the current property owner, and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter and the attached maintenance plans are met. If these requirements are not followed, the DNR may take enforcement action under s. 292.11, Wisconsin Statutes to ensure compliance with the specified requirements, limitations or other conditions related to the property.

#### Residual Groundwater Contamination (ch. NR 140, Wis. Adm. Code)

Groundwater contamination greater than enforcement standards is present on this contaminated property as shown on the **attached Figure 12**. If you intend to construct a new well, or reconstruct an existing well, you'll need prior DNR approval.

#### Residual Soil Contamination (ch. NR 718, or ch. 289, Stats.; chs. 500 to 536, Wis. Adm. Code)

Residual soil contamination remains under Building 5C. If soil under Building 5C is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated soil to determine if contamination remains. If sampling confirms that contamination is present, the property owner at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

#### Cover or Barrier (s. 292.12 (2) (a), Wis. Stats)

The pavement and building that exists in the shaded areas shown on the **attached Figure 2** shall be maintained in compliance with the **attached maintenance plan** in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code, and to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health.

A cover or barrier for industrial land uses, or certain types of commercial land uses may not be protective if use of the property were to change such that a residential exposure would apply. This may include, but is not limited to single or multiple family residences, a school, day care, senior center, hospital or similar settings. Before using the property for such purposes, you must notify the DNR to determine if additional response actions are warranted. A request may be made to modify or replace a cover or barrier. The replacement or modified cover or barrier must be protective of the revised use of the property, and must be approved in writing by the DNR prior to implementation. The **attached maintenance plan and inspection log** are to be kept up-to-date and on-site. Submit the inspection log to the DNR only upon request.

#### Vapor Mitigation or Evaluation

Vapor intrusion is the movement of vapors coming from volatile chemicals in the soil or groundwater, into buildings where people may breathe air contaminated by the vapors. Vapor mitigation systems are used to interrupt the pathway, thereby reducing or preventing vapors from moving into the building.

Chlorinated solvents remain in subslab and groundwater beneath building 5C, as shown on the **attached Figure 12**, at levels that may be of concern for vapor intrusion in the future, depending on construction and occupancy of a building. Currently the building is used for industrial purposes, therefore, before a new

building is constructed, the property owner must notify the DNR. Vapor control technologies are required for construction of occupied buildings unless the property owner assesses the vapor pathway and DNR concurs that conditions at the property are protective of the new use.

In addition, depending on site-specific conditions, construction over contaminated materials may result in vapor migration of contaminants into enclosed structures or migration along newly placed underground utility lines. The potential for vapor inhalation and means of mitigation should be evaluated when planning any future redevelopment, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the site.

The following DNR fact sheet, "Continuing Obligations for Environmental Protection", RR-819, was included with this letter, to help explain a property owner's responsibility for continuing obligations on their property. If the fact sheet is lost, you may obtain a copy at <http://dnr.wi.gov/org/aw/rr/archives/pubs/RR819.pdf>.

Please send written notifications in accordance with the above requirements to the Northeast Regional Headquarters, to the attention of RR Program Environmental Associate.

We appreciate your efforts to restore the environment at this site and enroll the property in the Voluntary Party Liability Exemption (VPLE) process. Your Certificate of Completion will be issued in the next several weeks. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Annette Weissbach at 920-662-5165.

Sincerely,



Bruce Urban, Air and Waste Division Leader  
Northeast Region

Attachments:

- Barrier/Cap Maintenance Plan
- Figure 12 remaining groundwater contamination map
- Publication RR 819 Continuing Obligations

e-cc: Paul Kuplic – paulk@communitybankandtrust.com  
James Bolger – JBI Inc., jim@jbidata.com  
Michael Hebert – ECT, Inc., MHebert@ectinc.com  
Michael Prager – RR/5

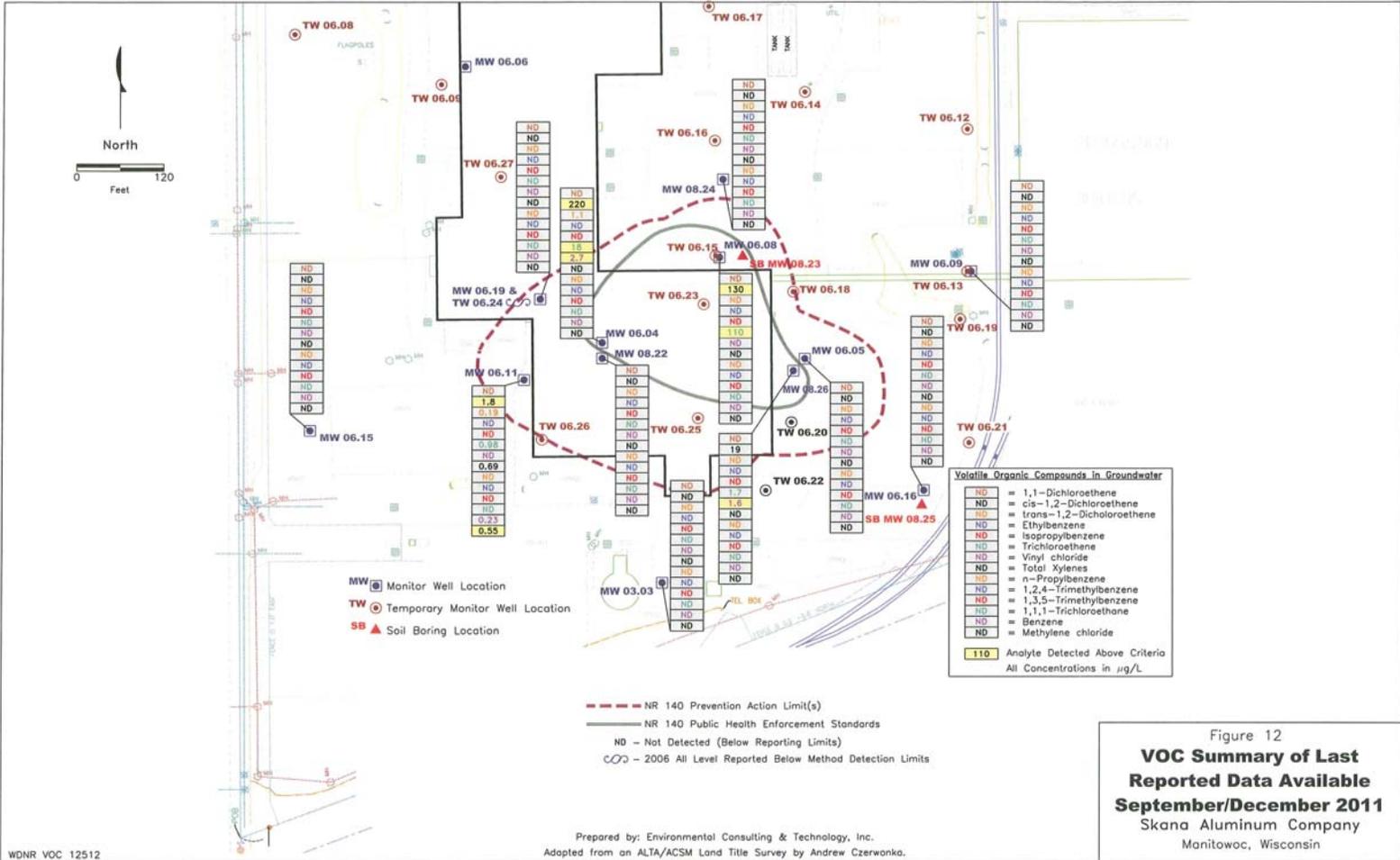


Figure 12  
**VOC Summary of Last Reported Data Available September/December 2011**  
Skana Aluminum Company  
Manitowoc, Wisconsin

**BARRIER/CAP MAINTENANCE PLAN**

Date of Preparation: 25 January 2012  
Date of Initiation: 15 February 2012

**Subject Property:** SKANA ALUMINUM COMPANY  
2009 Mirro Drive  
Manitowoc, Wisconsin 54221

VLPE #06-36-556282  
WI DNR Environmental Repair Activity # 02-36-544601/02-36-550138  
Facility ID# 436106110

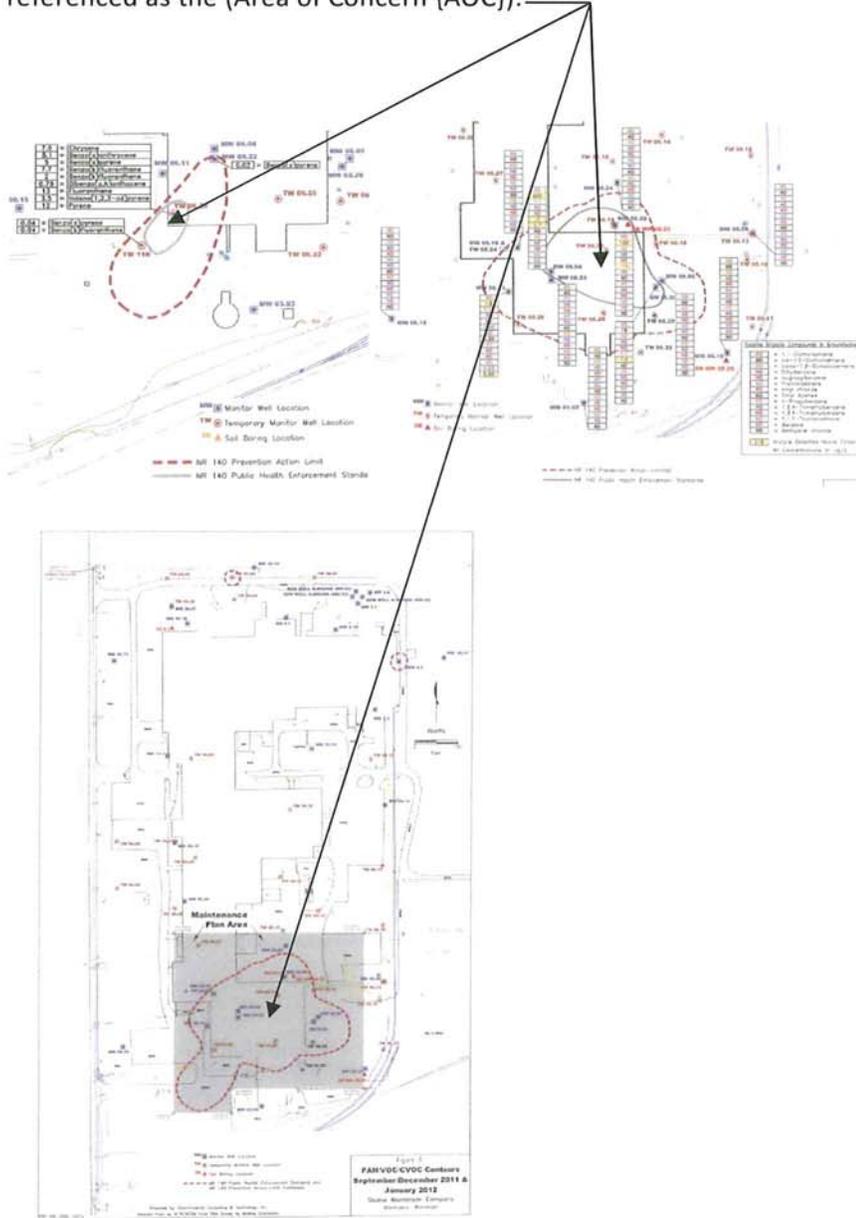
**Legal Description:** All that part of the Southeast Quarter (SE ¼) of Section Nine (9) North, Range Twenty-four (24) East, lying North of the Chicago and Northwestern Railway Company right of way, partially in the City of Manitowoc and partially in the Town of Manitowoc, County of Manitowoc, State of Wisconsin, EXCEPTING THEREFROM Lot One (1) of a Certified Survey recorded in Volume 24 of Certified Survey Maps, Page 63 as Document No.967193. ALSO EXCEPTING portion conveyed for street purposes by Quit Claim Deeds recorded in Volume 1995, Page 230, Document No. 969539 and in Volume 1995, Page 231 as Document No. 969540.

The Southwest Quarter (SW ¼) of the Northeast Quarter (NE ¼) and the South Half (S ½) of the Northwest Quarter (NW ¼) of the Northeast Quarter (NE ¼) of Section Nine (9), Township Nineteen (19) North, Range Twenty-four (24) East, in the City of Manitowoc, County of Manitowoc, State of Wisconsin. EXCEPTING portion conveyed for street purposes by Quit Claim Deed recorded in Volume 1995, Page 230, as Document No. 969539.



**Introduction**

This document (BARRIER/CAP MAINTENANCE PLAN) is herein referenced as the **Maintenance Plan** for the existing concrete floors associated with Building 5C and those existing asphalt pavement areas surrounding Building 5C. These structures (concrete floors/asphalt pavement) are referenced as engineering controls (vapor-contact barrier/water infiltration cover) at the referenced subject property in accordance with the requirements of NR 724.13(2), Wisconsin Administrative Code. The maintenance activities relate to the existing (concrete floors associated with Building 5C and those asphalt pavement areas surrounding Building 5C) occupying the area over the residual contaminated groundwater/soil regimes associated with WI DNR Repair Activities #02-36-544601/02-36-550138, is hereafter referenced as the (Area of Concern {AOC}).



No contamination associated with this Maintenance Plan has extended off site is likely to migrate off site under the current conditions.

More site-specific information about this property may be found in:

- The case-file retained by the regulatory agency
  - State of Wisconsin
  - Department of Natural Resources
  - Northeast Regional Headquarters
  - 2984 Shawano Avenue
  - Green Bay, WI 54313-6727
  
- BRRTS on the Web (WI DNR's internet based data base of contaminated sites):
  - <http://dnr.wi.gov/botw/SetUpBasicSearchForm.do>

02-36-544601 SKANA (K&V) (SUMPS)						
ERP - OPEN						
Location Name <small>Click Name to View Details and Other Activities</small>				County	WDNR Region	
SKANA ALUMINUM CO				MANITOWOC	NORTHEAST	
Address				Municipality		
2009 MIRRO DR				MANITOWOC CITY		
Public Land Survey System			Latitude	Google Maps™	RR Sites Map	
NW 1/4 of the SE 1/4 of Sec 09, T19N, R24E			44.128693	<a href="#">CLICK TO VIEW</a>	<a href="#">CLICK TO VIEW</a>	
Additional Location Description				Longitude	Facility ID	Size (Acres)
NONE				-87.6286078	436106110	> 100 Acres
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action	
DNR RR			2005-12-12		2011-12-02	
Characteristics						
EPA NPL Site?	DSPS Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry? <sup>17</sup>
No	No	No	No	No	No	No

02-36-550138 SKANA (K&V) SITEWIDE						
ERP - OPEN						
Location Name <small>Click Name to View Details and Other Activities</small>				County	WDNR Region	
SKANA ALUMINUM CO				MANITOWOC	NORTHEAST	
Address				Municipality		
2009 MIRRO DR				MANITOWOC CITY		
Public Land Survey System			Latitude	Google Maps™	RR Sites Map	
NW 1/4 of the SE 1/4 of Sec 09, T19N, R24E			44.12948	<a href="#">CLICK TO VIEW</a>	<a href="#">CLICK TO VIEW</a>	
Additional Location Description				Longitude	Facility ID	Size (Acres)
NONE				-87.6273142	436106110	> 100 Acres
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action	
DNR RR			2005-12-12		2011-12-05	
Characteristics						
EPA NPL Site?	DSPS Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry? <sup>17</sup>
No	No	No	No	No	No	No

- GIS Registry PDF file for further information on the nature and extent of contamination: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=brrts2>; and
  
- The WI DNR project manager for Manitowoc County (County Code 36):
  - State of Wisconsin
  - Department of Natural Resources
  - Northeast Regional Headquarters
  - Remediation & Redevelopment Program

2984 Shawano Avenue  
Green Bay, WI 54313-6727  
Phone: (920) 662-5100

**Description of Contamination**

The shallow unconsolidated/vadose zone soils and saturated zone(s) within the AOC have been identified as contaminated by one or more of the following:

CAS 56553	Benzo(a)anthracene	CAS 50328	Benzo(a)pyrene
CAS 205992	Benzo(b)fluoranthene	CAS 207089	Benzo(k)fluoranthene
CAS 107-06-2	Cis-1, 2-Dichloroethene	CAS 218019	Chrysene
CAS 53703	Dibenzo(a,h)anthracene	CAS 193395	Indeno(1,2,3-cd)pyrene
CAS 129000	Pyrene	CAS 79016	Trichloroethylene
CAS 75014	Vinyl Chloride		

The unconsolidated vadose zone soils are defined as those soils in the AOC which are not saturated with groundwater below the elevation of (+/- 605 ft MSL) and limited to a maximum depth of 30 ft below ground surface or 575 ft MSL). Saturated zone(s) or those sediments which have the potential to produce non-potable and/or potable water (groundwater) within the AOC defined in the unconsolidated soils above the elevation of 575 ft MSL.

The following figures are presented as Exhibit A to support and define the AOC:

- Well Locations, Screen Depths & Soil Sample Locations  
*(All wells points within the AOC have been sealed before the Initiation date of this Maintenance Plan)*
- VOC Contour September 2011  
*NR 140 Public Health Enforcement Standards*  
*NR 140 Prevention Action Limits*
- Summary of PAH Concentrations Groundwater Regime -2011  
*NR 140 Public Health Enforcement Standards*  
*NR 140 Prevention Action Limits*
- PAH/VOC/CVOC Contour September/December 2011 & January 2012  
*Inspection Area for this Maintenance Plan, (Light Grey)*

**Description of the Surface Structures to be Maintained**

The concrete floor/surface structures supporting Building 5C and those existing asphalt pavement areas surrounding Building 5C are herein described and consists of the following matrix:

**Building 5C Floor/Surface Structures Supporting Building 5C**

Existing Floors (typical 8-12 inches of concrete {3,200 psi})  
*(minimum maintained cover 6 inch of concrete)*

Effective February 15, 2012, an inspection of the concrete floors within the AOC will be conducted and any voids not occupied by sealed equipment will be sealed to comply with the minimum 6 inch maintained concrete cover.

Concrete surfaces will be maintained/repared in accordance with the Wisconsin Department of Transportation Specifications for Concrete Pavement (Section 415), reference Annotated 2012 Edition of Standard Specifications. (Attachment No. 1)

**Asphalt Pavement Areas Surrounding Building 5C**

Asphalt Pavement (typical 4 inches of asphalt cover)  
(minimum thickness 4 inches of asphalt)

Effective June 15, 2012, an inspection of the asphalt pavement within the AOC will be conducted and any voids through the pavement will be repaired and/or sealed before August 15, 2012 to comply with the minimum 4 inch maintained asphalt cover.

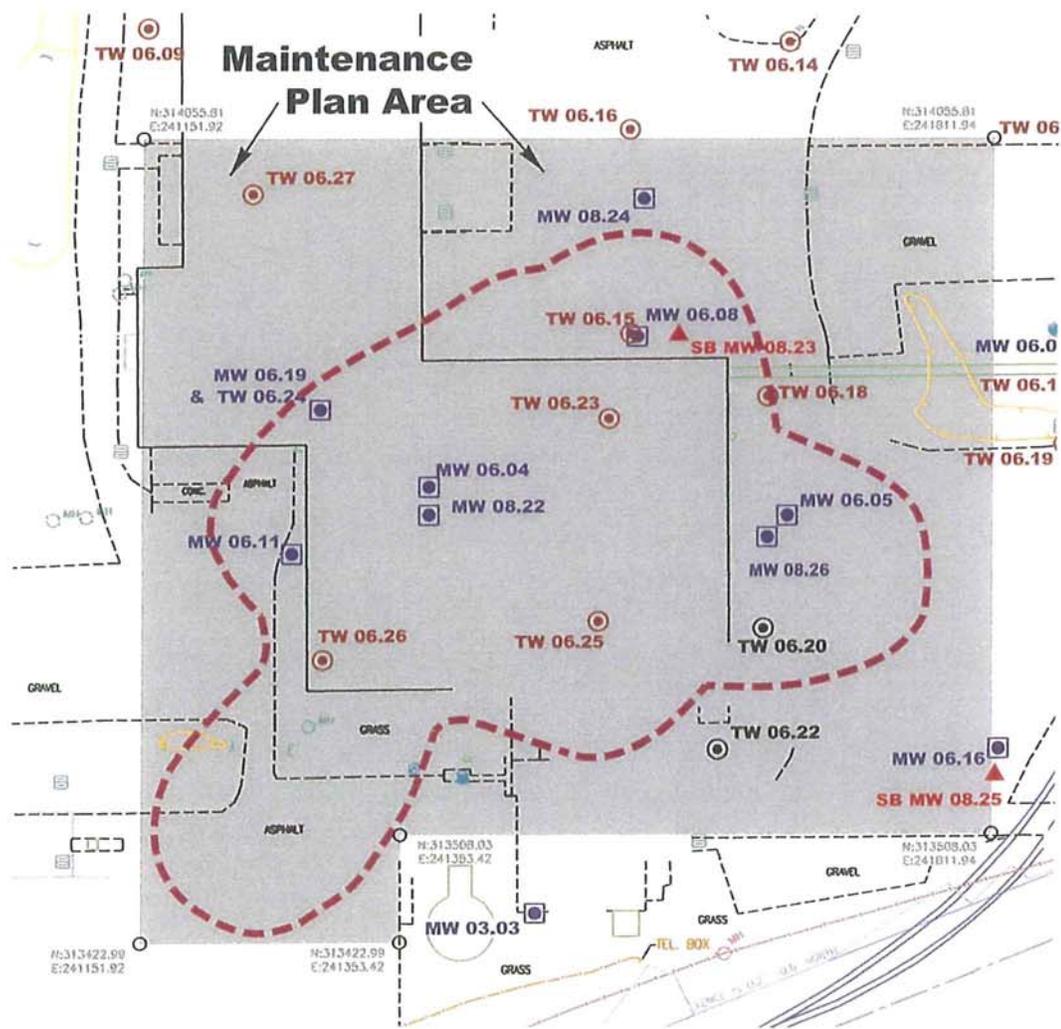
Asphalt surfaces will be maintained/repared in accordance with the Wisconsin Department of Transportation Specifications for Asphaltic Pavement/Surface (Sections 450 and 465), reference Annotated 2012 Edition of Standard Specifications. (Attachment No. 2)

Existing surface structures (concrete for Building 5C and those asphalt areas surrounding Building 5C) as defined within the AOC are those structures that cover earth within the area shown on the Figure entitled: PAH/VOC/CVOC Contour September/December 2011 & January 2012 (Light Grey). These surface structures are subject to the controls as referenced, and may not be removed with written receipt of authorization from the WI DNR.

The concrete/asphalt over the contaminated groundwater and soil regimes serve as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. These concrete/asphalt cover(s) also act as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. In addition, the concrete floor within Building 5C acts as a barrier to prevent accumulation of chlorinated solvents/PAHs within the ambient air space of said Building 5C. Based on the current and future use of the property, the barrier(s) should function as intended unless disturbed.

**Annual Inspection**

The concrete/asphalt structures overlying the contaminated groundwater and soil regimes as depicted in the flowing figures entitled (VOC Contour September 2011, and Summary of PAH Concentrations Groundwater Regime -2011) and/or as outlined in light grey on the figure entitled ( PAH/VOC/CVOC Contour September/December 2011 & January 2012,) will be inspected once a year, normally in the spring after all snow and ice is gone (*i.e. no later than June 15 of each year*), for deterioration, cracks and other potential problems that can cause additional surface water infiltration/subsurface erosion/ or allow human exposure to the underlying soils.



The inspections will be performed by SKANA ALUMINUM COMPANY (property owner) or their designated engineering representative. The inspection(s) will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed and/or where surface water infiltration is being or likely to become exacerbated will be documented. A log of the inspections and any repairs will be maintained by the SKANA ALUMINUM COMPANY. The Inspection Log is included as Exhibit B. The Inspection Log will include recommendations for necessary repair of any areas where underlying soils are exposed [and] where infiltration from the surface will not be effectively minimized. Once repairs are completed, (i.e. before August 15 of each year) they will be documented/photographed and incorporated in the Inspection Log/ Maintenance Plan. A copy of the Inspection Log will be kept at the subject property (SKANA ALUMINUM COMPANY, 2009 Mirro Drive, Manitowoc, WI) and be available for inspection by WI DNR representatives upon their request. In addition, no later than September 1 of each year a copy of the Inspection Log, photographic documentation of repairs/condition of the barrier(s)/cover(s)/surface structure(s) and general statement

documenting the condition of said barrier(s)/cover(s)/surface structure(s) will be forward by SKANA ALUMINUM COMPANY to the WI DNR:

State of Wisconsin  
Department of Natural Resources  
Northeast Regional Headquarters  
Remediation & Redevelopment Program  
2984 Shawano Avenue  
Green Bay, WI 54313-6727  
Phone: (920) 662-5100

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical.

- Exterior - Repairs can include patching and filling or larger resurfacing or construction operations.
- Interior - Repairs can include industrial epoxy crack sealing (full depth), patching or larger resurfacing or construction.

In the event that necessary maintenance activities expose the underlying soil, or maintenance crews enter into a defined confined space which is below the ground surface elevation, SKANA ALUMINUM COMPANY will inform maintenance workers of the direct contact exposure hazard, vapor potential and provide them with appropriate personal protection equipment ("PPE"). The SKANA ALUMINUM COMPANY will also sample any soil that is excavated from the AOC prior to conducting off-site disposal activities to ascertain data concerning the levels of any residual contamination. The soil will be treated, stored and disposed of by SKANA ALUMINUM COMPANY in accordance with applicable local, state and federal law.

In the event the concrete/asphalt materials overlying the contaminated groundwater/soil regimes are removed or required replacement, the replacement barrier must be of equal impervious and consistent with the minimum thickness specified in this document. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WI DNR or its successor. SKANA ALUMINUM COMPANY, in order to maintain the integrity of the concrete/asphalt barrier(s), will maintain a copy of this Maintenance Plan on-site and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

**Prohibition of Activities and Notification of WI DNR**

These prohibitions may not be violated unless prior written approval has been obtained from the **WI DNR** on any portion of the property defined as part of the AOC which supports a surface cover/barrier structure which limits human exposure to the underlying residual contaminated and limits surface water infiltration:

- removal of the existing barrier
- replacement with another barrier (that does not comply with this Maintenance Plan)
- excavating or grading of the land surface
- filling on capped or paved areas
- plowing for agriculture
- installation of wells for the purpose of generating a water source

It is herein noted that this written approval requirement, does not justify the owner/responsible parties to not undertake actions should an immediate dangerous environment/condition develop in the AOC which poses an immediate risk to the general public or the environment. Under these conditions emergency trained personnel may take actions to protect the general public and the environment, but concurrently SKANA ALUMINUM COMPANY administration (property owner) must take immediate actions (defined as 24 hours) to notify the WI DNR of said emergency condition.

**Amendment or Withdrawal of Maintenance Plan**

This Maintenance Plan can be amended or withdrawn by the SKANA ALUMINUM COMPANY (current property owner) and its successors with the written approval of WI DNR.

**Maintenance Plan Contact Information**

The following contact information is herein provided to WI DNR. In the event the contact information must be amendments, the existing property owner or the contact listed below is responsible for notifying the WI DNR within +/-15 days of the amendment.

