



December 1, 2014

Mr. Larry Haskins
City of Oak Creek
8640 South Howell Avenue
Oak Creek, WI 53154

Subject: Issuance of a *Certificate of Completion* under the Voluntary Party Liability Exemption (VPLE) Program for the Environmental Investigation and Cleanup of the Former Allis Chalmers/DuPont Facility, 9180 South 5th Avenue, Oak Creek, WI 53154
FID #: 341041580; BRRTS #s: 06-41-554563

Dear Mr. Haskins:

In November 2009, the Department of Natural Resources ("the Department") received three VPLE application requests for issuance of *Certificates of Completion* for the parcel referenced above. One of the three requests was made by the subject property owner (DuPont); and the remaining two requests came from the two co-applicants: EPEC Polymers, Inc. and you (on behalf of the City of Oak Creek). You have applied for an exemption from liability under s. 292.15, Wis. Stats., for the property located at 9180 South 5th Avenue, Oak Creek, Wisconsin, which is commonly referred to as the Former Allis Chalmers/DuPont site. The parcel was addressed under the VPLE process by DuPont and a separate closure letter was issued. However, upon completion of the closure process and as requested in the VPLE applications, the Department issued three separate *Certificates of Completion* for the parcel hereinafter referred to as "the Property".

The Property that is subject of this *Certificate of Completion* is real property owned by E.I. DuPont De Nemours & Company; and encompasses approximately 55 acres. The Property is more fully described in Attachment A of the *Certificate of Completion*.

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, the Property has been entered onto the Department's Geographical Information System (GIS) Registry of Closed Sites due to residual soil and groundwater contamination that remain at the Property. Barrier consisting of soil cover must be maintained in accordance with approved maintenance plans. In addition, varying thicknesses of historic fill soil may require appropriate handling and disposal during redevelopment activities.

Mr. Larry Haskins