**Contact Information**

[January 2012 - \_\_\_\_\_]

Site Owner and Operator: SKANA ALUMINUM COMPANY  
2009 Mirro Drive, P.O. Box 1477  
Manitowoc, WI 54221 USA  
Phone: 920.482.0599 / Fax: 920.482.1039

Name: Kenneth Kazmierczak  
Title: CFO, VP Administration  
Email: Ken.Kazmierczak@skanaaluminum.com

Environmental Consultant: Cardinal Environmental  
3303 Paine Ave  
Sheboygan, WI 53081  
Phone: 800.413.7225  
Scott Hanson

Environmental Consulting & Technology, Inc.  
3125 Sovereign Drive  
Lansing, Michigan 48911  
Phone: 517.272.9200  
Michael T. Hebert, CPG, CHMM, PG, CUSTP

WI DNR Project Manager:  
(Manitowoc County) Annette Weissbach  
State of Wisconsin  
Department of Natural Resources  
Northeast Regional Headquarters  
Remediation & Redevelopment Program  
2984 Shawano Avenue  
Green Bay, WI 54313-6727  
Phone: 920.662.5100 or (5165)

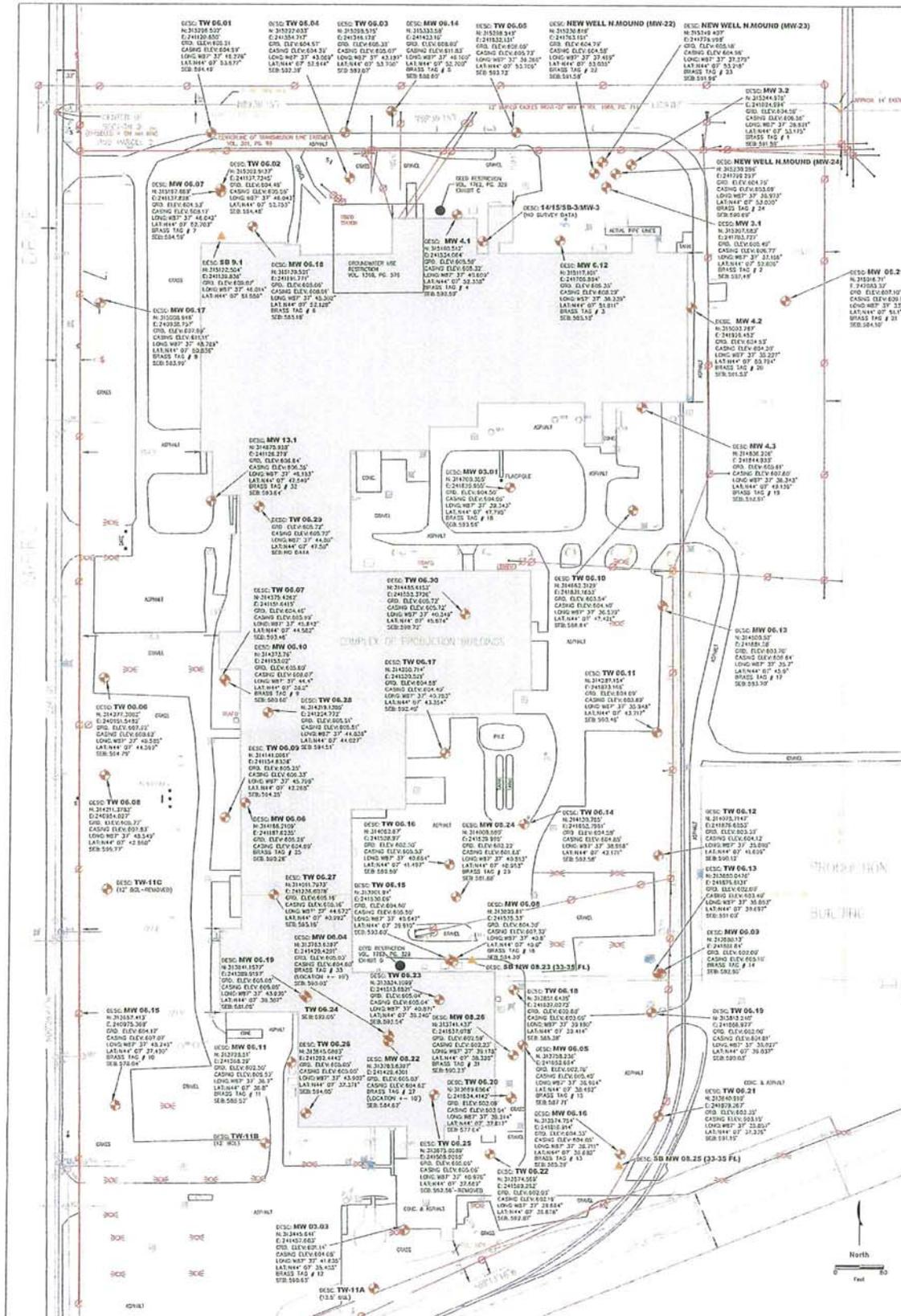
**EXHIBIT A**

**Well Locations, Screen Depths & Soil Sample Locations**

**VOC summary of Last Reported Data Available**

**Summary of PAH Concentrations Groundwater Regime 2011**

**PAH/VOC/CVOC Contour September/December 2011 & January 2012**



**Well Locations, Screen Depths & Soil Sample Locations (SB MW 08.23 & SB MW 08.25)**  
 Skana Aluminum Company  
 Manitowoc, Wisconsin  
 (Nov 2011)

MONITORING WELL DATA ACQUIRED BY STERNBERGER & MENAUE, INC., DECEMBER 3, 2010.  
 NOTE: THE LATITUDE AND LONGITUDE SHOWN IS BASED ON A CONVERSION FROM THE MANITOWOC COUNTY COORDINATE. THE ELEVATION DATUM IS USGS (NAVD83).  
 SOL BORING LOCATION (SB MW 08.23, SB MW 08.25) (SAMPLE DEPTH IN FEET)  
 SB - WELL SCREEN BOTTOM ELEVATION

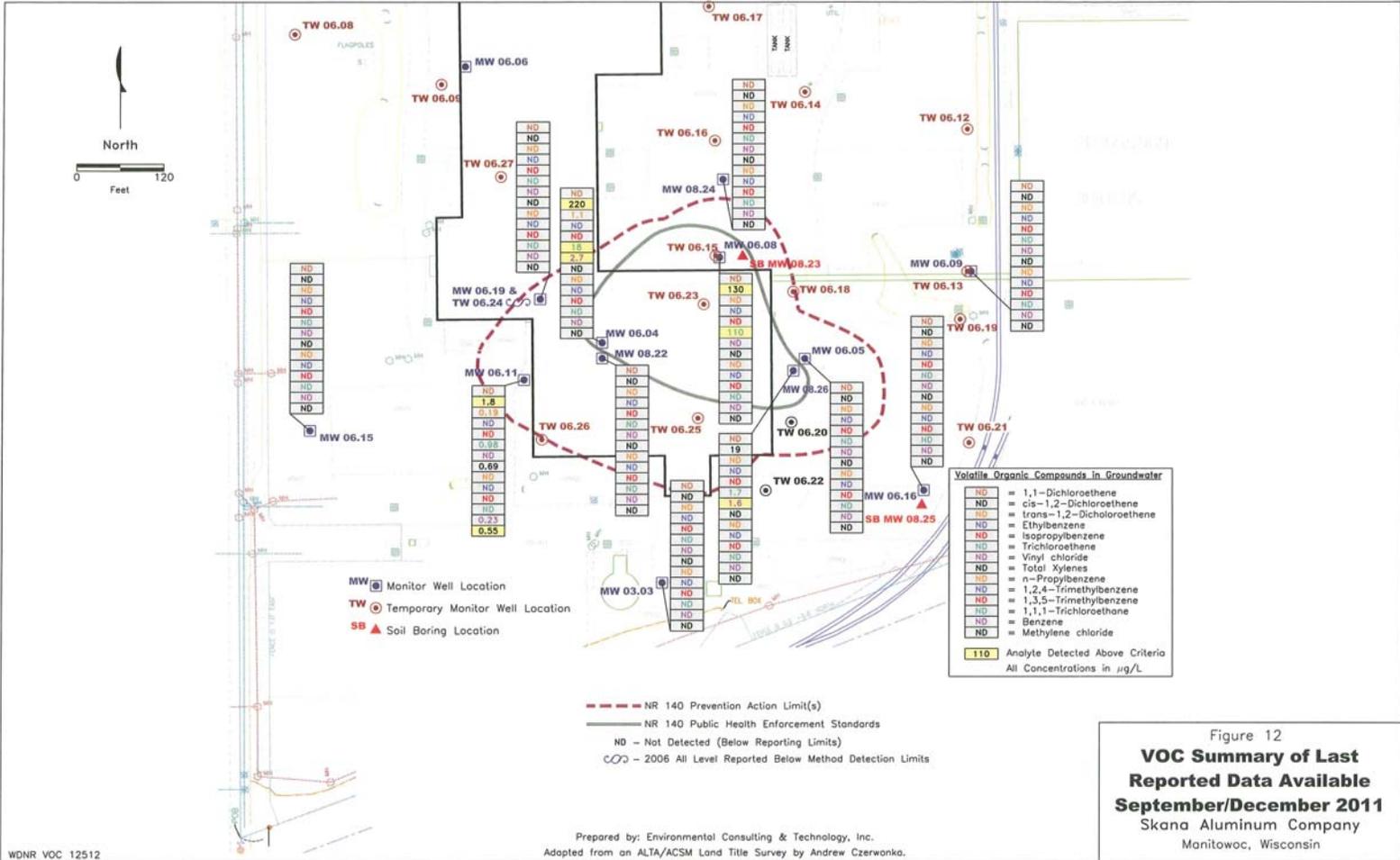
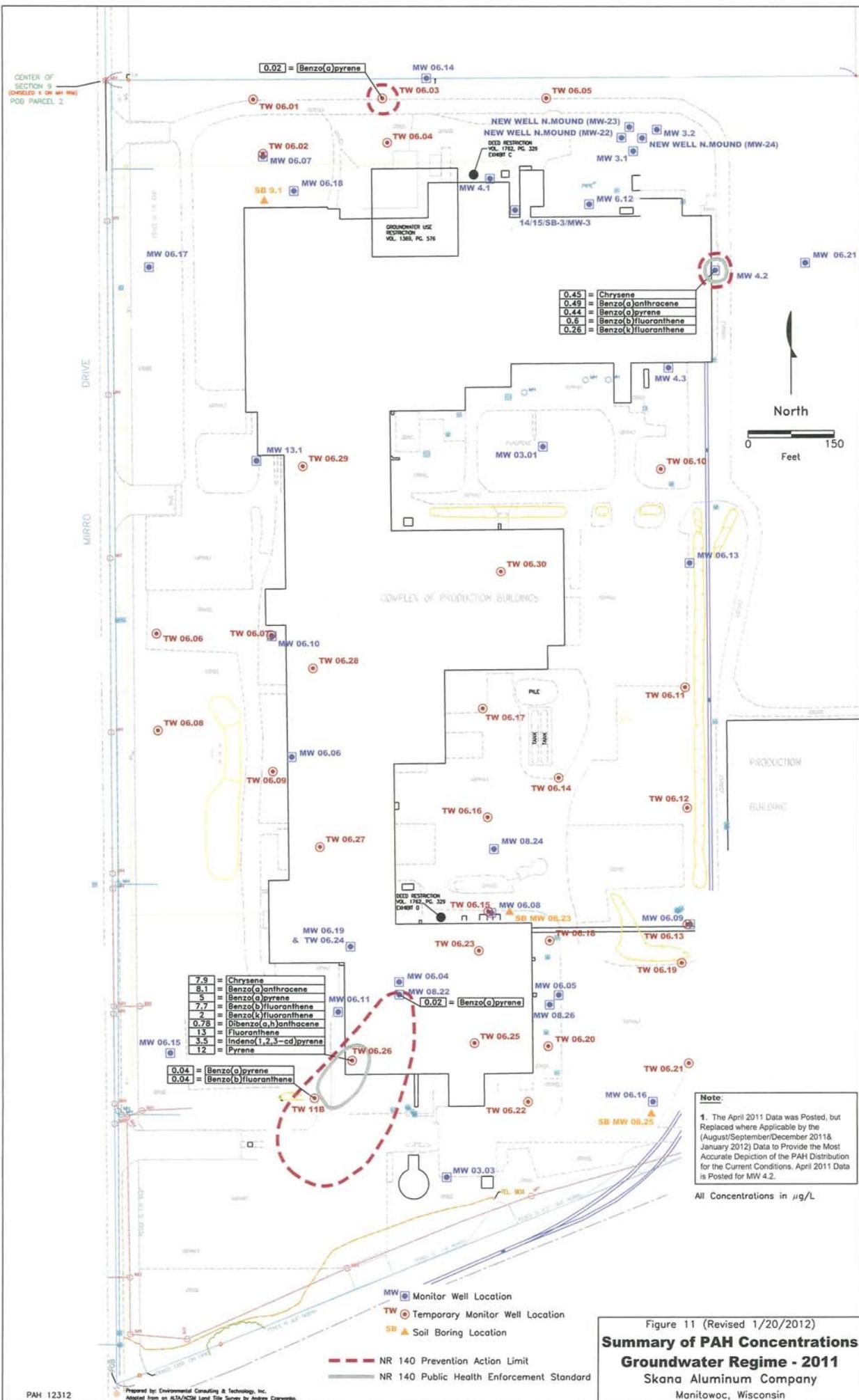


Figure 12  
**VOC Summary of Last Reported Data Available September/December 2011**  
Skana Aluminum Company  
Manitowoc, Wisconsin



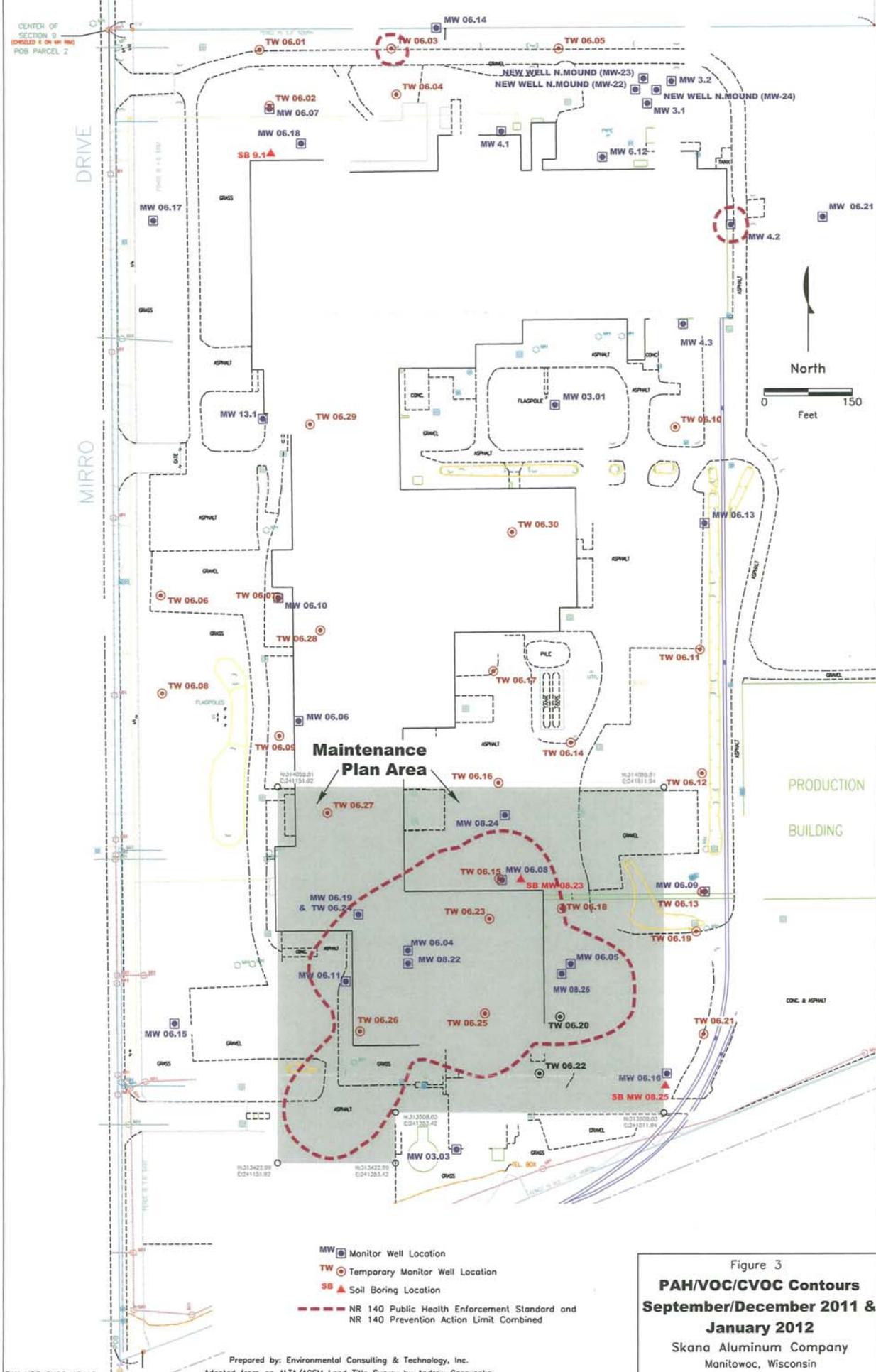


Figure 3  
**PAH/VOC/CVOC Contours**  
**September/December 2011 &**  
**January 2012**  
 Skana Aluminum Company  
 Manitowoc, Wisconsin



**INSPECTION LOG**

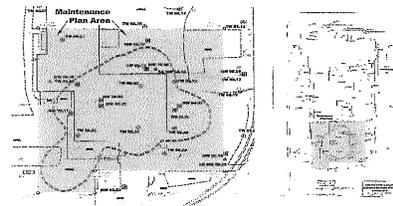
SKANA ALUMINUM COMPANY  
2009 Morro Drive  
Manitowoc, Wisconsin 54221

VLPE #06-36-556282  
WI DNR Environmental Repair Activity # 02-36-544601/02-36-550138  
Facility ID# 436106110

Date: / /20

INSPECTOR \_\_\_\_\_  
NAME: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(May Attach Business Card)

Concrete - Building 5C  
Asphalt - Exterior Building 5C



**Barrier INSPECTION and MAINTENANCE LOG** Item No.#

General Area			Condition of Surface		New or Old Condition (location)
Interior/Exterior	Location Marked w/Paint Yes / No	Good	Need Repair	Describe Condition (crack/void/settling, ...)	
Describe Location:					
Recommended Repair:					
Date Repair was Conducted : / /20			Name Documenting Repair Completed:		

**Barrier INSPECTION and MAINTENANCE LOG** Item No.#

General Area			Condition of Surface		New or Old Condition (location)
Interior/Exterior	Location Marked w/Paint Yes / No	Good	Need Repair	Describe Condition (crack/void/settling, ...)	
Describe Location:					
Recommended Repair:					
Date Repair was Conducted : / /20			Name Documenting Repair Completed:		

**Barrier INSPECTION and MAINTENANCE LOG** Item No.#

General Area			Condition of Surface		New or Old Condition (location)
Interior/Exterior	Location Marked w/Paint Yes / No	Good	Need Repair	Describe Condition (crack/void/settling, ...)	
Describe Location:					
Recommended Repair:					
Date Repair was Conducted : / /20			Name Documenting Repair Completed:		



### INSPECTION LOG

SKANA ALUMINUM COMPANY  
2009 Morro Drive  
Manitowoc, Wisconsin 54221

VLPE #06-36-556282  
WI DNR Environmental Repair Activity # 02-36-544601/02-36-550138  
Facility ID# 436106110

Date: \_\_\_\_\_ / \_\_\_\_\_ /20\_\_\_\_\_

Item No \_\_\_\_\_  
  
If subcontractor used for repairs (attach Invoice)  
WI DNR Approval Required (attach Approval Letter)

Condition At Time of Inspection	Repair Conducted (if needed)

Item No \_\_\_\_\_  
  
If subcontractor used for repairs (attach Invoice)  
WI DNR Approval Required (attach Approval Letter)

Condition At Time of Inspection	Repair Conducted (if needed)

Item No \_\_\_\_\_  
  
If subcontractor used for repairs (attach Invoice)  
WI DNR Approval Required (attach Approval Letter)

Condition At Time of Inspection	Repair Conducted (if needed)



January 20, 2012

VPLE #06-36-556282

(sent via email to Ken.Kazmierczak@skanaaluminum.com)

Kenneth Kazmierczak CFO, VP Administration  
Skana Aluminum Company  
PO Box 1477  
Manitowoc, WI 54220

**KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS**

**SUBJECT:** Final Case Closure with Continuing Obligations  
Skana (K&V) "Site Wide" miscellaneous historic impacts  
2009 Mirro Drive, Manitowoc, WI  
WDNR BRRTS Activity #: 02-36-550138

Dear Mr. Kazmierczak:

The Department of Natural Resources (DNR) considers the "Site Wide" site closed, with continuing obligations. No further investigation or remediation is required at this time. However, you and future property owners must comply with the continuing obligations as explained in the conditions of closure in this letter. Please read over this letter closely to ensure that you comply with all conditions and other on-going requirements. Provide this letter and the attached maintenance plan to anyone who purchases this property from you.

This final closure decision is based on the correspondence and data provided, and is issued under ch. NR 726, Wisconsin Administrative Code. The Northeast Region Closure Committee reviewed this site for closure on Dec 2, 2011, January 13 and 20, 2012. The Closure Committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. The project manager, Annette Weissbach, discussed the conditional closure requirements with your Consultant Mike Hebert and the following documents have been submitted.

- NR 141 Wis. Adm. Code Abandonment Forms for monitoring wells: MW4.1, MW4.2, MW4.3, MW06.14, MW06.18, MW06.07, MW06.17, MW06.12, MW06.21, MW13.1, MW06.10, MW03.01, MW06.13, MW06.06, MW06.15, MW06.11, MW03.03, MW06.09, MW06.04, MW06.20, TW06.01, TW06.02, TW06.03, TW06.04, TW06.05, TW06.06, TW06.07, TW06.08, TW06.09, TW06.10, TW06.11, TW06.12, TW06.13, TW06.15, TW06.16, TW06.17, TW06.27, TW06.28, TW06.29, TW06.30, TW11A, TW11B, TW11C, 14/15 SB1, 14/15/SB/2 SB-3/MW-3, and 11/13/17 SB-1
- Cap maintenance Plan: Joint maintenance plan with BRRTS case #02-36-544601

The Property is a former Mirro-Newell Rubbermaid facility that was built in the early 1960-70s with 575,000 ft<sup>2</sup> of buildings under manufacturing. The Aluminum rolling mill is operated by Skana and Tramontina leases building space for the production of aluminum pots and pans. Over the last eight years, several Phase I, Phase II, and site investigations have been completed which included soil and groundwater sampling from dozens of soil borings, 31 monitoring wells and 14 temporary wells. Site wide impacts associated with industrial activities at the site include common contaminants such as polycyclic aromatic hydrocarbons, arsenic, aluminum and trace detect of trichloroethylene. Limited areas of contaminated soil were excavated and properly disposed of.

The conditions of closure and continuing obligations required were based on the property being used for **industrial purposes**.

### **Continuing Obligations**

The continuing obligations for this site are summarized below. Further details on actions required are found in the section **Closure Conditions**.

- Groundwater contamination (arsenic, aluminum, polycyclic aromatic hydrocarbons) is present above ch. NR 140 Wis Adm. Code enforcement standards.
- One or more monitoring wells were not located and must be properly filled and sealed if found.
- Building 5C and asphaltic pavement must be maintained over contaminated soil and the state must approve any changes to this barrier.
- Before the land use may be changed from industrial to non-industrial, additional environmental work must be completed.

### **GIS Registry**

This site will be listed on the Remediation and Redevelopment Program's internet accessible Geographic Information System (GIS) Registry, to provide notice of residual contamination and of any continuing obligations. DNR approval prior to well construction or reconstruction is required for all sites shown on the GIS Registry, in accordance with s. NR 812.09(4) (w), Wis. Adm. Code. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at <http://dnr.wi.gov/org/water/dwg/3300254.pdf> or at the web address listed below for the GIS Registry.

All site information is also on file at the Northeast Regional DNR office, at 2984 Shawano Ave in Green Bay. This letter and information that was submitted with your closure request application, including the maintenance plan, will be included on the GIS Registry in a PDF attachment. To review the site on the GIS Registry web page, visit the RR Sites Map page at <http://dnr.wi.gov/org/aw/rr/gis/index.htm>.

### **Prohibited Activities**

Certain activities are prohibited at closed sites because maintenance of a barrier is intended to prevent contact with any remaining contamination. When a barrier is required, the condition of closure requires notification of the DNR before making a change, in order to determine if further action is needed to maintain the protectiveness of the remedy employed. The following activities are prohibited on any portion of the property where the building foundation and pavement is required, as shown on the **attached map, unless prior written approval has been obtained from the DNR.**

- removal of the existing barrier;
- replacement with another barrier;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure;
- changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings;

### Closure Conditions

Compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter and the attached maintenance plans are met. If these requirements are not followed, the DNR may take enforcement action under s. 292.11, Wisconsin Statutes to ensure compliance with the specified requirements, limitations or other conditions related to the property.

#### Residual Groundwater Contamination (ch. NR 140, Wis. Adm. Code)

Groundwater contamination greater than enforcement standards is present on this property as shown on the attached maps. If you intend to construct a new well, or reconstruct an existing well, you'll need prior DNR approval.

#### Residual Soil Contamination (ch. NR 718, or ch. 289, Stats.; chs. 500 to 536, Wis. Adm. Code)

Due to the long term use of this large property for manufacturing purposes residual soil contamination remains various locations. Anyone planning any future excavation activity should know that contaminated soil and groundwater may be encountered and appropriate action should be taken according to the conditions encountered. If conditions warrant and sampling confirms that contamination is present, the property owner at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

#### Monitoring wells that could not be properly filled and sealed (ch. NR 141, Wis. Adm. Code)

Temporary monitoring well(s) TW-06.01, TW-06.03 TW-06.04, TW-06.05, TW06.11, TW-06.17 located on the Skana Aluminum property as shown on the attached map, could not be properly filled and sealed because they could not be found. Your consultant made a reasonable effort to locate the wells and to determine whether they were properly filled and sealed, but was unsuccessful. You may be held liable for any problems associated with the monitoring wells if they create a conduit for contaminants to enter groundwater. If any of the groundwater monitoring wells are found, the then current owner of the property on which the well is located is required to notify the DNR, to properly fill and seal the wells and to submit the required documentation to the DNR.

Cover or Barrier (s. 292.12 (2) (a), Wis. Stats)

Building 5C and pavement that exists in the location shown on the attached map shall be maintained in compliance with the **attached maintenance plan** in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code.

A cover or barrier for industrial land uses may not be protective if use of the property were to change such that a residential exposure would apply. This may include, but is not limited to single or multiple family residences, a school, day care, senior center, hospital or similar settings. Before using the property for such purposes, you must notify the DNR to determine if additional response actions are warranted. A request may be made to modify or replace a cover or barrier. The replacement or modified cover or barrier must be protective of the revised use of the property, and must be approved in writing by the DNR prior to implementation. The **attached maintenance plan and inspection log** are to be kept up-to-date and on-site. Submit the inspection log to the DNR only upon request.

**Chapter NR 140, Wis. Adm. Code Exemption**

Recent groundwater monitoring data at this site indicates that for trichloroethylene at monitoring well MW 4.2 previously located directly east of Building 2, the Rolling Mill, and at contaminant levels exceed the NR 140 preventive action limit (PAL) but are below the enforcement standard (ES). The DNR may grant an exemption to a PAL for a substance of public health concern, other than nitrate, pursuant to s. NR 140.28 (2) (b), Wis. Adm. Code, if all of the following criteria are met:

1. The measured or anticipated increase in the concentration of the substance will be minimized to the extent technically and economically feasible.
2. Compliance with the PAL is either not technically or economically feasible.
3. The enforcement standard for the substance will not be attained or exceeded at the point of standards application. [Note: at this site the point of standards application is all points where groundwater is monitored.]
4. Any existing or projected increase in the concentration of the substance above the background concentration does not present a threat to public health or welfare.

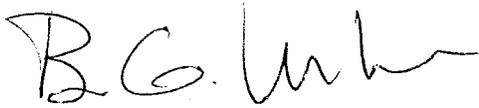
Based on the information you provided, the DNR believes that these criteria have been or will be met. Therefore, pursuant to s. NR 140.28, Wis. Adm. Code, an exemption to the PAL is granted for trichloroethylene at the location of former monitoring well MW 4.2. Please keep this letter, because it serves as your exemption.

DNR fact sheet, "Continuing Obligations for Environmental Protection", RR-819, is included with this letter to help explain a property owner's responsibility for continuing obligations on their property. If the fact sheet is lost, you may obtain a copy at <http://dnr.wi.gov/org/aw/rr/archives/pubs/RR819.pdf>.

Please send written notifications in accordance with the above requirements to the DNR's Northeast Regional office, to the attention of the Remediation & Redevelopment Environmental Program Associate.

We appreciate your efforts to restore the environment at this site and enroll the property in the Voluntary Party Liability Exemption (VPLE) process. Your Certificate of Completion will be issued in the next several weeks. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Annette Weissbach at 920-662-5165.

Sincerely,

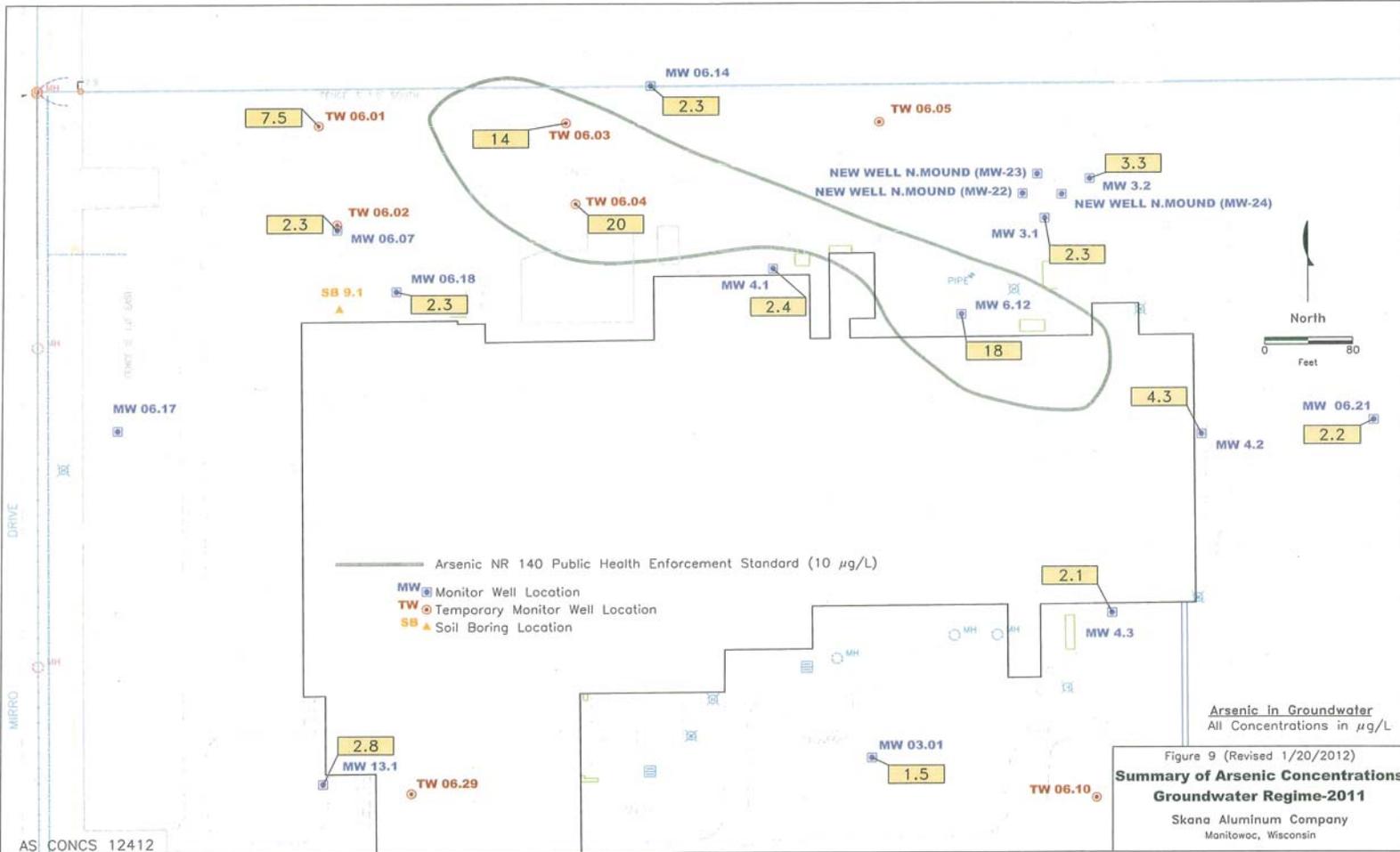


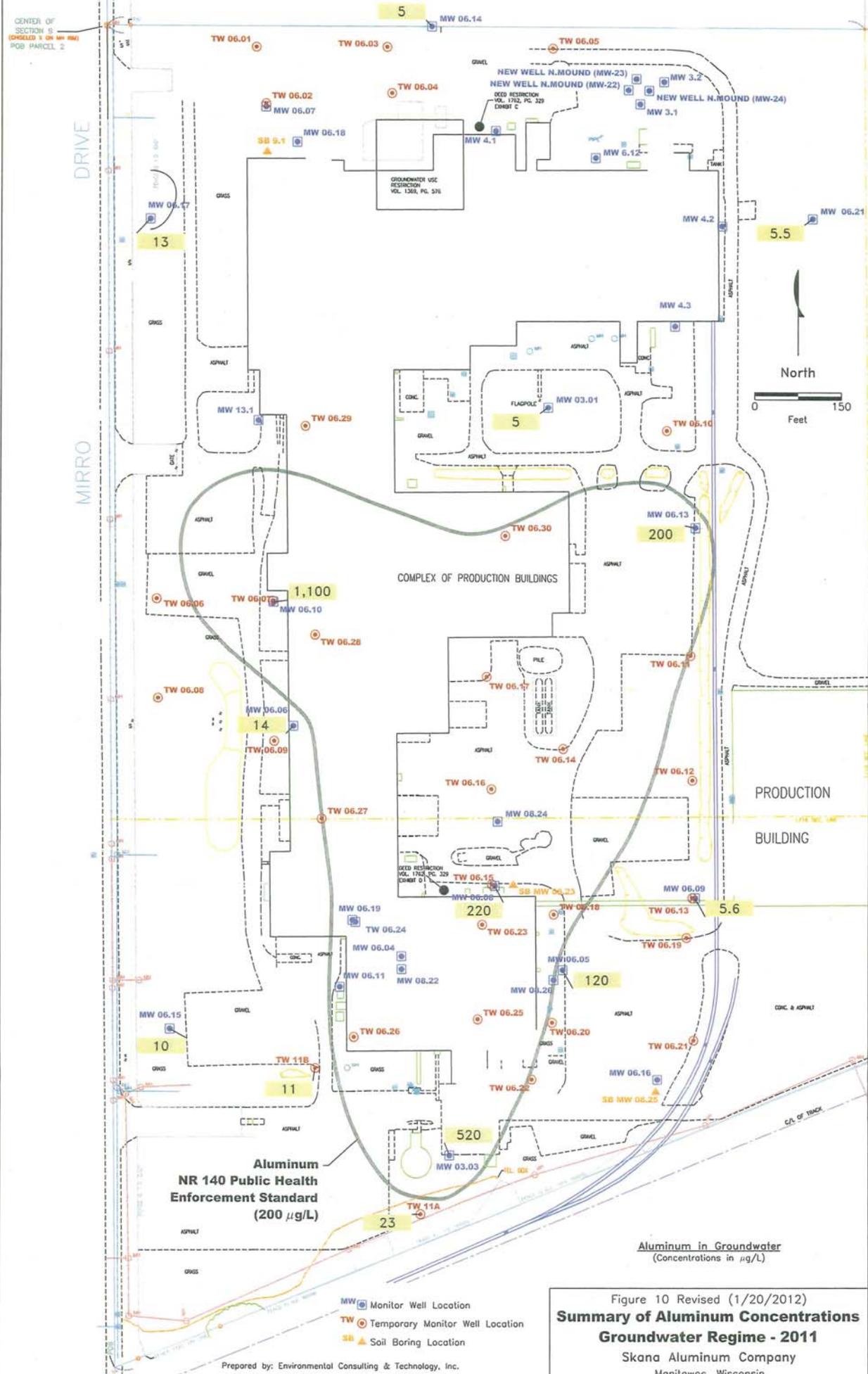
Bruce Urban Air and Waste Division Leader  
Northeast Region

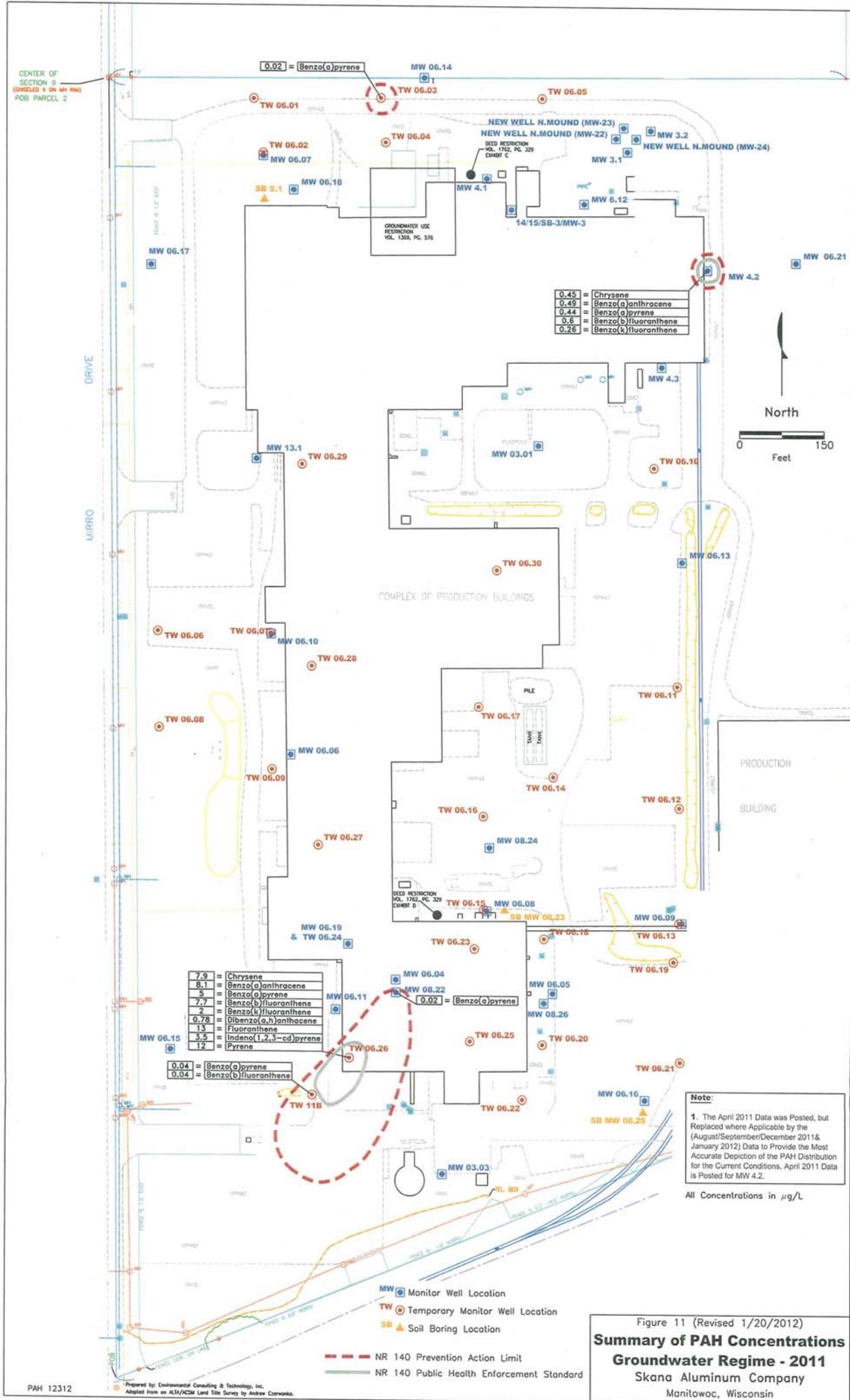
Attachments:

- Remaining groundwater contamination maps
- Missing monitoring well location map
- Maintenance plan
- Publication RR-819 Continuing Obligations

cc: Paul Kuplic – paulk@communitybankandtrust.com  
James Bolger – JBI Inc., jim@jbidata.com  
Michael Hebert – ECT, Inc., MHebert@ectinc.com  
Michael Prager – RR/5  
Bill Phelps – DG/5









LOSTWELLS 12412

Prepared by: Environmental Consulting & Technology, Inc.  
Adapted from an ALTA/ACSM Land Title Survey by Andrew Czerwonka.

Figure 15 (1/20/2012)  
**Damaged/Lost Wells**  
**August 27, 2011**  
Skana Aluminum Company  
Manitowoc, Wisconsin

**BARRIER/CAP MAINTENANCE PLAN**

Date of Preparation: 25 January 2012  
Date of Initiation: 15 February 2012

**Subject Property:** SKANA ALUMINUM COMPANY  
2009 Mirro Drive  
Manitowoc, Wisconsin 54221

VLPE #06-36-556282  
WI DNR Environmental Repair Activity # 02-36-544601/02-36-550138  
Facility ID# 436106110

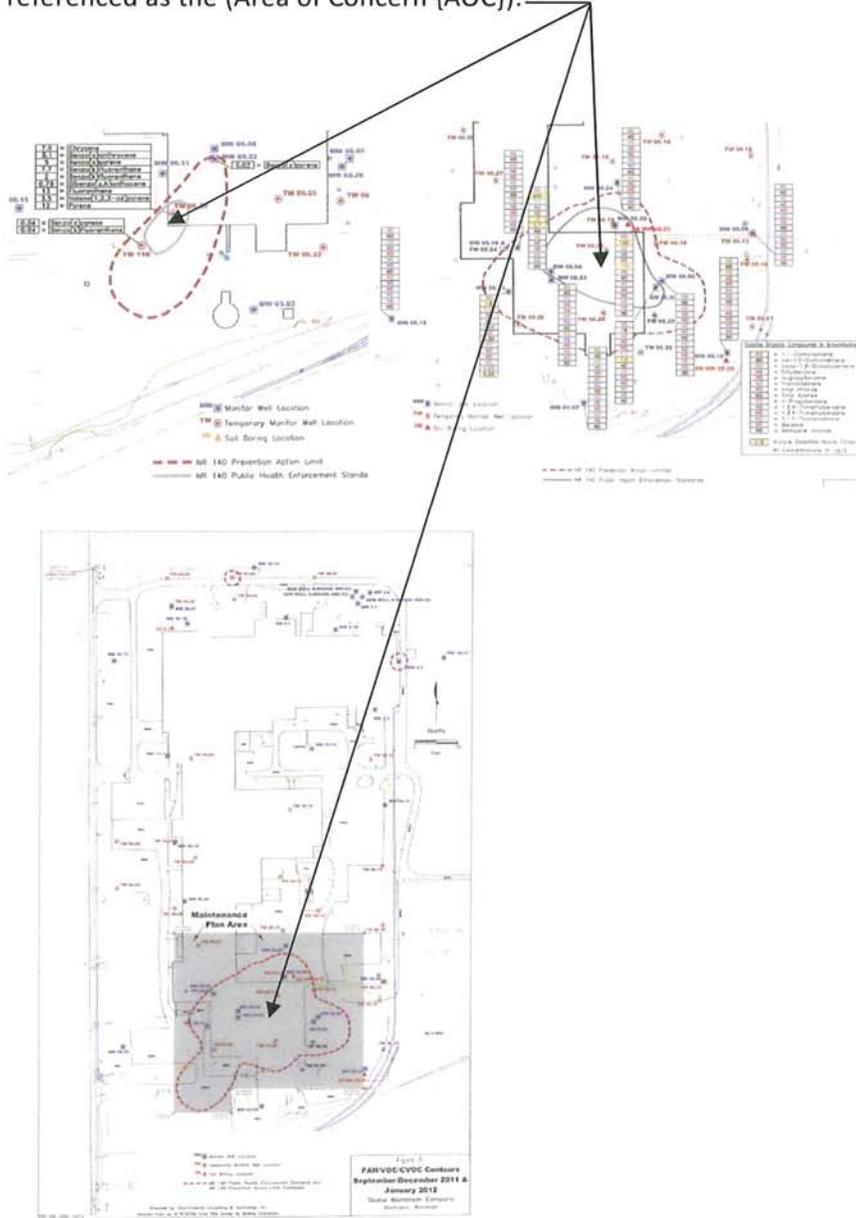
**Legal Description:** All that part of the Southeast Quarter (SE ¼) of Section Nine (9) North, Range Twenty-four (24) East, lying North of the Chicago and Northwestern Railway Company right of way, partially in the City of Manitowoc and partially in the Town of Manitowoc, County of Manitowoc, State of Wisconsin, EXCEPTING THEREFROM Lot One (1) of a Certified Survey recorded in Volume 24 of Certified Survey Maps, Page 63 as Document No.967193. ALSO EXCEPTING portion conveyed for street purposes by Quit Claim Deeds recorded in Volume 1995, Page 230, Document No. 969539 and in Volume 1995, Page 231 as Document No. 969540.

The Southwest Quarter (SW ¼) of the Northeast Quarter (NE ¼) and the South Half (S ½) of the Northwest Quarter (NW ¼) of the Northeast Quarter (NE ¼) of Section Nine (9), Township Nineteen (19) North, Range Twenty-four (24) East, in the City of Manitowoc, County of Manitowoc, State of Wisconsin. EXCEPTING portion conveyed for street purposes by Quit Claim Deed recorded in Volume 1995, Page 230, as Document No. 969539.



**Introduction**

This document (BARRIER/CAP MAINTENANCE PLAN) is herein referenced as the **Maintenance Plan** for the existing concrete floors associated with Building 5C and those existing asphalt pavement areas surrounding Building 5C. These structures (concrete floors/asphalt pavement) are referenced as engineering controls (vapor-contact barrier/water infiltration cover) at the referenced subject property in accordance with the requirements of NR 724.13(2), Wisconsin Administrative Code. The maintenance activities relate to the existing (concrete floors associated with Building 5C and those asphalt pavement areas surrounding Building 5C) occupying the area over the residual contaminated groundwater/soil regimes associated with WI DNR Repair Activities #02-36-544601/02-36-550138, is hereafter referenced as the (Area of Concern {AOC}).



No contamination associated with this Maintenance Plan has extended off site is likely to migrate off site under the current conditions.

More site-specific information about this property may be found in:

- The case-file retained by the regulatory agency
  - State of Wisconsin
  - Department of Natural Resources
  - Northeast Regional Headquarters
  - 2984 Shawano Avenue
  - Green Bay, WI 54313-6727
  
- BRRTS on the Web (WI DNR's internet based data base of contaminated sites):
  - <http://dnr.wi.gov/botw/SetUpBasicSearchForm.do>

02-36-544601 SKANA (K&V) (SUMPS)						
ERP - OPEN						
Location Name <small>Click Name to View Details and Other Activities</small>				County	WDNR Region	
SKANA ALUMINUM CO				MANITOWOC	NORTHEAST	
Address				Municipality		
2009 MIRRO DR				MANITOWOC CITY		
Public Land Survey System			Latitude	Google Maps™	RR Sites Map	
NW 1/4 of the SE 1/4 of Sec 09, T19N, R24E			44.128693	<a href="#">CLICK TO VIEW</a>	<a href="#">CLICK TO VIEW</a>	
Additional Location Description				Longitude	Facility ID	Size (Acres)
NONE				-87.6286078	436106110	> 100 Acres
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action	
DNR RR			2005-12-12		2011-12-02	
Characteristics						
EPA NPL Site?	DSPS Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry? <sup>17</sup>
No	No	No	No	No	No	No

02-36-550138 SKANA (K&V) SITEWIDE						
ERP - OPEN						
Location Name <small>Click Name to View Details and Other Activities</small>				County	WDNR Region	
SKANA ALUMINUM CO				MANITOWOC	NORTHEAST	
Address				Municipality		
2009 MIRRO DR				MANITOWOC CITY		
Public Land Survey System			Latitude	Google Maps™	RR Sites Map	
NW 1/4 of the SE 1/4 of Sec 09, T19N, R24E			44.12948	<a href="#">CLICK TO VIEW</a>	<a href="#">CLICK TO VIEW</a>	
Additional Location Description				Longitude	Facility ID	Size (Acres)
NONE				-87.6273142	436106110	> 100 Acres
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action	
DNR RR			2005-12-12		2011-12-05	
Characteristics						
EPA NPL Site?	DSPS Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry? <sup>17</sup>
No	No	No	No	No	No	No

- GIS Registry PDF file for further information on the nature and extent of contamination: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=brrts2>; and
  
- The WI DNR project manager for Manitowoc County (County Code 36):
  - State of Wisconsin
  - Department of Natural Resources
  - Northeast Regional Headquarters
  - Remediation & Redevelopment Program

2984 Shawano Avenue  
Green Bay, WI 54313-6727  
Phone: (920) 662-5100

**Description of Contamination**

The shallow unconsolidated/vadose zone soils and saturated zone(s) within the AOC have been identified as contaminated by one or more of the following:

CAS 56553	Benzo(a)anthracene	CAS 50328	Benzo(a)pyrene
CAS 205992	Benzo(b)fluoranthene	CAS 207089	Benzo(k)fluoranthene
CAS 107-06-2	Cis-1, 2-Dichloroethene	CAS 218019	Chrysene
CAS 53703	Dibenzo(a,h)anthacene	CAS 193395	Indeno(1,2,3-cd)pyrene
CAS 129000	Pyrene	CAS 79016	Trichloroethylene
CAS 75014	Vinyl Chloride		

The unconsolidated vadose zone soils are defined as those soils in the AOC which are not saturated with groundwater below the elevation of (+/- 605 ft MSL) and limited to a maximum depth of 30 ft below ground surface or 575 ft MSL). Saturated zone(s) or those sediments which have the potential to produce non-potable and/or potable water (groundwater) within the AOC defined in the unconsolidated soils above the elevation of 575 ft MSL.

The following figures are presented as Exhibit A to support and define the AOC:

- Well Locations, Screen Depths & Soil Sample Locations  
*(All wells points within the AOC have been sealed before the Initiation date of this Maintenance Plan)*
- VOC Contour September 2011  
*NR 140 Public Heath Enforcement Standards  
NR 140 Prevention Action Limits*
- Summary of PAH Concentrations Groundwater Regime -2011  
*NR 140 Public Heath Enforcement Standards  
NR 140 Prevention Action Limits*
- PAH/VOC/CVOC Contour September/December 2011 & January 2012  
*Inspection Area for this Maintenance Plan, (Light Grey)*

**Description of the Surface Structures to be Maintained**

The concrete floor/surface structures supporting Building 5C and those existing asphalt pavement areas surrounding Building 5C are herein described and consists of the following matrix:

**Building 5C Floor/Surface Structures Supporting Building 5C**

Existing Floors (typical 8-12 inches of concrete {3,200 psi})  
*(minimum maintained cover 6 inch of concrete)*

Effective February 15, 2012, an inspection of the concrete floors within the AOC will be conducted and any voids not occupied by sealed equipment will be sealed to comply with the minimum 6 inch maintained concrete cover.

Concrete surfaces will be maintained/repared in accordance with the Wisconsin Department of Transportation Specifications for Concrete Pavement (Section 415), reference Annotated 2012 Edition of Standard Specifications. (Attachment No. 1)

**Asphalt Pavement Areas Surrounding Building 5C**

Asphalt Pavement (typical 4 inches of asphalt cover)  
(minimum thickness 4 inches of asphalt)

Effective June 15, 2012, an inspection of the asphalt pavement within the AOC will be conducted and any voids through the pavement will be repaired and/or sealed before August 15, 2012 to comply with the minimum 4 inch maintained asphalt cover.

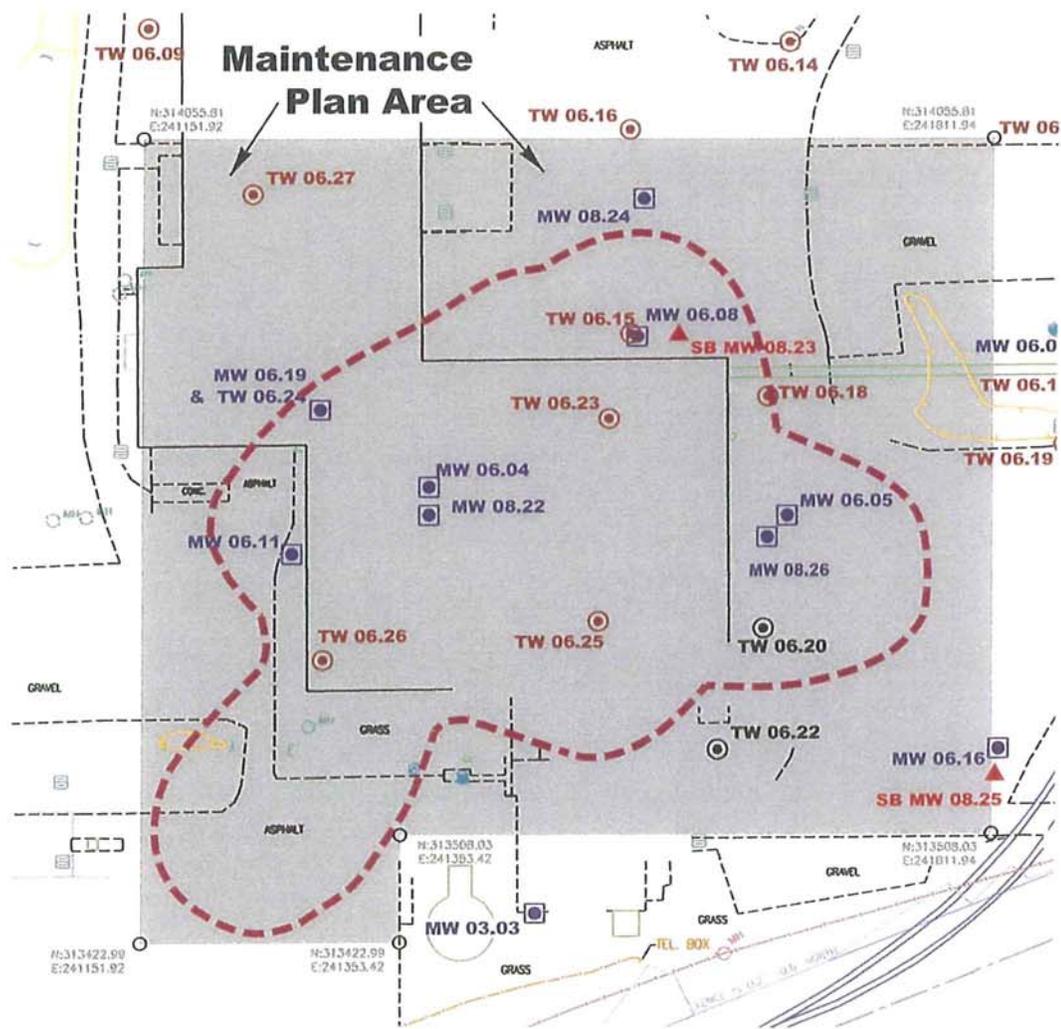
Asphalt surfaces will be maintained/repared in accordance with the Wisconsin Department of Transportation Specifications for Asphaltic Pavement/Surface (Sections 450 and 465), reference Annotated 2012 Edition of Standard Specifications. (Attachment No. 2)

Existing surface structures (concrete for Building 5C and those asphalt areas surrounding Building 5C) as defined within the AOC are those structures that cover earth within the area shown on the Figure entitled: PAH/VOC/CVOC Contour September/December 2011 & January 2012 (Light Grey). These surface structures are subject to the controls as referenced, and may not be removed with written receipt of authorization from the WI DNR.

The concrete/asphalt over the contaminated groundwater and soil regimes serve as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. These concrete/asphalt cover(s) also act as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. In addition, the concrete floor within Building 5C acts as a barrier to prevent accumulation of chlorinated solvents/PAHs within the ambient air space of said Building 5C. Based on the current and future use of the property, the barrier(s) should function as intended unless disturbed.

**Annual Inspection**

The concrete/asphalt structures overlying the contaminated groundwater and soil regimes as depicted in the flowing figures entitled (VOC Contour September 2011, and Summary of PAH Concentrations Groundwater Regime -2011) and/or as outlined in light grey on the figure entitled ( PAH/VOC/CVOC Contour September/December 2011 & January 2012,) will be inspected once a year, normally in the spring after all snow and ice is gone (*i.e. no later than June 15 of each year*), for deterioration, cracks and other potential problems that can cause additional surface water infiltration/subsurface erosion/ or allow human exposure to the underlying soils.



The inspections will be performed by SKANA ALUMINUM COMPANY (property owner) or their designated engineering representative. The inspection(s) will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed and/or where surface water infiltration is being or likely to become exacerbated will be documented. A log of the inspections and any repairs will be maintained by the SKANA ALUMINUM COMPANY. The Inspection Log is included as Exhibit B. The Inspection Log will include recommendations for necessary repair of any areas where underlying soils are exposed [and] where infiltration from the surface will not be effectively minimized. Once repairs are completed, (i.e. before August 15 of each year) they will be documented/photographed and incorporated in the Inspection Log/ Maintenance Plan. A copy of the Inspection Log will be kept at the subject property (SKANA ALUMINUM COMPANY, 2009 Mirro Drive, Manitowoc, WI) and be available for inspection by WI DNR representatives upon their request. In addition, no later than September 1 of each year a copy of the Inspection Log, photographic documentation of repairs/condition of the barrier(s)/cover(s)/surface structure(s) and general statement

documenting the condition of said barrier(s)/cover(s)/surface structure(s) will be forward by SKANA ALUMINUM COMPANY to the WI DNR:

State of Wisconsin  
Department of Natural Resources  
Northeast Regional Headquarters  
Remediation & Redevelopment Program  
2984 Shawano Avenue  
Green Bay, WI 54313-6727  
Phone: (920) 662-5100

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical.

- Exterior - Repairs can include patching and filling or larger resurfacing or construction operations.
- Interior - Repairs can include industrial epoxy crack sealing (full depth), patching or larger resurfacing or construction.

In the event that necessary maintenance activities expose the underlying soil, or maintenance crews enter into a defined confined space which is below the ground surface elevation, SKANA ALUMINUM COMPANY will inform maintenance workers of the direct contact exposure hazard, vapor potential and provide them with appropriate personal protection equipment ("PPE"). The SKANA ALUMINUM COMPANY will also sample any soil that is excavated from the AOC prior to conducting off-site disposal activities to ascertain data concerning the levels of any residual contamination. The soil will be treated, stored and disposed of by SKANA ALUMINUM COMPANY in accordance with applicable local, state and federal law.

In the event the concrete/asphalt materials overlying the contaminated groundwater/soil regimes are removed or required replacement, the replacement barrier must be of equal impervious and consistent with the minimum thickness specified in this document. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WI DNR or its successor. SKANA ALUMINUM COMPANY, in order to maintain the integrity of the concrete/asphalt barrier(s), will maintain a copy of this Maintenance Plan on-site and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

**Prohibition of Activities and Notification of WI DNR**

These prohibitions may not be violated unless prior written approval has been obtained from the **WI DNR** on any portion of the property defined as part of the AOC which supports a surface cover/barrier structure which limits human exposure to the underlying residual contaminated and limits surface water infiltration:

- removal of the existing barrier
- replacement with another barrier (that does not comply with this Maintenance Plan)
- excavating or grading of the land surface
- filling on capped or paved areas
- plowing for agriculture
- installation of wells for the purpose of generating a water source

It is herein noted that this written approval requirement, does not justify the owner/responsible parties to not undertake actions should an immediate dangerous environment/condition develop in the AOC which poses an immediate risk to the general public or the environment. Under these conditions emergency trained personnel may take actions to protect the general public and the environment, but concurrently SKANA ALUMINUM COMPANY administration (property owner) must take immediate actions (defined as 24 hours) to notify the WI DNR of said emergency condition.

**Amendment or Withdrawal of Maintenance Plan**

This Maintenance Plan can be amended or withdrawn by the SKANA ALUMINUM COMPANY (current property owner) and its successors with the written approval of WI DNR.

**Maintenance Plan Contact Information**

The following contact information is herein provided to WI DNR. In the event the contact information must be amendments, the existing property owner or the contact listed below is responsible for notifying the WI DNR within +/-15 days of the amendment.

**Contact Information**

[January 2012 - \_\_\_\_\_]

Site Owner and Operator: SKANA ALUMINUM COMPANY  
2009 Mirro Drive, P.O. Box 1477  
Manitowoc, WI 54221 USA  
Phone: 920.482.0599 / Fax: 920.482.1039

Name: Kenneth Kazmierczak  
Title: CFO, VP Administration  
Email: Ken.Kazmierczak@skanaaluminum.com

Environmental Consultant: Cardinal Environmental  
3303 Paine Ave  
Sheboygan, WI 53081  
Phone: 800.413.7225  
Scott Hanson

Environmental Consulting & Technology, Inc.  
3125 Sovereign Drive  
Lansing, Michigan 48911  
Phone: 517.272.9200  
Michael T. Hebert, CPG, CHMM, PG, CUSTP

WI DNR Project Manager:  
(Manitowoc County) Annette Weissbach  
State of Wisconsin  
Department of Natural Resources  
Northeast Regional Headquarters  
Remediation & Redevelopment Program  
2984 Shawano Avenue  
Green Bay, WI 54313-6727  
Phone: 920.662.5100 or (5165)

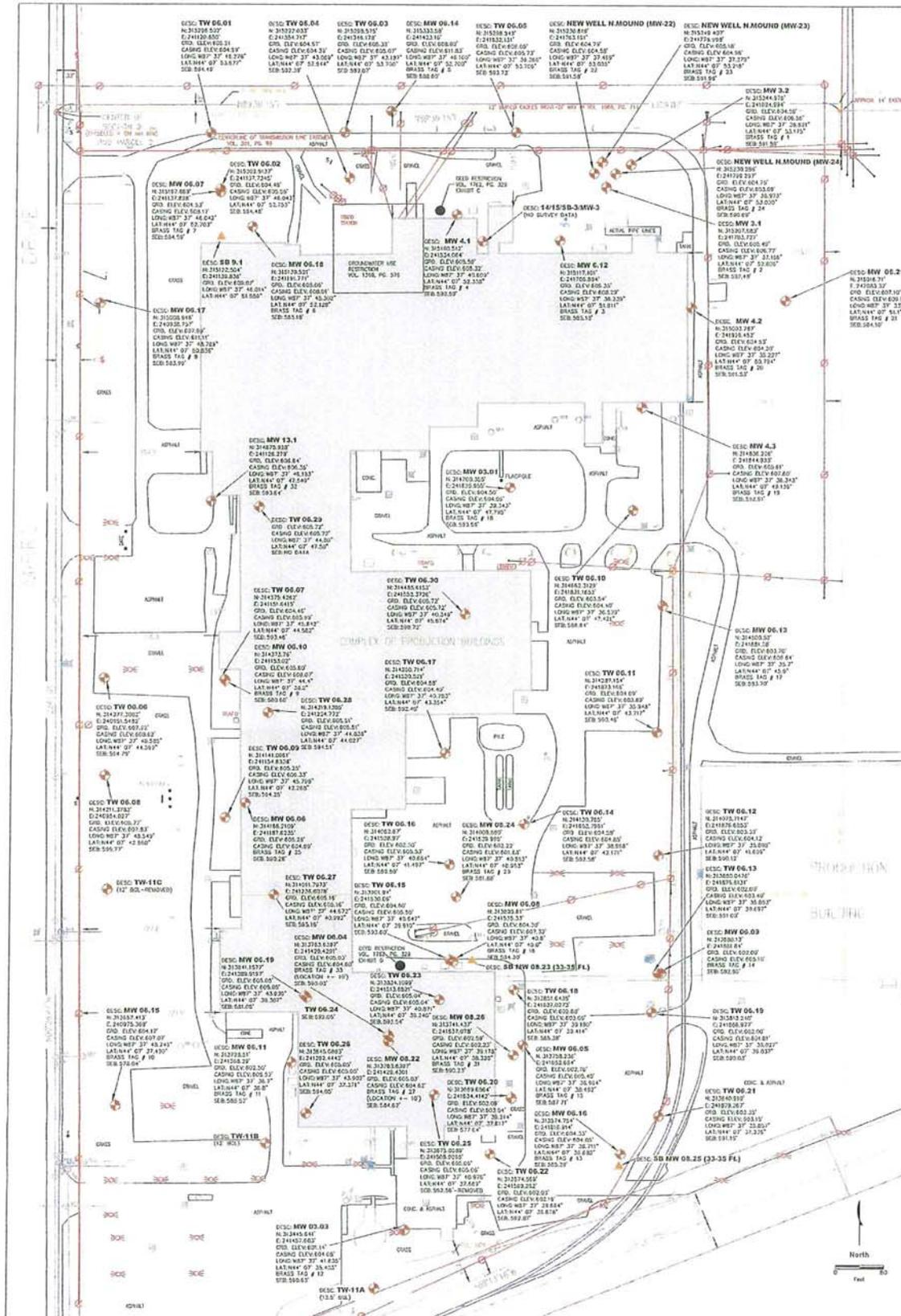
**EXHIBIT A**

**Well Locations, Screen Depths & Soil Sample Locations**

**VOC summary of Last Reported Data Available**

**Summary of PAH Concentrations Groundwater Regime 2011**

**PAH/VOC/CVOC Contour September/December 2011 & January 2012**



**Well Locations, Screen Depths & Soil Sample Locations (SB MW 08.23 & SB MW 08.25)**  
 Skana Aluminum Company  
 Manitowoc, Wisconsin  
 (Nov 2011)

MONITORING WELL DATA ACQUIRED BY STERNBERGER & MENAUE, INC., DECEMBER 3, 2010.  
 NOTE: THE LATITUDE AND LONGITUDE SHOWN IS BASED ON A COORDINATION FROM THE MANITOWOC COUNTY COORDINATE. THE ELEVATION DATUM IS USGS (NAVD83).  
 SOL BORING LOCATION (SB MW 08.23, SB MW 08.25) (SAMPLE DEPTH IN FEET)  
 SB - WELL SCREEN BOTTOM ELEVATION

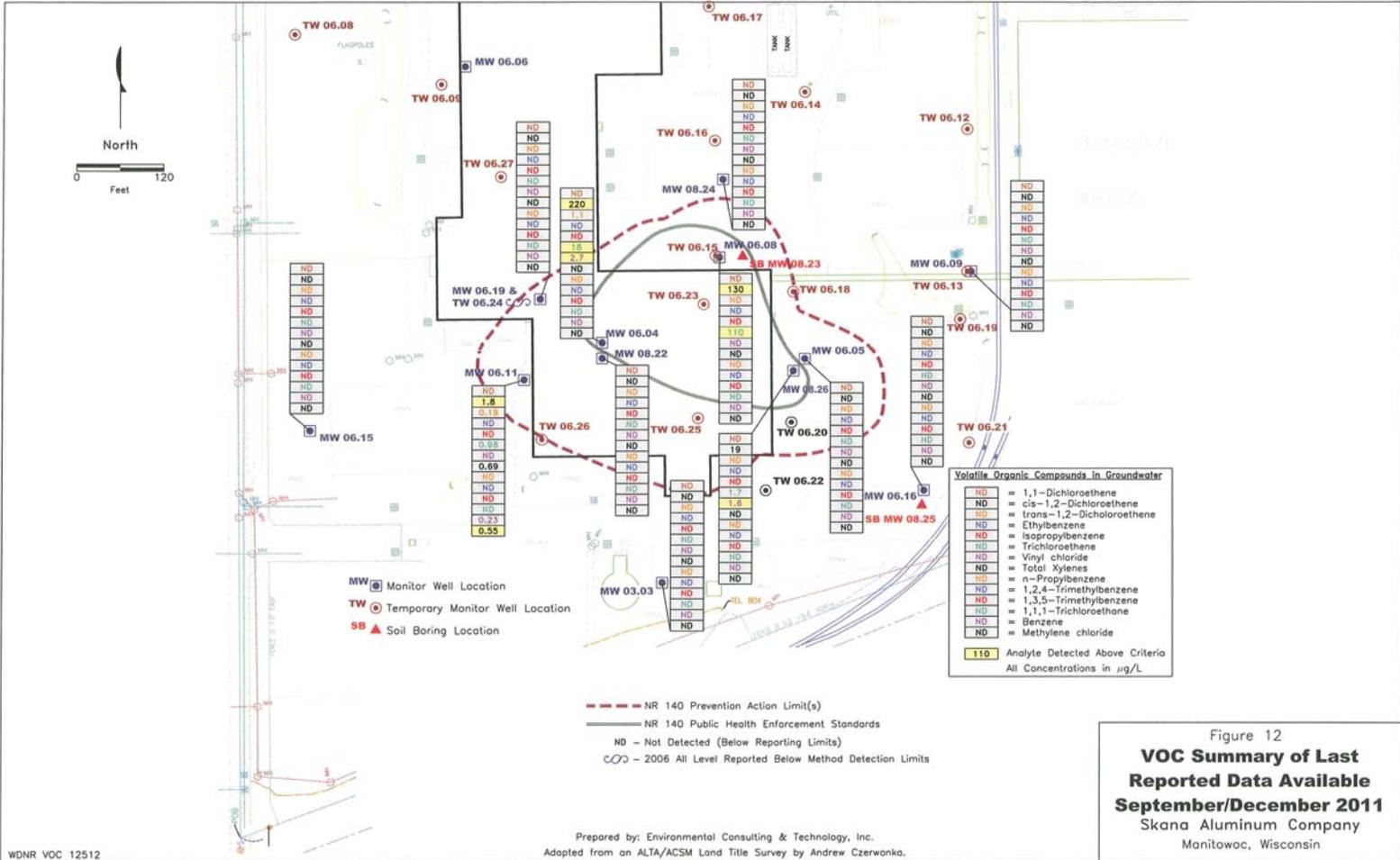
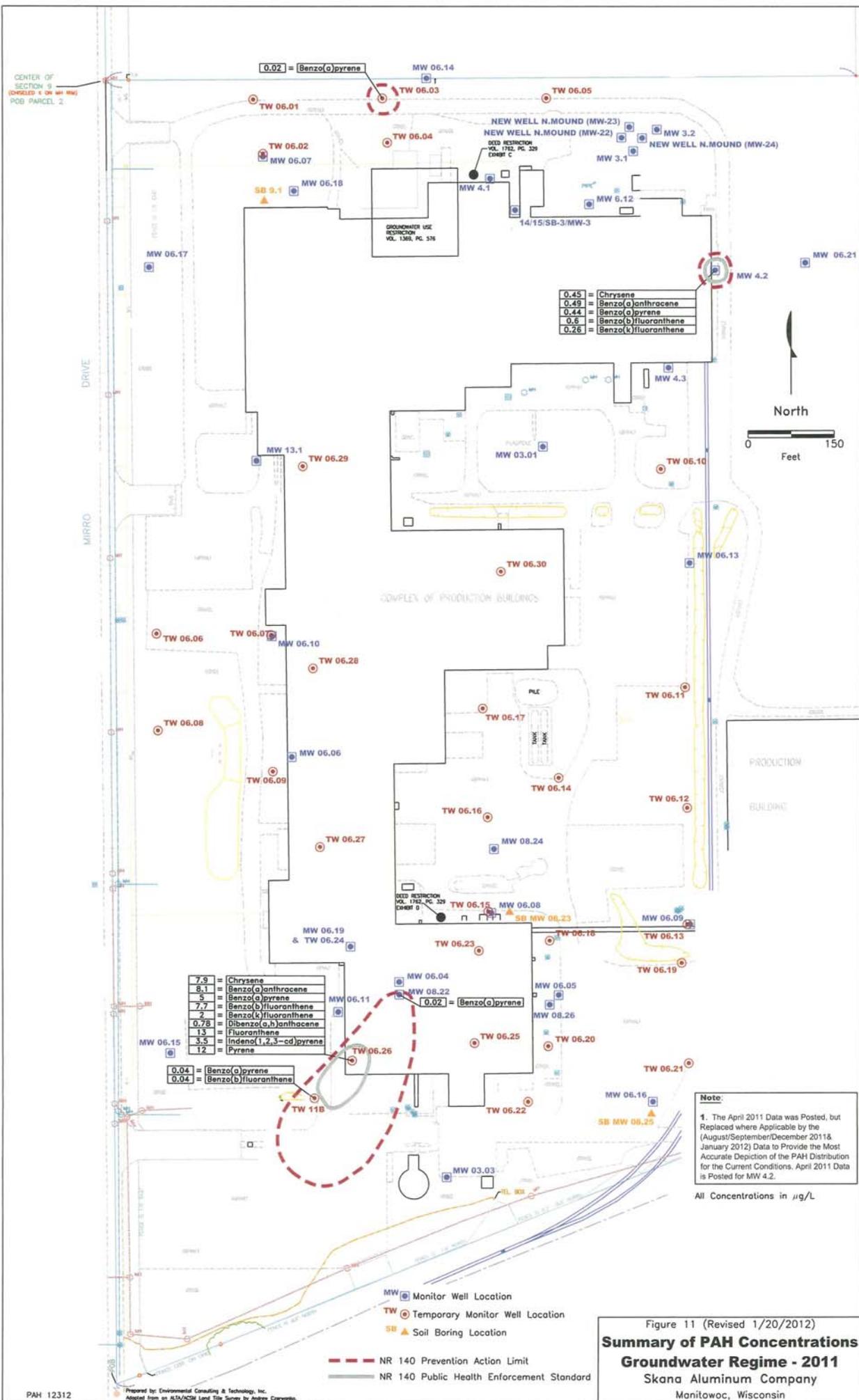


Figure 12  
**VOC Summary of Last Reported Data Available September/December 2011**  
Skana Aluminum Company  
Manitowoc, Wisconsin







**INSPECTION LOG**

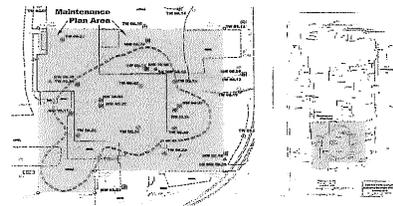
SKANA ALUMINUM COMPANY  
 2009 Morro Drive  
 Manitowoc, Wisconsin 54221

VLPE #06-36-556282  
 WI DNR Environmental Repair Activity # 02-36-544601/02-36-550138  
 Facility ID# 436106110

Date: / /20

INSPECTOR \_\_\_\_\_  
 NAME: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 (May Attach Business Card)

Concrete - Building 5C  
 Asphalt - Exterior Building 5C



**Barrier INSPECTION and MAINTENANCE LOG** Item No.#

General Area			Condition of Surface		New or Old Condition (location)
Interior/Exterior	Location Marked w/Paint Yes / No	Good	Need Repair	Describe Condition (crack/void/settling, ...)	
Describe Location:					
Recommended Repair:					
Date Repair was Conducted : / /20			Name Documenting Repair Completed:		

**Barrier INSPECTION and MAINTENANCE LOG** Item No.#

General Area			Condition of Surface		New or Old Condition (location)
Interior/Exterior	Location Marked w/Paint Yes / No	Good	Need Repair	Describe Condition (crack/void/settling, ...)	
Describe Location:					
Recommended Repair:					
Date Repair was Conducted : / /20			Name Documenting Repair Completed:		

**Barrier INSPECTION and MAINTENANCE LOG** Item No.#

General Area			Condition of Surface		New or Old Condition (location)
Interior/Exterior	Location Marked w/Paint Yes / No	Good	Need Repair	Describe Condition (crack/void/settling, ...)	
Describe Location:					
Recommended Repair:					
Date Repair was Conducted : / /20			Name Documenting Repair Completed:		



**INSPECTION LOG**

SKANA ALUMINUM COMPANY  
2009 Morro Drive  
Manitowoc, Wisconsin 54221

VLPE #06-36-556282  
WI DNR Environmental Repair Activity # 02-36-544601/02-36-550138  
Facility ID# 436106110

Date: \_\_\_\_\_ / \_\_\_\_\_ /20\_\_\_\_\_

Item No \_\_\_\_\_  
  
If subcontractor used for repairs (attach Invoice)  
WI DNR Approval Required (attach Approval Letter)

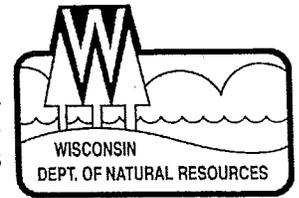
Condition At Time of Inspection	Repair Conducted (if needed)

Item No \_\_\_\_\_  
  
If subcontractor used for repairs (attach Invoice)  
WI DNR Approval Required (attach Approval Letter)

Condition At Time of Inspection	Repair Conducted (if needed)

Item No \_\_\_\_\_  
  
If subcontractor used for repairs (attach Invoice)  
WI DNR Approval Required (attach Approval Letter)

Condition At Time of Inspection	Repair Conducted (if needed)



January 20, 2012

(sent via email to Ken.Kazmierczak@skanaaluminum.com)

Kenneth Kazmierczak CFO, VP Administration  
Skana Aluminum Company  
PO Box 1477  
Manitowoc, WI 54220

**KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS**

SUBJECT: Final Case Closure  
Skana Aluminum (K&V) North Mound (PCB)  
Northeast of Rolling Mill at 2009 Mirro Drive, Manitowoc Wisconsin  
WDNR Environmental Repair Activity # 02-36-555268, VPLE #06-36-556282

Dear Mr. Kazmierczak:

The Department considers this case closed and no further investigation or remediation is required at this time. Based on the correspondence and data provided, it appears that your case meets the closure requirements in ch. NR 726, Wisconsin Administrative Code.

On December 2, 2011, the Northeast Region Closure Committee reviewed your request for closure of the case described above. The Committee reviews environmental remediation cases for compliance with state rules and statutes to maintain consistency in the closure of these cases. On December 6, 2011, you were notified that the Closure Committee had granted conditional closure to this case.

On January 9, 2012, the Department received information or documentation indicating that you have complied with the requirements for final closure. The following documents were submitted.

- NR 141 Wis. Adm Code Monitoring well abandonment forms for wells MW22, MW23, MW24, MW3.1 and MW3.2
- Post Excavation Field Diagram showing base and sidewall soil sample collection sites

GIS Registry

The conditions of case closure set out below in this letter require that this site be listed on the Remediation and Redevelopment Program's GIS Registry. The specific reason is summarized below:

- Groundwater impacted by residual polychlorinated biphenyl (PCB) contamination greater than enforcement standards set forth in ch. NR140, Wis. Adm. Code, is present on this property, specifically as measured in groundwater at the location of the former monitoring well MW-23, as shown on the **attached map**.

This letter and information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit the RR Sites Map page at: <http://dnr.wi.gov/org/aw/rr/gis/index.htm>. If the property is listed on the GIS Registry because of remaining

contamination and you intend to construct or reconstruct a well, you will need prior Department approval in accordance with s. NR 812.09(4) (w), Wis. Adm. Code. To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line <http://dnr.wi.gov/org/water/dwg/3300254.pdf> or at the web address listed above for the GIS Registry.

We appreciate your efforts to restore the environment at this site and enroll the property in the Voluntary Party Liability Exemption (VPLE) process. Your Certificate of Completion will be issued in the next several weeks. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Annette Weissbach at 920-662-5165.

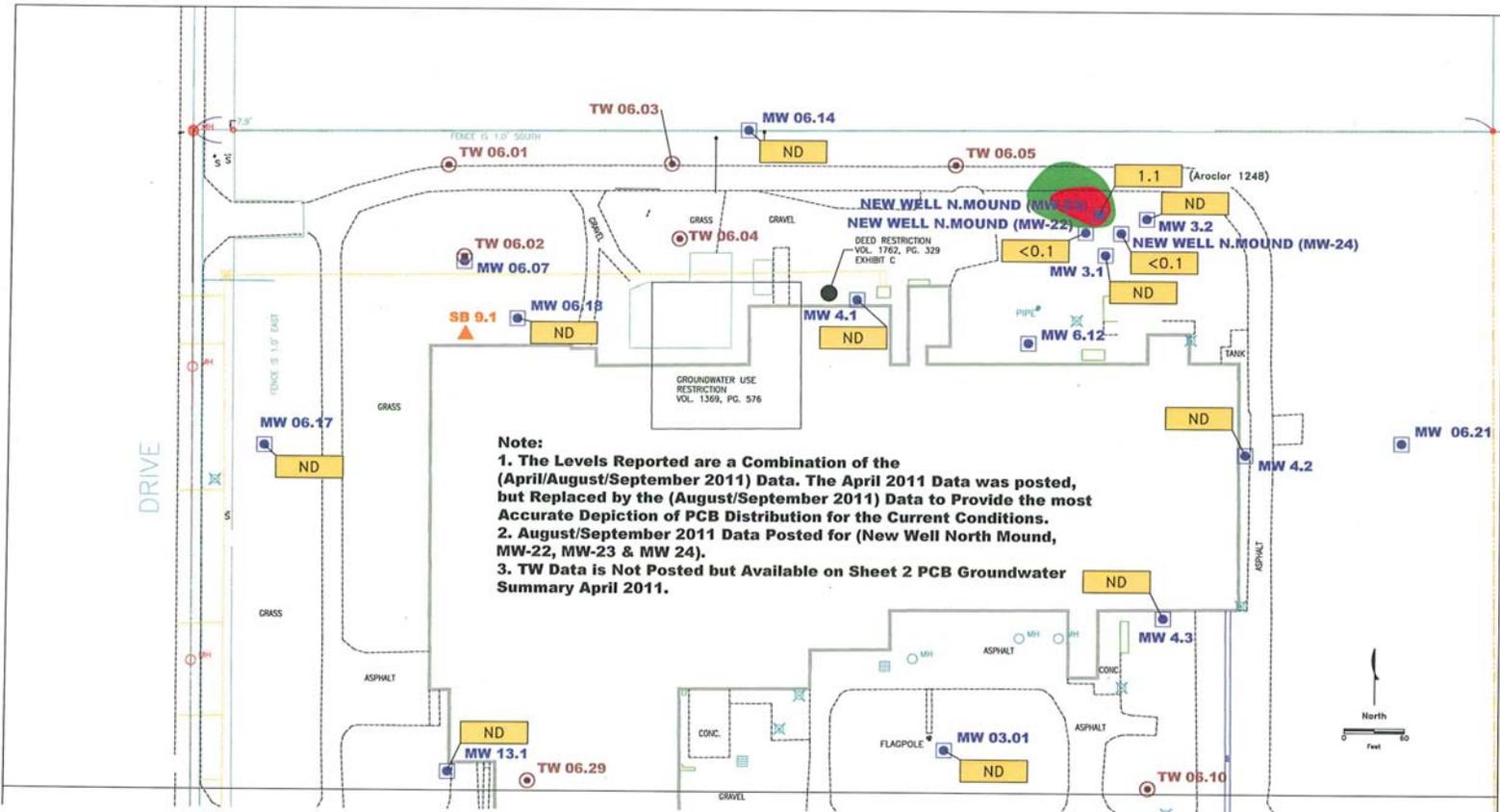
Sincerely,



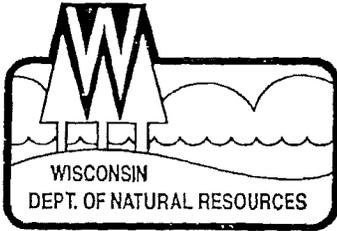
Bruce Urben Air and Waste Division Leader  
Northeast Region

Attach: Remaining groundwater contamination map

e-cc: Paul Kuplic – paulk@communitybankandtrust.com  
James Bolger – JBI Inc., jim@jbidata.com  
Michael Hebert – ECT, Inc., MHebert@ectinc.com  
Michael Prager – RR/5



**North 3<sup>rd</sup> of Figure 5  
PCB contour September 2011**



State of Wisconsin | DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor  
Scott Hassett, Secretary  
Ronald W. Kazmierczak, Regional Director

Northeast Region Headquarters  
1125 N. Military Ave., P.O. Box 10448  
Green Bay, Wisconsin 54307-0448  
Telephone 920-492-5916  
FAX 920-492-5859  
TTY 920-492-5912

3  
January 31, 2002

Charles Hauck  
Mirro Company  
A Division of Newell Rubbermaid  
2015 Mirro Drive  
Manitowoc, WI 54221

SUBJECT: Final Case Closure by Closure Committee with Conditions met  
Mirro Plant #2 2401 Mirro Drive, Manitowoc, WI  
WDNR BRRTS #: 02-36-220607

Dear Mr. Hauck:

On January 8, 2002, your site as described above was reviewed for closure by the Northeast Region Closure Committee. This committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. On January 31, 2002, you were notified that the Closure Committee had granted conditional closure to this case.

On January 15, 2003, the Department received correspondence indicating that Mirro Company has complied with the conditions of closure. The conditions of Closure included filing a soil deed restriction stating that inaccessible soil remains at the site in the area of soil excavation. The restriction requires that a soil barrier remain over the remaining soil contamination and that the soil barrier be maintained in accordance with a June 11, 2002, Maintenance Plan prepared by Northern Environmental. Based on the correspondence and data provided, it appears that your case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code. The Department considers this case closed and no further investigation, remediation or other action is required at this time.

Your site will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. Information that was submitted with your closure request application will be included on the registry. To review the sites on the GIS Registry web page, visit <http://gomapout.dnr.state.wi.us/org/at/et/geo/gwur/index.htm>

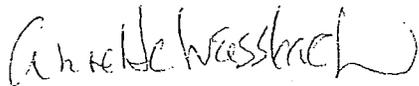
Mr. Charles Hauck, January 31, 2003

Page 2

Please be aware that this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety or welfare, or the environment.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at 920-492-5865.

Sincerely,

A handwritten signature in black ink that reads "Annette Weissbach". The signature is written in a cursive style with a large, looping initial "A".

Annette Weissbach  
Hydrogeologist  
Remediation & Redevelopment Program

e-cc: Lynelle Caine, Northern Environmental, 954 Circle Drive, Green Bay WI 54304

926152



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Document Number

DEED RESTRICTION

In re: All that part of the Southeast one quarter (SE1/4) of Section nine (9), Township nineteen (19) North of Range twenty-four (24) east, lying north of the Chicago and Northwestern Railway Company right of way, containing approximately one hundred and four (104) acres.

RCPT\* 556. STN  
\$33.00 MISC

STATE OF WISCONSIN  
MANITOWOC COUNTY  
PRESTON JONES  
REGISTER OF DEEDS  
RECEIVED FOR RECORD

15 JAN 2003 1:45:13 PM

**Recording Area**

**Name and Return Address**

Charles Hauck  
Newell Operating Company (Mirro)  
2015 Mirro Drive  
Manitowoc, Wisconsin 54221

**Declaration of Restrictions**

STATE OF WISCONSIN            )  
  ) ss  
COUNTY OF MANITOWOC        )

**Parcel Identification Number (PIN)**

WHEREAS, Newell Operating Company (formerly known as the Aluminum Goods Manufacturing Company, a New Jersey Corporation) is the owner of the above-described property.

WHEREAS, one or more discharges have occurred on this property. Contaminated soils exist on this property at or near the locations as shown in Exhibit A, Figure 1 Site Layout, Mirro Company

Specific types, concentrations, and locations of contaminated soil are listed below with corresponding attached drawings:

- Exhibit B: Figures 2 and 3: Diesel range organics (DRO), gasoline range organics, (GRO), petroleum volatile organic compounds (PVOC) at the northeast corner of Plant 01 [formerly known as Plant #7] (BRRTS #03-36-001476), in the location of the soil excavation and water supply line.
- Exhibit C, Figure 4: DRO and polychlorinated byphenols (PCBs) on the north side of Plant 02 (BRRTS #02-36-220607), approximately 40 feet northeast of overhead door #23
- Exhibit D, Figure 5: DRO on the North side of Plant 50 [formerly known as plant #5](Commerce #54220-6717-15), on the north side of the plant at the wall, 15 feet south of the concrete access manhole.



NOW THEREFORE, the owner hereby declares that specific portions of the property described above as specifically described below, are held and shall be held, conveyed or encumbered, leased, rented, used, occupied and improved subject to the following limitation and restrictions:

1. Northeast corner of Plant 01 [formerly known as Plant #7] (BRRTS #03-36-001476), in the location of the soil excavation and water supply line [Exhibit B: Figures 2 and 3]

One or more petroleum discharges have occurred at this location on the property. Structural impediments existing at the time of clean-up made complete remediation of the soil contamination impracticable. Petroleum contaminated soil may remain on this property at the following locations: near the northeast corner of Plant 01 and in the location of the soil excavation and water supply line as specifically identified in Exhibit B (Figures 2 and 3). Pursuant to the requirements of s. 292.11, Stats, if the structural impediments that currently exist on this property are removed, the property owner shall conduct an investigation of the degree and extent of petroleum contamination. To the extent that contamination is found at that time, the Wisconsin Department of Natural Resources shall be immediately notified and the contamination shall be properly treated or disposed of in accordance with applicable laws.

2. North side of Plant 02 (BRRTS #02-36-220607) [Exhibit C, Figure 4]

The following activities are prohibited on that portion of the property shown in Exhibit C, Figure 4 where a soil cover has been placed (in the vicinity of soil sample S-2) unless prior written approval has been obtained from the Wisconsin Department of Natural Resources or its successor or assign: (1) Excavating or grading of the land surface; (2) Filling on the capped area; (3) Plowing for agricultural cultivation; and (4) Construction or installation of a building or other structure with a foundation that would sit on or be placed within the cap or cover. In addition, the soil cover shall be maintained in compliance with a Plan dated June 11, 2002, prepared and submitted to the Wisconsin Department of Natural Resources by Mirro Co, as required by section NR 724.13(2), Wis. Adm. Code (1999).

3. North side of Plant 50 [formerly known as plant #5](Commerce #54220-6717-15) [Exhibit D, Figure 5]

This affidavit is being recorded for the purpose of notifying prospective purchasers and other interested parties that soil contaminated with Diesel Range Organics from an underground storage tank remains on this property as shown on Exhibit D, Figure 5. If this contaminated soil is excavated in the future, it may be considered solid waste and will need to be disposed in accordance with applicable statutes and rules.

WHEREAS, it is the desire and intention of the property owner to impose on the property restrictions which will make it unnecessary to conduct further soil remediation activities on the property at the present time.

This restriction is hereby declared to be a covenant running with the land and shall be fully binding upon all persons acquiring the above-described property whether by descent, devise, purchase or otherwise. This restriction benefits and is enforceable by, the Wisconsin Department of Natural Resources, its successors and assigns. The Department, its successors or assigns, may initiate proceedings at law or in equity against any person or persons who violate or are proposing to violate this covenant, to prevent the proposed violation or to recover damages for such violation.



Any person who is or becomes owner of the property described above may request that the Wisconsin Department of Natural Resources or its successor issue a determination that the restrictions set forth in this covenant are no longer required. Upon receipt of such a request, the Wisconsin Department of Natural Resources shall determine whether or not the restrictions contained herein can be extinguished. If the Department determines that the restrictions can be extinguished, an affidavit, with a copy of the Department's written determination, may be recorded to give notice that this deed restriction, or portions of this deed restriction are no longer binding.

By signing this document, Douglas L. Martin acknowledges that he is duly authorized to sign this document on behalf of Newell Operating Company.

Signature: *[Handwritten Signature]*

Printed Name: Douglas L. Martin

Title: Vice President – Treasurer of Newell Operating Company

Subscribed and sworn to before me

this 20 day of December, 2002

*Linda L. Stichter*  
Notary Public, State of Illinois  
My commission expires March 26, 2005





**EXHIBIT A**  
**SITE LAYOUT**



60 Acre  
Parcel - Leased for  
farming

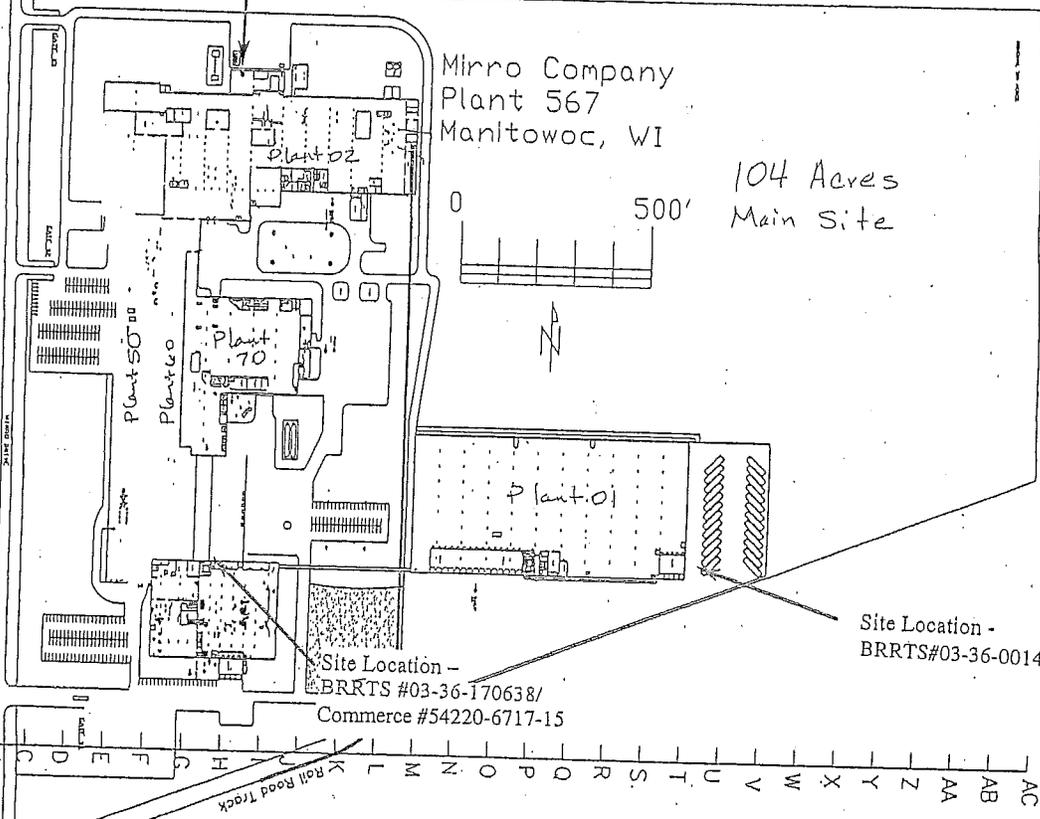
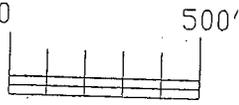
35  
30  
25  
20  
15  
10  
5  
0

Scale: one unit=100 feet

Site Location -  
BRRTs #02-36-220607

Mirro Company  
Plant 567  
Manitowoc, WI

104 Acres  
Main Site



Site Location -  
BRRTs #03-36-170638/  
Commerce #54220-6717-15

Site Location -  
BRRTs#03-36-001476

K Roll Road Track

FIGURE 1: SITE LAYOUT, MIRRO COMPANY

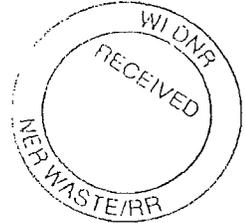


VOL 1762 PG 337

**EXHIBIT C**  
**LOCATION OF REMAINING SOIL CONTAMINATION**  
**PLANT #02**



June 11, 2002  
(MIR03-1408-0919)



Ms. Annette Weissbach  
Wisconsin Department of Natural Resources  
Post Office Box 10448  
Green Bay, Wisconsin 54307-0448

Re: Performance Standard Cap, Mirro Company Plant #02, 2401 Memorial Drive, Manitowoc,  
Wisconsin; BRRTS #02-36-220607

Dear Ms. Weissbach:

On behalf of the Mirro Company, Northern Environmental Technologies, Incorporated (Northern Environmental) is providing information regarding the performance standard cap that was required as part of the conditional case closure letter for the Mirro Company Plant #02, 2401 Mirro Drive, Manitowoc, Wisconsin (the Site). As part of the conditional case closure of the Site, the WDNR is requiring that a surface barrier be maintained over the soil contamination near soil sample S2. Given the low permeability of the native soil at the Site, Northern Environmental is recommending that the top three feet of soil near soil sample S2 serve as a performance standard cap.

#### Maintenance Plan

The surface area near S1 will be inspected on a yearly basis by the Site owner to ensure that the cap is being maintained. The area will be examined for evidence of settling, potholes, erosion, and other damage. Damaged areas will be repaired within 30 days of discovery. A report describing the nature and extent of any damage to the barrier and subsequent repairs will be submitted to the Wisconsin Department of Natural Resources upon completion of these activities. Completed copies of written inspections will be maintained on-site. An example of the inspection form is enclosed.

We trust this information meets your needs. Please contact us at 920-592-8400 if you have any questions.

Sincerely,  
**Northern Environmental  
Technologies, Incorporated**

A handwritten signature in black ink, appearing to read "Lynelle P. Caine".

Lynelle P. Caine  
Project Manager

LPC/jmv  
Mr. Doug Deaton, Mirro Company

©2002 Northern Environmental Technologies, Inc.

S:\proj\MIR\14080919\LETTERS\maintenance plan.doc

WISCONSIN • Milwaukee • Green Bay • Waupun • Park Falls  
MINNESOTA • St. Paul • Brainerd • Rochester

CANADA • Calgary

**Annual Surface Barrier Inspection Report**  
**Plant #02, 2401 Mirro Drive**  
**Manitowoc, Wisconsin**

---

Date: \_\_\_\_\_ Weather \_\_\_\_\_

Inspected By: \_\_\_\_\_

---

Observations of paved areas: \_\_\_\_\_

---

---

---

---

---

---

Signature: \_\_\_\_\_



ENVIRONMENTAL & REGULATORY SERVICES  
BUREAU OF PECFA  
2129 Jackson Street  
Oshkosh, Wisconsin 54901-1805  
TDD #: (608) 264-8777  
Fax #: (920) 424-0217  
<http://www.commerce.state.wi.us>  
<http://www.wisconsin.gov>  
Scott McCallum, Governor  
Phillip Edw. Albert, Secretary

April 23, 2002

Mr. Douglas Deaton  
Mirro Company  
PO Box 1330  
Manitowoc, WI 54220

RE: Final Closure

Commerce # 54220-6744-01 WDNR BRRTS # 03-36-280532  
Mirro Company Plant #2, 2401 Mirro Drive, Manitowoc

Two 20,000-gallon fuel oil USTs

Dear Mr. Deaton:

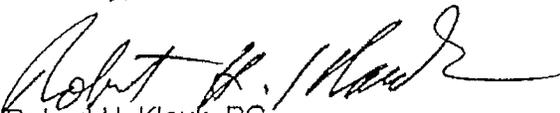
This letter acknowledges receipt of the information requested in the Wisconsin Department of Commerce's (Commerce) PECFA Site Review Section February 25, 2002 conditional closure letter. On April 23, 2002, Commerce received the monitoring well abandonment forms for the sump.

This site is now listed as "closed" on the Commerce database. It is in your best interest to keep all documentation related to the investigation and remediation of your site.

If future site conditions indicate that any remaining contamination poses a threat, and subsequent information indicates a need to reopen this case, any original claim under the PECFA fund would also reopen and you may apply for assistance to the extent of remaining eligibility. If contamination is encountered, appropriate measures must be implemented to assure any residual contamination is managed following all applicable State of Wisconsin regulations and standards.

Thank you for your efforts to protect Wisconsin's environment. If you have any questions, please contact me in writing at the letterhead address or by telephone at (920) 424-0046.

Sincerely,



Robert H. Klauk, PG  
Hydrogeologist  
Site Review Section

cc: Lynelle Caine – Northern Environmental  
Case File



January 27, 2003

Mr. Thomas Reed  
Mirro Corporation  
PO Box 1330  
Manitowoc, WI 54221-1330

RE: Final Closure

Commerce # 54220-6717-15 WDNR BRRTS # 03-36-170638  
Mirro Corporation Plant 5, 2015 Mirro Drive, Manitowoc

Dear Mr. Reed:

The Wisconsin Department of Commerce (Commerce) has received all items required for closure of the site referenced above. This site is now listed as "closed" on the Commerce database and will be included on the Wisconsin Department of Natural Resources (WDNR) Geographic Information System (GIS) Registry of Closed Remediation Sites to address residual soil contamination.

It is in your best interest to keep all documentation related to the environmental activities at your site. If residual contamination is encountered in the future, appropriate measures must be implemented to assure that it is managed following all applicable regulations. If future site conditions indicate that any remaining contamination poses a threat, and subsequent information indicates a need to reopen this case, any original claim under the PECFA fund would also reopen and you may apply for assistance to the extent of remaining eligibility.

Thank you for your efforts to protect Wisconsin's environment. If you have any questions, please contact me in writing at the letterhead address or by telephone at (920) 424-0046.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert H. Klauk'.

Robert H. Klauk, PG  
Hydrogeologist  
Site Review Section

cc: Marty Koopman – Northern Environmental  
Case File

926152



VOL 1762 PG 329

Document Number

DEED RESTRICTION

In re: All that part of the Southeast one quarter (SE1/4) of Section nine (9), Township nineteen (19) North of Range twenty-four (24) east, lying north of the Chicago and Northwestern Railway Company right of way, containing approximately one hundred and four (104) acres.

RCPT\* 556. STN  
\$33.00 MISC

STATE OF WISCONSIN  
MANITOWOC COUNTY  
PRESTON JONES  
REGISTER OF DEEDS  
RECEIVED FOR RECORD

15 JAN 2003 1:45:13 PM

**Recording Area**

**Name and Return Address**

Charles Hauck  
Newell Operating Company (Mirro)  
2015 Mirro Drive  
Manitowoc, Wisconsin 54221

**Declaration of Restrictions**

STATE OF WISCONSIN            )  
  ) ss  
COUNTY OF MANITOWOC        )

**Parcel Identification Number (PIN)**

WHEREAS, Newell Operating Company (formerly known as the Aluminum Goods Manufacturing Company, a New Jersey Corporation) is the owner of the above-described property.

WHEREAS, one or more discharges have occurred on this property. Contaminated soils exist on this property at or near the locations as shown in Exhibit A, Figure 1 Site Layout, Mirro Company

Specific types, concentrations, and locations of contaminated soil are listed below with corresponding attached drawings:

- Exhibit B: Figures 2 and 3: Diesel range organics (DRO), gasoline range organics, (GRO), petroleum volatile organic compounds (PVOC) at the northeast corner of Plant 01 [formerly known as Plant #7] (BRRTS #03-36-001476), in the location of the soil excavation and water supply line.
- Exhibit C, Figure 4: DRO and polychlorinated byphenols (PCBs) on the north side of Plant 02 (BRRTS #02-36-220607), approximately 40 feet northeast of overhead door #23
- Exhibit D, Figure 5: DRO on the North side of Plant 50 [formerly known as plant #5](Commerce #54220-6717-15), on the north side of the plant at the wall, 15 feet south of the concrete access manhole.



NOW THEREFORE, the owner hereby declares that specific portions of the property described above as specifically described below, are held and shall be held, conveyed or encumbered, leased, rented, used, occupied and improved subject to the following limitation and restrictions:

1. Northeast corner of Plant 01 [formerly known as Plant #7] (BRRTS #03-36-001476), in the location of the soil excavation and water supply line [Exhibit B: Figures 2 and 3]

One or more petroleum discharges have occurred at this location on the property. Structural impediments existing at the time of clean-up made complete remediation of the soil contamination impracticable. Petroleum contaminated soil may remain on this property at the following locations: near the northeast corner of Plant 01 and in the location of the soil excavation and water supply line as specifically identified in Exhibit B (Figures 2 and 3). Pursuant to the requirements of s. 292.11, Stats, if the structural impediments that currently exist on this property are removed, the property owner shall conduct an investigation of the degree and extent of petroleum contamination. To the extent that contamination is found at that time, the Wisconsin Department of Natural Resources shall be immediately notified and the contamination shall be properly treated or disposed of in accordance with applicable laws.

2. North side of Plant 02 (BRRTS #02-36-220607) [Exhibit C, Figure 4]

The following activities are prohibited on that portion of the property shown in Exhibit C, Figure 4 where a soil cover has been placed (in the vicinity of soil sample S-2) unless prior written approval has been obtained from the Wisconsin Department of Natural Resources or its successor or assign: (1) Excavating or grading of the land surface; (2) Filling on the capped area; (3) Plowing for agricultural cultivation; and (4) Construction or installation of a building or other structure with a foundation that would sit on or be placed within the cap or cover. In addition, the soil cover shall be maintained in compliance with a Plan dated June 11, 2002, prepared and submitted to the Wisconsin Department of Natural Resources by Mirro Co, as required by section NR 724.13(2), Wis. Adm. Code (1999).

3. North side of Plant 50 [formerly known as plant #5](Commerce #54220-6717-15) [Exhibit D, Figure 5]

This affidavit is being recorded for the purpose of notifying prospective purchasers and other interested parties that soil contaminated with Diesel Range Organics from an underground storage tank remains on this property as shown on Exhibit D, Figure 5. If this contaminated soil is excavated in the future, it may be considered solid waste and will need to be disposed in accordance with applicable statutes and rules.

WHEREAS, it is the desire and intention of the property owner to impose on the property restrictions which will make it unnecessary to conduct further soil remediation activities on the property at the present time.

This restriction is hereby declared to be a covenant running with the land and shall be fully binding upon all persons acquiring the above-described property whether by descent, devise, purchase or otherwise. This restriction benefits and is enforceable by, the Wisconsin Department of Natural Resources, its successors and assigns. The Department, its successors or assigns, may initiate proceedings at law or in equity against any person or persons who violate or are proposing to violate this covenant, to prevent the proposed violation or to recover damages for such violation.



Any person who is or becomes owner of the property described above may request that the Wisconsin Department of Natural Resources or its successor issue a determination that the restrictions set forth in this covenant are no longer required. Upon receipt of such a request, the Wisconsin Department of Natural Resources shall determine whether or not the restrictions contained herein can be extinguished. If the Department determines that the restrictions can be extinguished, an affidavit, with a copy of the Department's written determination, may be recorded to give notice that this deed restriction, or portions of this deed restriction are no longer binding.

By signing this document, Douglas L. Martin acknowledges that he is duly authorized to sign this document on behalf of Newell Operating Company.

Signature: *[Handwritten Signature]*

Printed Name: Douglas L. Martin

Title: Vice President – Treasurer of Newell Operating Company

Subscribed and sworn to before me

this 20 day of December, 2002

*Linda L. Stichter*  
Notary Public, State of Illinois  
My commission expires March 26, 2005





**EXHIBIT A**  
**SITE LAYOUT**



60 Acre  
Parcel - Leased for  
farming

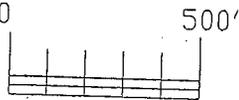
35  
30  
25  
20  
15  
10  
5  
0

Scale: one unit=100 feet

Site Location -  
BRRTs #02-36-220607

Mirro Company  
Plant 567  
Manitowoc, WI

104 Acres  
Main Site



Site Location -  
BRRTS #03-36-170638/  
Commerce #54220-6717-15

Site Location -  
BRRTS#03-36-001476

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC

K Roll Road Track

FIGURE 1: SITE LAYOUT, MIRRO COMPANY

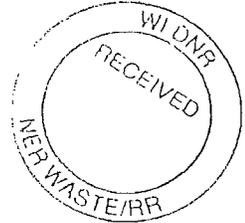


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**EXHIBIT C**  
**LOCATION OF REMAINING SOIL CONTAMINATION**  
**PLANT #02**



June 11, 2002  
(MIR03-1408-0919)



Ms. Annette Weissbach  
Wisconsin Department of Natural Resources  
Post Office Box 10448  
Green Bay, Wisconsin 54307-0448

Re: Performance Standard Cap, Mirro Company Plant #02, 2401 Memorial Drive, Manitowoc,  
Wisconsin; BRRTS #02-36-220607

Dear Ms. Weissbach:

On behalf of the Mirro Company, Northern Environmental Technologies, Incorporated (Northern Environmental) is providing information regarding the performance standard cap that was required as part of the conditional case closure letter for the Mirro Company Plant #02, 2401 Mirro Drive, Manitowoc, Wisconsin (the Site). As part of the conditional case closure of the Site, the WDNR is requiring that a surface barrier be maintained over the soil contamination near soil sample S2. Given the low permeability of the native soil at the Site, Northern Environmental is recommending that the top three feet of soil near soil sample S2 serve as a performance standard cap.

#### Maintenance Plan

The surface area near S1 will be inspected on a yearly basis by the Site owner to ensure that the cap is being maintained. The area will be examined for evidence of settling, potholes, erosion, and other damage. Damaged areas will be repaired within 30 days of discovery. A report describing the nature and extent of any damage to the barrier and subsequent repairs will be submitted to the Wisconsin Department of Natural Resources upon completion of these activities. Completed copies of written inspections will be maintained on-site. An example of the inspection form is enclosed.

We trust this information meets your needs. Please contact us at 920-592-8400 if you have any questions.

Sincerely,  
**Northern Environmental  
Technologies, Incorporated**

A handwritten signature in black ink, appearing to read "Lynelle P. Caine".

Lynelle P. Caine  
Project Manager

LPC/jmv  
Mr. Doug Deaton, Mirro Company

©2002 Northern Environmental Technologies, Inc.

S:\proj\MIR\14080919\LETTERS\maintenance plan.doc

WISCONSIN • Milwaukee • Green Bay • Waupun • Park Falls  
MINNESOTA • St. Paul • Brainerd • Rochester

CANADA • Calgary

**Annual Surface Barrier Inspection Report**  
**Plant #02, 2401 Mirro Drive**  
**Manitowoc, Wisconsin**

---

Date: \_\_\_\_\_ Weather \_\_\_\_\_

Inspected By: \_\_\_\_\_

---

Observations of paved areas: \_\_\_\_\_

---

---

---

---

---

---

Signature: \_\_\_\_\_



State of Wisconsin  
DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor  
George E. Meyer, Secretary  
William R. Selbig, District Director

Lake Michigan District Headquarters  
PO Box 10448, 1125 N. Military Ave.  
Green Bay, WI 54307-0448  
TELEPHONE 414-492-5800  
FAX 414-492-5913  
TDD 414-492-5812

January 13, 1999

Mr. Douglas Deaton  
Mirro Company  
1512 Washington St.  
P.O. Box 10448  
Manitowoc, WI. 54221-1330

SUBJECT: Close Out Request for Mirro Plant 2 - formerly Plant 6  
2401 Mirro Dr., Manitowoc, WI  
ERRP CASE #02-36-000497

Dear Mr. Deaton;

The Northeast Region Closeout Committee met January 4, 1999 to review case closure requests. The committee has determined that this case does meet the minimum closure requirements identified in Wisconsin Administrative Code Chapter NR 729. The site can be closed pending the filing of a groundwater use restriction and abandonment of the on site groundwater monitoring wells. The groundwater use restriction is required due to the persistence of ~~trichloroethylene~~ contamination at monitoring well MW6 in excess of the NR 140 groundwater enforcement standard.

MW16 deh 1-30-2012

tetrachloroethylene  
deh  
1-30-2012

Attached is an example of a model groundwater use restriction. Please complete and return a draft copy to this office. Upon Department approval, Mirro will file the restriction with the Manitowoc register of Deeds and send a recorded copy to this office. Pending the abandonment of the monitoring wells and recording the restriction the case will be closed.

If you have any questions regarding this determination, please contact me in Green Bay, at (414) 492-5864.

Sincerely,

James Reyburn  
Project Manager

Cc: Roger Miller - STS Consultants, 1035 Kepler Dr., Green Bay, WI. 54311

Quality Natural Resources Management  
Through Excellent Customer Service

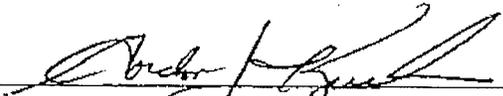


This restriction is hereby declared to be a covenant running with the land and shall be fully binding upon all persons acquiring the above-described property whether by descent, devise, purchase or otherwise. This restriction benefits and is enforceable by, the Wisconsin Department of Natural Resources, its successors and assigns. The Department, its successors or assigns, may initiate proceedings at law or in equity against any person or persons who violate or are proposing to violate this covenant, to prevent the proposed violation or to recover damages for such violation.

Any person who is or becomes owner of the property described above may request that the Wisconsin Department of Natural Resources or its successor issue a determination that the restrictions set forth in this covenant are no longer required. Upon receipt of such a request, the Wisconsin Department of Natural Resources shall determine whether or not the restrictions contained herein can be extinguished. If the Department determines that the restrictions can be extinguished, an affidavit, with a copy of the Department's written determination, may be recorded to give notice that this groundwater use restriction is no longer binding.

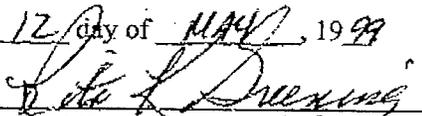
IN WITNESS WHEREOF, the owner of the property has executed this Declaration of Restrictions, this 12 day of MAY, 1999.

By signing this document, GORDON KIRSCH acknowledges that he is duly authorized to sign this document on behalf of MIRRO Company.

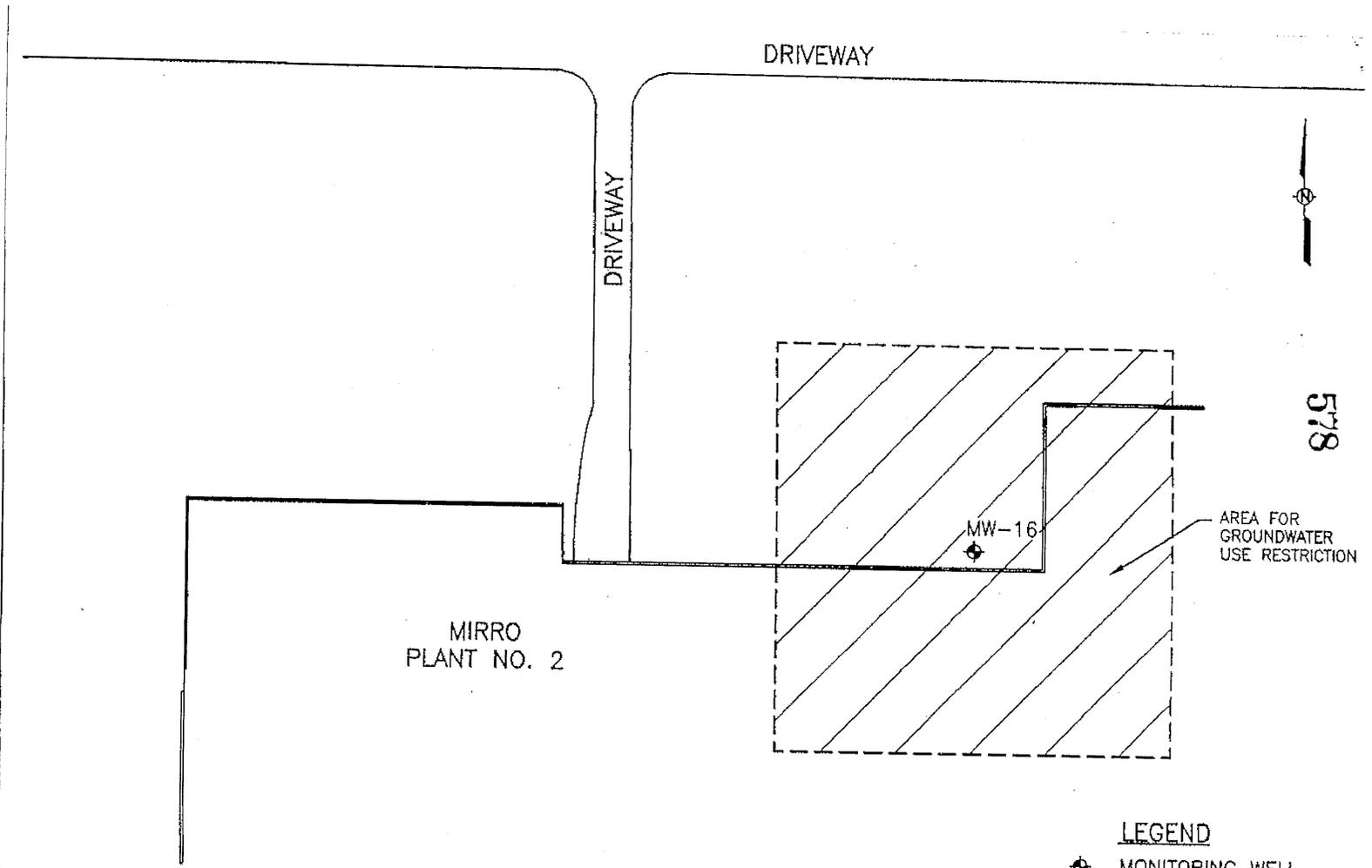
Signature: 

Printed Name: Gordon J. Kirsch

Subscribed and sworn to before me

this 12 day of MAY, 1999  
  
Notary Public, State of WISCONSIN  
My commission 6/16/02

This document was drafted by the Wisconsin Department of Natural Resources and modified by STS Consultants, Ltd.



**LEGEND**

◆ MONITORING WELL


  
 STS Consultants Ltd.  
 Consulting Engineers  
 STS PROJECT NO.  
 22859XF  
 STS PROJECT FILE  
 G459F001.dwg  
 SCALE  
 1" = 50'  
 FIGURE NO.  
 1

AREA FOR GROUNDWATER USE RESTRICTION  
 AROUND WELL MW-16  
 MIRRO COMPANY  
 PLANT NO. 2  
 MANITOWOC, WISCONSIN

DRAWN BY	PDP	DATE	5-5-99
CHECKED BY	RAM	DATE	5-5-99
APPROVED BY	<i>RAM</i>	DATE	5-5-99
CADFILE X:\PROJECTS\Dwg99\22859\XF\G459F001.dwg			

State Bar of Wisconsin Form 3-2003  
QUIT CLAIM DEED

DOC# 1081280

Document Name



VOL 2550 PG 286

THIS DEED, made between Michael S. Polsky as Receiver for Koenig & Vits, Inc.

("Grantor," whether one or more), and Skana Aluminum Company, a Wisconsin corporation

("Grantee," whether one or more).  
Grantor quit claims to Grantee the following described real estate, together with the rents, profits, fixtures and other appurtenant interests, in Manitowoc County, State of Wisconsin ("Property") (if more space is needed, please attach addendum):

STATE OF WI - MTWC CO  
PRESTON JONES REG/DEEDS  
RECEIVED FOR RECORD  
04/30/2010 3:00:16 PM

Recording Area 13+6075 dld  
Name and Return Address Titte Trends, Inc.  
Godfrey & Kahn S.C. TK-6265  
Attorney Charles Vogel  
700 N. Water Street  
Milwaukee, WI 53202-3590

052-809-401-010.00, 052-809-102-011.00,  
052-809-103-011.00, 009-109-013-002.00

Parcel Identification Number (PIN)

This is not homestead property.  
(is) (is not)

TRANSFER  
\$ 1075.00  
FEE

See legal description attached.

WS-7

Dated April 14, 2010.

Michael S. Polsky as Receiver for Koenig & Vits, Inc.

\_\_\_\_\_  
\* (SEAL) [Signature] (SEAL)  
\* Michael S. Polsky, Receiver  
\_\_\_\_\_  
\* (SEAL) \_\_\_\_\_ (SEAL)  
\* \_\_\_\_\_

AUTHENTICATION

Signature(s) \_\_\_\_\_

authenticated on \_\_\_\_\_

ACKNOWLEDGMENT

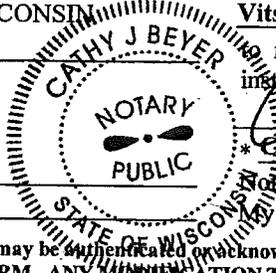
STATE OF Wisconsin )

) ss.  
Milwaukee COUNTY )

Personally came before me on April 14, 2010,  
the above-named Michael S. Polsky as Receiver for Koenig & Vits, Inc.

me known to be the person(s) who executed the foregoing instrument and acknowledged the same.

Cathy J. Beyer  
\* Cathy J. Beyer  
Notary Public, State of Wisconsin  
commission (is permanent) (expires: December 16, 2012)



TITLE: MEMBER STATE BAR OF WISCONSIN  
(If not, \_\_\_\_\_  
authorized by Wis. Stat. § 706.06)

THIS INSTRUMENT DRAFTED BY:  
Michael R. Stein, Esq.  
Beck, Chaet, Bamberger & Polsky, S.C.

(Signatures may be authenticated or acknowledged. Both are not necessary.)

NOTE: THIS IS A STANDARD FORM. ANY MODIFICATION TO THIS FORM SHOULD BE CLEARLY IDENTIFIED.

QUIT CLAIM DEED

©2003 STATE BAR OF WISCONSIN

FORM NO. 3-2003

\*Type name below signatures.

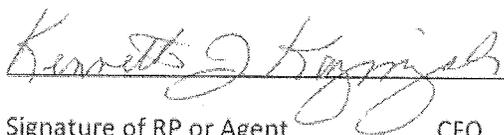
INFO-PRO™ Legal Forms • (800)655-2021 • infoproforms.com



SIGNED STATEMENT / CERTIFICATION

*The purpose of this certification is to verify that the provided legal description for each of the contaminated properties has been submitted. The signatory is not required to attest to the accuracy of the attached legal description.*

I, Kenneth J. Kazmierczak, Agent of or Responsible Party (RP) for the site investigation and remediation at the Skana Aluminum Company property located at 2009 Mirro Drive, Manitowoc, Wisconsin (WDNR BRRTS: #02-36-544601, #02-36-550138, and #02-36-555268), do hereby certify that to the best of my knowledge the legal description has been attached for each property that is within, or partially within, the contaminant site boundary.





Signature of RP or Agent CFO



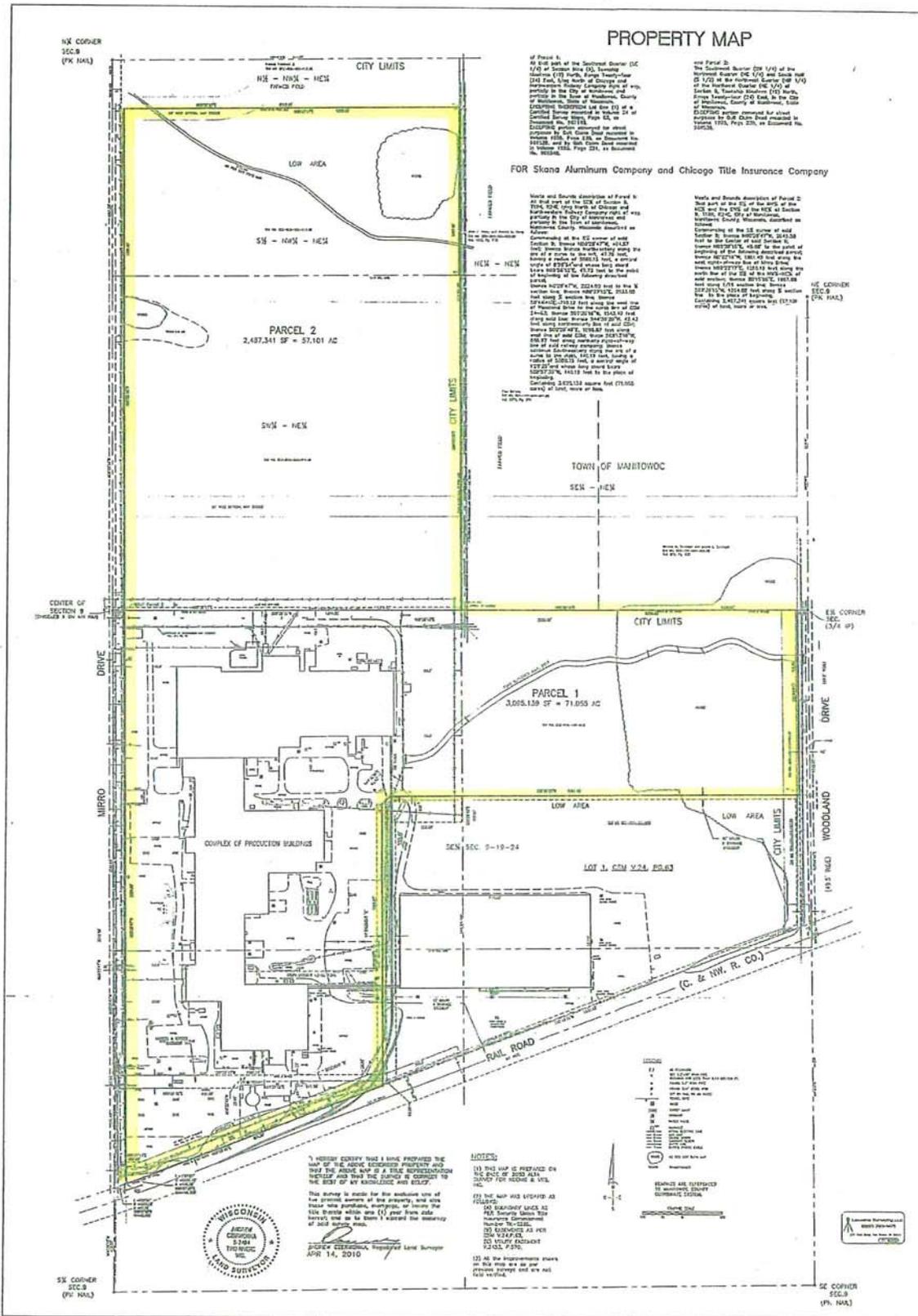
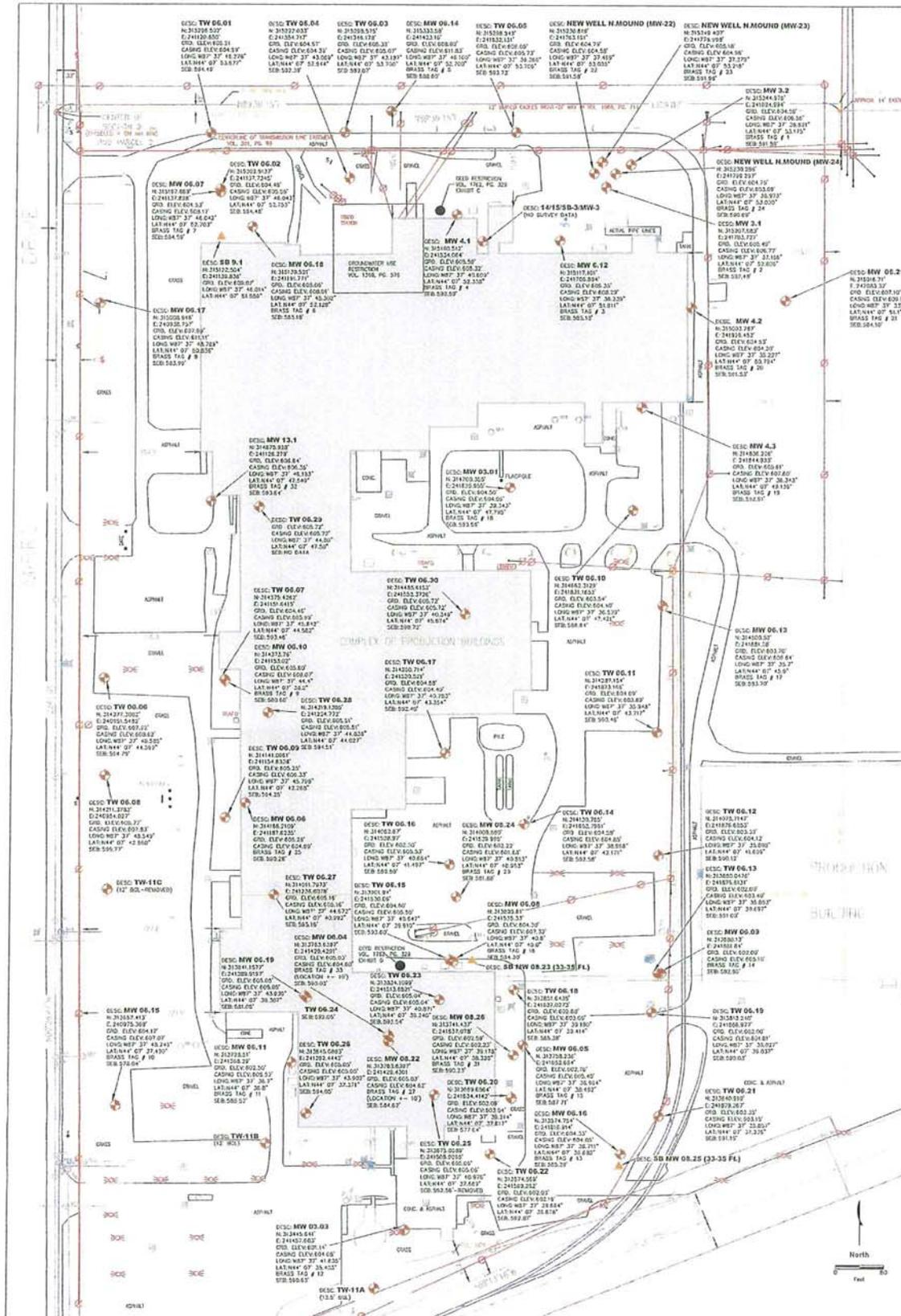


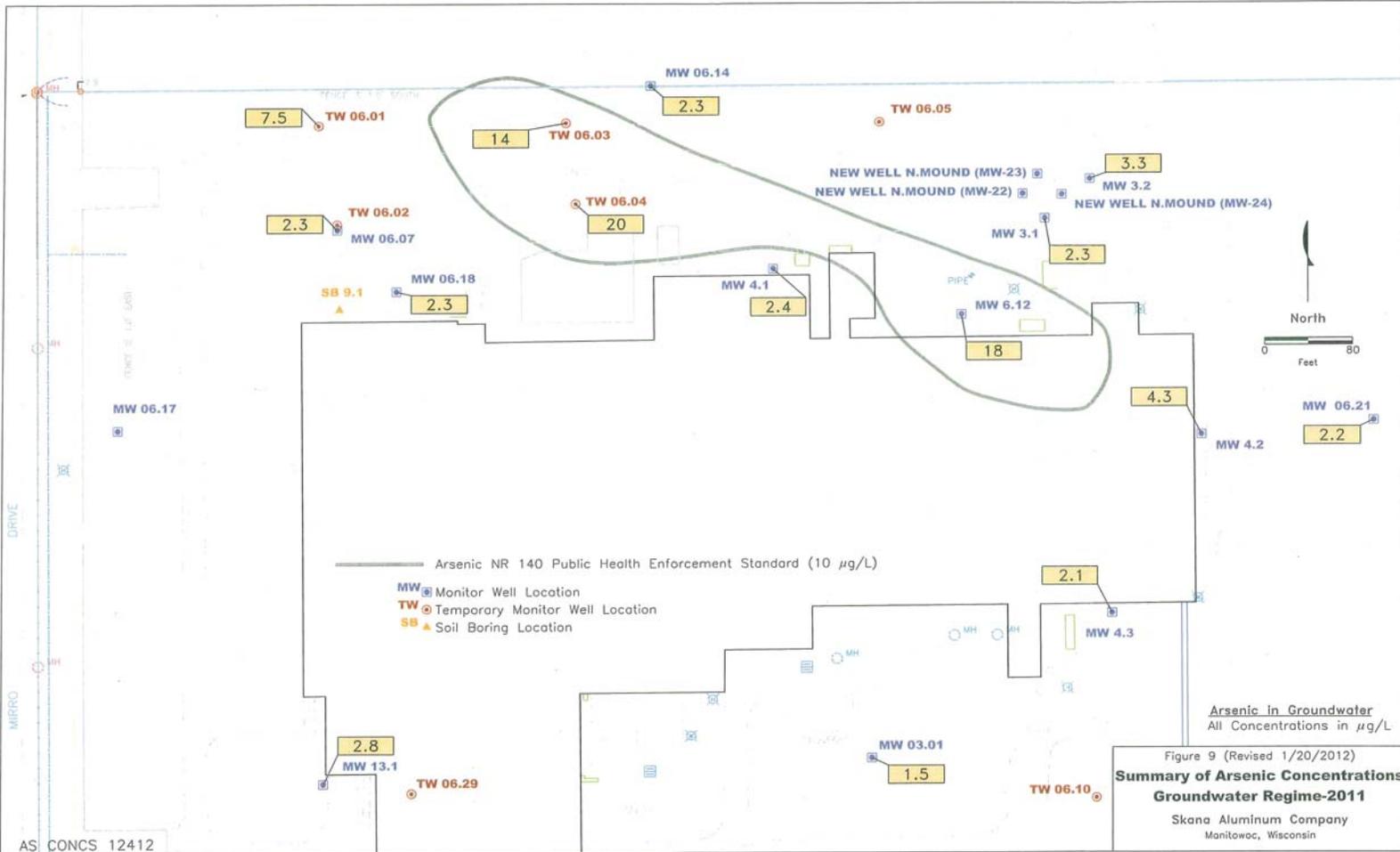
Figure 2 – Property Map of Skana

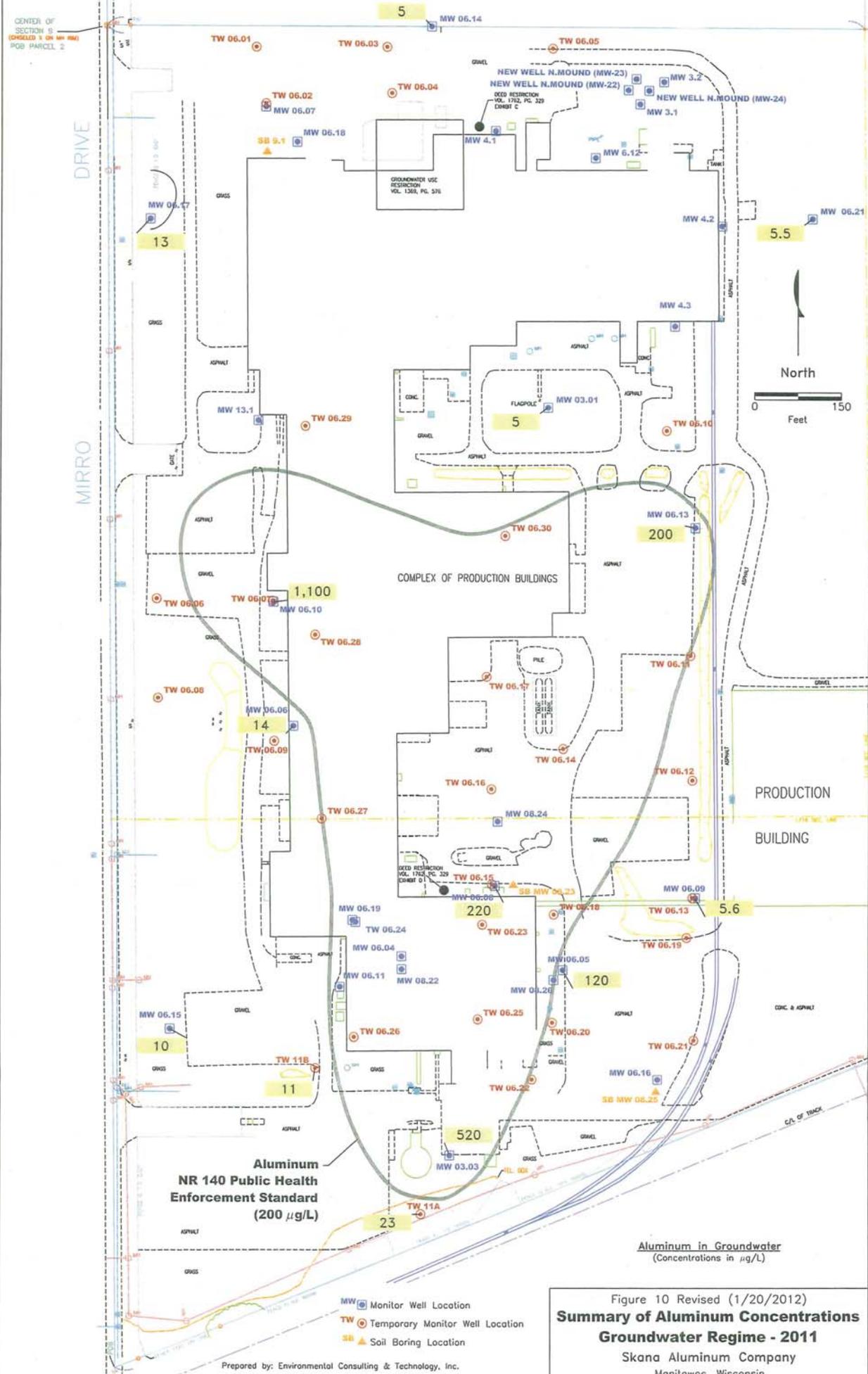


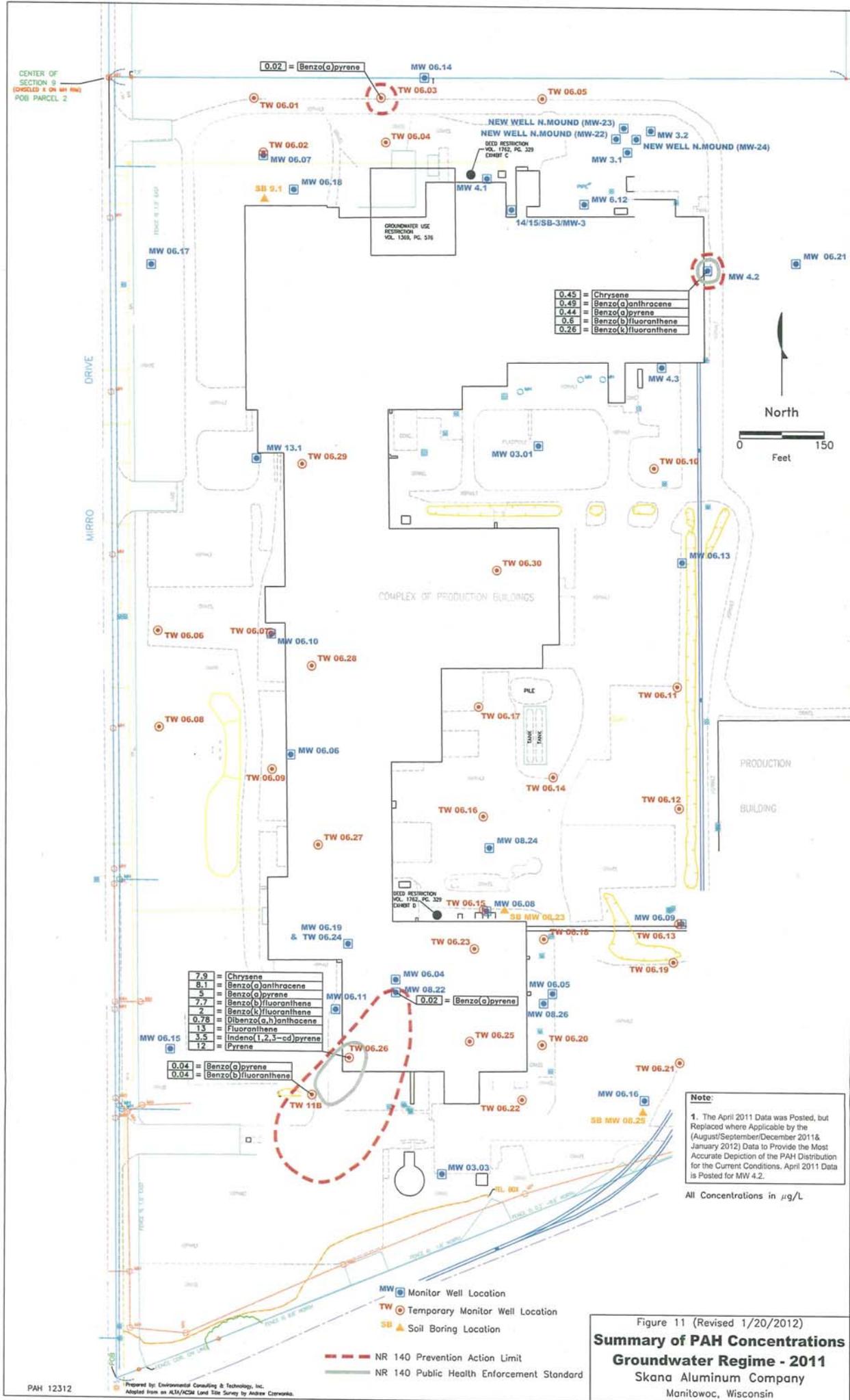
**Well Locations, Screen Depths & Soil Sample Locations (SB MW 08.23 & SB MW 08.25)**  
 Skana Aluminum Company  
 Manitowoc, Wisconsin  
 (Nov 2011)

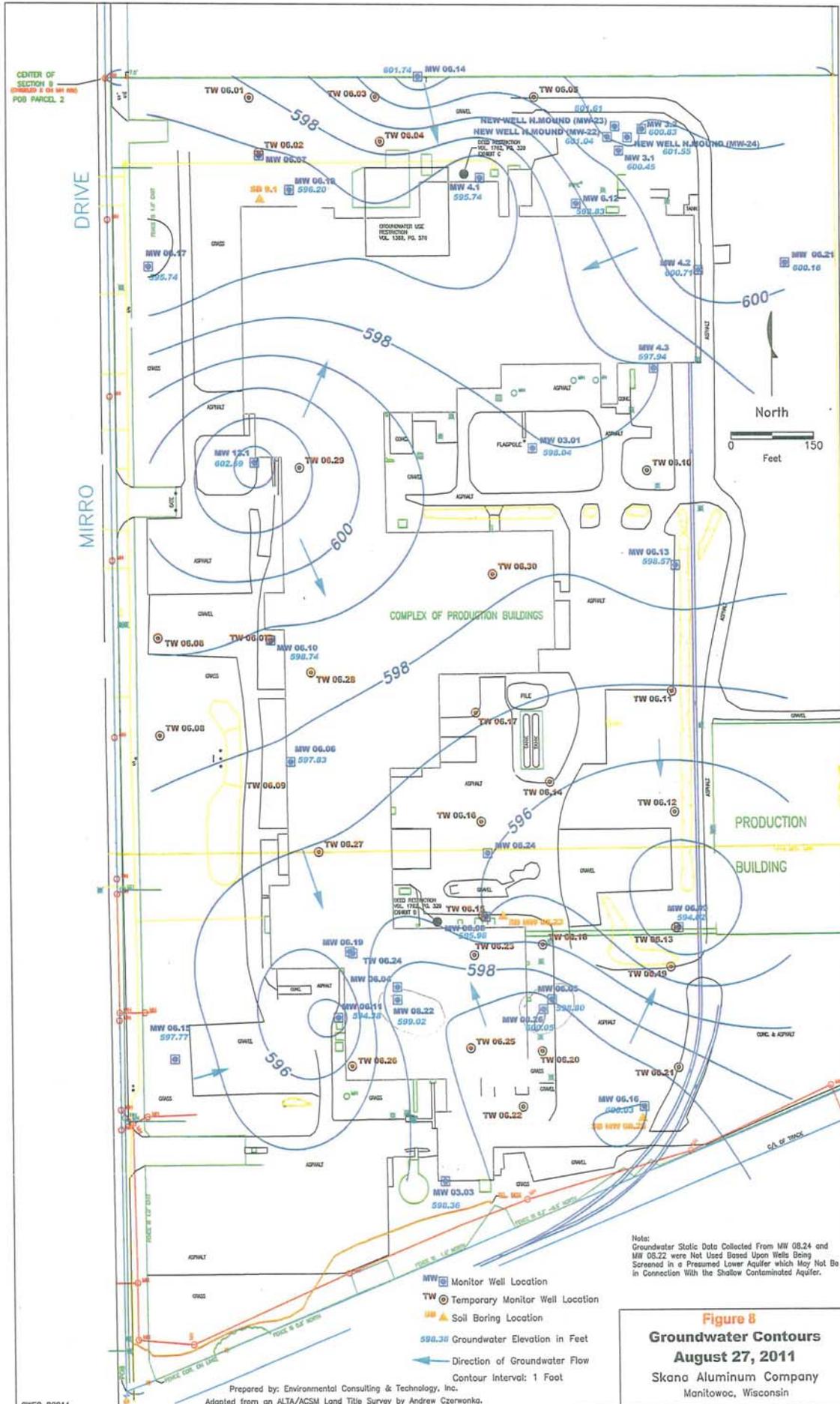
MONITORING WELL DATA ACCORD TO: STERNBERGER & MENAULT, INC., DECEMBER 3, 2010.  
 NOTE: THE LATITUDE AND LONGITUDE SHOWN IS BASED ON A COORDINATION FROM THE MANITOWOC COUNTY COORDINATE. THE ELEVATION DATUM IS USGS (NAVD83).  
 SOL BORING LOCATION (SB MW 08.23, SB MW 08.25) (SAMPLE DEPTH IN FEET)  
 SB - WELL SCREEN BOTTOM ELEVATION  
 Prepared by: Environmental Consulting & Technology, Inc.  
 Adapted from an ALTA/ACSM Land Title Survey by Andrew Czerwanka.











**Figure 8**  
**Groundwater Contours**  
**August 27, 2011**  
 Skano Aluminum Company  
 Manitowoc, Wisconsin

**Table 4**  
**Aluminum in Groundwater**

Parameter	Sample Analysis Date	Units	Lab	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	MW-06.13	MW-06.10	MW-3.03	MW-06.05	MW-06.08	MW-06.15
Aluminum (Filtered)	Apr-11	µg/L	BV	200	40	200	1,100	520	120	1,900	ND
Aluminum (Filtered)	Aug-11	µg/L	NLS	200	40	10	6.7	14	10	220	10
Aluminum (Unfiltered)	Aug-11	µg/L	NLS	200	40	38	530	<110	19	18,000	230

Sample ID	Sample Analysis Date	Units	Lab	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	MW-06.14	MW-06.17	MW-06.21	MW-03.01
Aluminum	Apr-11	µg/L	BV	200	40	ND	ND	ND	ND
Aluminum (Filtered)	Aug-11	µg/L	NLS	200	40	5	13	5.5	5
Aluminum (Unfiltered)	Aug-11	µg/L	NLS	200	40	68	4,000	72	93

Parameter	Sample Analysis Date	Units	Lab	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	MW-06.09	TW-11A	TW-11B	MW-06.06
Aluminum (Filtered)	Aug-11	µg/L	NLS	200	40	5.6	23	11	14
Aluminum (Unfiltered)	Aug-11	µg/L	NLS	200	40	13	35,000	3,100	62

**Table 5  
Arsenic in Groundwater**

Sample ID	Units	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11
				MW-4.1			TW-06.21			MW-06.10		
Arsenic (Filtered)	µg/L	10	1	ND	ND	2.4	ND	ND	No Data	ND	ND	2
Arsenic (Unfiltered)	µg/L	10	1	No Data			No Data			No Data		

Sample ID	Units	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11
				MW-06.15			MW-06.09			MW-06.05		
Arsenic (Filtered)	µg/L	10	1	ND	ND	1.8	ND	ND	3.4	ND	ND	4.1
Arsenic (Unfiltered)	µg/L	10	1	No Data			No Data			No Data		

Sample ID	Units	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11
				MW-03.01			TW-06.19			MW-4.2		
Arsenic (Filtered)	µg/L	10	1	ND	ND	1.5	ND	ND	No Data	ND	ND	4.3
Arsenic (Unfiltered)	µg/L	10	1	No Data			No Data			No Data		

Sample ID	Units	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11
				MW-06.21			MW-13.1			MW-06.06		
Arsenic (Filtered)	µg/L	10	1	ND	ND	2.2	ND	ND	2.8	ND	ND	1.6
Arsenic (Unfiltered)	µg/L	10	1	No Data			No Data			No Data		

Sample ID	Units	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11
				MW-08.26			TW-06.01			TW-06.03		
Arsenic (Filtered)	µg/L	10	1	ND	ND	No Data	ND	7.5	No Data	ND	14	No Data
Arsenic (Unfiltered)	µg/L	10	1	No Data			No Data			No Data		

Sample ID	Units	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11
				TW-06.04			TW-06.06			TW-06.10		
Arsenic (Filtered)	µg/L	10	1	ND	20	No Data	ND	10	No Data	ND	ND	No Data
Arsenic (Unfiltered)	µg/L	10	1	No Data			No Data			No Data		

Sample ID	Units	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11
				TW-06.11			TW-06.17			MW-03.03		
Arsenic (Filtered)	µg/L	10	1	ND	ND	No Data	ND	ND	No Data	No Data	ND	7.8
Arsenic (Unfiltered)	µg/L	10	1	No Data			No Data			No Data		

Sample ID	Units	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11
				MW-06.18			MW-3.1			TW-06.09		
Arsenic (Filtered)	µg/L	10	1	No Data	ND	2.3	No Data	ND	2.3	No Data	ND	No Data
Arsenic (Unfiltered)	µg/L	10	1	No Data			No Data			No Data		

Sample ID	Units	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11	
				TW-06.08			MW-4.3			MW-06.12			
Arsenic (Filtered)	µg/L	10	1	No Data	ND	No Data	No Data	ND	2.1	No Data	11	18	
Arsenic (Unfiltered)	µg/L	10	1	No Data			No Data			1.1	No Data		15

Sample ID	Units	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11
				MW-3.2			MW-06.07			MW-6.19		
Arsenic (Filtered)	µg/L	10	1	No Data	ND	3.3	No Data		2.3	No Data		5.9
Arsenic (Unfiltered)	µg/L	10	1	No Data					1.2			<0.74

Sample ID	Units	NR 140 Public Health Enforcement Standards	NR 140 Preventive Action Limits	Nov-10	Apr-11	Aug-11	Nov-10	Apr-11	Aug-11
				MW-06.04			MW-06.14/MW-14.1		
Arsenic (Filtered)	µg/L	10	1	No Data		2.4	No Data		2.3
Arsenic (Unfiltered)	µg/L	10	1			1.3			0.88



# ANALYTICAL RESULTS

Date: 16-Sep-11

Client: JBI  
 Work Order No: 11090255  
 Project: SKANA  
 Lab ID: 11090255-011A

Client Sample ID: TW-11B  
 Tag Number:  
 Collection Date: 9/1/2011 5:00:00 PM  
 Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed
						Analyst: PMC
<b>GC/MS PNAS; METHOD EPA 8270D</b>						
Acenaphthene	ND	5.0		µg/L	1	9/13/2011 1:15:00 PM
Acenaphthylene	ND	5.0		µg/L	1	9/13/2011 1:15:00 PM
Anthracene	ND	5.0		µg/L	1	9/13/2011 1:15:00 PM
Benzo(a)anthracene	ND	0.13		µg/L	1	9/13/2011 1:15:00 PM
Benzo(a)pyrene	0.040	0.020		µg/L	1	9/13/2011 1:15:00 PM
Benzo(b)fluoranthene	0.040	0.020		µg/L	1	9/13/2011 1:15:00 PM
Benzo(g,h,i)perylene	ND	5.0		µg/L	1	9/13/2011 1:15:00 PM
Benzo(k)fluoranthene	ND	0.17		µg/L	1	9/13/2011 1:15:00 PM
Chrysene	ND	0.020		µg/L	1	9/13/2011 1:15:00 PM
Dibenzo(a,h)anthracene	ND	0.30		µg/L	1	9/13/2011 1:15:00 PM
Fluoranthene	ND	5.0		µg/L	1	9/13/2011 1:15:00 PM
Fluorene	ND	5.0		µg/L	1	9/13/2011 1:15:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.43		µg/L	1	9/13/2011 1:15:00 PM
2-Methylnaphthalene	ND	5.0		µg/L	1	9/13/2011 1:15:00 PM
Naphthalene	ND	5.0		µg/L	1	9/13/2011 1:15:00 PM
Phenanthrene	ND	5.0		µg/L	1	9/13/2011 1:15:00 PM
Pyrene	ND	5.0		µg/L	1	9/13/2011 1:15:00 PM

**Qualifiers:**

- ND - Not Detected at the Reporting Limit (RL)
- J - Analyte detected below the Reporting Limit
- B - Analyte detected in the associated Method Blank
- \* - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- T - Tentatively Identified Compound (TIC)



# ANALYTICAL RESULTS

Date: 16-Sep-11

Client: JBI

Client Sample ID: TW-06.26

Work Order No: 11090255

Tag Number:

Project: SKANA

Collection Date: 9/2/2011 12:30:00 PM

Lab ID: 11090255-012A

Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed
GC/MS PNAS; METHOD EPA 8270D						Analyst: PMC
Acenaphthene	ND	5.0		µg/L	1	9/13/2011 1:40:00 PM
Acenaphthylene	ND	5.0		µg/L	1	9/13/2011 1:40:00 PM
Anthracene	ND	5.0		µg/L	1	9/13/2011 1:40:00 PM
Benzo(a)anthracene	8.1	0.13		µg/L	1	9/13/2011 1:40:00 PM
Benzo(a)pyrene	5.0	0.020		µg/L	1	9/13/2011 1:40:00 PM
Benzo(b)fluoranthene	7.7	0.020		µg/L	1	9/13/2011 1:40:00 PM
Benzo(g,h,i)perylene	ND	5.0		µg/L	1	9/13/2011 1:40:00 PM
Benzo(k)fluoranthene	2.0	0.17		µg/L	1	9/13/2011 1:40:00 PM
Chrysene	7.9	0.020		µg/L	1	9/13/2011 1:40:00 PM
Dibenzo(a,h)anthracene	0.78	0.30		µg/L	1	9/13/2011 1:40:00 PM
Fluoranthene	13	5.0		µg/L	1	9/13/2011 1:40:00 PM
Fluorene	ND	5.0		µg/L	1	9/13/2011 1:40:00 PM
Indeno(1,2,3-cd)pyrene	3.5	0.43		µg/L	1	9/13/2011 1:40:00 PM
2-Methylnaphthalene	ND	5.0		µg/L	1	9/13/2011 1:40:00 PM
Naphthalene	ND	5.0		µg/L	1	9/13/2011 1:40:00 PM
Phenanthrene	ND	5.0		µg/L	1	9/13/2011 1:40:00 PM
Pyrene	12	5.0		µg/L	1	9/13/2011 1:40:00 PM

<b>Qualifiers:</b>	ND - Not Detected at the Reporting Limit (RL).	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below the Reporting Limit	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	T - Tentatively Identified Compound (TIC)

SKANA Aluminum Company, 2009 Mirro Drive, Manitowoc, Wisconsin  
 BRRTS # 02-36-544601 BRRTS # 02-36-550138 BRRTS # 02-36-555268

Well ID	Northing	Easting	Top of Casing Elevation	Ground Elevation	Longitude	Latitude	Static Water Level (TOC)	Groundwater Elevation	ALTA/ACSM Land Title Survey by Andrew Czerwonka
TW-06.01	315296.502'	241120.850'	604.99	605.21	W87° 37' 46.276"	N44° 07' 53.677"	2.91	602.08	Static Water Level Date: 12/13/2011

Installation (Year):	2006
Installed by:	Envirotech Contracting - NLS

Only Detected Concentrations Exceeding NR 140 Preventive Action Limits (PAL) are Reported  
 \*Analyzed - RL\* Indicates No Parameters Above Reported LOD/Reporting Limit  
 NR 140 Enforcement Standard (ES)

Summary of Analytical Data

Sample Analysis Date	Lab	Metals			PCB's			VOC's			DRO, SVOC's, PAH's, & Phthalates		
		Metal	μL	ES	Aroclor	μL	ES	Compound	μL	ES	Compound	μL	ES
November 2010	BV	Arsenic	<5	10	Not Analyzed			Ethylbenzene	3.1	700	Chrysene	0.54	0.2
							Isopropylbenzene	1.3					
							Xylene	22	2000				
4/5/2011	BV	Arsenic	7.5	10	Not Analyzed			Analyzed - RL			Chrysene	0.59	0.2
											Benzo[a]pyrene	0.21	0.2
											Benzo[a]anthracene	0.17	
											Benzo[a]fluoranthene	0.33	0.2
12/13/2011	BV	Not Analyzed			Not Analyzed			Not Analyzed			Analyzed for PAH's - RL		
1/17-20/2012	BV	Not Analyzed			Not Analyzed			Not Analyzed			Bis[2-ethylhexyl]phthalate	340	6
											Analyzed for Phthalates- RL		

Narrative: Narrative:

This well 1" well was first installed during 2006 Initial ESA for Koenig & Vits. No historical data was found. A new well was installed during 2010, based upon the condition of the temporary well. The sampling done in October 2010 and April 2011 (Rounds 1 & 2) However, the DL's established by Bureau Veritas' QA/QC system were above the PAL for the Arsenic. Sample were collected in December 2011 at the request of the WI DNR. The Bis[2-ethylhexyl]phthalate reported 12/13/11, was determined to be as a result of external contamination introduced into the sample at the time of sample collection/sample shipment/laboratory analysis.

**SKANA Aluminum Company, 2009 Mirro Drive, Manitowoc, Wisconsin**  
**BRRTS # 02-36-544601 BRRTS # 02-36-550138 BRRTS # 02-36-55268**

Well ID	Northing	Easting	Top of Casing Elevation	Ground Elevation	Longitude	Latitude	Static Water Level (TOC)	Groundwater Elevation	ALTA/ACSM Land Title Survey by Andrew Czerwonka
<b>TW-06.03</b>	315298.575'	241346.178'	605.07	605.32	W87° 37' 43.187"	N44° 07' 53.700"	2.07	603	Static Water Level Date: 12/13/2011

Installation (Year):	2006
Installed by:	Envirotech Contracting - NLS

Only Detected Concentrations Exceeding NR 140 Preventive Action Limits (PAL) are Reported  
 "Analyzed - RL" Indicates No Parameters Above Reported LOD/Reporting Limit  
 NR 140 Enforcement Standard (ES)

**Summary of Analytical Data**

Sample Analysis Date	Lab	Metals				PCB's				VOC's				DRO, SVOC's, PAH's, & Phthalates			
		Metal	µ/L	PAL	ES	Aroclor	µ/L	PAL	ES	Compound	µ/L	PAL	ES	Compound	µ/L	PAL	ES
November 2010	BV	Arsenic	<5	1	10	1242	1.1	0.003	0.03	Analyzed - RL				Chrysene	0.4	0.02	0.2
4/5/2011	BV	Arsenic	14	1	10	Analyzed - RL				Analyzed - RL				Chrysene	0.23	0.02	0.2
12/13/2011	BV	Not Analyzed				Not Analyzed				Not Analyzed				Analyzed for Phthalates - RL			
														Benzo(a)pyrene	0.05	0.02	0.2
														Benzo(a)fluoranthene	0.08	0.02	0.2
														Benzo(a)pyrene	0.02	0.02	0.2

**Narrative:**  
 This well 1" well was first installed during 2006 Initial ESA for Koenig & Vits. No historical data was found. A new well was installed during 2010, based upon the condition of the temporary well. The sampling done in October 2010 and April 2011 (Rounds 1 & 2) However, the DL's established by Bureau Veritas' QA/QC system were above the PAL for the Arsenic. Sample were collected in December 2011 at the request of the WI DNR.

**SKANA Aluminum Company, 2009 Mirro Drive, Manitowoc, Wisconsin**  
**BRRTS # 02-36-544601 BRRTS # 02-36-550138 BRRTS # 02-36-555268**

Well ID	Northing	Easting	Top of Casing Elevation	Ground Elevation	Longitude	Latitude	Static Water Level (TOC)	Groundwater Elevation	ALTA/ACSM Land Title Survey by Andrew Czerwonka
MW - 4.2	315003.787'	241926.452'	604.2	604.53	W87° 37' 35.227"	N44° 07' 50.794"	3.49	600.71	Static Water Level Date: August 27, 2011 (1030-1230)

Installation (Year):	2010
Installed by:	AECOM

Only Detected Concentrations Exceeding NR 140 Preventive Action Limits (PAL) are Reported  
 Analyzed - RL Indicates No Parameters Above Reported LOD/Reporting Limit  
 NR 140 Enforcement Standard (ES)

**Summary of Analytical Data**

Sample Analysis Date	Lab	Metals			PCB's			VOC's			DRO, SVOC's, PAH's, & Phthalates					
		Metal	μL	ES	Aroclor	μL	ES	Compound	μL	ES	Compound	μL	ES			
1/7/2010	Pace	Not Analyzed			Analyzed - No Reportable Values Above PAL - (Summary Data Only Available for Review)			Analyzed - No Reportable Values Above PAL - (Summary Data Only Available for Review)			Not Analyzed					
10/24/2010	BV	Arsenic	<5	1	10	Analyzed - RL			cis-1,2-Dichloroethene	3.8	7	70	Analyzed for PAH's - RL			
		Selenium	<5	10	50				TCE	0.53	0.5	5				
		Lead	<3	1.5	15											
4/5/2011	BV	Arsenic	<5	1	10	Analyzed - NR			Trichloroethene	0.87	0.5	5	Benzo(a)pyrene	0.44	0.02	0.2
		Selenium	<5	10	50				cis-1,2-Dichloroethene	3.2	7	70	Benzo(b)fluoranthene	0.6	0.02	0.2
		Lead	<1	1.5	15								Benzo(a)anthracene	0.49		
													Benzo(k)fluoranthene	0.26		
September 2011	NLS	Arsenic	4.3	1	10	Not Analyzed			Not Analyzed			Chrysene	0.45	0.02	0.2	
12/13/2011	BV	Not Analyzed			Not Analyzed			Not Analyzed			Not Analyzed					
									Trichloroethene	1.8	0.5	5	Analyzed for PAH's - RL			
									cis-1,2-Dichloroethene	4.6	7	70	Analyzed for Phthalates - RL			

**Narrative:**  
 This well was installed during the Phase 2 ESA performed by AECOM for Skana. The sampling done in October 2010 and April 2011 (Rounds 1 & 2) showed non-detectable concentrations for arsenic and lead; however, the DL's established by Bureau Veritas' QA/QC system were above the PAL's. BV reviewed the QC data in July and was able to adjust the DL for lead, but the DL for arsenic could not be adjusted. This well was sampled in September 2011 for arsenic (Filtered Data Posted 9/2011) to achieve legitimate detection levels at or below the state PAL.

**SKANA Aluminum Company, 2009 Mirro Drive, Manitowoc, Wisconsin**  
**BRRTS # 02-36-544601 BRRTS # 02-36-550138 BRRTS # 02-36-555268**

Well ID	Northing	Easting	Top of Casing Elevation	Ground Elevation	Longitude	Latitude	Static Water Level (TOC)	Groundwater Elevation	ALTA/ACSM Land Title Survey by Andrew Czerwonka
MW - 03.03	313445.641'	241457.603'	604.08	601.14	W87° 37' 41.635"	N44° 07' 35.403"	5.72	598.36	Static Water Level Date: August 27, 2011 (1030-1230)

Installation (Year):	2003
Installed by:	JBI/Quantum Env.

Only Detected Concentrations Exceeding NR 140 Preventive Action Limits (PAL) are Reported

"Analyzed - RL" Indicates No Parameters Above Reported LOD/Reporting Limit

NR 140 Enforcement Standard (ES)

**Summary of Analytical Data**

Sample Analysis Date	Lab	Metals				PCB's				VOC's				DRO, SVOC's, PAH's, & Phthalates			
		Metal	μL	PAL μL	ES μL	Aroclor	μL	PAL μL	ES μL	Compound	μL	PAL μL	ES μL	Compound	μL	PAL μL	ES μL
9/25/2003	Quantum	Not Analyzed				Not Analyzed				Benzene	0.76	0.5	5	Analyzed for PAH's Extended List			
										sec-Butylbenzene	0.54			Diethylphthalate	17		
										Ethylbenzene	0.46	140	700				
										p-Isopropyltoluene	0.89						
										Naphthalene	1.2	10	100				
										Xylene	0.56	400	2000				
										Toluene	0.66	160	800				
										1,2,4-TMB	2	96	480				
										MTBE	37	12	60				
6/5/2006		Not Analyzed				Not Analyzed				Not Analyzed				Not Analyzed			
9/29/2006		Analyzed - NR				Not Analyzed				Toluene	0.18	160	800	Not Analyzed			
		Arsenic	1.1	1	10												
		Barium	70	1.5	15												
10/24/2010	BV	Arsenic	<5	1	10	Not Analyzed				Analyzed - RL				Analyzed for Phthalates - RL			
		Lead	<3	1.5	15												
4/5/2011	BV	Aluminum	520	20	200	Not Analyzed				Analyzed - RL				Analyzed for Phthalates - RL			
		Arsenic	<5	1	10												
		Lead	<3	1.5	15												
September 2011	NLS	Aluminum	14	20	200	Not Analyzed				Not Analyzed				Not Analyzed			
		Arsenic	7.8	1	10												
		Lead	<1	1.5	15												
12/13/2011	BV	Not Analyzed				Not Analyzed				Not Analyzed				Analyzed for PAH's - RL Analyzed for Phthalates - RL			

**Narrative:**

This well was installed during 2003 Initial ESA for Koenig & Vits (MW-3). Renamed MW-03.03. The sampling done in October 2010 and April 2011 (Rounds 1 & 2) showed non-detectable concentrations for lead and arsenic; aluminum was non-detectable in April. However, the DL's established by Bureau Veritas' QA/QC system were above the PAL for the three metals. BV reviewed the QC data in July but was unable to adjust the DL for lead or arsenic. This well was sampled in August for aluminum, lead and arsenic (Filtered Levels Posted 9/2011); methods used achieved legitimate detection levels at or below the state PALs.

SKANA Aluminum Company, 2009 Mirro Drive, Manitowoc, Wisconsin  
 BRRS # 02-36-544601 BRRS # 02-36-550138 BRRS # 02-36-555268

Well ID	Northing	Easting	Top of Casing Elevation	Ground Elevation	Longitude	Latitude	Static Water Level (TOC)	Groundwater Elevation	ALTA/ACSM Land Title Survey by Andrew Czerwonka
MW - 06.07	315197.869'	241137.828'	608.17	604.53	W87° 37' 46.042"	N44° 07' 52.703"	11.29	596.88	Static Water Level Date: August 27, 2011 (1030-1230)

Installation (Year):	2006
Installed by:	Envirotech Contracting - NLS

Only Detected Concentrations Exceeding NR 140 Preventive Action Limits (PAL) are Reported  
 \*Analyzed - RL\* Indicates No Parameters Above Reported LOD/Reporting Limit  
 NR 140 Enforcement Standard (ES)

Summary of Analytical Data

Sample Analysis Date	Lab	Metals			PCB's			VOC's			DRD, SVOC's, PAH's, Phthalates		
		Metal	μL	PAL	Aroclor	μL	PAL	Compound	μL	PAL	Compound	μL	PAL
6/5/2006	NLS	Lead	2.2	1.5	Not Analyzed			Toluene	0.52	160	Not Analyzed		
		Arsenic	1.2	1	Not Analyzed						Analyzed for PAH's - RL		
		Barium	48	400	Not Analyzed						Benzo(a)pyrene	0.04	0.02
9/29/2006	NLS	Barium	130	400	Not Analyzed						Benzo(b)fluoranthene	0.04	0.02
September 2011	BV/NLS	Arsenic	2.3	1	Not Analyzed						Analyzed for PAH's - RL		
12/13/2011	BV	Not Analyzed			Not Analyzed						Bis(2-ethylhexyl)phthalate	6.6	0.6
Dup MW-06.07	BV	Not Analyzed			Not Analyzed						Analyzed for Phthalates - RL		
12/13/2011	BV	Not Analyzed			Not Analyzed						Analyzed for PAH's - RL		
MW-06.07	BV	Not Analyzed			Not Analyzed						Analyzed for PAH's - RL		
1/17-20/2012	BV	Not Analyzed			Not Analyzed						Analyzed for Phthalates - RL		

**Narrative:**

This well was installed during the Phase 2 ESA for Koenig & Vits. Wells TW-06.01 & TW-06.03 exceeded the PAL for several PAH's; because these are temporary wells, the area will be bracketed using MW-06.07 & MW-06.14. Prior sampling showed non-detectable concentrations arsenic, but the DL's established by Northern Lake Service's QA/QC system was above the PAL. This well was sampled in August for PAH and arsenic (Filtered Data Posted 9/2011); methods used achieved a legitimate detection level at or below the state PAL. The Bis(2-ethylhexyl)phthalate reported 12/13/11, was determined to be as a result of external contamination introduced into the sample at the time of sample collection/sample shipment/laboratory analysis.

**SKANA Aluminum Company, 2009 Mirro Drive, Manitowoc, Wisconsin**  
**BRRTS # 02-36-544601 BRRTS # 02-36-550138 BRRTS # 02-36-555268**

Well ID	Northing	Easting	Top of Casing Elevation	Ground Elevation	Longitude	Latitude	Static Water Level (TOC)	Groundwater Elevation	ALTA/ACSM Land Title Survey by Andrew Czerwonka
<b>MW - 06.08</b>	313899.61'	241535.33'	607.33	604.3	W87° 37' 40.8"	N44° 07' 40.0"	11.35	595.98	Static Water Level Date: August 27, 2011 (1030-1230)

Installation (Year):	2006
Installed by:	Envirotech Contracting - NLS

Only Detected Concentrations Exceeding NR 140 Preventive Action Limits (PAL) are Reported  
 \*Analyzed - RL\* Indicates No Parameters Above Reported LOD/Reporting Limit  
 NR 140 Enforcement Standard (ES)

**Summary of Analytical Data**

Sample Analysis Date	Lab	Metals			PCB's			VOC's			DRO, SVOC's & PAH's				
		Metal	μ/L	PAL	ES	Aroclor	μ/L	PAL	ES	Compound	μ/L	PAL	ES	Compound	μ/L
6/5/2006	NLS	Lead	3.7	1.5	15	Not Analyzed			Toluene	0.53	160	800	Not Analyzed		
		Barium	54	400	2000	Not Analyzed			cis-1,2-Dichloroethene	200	7	70	Not Analyzed		
9/29/2006	NLS	Analyzed - NR			Not Analyzed			Trans-1,2- DCE	10	20	100	Analyzed - NR			
		Not Analyzed			Not Analyzed			Vinyl chloride	3.3	0.02	0.2	Not Analyzed			
		Not Analyzed			Not Analyzed			TCE	120	0.5	5	Not Analyzed			
10/24/2010	BV	Not Analyzed			Not Analyzed			1,1-Dichloroethene	1.6	0.7	7	Not Analyzed			
		Not Analyzed			Not Analyzed			cis-1,2-Dichloroethene	340	7	70	Not Analyzed			
		Not Analyzed			Not Analyzed			TCE	170	0.5	5	Not Analyzed			
		Not Analyzed			Not Analyzed			1,1-DCE	1.6	0.7	7	Not Analyzed			
		Not Analyzed			Not Analyzed			Trans-1,2- DCE	18	20	100	Not Analyzed			
4/5/2011	BV	Aluminum	1,900	40	200	Not Analyzed			Vinyl chloride	6	0.02	0.2	Not Analyzed		
		Not Analyzed			Not Analyzed			cis-1,2-Dichloroethene	130	7	70	Not Analyzed			
September 2011	NLS	Aluminum	220	40	200	Not Analyzed			TCE	110	0.5	5	Not Analyzed		
		Not Analyzed			Not Analyzed			Not Analyzed			Not Analyzed				

**Narrative:**  
 This well was installed during the Phase 2 ESA for Koenig & Vits. Samples collected in September 2006, October 2010, and April show a consistent level of TCE and degradation products. No additional sampling for VOC's is planned. A high level of aluminum was detected in April 2011; the well will be included in the attempt during the final round of sampling to better define the extent of aluminum contamination throughout the site (Filtered Data Posted 9/2011).

**SKANA Aluminum Company, 2009 Mirro Drive, Manitowoc, Wisconsin**  
**BRRTS # 02-36-544601 BRRTS # 02-36-550138 BRRTS # 02-36-55526E**

Well ID	Northing	Easting	Top of Casing Elevation	Ground Elevation	Longitude	Latitude	Static Water Level (TOC)	Groundwater Elevation	ALTA/ACSM Land Title Survey by Andrew Czerwonka
MW - 06.12	315117.101'	241706.894'	608.29	605.35	W87° 37' 38.239"	N44° 07' 51.911"	9.46	598.83	Static Water Level Date: August 27, 2011 (1030-1230)

Installation (Year):	2006
Installed by:	Envirotech Contracting - NLS

Only Detected Concentrations Exceeding NR 140 Preventive Action Limits (PAL) are Reported  
 "Analyzed - RL" Indicates No Parameters Above Reported LOD/Reporting Limit  
 NR 140 Enforcement Standard (ES)

**Summary of Analytical Data**

Sample Analysis Date	Lab	Metals				PCB's			VOC's				DRO, SVOC's & PAH's							
		Metal	µ/L	PAL	ES	Aroclor	µ/L	PAL	ES	Compound	µ/L	PAL	ES	Compound	µ/L	PAL	ES			
6/5/2006	NLS	Barium	46	400	2000	Not Analyzed			Benzene	0.21	0.5	5	Not Analyzed							
		Lead	1.3	1.5	15				Chloromethane	0.22	10	100								
9/29/2006	NLS	Arsenic	7.1	1	10	Not Analyzed			Toluene	1	160	800	Analyzed for PAH's - RL							
		Barium	190	400	2000				Chloromethane	0.22	10	100								
10/24/2010	BV	Arsenic	11	1	10	Not Analyzed			1,2-DCA	0.78	0.5	5	Analyzed - RL							
4/5/2011	BV	Arsenic	11	1	10	Not Analyzed			Not Analyzed				Not Analyzed							
September 2011	NLS	Arsenic	18	1	10	Not Analyzed			1,1,1-Trichloroethane	1.2	40	200	Not Analyzed							
12/13/2011	BV	Not Analyzed				Not Analyzed			Not Analyzed				1,1,1-Trichloroethane	1.1	40	200	Not Analyzed			

**Narrative:**  
 This well was installed during the Phase 2 ESA for Koenig & Vits. Samples collected in 2010 and 2011 show arsenic concentrations above the Enforcement Standard. The well was tested for arsenic in August to track any change (Filtered Data Posted 9/2011).

SKANA Aluminum Company, 2009 Mirro Drive, Manitowoc, Wisconsin  
 BRRTS # 02-36-544601 BRRTS # 02-36-550138 BRRTS # 02-36-555268

Well ID	Northing	Easting	Top of Casing Elevation	Ground Elevation	Longitude	Latitude	Static Water Level (TOC)	Groundwater Elevation	ALTA/ACSM Land Title Survey by Andrew Czerwonka
MW - 06.14	315333.58'	241423.16'	611.83	608.8	W87° 37' 46.1"	N44° 07' 52.7"	10.09	601.74	Static Water Level Date: August 27, 2011 (1030-1230)

Installation (Year):	2006
Installed by:	Envirotech Contracting - NLS

Only Detected Concentrations Exceeding NR 140 Preventive Action Limits (PAL) are Reported  
 Analyzed - RL Indicates No Parameters Above Reported LOD/Reporting Limit  
 NR 140 Enforcement Standard (ES)

Summary of Analytical Data

Sample Analysis Date	Lab	Metals			PCB's			VOC's			DRO, SVOC's, PAH's, & Phthalates					
		Metal	μL	PAL	Aroclor	μL	PAL	Compound	μL	PAL	Compound	μL	PAL			
6/5/2006	NLS	Barium	36	400	Not Analyzed	Not Analyzed	Analyzed - RL	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed			
		Selenium	2.4	10										50		
		Cadmium	0.22	0.5										5		
9/29/2006	NLS	Barium	130	400	2000	Not Analyzed	Toluene	0.24	160	800	Analyzed for PAH's - RL					
10/24/2010	BV	Not Analyzed			Analyzed - RL			Analyzed - RL			Analyzed for PAH's - RL					
4/5/2011	BV	Aluminum	<100	40	200	Analyzed - RL			Analyzed - RL			Analyzed for PAH's - RL				
September 2011	NLS/BV	Aluminum	5	40	200	Not Analyzed			Not Analyzed			Benzo(a)pyrene	0.04	0.02	0.2	
	BV	Not Analyzed			Not Analyzed			Not Analyzed			Analyzed for Phthalates - RL			Benzo(b)fluoranthene	0.04	0.02
12/13/2011	BV	Not Analyzed			Not Analyzed			Not Analyzed			Analyzed for PAH - RL			Analyzed for PAH - RL		

**Narrative:**  
 This well was installed during the Phase 2 ESA for Koenig & Vits. Wells TW-06.01 & TW-06.03 exceeded the PAL for several PAH's; because these are temporary wells, the area will be bracketed using MW-06.07 & MW-06.14. Prior sampling showed non-detectable concentrations arsenic, and the DL's established by Northern Lake Service's QA/QC system was below the PAL. The well was included in the attempt during the final round of sampling to better define the extent of aluminum contamination throughout the site.

SKANA Aluminum Company, 2009 Mirro Drive, Manitowoc, Wisconsin  
 BRRTS # 02-36-544601 BRRTS # 02-36-550138 BRRTS # 02-36-555268

Well ID	Northing	Eastng	Top of Casing Elevation	Ground Elevation	Longitude	Latitude	Static Water Level (TOC)	Groundwater Elevation	ALTA/ACSM Land Title Survey by Andrew Czerwonka
MW - 06.15	313657.413'	240975.369'	607.07	604.17	W87° 37' 48.249"	N44° 07' 37.490"	9.3	597.77	Static Water Level Date: August 27, 2011 (1030-1230)

Installation (Year):	2006
Installed by:	Envirotech Contracting - NLS

Only Detected Concentrations Exceeding NR 140 Preventive Action Limits (PAL) are Reported  
 "Analyzed - RL" Indicates No Parameters Above Reported LOD/Reporting Limit  
 NR 140 Enforcement Standard (ES)

Summary of Analytical Data

Sample Analysis Date	Lab	Metals			PCB's				VOC's			DRO, SVOC's, PAH's, Phthalates						
		Metal	µL	PAL	ES	Aroclor	µL	PAL	ES	Compound	µL	PAL	ES	Compound	µL	PAL	ES	
6/5/2006	NLS	Arsenic	0.85	1	10	Not Analyzed				cis-1,2-Dichloroethene	690	7	70	Not Analyzed				
		Barium	56	400	2000					TCE	110	0.5	5					
		Aluminum	<5	1	10					Trans-1,2- DCE	20	20	100					
9/29/2006	NLS	Arsenic	1	1	10	Not Analyzed				1,3-DCB	0.2			Analyzed for PAH's - RL				
		Barium	99	400	2000					Toluene	0.21	160	800					
10/24/2010	BV	Aluminum	<5	1	10	Not Analyzed				Not Analyzed			Not Analyzed					
4/5/2011	BV	Aluminum	<100	40	200	Not Analyzed				Not Analyzed			Not Analyzed					
		Arsenic	<5	1	10													
September 2011	NLS	Aluminum	10	40	200	Not Analyzed				Not Analyzed			Not Analyzed					
12/13/2011	BV	Not Analyzed			Not Analyzed				Analyzed - RL			Analyzed for phthalates - RL						
12/13/2011	BV	Not Analyzed			Not Analyzed				Analyzed - RL			Benzo(a)pyrene	0.02	0.02	0.2	Analyzed for Phthalates - RL		
DUP MW-06.15	BV	Not Analyzed			Not Analyzed				Analyzed - RL			Analyzed for PAH - RL						

**Narrative:**

This well was installed during the Phase 2 ESA for Koenig & Vits. The sampling done in October 2010 and April 2011 (Rounds 1 & 2) showed non-detectable concentrations of arsenic; however, the DL established by Bureau Veritas' QA/QC system was above the PAL. BV reviewed the QC data in July but the DL for arsenic could not be adjusted. This well was sampled in August for aluminum and arsenic (Filtered Data Posted 9/2011) to achieve legitimate detection levels at or below the state PALs, and to better define the aluminum contamination across the site.



**SKANA Aluminum Company, 2009 Mirro Drive, Manitowoc, Wisconsin**  
**BRRTS # 02-36-544601 BRRTS # 02-36-550138 BRRTS # 02-36-555268**

Well ID	Northing	Easting	Top of Casing Elevation	Ground Elevation	Longitude	Latitude	Static Water Level (TOC)	Groundwater Elevation	ALTA/ACSM Land Title Survey by Andrew Czerwonka Static Water Level Date: August 27, 2011 (1030-1230)
<b>MW - 06.13</b>	314500.52'	241881.28'	606.64	603.7	W87° 37' 35.7"	N44° 07' 45.9"	8.07	598.57	

Installation (Year):	2006
Installed by:	Envirotech Contracting - NLS

Only Detected Concentrations Exceeding NR 140 Preventive Action Limits (PAL) are Reported  
 "Analyzed - RL" Indicates No Parameters Above Reported LOD/Reporting Limit  
 NR 140 Enforcement Standard (ES)

**Summary of Analytical Data**

Sample Analysis Date	Lab	Metals			PCB's			VOC's			DRO, SVOC's & PAH's				
		Metal	μL	PAL	ES	Aroclor	μL	PAL	ES	Compound	μL	PAL	ES	Compound	μL
6/5/2006	NLS	Barium	44	400	2000	Not Analyzed			Toluene	0.47	160	800	Not Analyzed		
									Chloromethane	0.22	10	100			
9/29/2006	NLS	Barium	130	400	2000	Not Analyzed			Not Analyzed			Not Analyzed			
4/5/2011	BV	Aluminum	200	40	200	Not Analyzed			Not Analyzed			Not Analyzed			
September 2011	NLS	Aluminum	10	40	200	Not Analyzed			Not Analyzed			Not Analyzed			

**Narrative:**  
 This well was installed during the Phase 2 ESA for Koenig & Vits. Prior sampling showed non-detectable concentrations for all metals; the DL's established by Northern Lake Service's QA/QC system were at or below the PAL. The well was included in the attempt during the final round of sampling to better define the extent of aluminum contamination throughout the site (Filtered Data Posted 9/2011).

SKANA Aluminum Company, 2009 Mirro Drive, Manitowoc, Wisconsin  
 BRRTS # 02-36-544601 BRRTS # 02-36-550138 BRRTS # 02-36-555268

Well ID	Northing	Easting	Top of Casing Elevation	Ground Elevation	Longitude	Latitude	Static Water Level (TOC)	Groundwater Elevation	ALTA/ACSM Land Title Survey by Andrew Czerwonka
MW - 06.21	315016.71'	242083.32'	609.95	607.1	W87° 37' 33"	N44° 07' 51.1"	9.79	600.16	Static Water Level Date: August 27, 2011 (1030-1230)

Installation (Year):	2006
Installed by:	Envirotech Contracting - NLS

Only Detected Concentrations Exceeding NR 140 Preventive Action Limits (PAL) are Reported  
 "Analyzed - RL" Indicates No Parameters Above Reported LOD/Reporting Limit  
 NR 140 Enforcement Standard (ES)

Summary of Analytical Data

Sample Analysis Date	Lab	Metals				PCB's				VOC's				DRO, SVOC's, PAH's, Phthalates			
		Metal	μL	PAL	ES	Aroclor	μL	PAL	ES	Compound	μL	PAL	ES	Compound	μL	PAL	ES
6/5/2006	NLS	Arsenic	2	1	10	Not Analyzed				Toluene	0.79	160	800	Not Analyzed			
		Barium	180	400	2000												
		Lead	2.7	1.5	15												
9/29/2006	NLS	Arsenic	1.3	1	10	Not Analyzed				Toluene	0.19	160	800	Not Analyzed			
		Barium	110	400	2000												
		Lead	1.4	1.5	15												
1/7/2010		Not Analyzed				Not Analyzed				Not Analyzed							
10/24/2010	BV	Arsenic	<5	1	10	Not Analyzed				Analyzed - RL				Not Analyzed			
4/5/2011	BV	Arsenic	<5	1	10	Not Analyzed				Analyzed - RL				Not Analyzed			
		Aluminum	<100	40	200												
September 2011	NLS	Arsenic	2.2	1	10	Not Analyzed				Not Analyzed				Not Analyzed			
		Aluminum	5.5	40	200												
12/13/2011	BV	Not Analyzed				Not Analyzed				Not Analyzed				Analyzed for PAH's - RL Analyzed for Phthalates - RL			

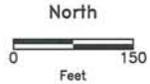
**Narrative:**  
 This well was installed during the Phase 2 ESA for Koenig & Vits. The sampling done in October 2010 and April 2011 (Rounds 1 & 2) showed non-detectable concentrations of arsenic; however, the DL established by Bureau Veritas' QA/QC system was above the PAL. BV reviewed the QC data in July but the DL for arsenic could not be adjusted. This well was sampled (Note: MW-06.21 Dup) in September 2011 for aluminum and arsenic (Filtered Data Posted 9/2011) to achieve legitimate detection levels at or below the state PALs, and to better define the aluminum contamination across the site.

SOURCE PROPERTY

IMPROPERLY ABANDONED MONITORING WELL



Temporary Well ID	Northing	Easting	Longitude	Latitude	Ground	TD	WI ID
TW-06.01	315296.2677	241138.829	W87° 37' 46.030"	N44° 07' 53.675"	605.34	594.84	KV101
TW-06.03	315298.1804	241347.7696	W87° 37' 43.165"	N44° 07' 53.696"	605.41	592.41	KV103
TW-06.04	315219.7155	241349.1262	W87° 37' 43.145"	N44° 07' 52.921"	604.37	592.87	KV104
TW-06.05	315299.3701	241686.2641	W87° 37' 39.209"	N44° 07' 53.711"	606.02	594.02	KV105
TW-06.17	314255.1401	241523.7224	W87° 37' 40.739"	N44° 07' 43.398"	604.49	592.49	KV117



● Damage/Lost Well Location

Figure 15 (1/20/2012)  
**Damaged/Lost Wells**  
**August 27, 2011**  
 Skana Aluminum Company  
 Manitowoc, Wisconsin

IMPROPERLY ABANDONED MONITORING WELL

SOURCE PROPERTY

State of Wisconsin Department of Natural Resources

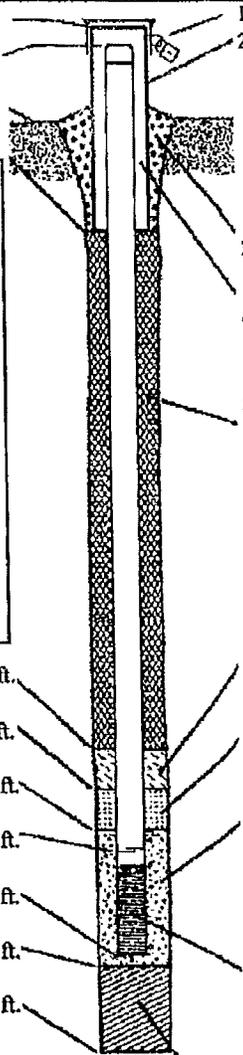
Route to: Watershed/Wastewater Remediation/Redevelopment Waste Management Other

MONITORING WELL CONSTRUCTION Form 4400-113A Rev. 7-98

Facility/Project Name: Skana Aluminum Co. Local Grid Location of Well: 315296.502 ft. N. 241120.850 ft. W. Well Name: TW 06.01

- A. Protective pipe, top elevation - 605.31 ft. MSL
B. Wall casing, top elevation - 604.99 ft. MSL
C. Land surface elevation - 605.21 ft. MSL
D. Surface seal, bottom - 1.5 ft. MSL

12. USCS classification of soil near screen: GP GM GC GW SW SP SM SC ML MH CL CH Bedrock
13. Sieve analysis performed? Yes No
14. Drilling method used: Rotary Hollow Stem Auger Other

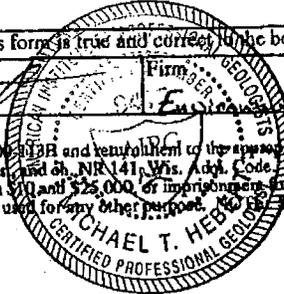


- 1. Cap and lock? Yes No
2. Protective cover pipe: Inside diameter, Length, Material, Additional protection?
3. Surface seal: Bentonite, Concrete, Other
4. Material between well casing and protective pipe: Bentonite, Other
5. Annular space seal: Granular/Chipped Bentonite, Lbs/gal mud weight, Bentonite-cement grout
6. Bentonite seal: Bentonite granules, Bentonite chips, Other
7. Fine sand material: Manufacturer, product name & mesh size, Volume added
8. Filter pack material: Manufacturer, product name & mesh size, Volume added
9. Well casing: Flush threaded PVC schedule 40, Flush threaded PVC schedule 80, Other
10. Screen material: PVC, Screen type, Manufacturer, Slot size, Slotted length
11. Backfill material (below filter pack): None, Other

- E. Bentonite seal, top
F. Fine sand, top
G. Filter pack, top
H. Screen joint, top
I. Well bottom
J. Filter pack, bottom
K. Borehole, bottom
L. Borehole, diameter
M. O.D. well casing
N. I.D. well casing

I hereby certify that the information on this form is true and correct to the best of my knowledge. Signature: Michael T. Heber

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stat. and ch. NR 141, Wis. Adm. Code.



Replaced - KV 101, See Attached

IMPROPERLY ABANDONED MONITORING WELL

SOURCE PROPERTY

State of Wisconsin Department of Natural Resources

Route 10: Watershed/Wastewater  Waste Management  Remediation/Redevelopment  Other

MONITORING WELL CONSTRUCTION Form 4400-113A Rev. 7-98

Facility/Project Name: Shaw Aluminum Co. Local Grid Location of Well: 315298.575 ft.  N.  S.  E.  W. Well Name: TW 06.03

Facility License, Permit or Monitoring No.: 241346781 Local Grid Origin (estimated) or Well Location: Lat. N 44° 07' 53.760" Long. W 87° 37' 46.693" Wis. Unique Well No.: RKV103 DNR Well ID No.: ---

Facility ID: --- St. Plane: --- ft. N. --- ft. E. S/C/N: --- Date Well Installed: 11/10/2010

Type of Well: --- Section Location of Waste/Source: NE 1/4 of NE 1/4 of Sec. 9, T. 19 N, R. 24 Well Installed By: Name (first, last) and Firm: Dan Boudart Probe Technologies

Well Code: 11 / MW Location of Well Relative to Waste/Source:  Upgradient  Sidegradient  Downgradient  Not Known Gov. Lot Number: ---

Distance from Waste/Source: --- ft. Apply  d.  Downgradient n.  Not Known

- A. Protective pipe, top elevation 605.42 ft. MSL
- B. Well casing, top elevation 605.07 ft. MSL
- C. Land surface elevation 605.32 ft. MSL
- D. Surface seal, bottom --- ft. MSL or 1.5 ft.

12. USCS classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

13. Sieve analysis performed?  Yes  No

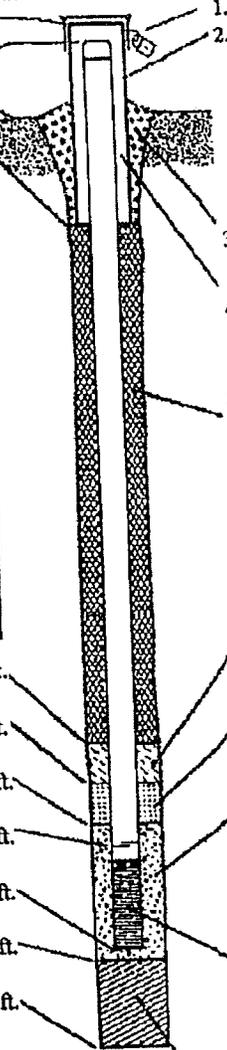
14. Drilling method used: Rotary  50  
 Hollow Stem Auger  41  
Loop Pile Other

15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No

Describe: ---

17. Source of water (attach analysis, if required): ---



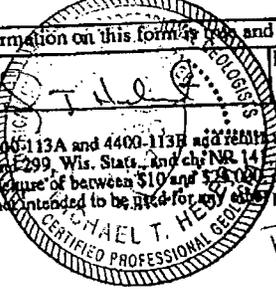
- 1. Cap and lock?  Yes  No
- 2. Protective cover pipe:
  - a. Inside diameter: 6 in.
  - b. Length: --- ft.
  - c. Material: Fluoromant Cover Steel  04 Other
  - d. Additional protection?  Yes  No If yes, describe: ---
- 3. Surface seal:
  - Bentonite  30
  - Concrete  01
  - Other
- 4. Material between well casing and protective pipe:
  - Bentonite  30
  - Other  Cement
- 5. Annular space seal:
  - a. Granular/Chipped Bentonite  33
  - b. --- Lbs/gal mud weight ... Bentonite-sand slurry  35
  - c. --- Lbs/gal mud weight ... Bentonite slurry  31
  - d. --- % Bentonite ... Bentonite-cement grout  50
  - e. --- Ft<sup>3</sup> volume added for any of the above
  - f. How installed: Tremie  01 Tremie pumped  02 Gravity  08
- 6. Bentonite seal:
  - a. Bentonite granules  33
  - b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  32
  - c. Other
- 7. Fine sand material: Manufacturer, product name & mesh size: ---
  - a. ---
  - b. Volume added --- ft<sup>3</sup>
- 8. Filter pack material: Manufacturer, product name & mesh size:
  - a. #10 Well Pack Sand
  - b. Volume added 0.15 ft<sup>3</sup>
- 9. Well casing:
  - Flush threaded PVC schedule 40  23
  - Flush threaded PVC schedule 80  24
  - Other
- 10. Screen material: PVC
  - a. Screen type: Factory cut  11 Continuous slot  01 Other
  - b. Manufacturer: Sausen
  - c. Slot size: 0.1 in.
  - d. Slotted length: 4.5 ft.
- 11. Backfill material (below filter pack):
  - None  14
  - Other

- E. Bentonite seal, top --- ft. MSL or --- ft.
- F. Fine sand, top --- ft. MSL or --- ft.
- G. Filter pack, top --- ft. MSL or --- ft.
- H. Screen joint, top --- ft. MSL or 8 ft.
- I. Well bottom --- ft. MSL or 13 ft.
- J. Filter pack, bottom --- ft. MSL or 14 ft.
- K. Borehole, bottom --- ft. MSL or 14 ft.
- L. Borehole, diameter 2 in.
- M. O.D. well casing 0.95 in.
- N. I.D. well casing 0.75 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: M. C. T. Healy Firm: Environmental Consulting & Technology, Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 14, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000 or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.



Replaced KV103. See Attached

IMPROPERLY ABANDONED  
MONITORING WELL

SOURCE  
PROPERTY

State of Wisconsin  
Department of Natural Resources

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

MONITORING WELL CONSTRUCTION  
Form 4400-113A Rev. 7-98

Facility/Project Name <u>Skawa Aluminum Co.</u>	Local Grid Location of Well <u>315282.033 N. 241354.717 E.</u>	Well Name <u>TW 06.04</u>
Facility License, Permit or Monitoring No.	Local Grid Origin (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. <u>44° 07' 52.941"</u> Long. <u>87° 37' 43.629"</u>	Wis. Unique Well No. <u>BKV104</u> DNR Well ID No. _____
Facility ID	St. Plane _____ ft. N. _____ ft. E. S/C/N	Date Well Installed <u>11/01/2010</u>
Type of Well Well Code <u>111 MW</u>	Section Location of Waste/Source <u>NE 1/4 of NE 1/4 of Sec. 9, T. 19, N. R. 24</u>	Well Installed By: Name (first, last) and Firm <u>Dan Bendorf Probe Technologies</u>
Distance from Waste/Source _____ ft.	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input checked="" type="checkbox"/> Not Known	

- A. Protective pipe, top elevation 604.7 ft. MSL
- B. Well casing, top elevation 604.59 ft. MSL
- C. Land surface elevation 604.57 ft. MSL
- D. Surface seal, bottom \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.

12. USCS classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

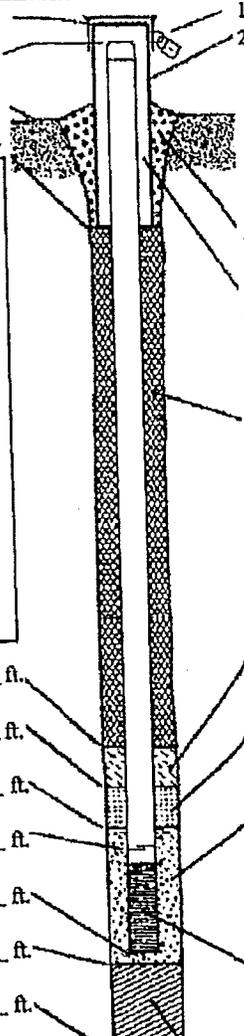
13. Sieve analysis performed?  Yes  No

14. Drilling method used: Rotary  50  
 Hollow Stem Auger  41  
Coco Borer Other

15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No  
 Describe \_\_\_\_\_

17. Source of water (attach analysis, if required): \_\_\_\_\_



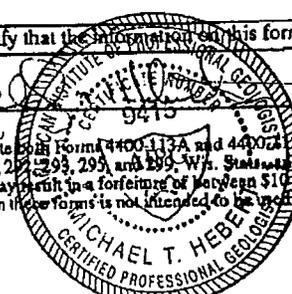
- 1. Cap and lock?  Yes  No
- 2. Protective cover pipe:
  - a. Inside diameter: 6 in.
  - b. Length: 1 ft.
  - c. Material: Steel  04  
Flush mount Other
  - d. Additional protection?  Yes  No  
 If yes, describe: \_\_\_\_\_
- 3. Surface seal: Bentonite  30  
 Concrete  01  
 Other
- 4. Material between well casing and protective pipe: Bentonite  30  
Cement Other
- 5. Annular space seal:
  - a. Granular/Chipped Bentonite  33
  - b. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite-sand slurry  35
  - c. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite slurry  31
  - d. \_\_\_\_\_ % Bentonite ... Bentonite-cement grout  50
  - e. \_\_\_\_\_ Ft<sup>3</sup> volume added for any of the above
  - f. How installed: Tremie  01  
 Tremie pumped  02  
 Gravity  08
- 6. Bentonite seal:
  - a. Bentonite granules  33
  - b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  32
  - c. \_\_\_\_\_ Other
- 7. Fine sand material: Manufacturer, product name & mesh size  
 a. \_\_\_\_\_  
 b. Volume added \_\_\_\_\_ ft<sup>3</sup>
- 8. Filter pack material: Manufacturer, product name & mesh size  
 a. #10 well Pack Sand  
 b. Volume added 0.15 ft<sup>3</sup>
- 9. Well casing: Flush threaded PVC schedule 40  23  
 Flush threaded PVC schedule 80  24  
 Other
- 10. Screen material: PVC  
 a. Screen type: Factory cut  11  
 Continuous slot  01  
 Other   
 b. Manufacturer Johnson  
 c. Slot size: 0.1 in.  
 d. Slotted length: 4.5 ft.
- 11. Backfill material (below filter pack): None  14  
 Other

- E. Bentonite seal, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.
- F. Fine sand, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.
- G. Filter pack, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.
- H. Screen joint, top \_\_\_\_\_ ft. MSL or 7 ft.
- I. Well bottom \_\_\_\_\_ ft. MSL or 12 ft.
- J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 12 ft.
- K. Borehole, bottom \_\_\_\_\_ ft. MSL or 12 ft.
- L. Borehole, diameter 2 in.
- M. O.D. well casing 0.95 in.
- N. I.D. well casing 0.75 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Michael T. Heber Firm Environmental Consulting & Technology, Inc.

Please complete both Form 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.





IMPROPERLY ABANDONED  
MONITORING WELL

SOURCE  
PROPERTY

Replaced Temp Well

MONITORING WELL CONSTRUCTION  
Form 4400-113A Rev. 7-98

State of Wisconsin  
Department of Natural Resources

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Well Name: TW-06.11

Wis. Unique Well No.: KV111 DNR Well ID No.:

Date Well Installed: 5/14/06

Well Installed By: Dan Bendorf

Probe Technologies

Local Grid Location of Well: 314280.37 ft. N. 241874.79 ft. W.

Local Grid Origin: NE 1/4 of NE 1/4 of Sec. 9, T. 19, N.R. 24

Location of Well Relative to Waste/Source: u  Upgradient s  Sidegradient d  Downgradient n  Not Known

- A. Protective pipe, top elevation: \_\_\_\_\_ ft. MSL
- B. Well casing, top elevation: 604.46 ft. MSL
- C. Land surface elevation: 604.05 ft. MSL
- D. Surface seal, bottom: \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.

12. USCS classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

13. Sieve analysis performed?  Yes  No

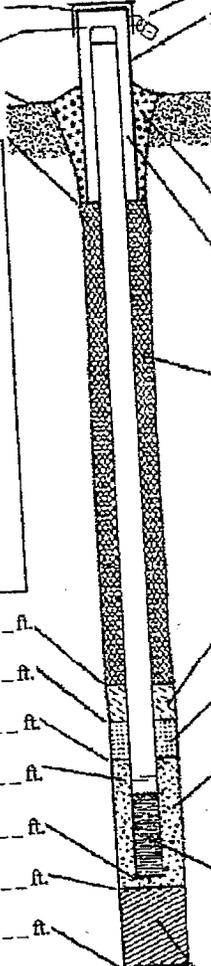
14. Drilling method used:  
 Rotary  50  
 Hollow Stem Auger  41  
 Other  GEO PROBE

15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No

Describe \_\_\_\_\_

17. Source of water (attach analysis, if required): \_\_\_\_\_



- 1. Cap and lock?  Yes  No
- 2. Protective cover pipe:  
 a. Inside diameter: \_\_\_\_\_ in.  
 b. Length: \_\_\_\_\_ ft.  
 c. Material: Steel  04  
 Other
- d. Additional protection?  Yes  No  
 If yes, describe: \_\_\_\_\_
- 3. Surface seal: Bentonite  30  
 Concrete  01  
 Other
- 4. Material between well casing and protective pipe:  
 Bentonite  30  
 Other
- 5. Annular space seal:  
 a. Granular/Chipped Bentonite  33  
 b. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite-sand slurry  35  
 c. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite slurry  31  
 d. \_\_\_\_\_ % Bentonite ... Bentonite-cement grout  50  
 e. \_\_\_\_\_ ft<sup>3</sup> volume added for any of the above  
 f. How installed: Tremie  01  
 Tremie pumped  02  
 Gravity  08
- 6. Bentonite seal:  
 a. Bentonite granules  33  
 b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  32  
 c. Other
- 7. Fine sand material: Manufacturer, product name & mesh size  
 a. \_\_\_\_\_  
 b. Volume added \_\_\_\_\_ ft<sup>3</sup>
- 8. Filter pack material: Manufacturer, product name & mesh size  
 a. \_\_\_\_\_  
 b. Volume added \_\_\_\_\_ ft<sup>3</sup>
- 9. Well casing: Flush threaded PVC schedule 40  23  
 Flush threaded PVC schedule 80  24  
 Other
- 10. Screen material: PVC Sch 40  
 a. Screen type: Factory cut  11  
 Continuous slot  01  
 Other
- b. Manufacturer \_\_\_\_\_ in.  
 c. Slot size: \_\_\_\_\_ ft.  
 d. Slotted length: \_\_\_\_\_ ft.
- 11. Backfill material (below filter pack): None  14  
 Other

- E. Bentonite seal, top: \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.
- F. Fine sand, top: \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.
- G. Filter pack, top: \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.
- H. Screen joint, top: \_\_\_\_\_ ft. MSL or 9 ft.
- I. Well bottom: \_\_\_\_\_ ft. MSL or 14 ft.
- J. Filter pack, bottom: \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.
- K. Borehole, bottom: \_\_\_\_\_ ft. MSL or 17 ft.
- L. Borehole, diameter: 2 in.
- M. O.D. well casing: 0.95 in.
- N. I.D. well casing: 0.75 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: *[Handwritten Signature]* Firm: **ENVIROTECH CONTRACTING**

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IMPROPERLY ABANDONED  
MONITORING WELL

SOURCE  
PROPERTY

State of Wisconsin  
Department of Natural Resources

Route to: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

MONITORING WELL CONSTRUCTION  
Form 4400-113A Rev. 7-98

Facility/Project Name <u>Stone Mountain Co.</u>	Local Grid Location of Well <u>314250.714R</u> <input checked="" type="checkbox"/> N <input type="checkbox"/> S <u>241520.521R</u> <input type="checkbox"/> E <input checked="" type="checkbox"/> W	Well Name <u>TW 06.17</u>
Facility License, Permit or Monitoring No.	Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. <u>44° 07' 43.354"</u> Long. <u>87° 37' 40.783"</u> or	Wis. Unique Well No. <u>R 26 V L L Z</u> DNR Well ID No.
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed <u>11/1/11</u>
Type of Well Well Code <u>11 / MW</u>	Section Location of Waste/Source <u>NE 1/4 of NE 1/4 of Sec. 9, T. 19 N, R. 24</u> <input checked="" type="checkbox"/> W	Well Installed By: Name (first, last) and Firm <u>Don Bendorf</u> <u>Probe Technologies</u>
Distance from Waste/Source _____ ft.	Location of Well Relative to Waste/Source: u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input checked="" type="checkbox"/> Not Known	
Enf. Stds. Apply <input type="checkbox"/>	Gov. Lot Number _____	

- A. Protective pipe, top elevation 604.7 ft. MSL
- B. Well casing, top elevation 604.4 ft. MSL
- C. Land surface elevation 604.58 ft. MSL
- D. Surface seal, bottom 1.5 ft. MSL or \_\_\_\_\_ ft.

12. USCS classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

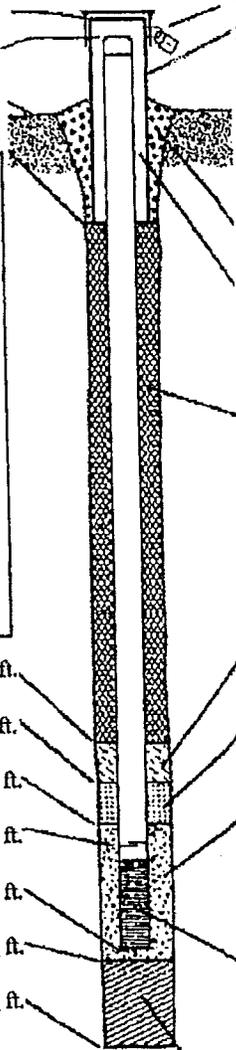
13. Sieve analysis performed?  Yes  No

14. Drilling method used: Rotary  50  
 Hollow Stem Auger  41  
Geoprobe Other

15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No  
 Describe \_\_\_\_\_

17. Source of water (attach analysis, if required):  
 \_\_\_\_\_



- 1. Cap and lock?  Yes  No
- 2. Protective cover pipe:
  - a. Inside diameter: 6 in.
  - b. Length: 1 ft.
  - c. Material: Steel  04  
Flashed Cover Other
  - d. Additional protection?  Yes  No  
 If yes, describe: \_\_\_\_\_
- 3. Surface seal:
  - Bentonite  30
  - Concrete  01
  - Other
- 4. Material between well casing and protective pipe:
  - Bentonite  30
  - Other  Cement
- 5. Annular space seal:
  - a. Granular/Chipped Bentonite  33
  - b. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite-sand slurry  35
  - c. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite slurry  31
  - d. \_\_\_\_\_ % Bentonite ... Bentonite-cement grout  50
  - e. \_\_\_\_\_ Ft<sup>3</sup> volume added for any of the above
  - f. How installed: Tremie  01  
 Tremie pumped  02  
 Gravity  08
- 6. Bentonite seal:
  - a. Bentonite granules  33
  - b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  32
  - c. \_\_\_\_\_ Other
- 7. Fine sand material: Manufacturer, product name & mesh size
  - a. #10 Well Pack Sand
  - b. Volume added 0.15 ft<sup>3</sup>
- 8. Filter pack material: Manufacturer, product name & mesh size
  - a. \_\_\_\_\_
  - b. Volume added \_\_\_\_\_ ft<sup>3</sup>
- 9. Well casing: Flush threaded PVC schedule 40  23  
 Flush threaded PVC schedule 80  24  
 Other
- 10. Screen material: PVC
  - a. Screen type: Factory cut  11  
 Continuous slot  01  
 Other
  - b. Manufacturer Sowson
  - c. Slot size: 0.1 in.
  - d. Slotted length: 4.5 ft.
- 11. Backfill material (below filter pack): None  14  
 Other

- E. Bentonite seal, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.
- F. Fine sand, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.
- G. Filter pack, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.
- H. Screen joint, top \_\_\_\_\_ ft. MSL or 7 ft.
- I. Well bottom \_\_\_\_\_ ft. MSL or 12 ft.
- J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 12 ft.
- K. Borehole, bottom \_\_\_\_\_ ft. MSL or 12 ft.
- L. Borehole, diameter 2 in.
- M. O.D. well casing 0.95 in.
- N. I.D. well casing 0.75 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature \_\_\_\_\_ Firm Environ Mental Consulting & Technologies, Inc (ECT)

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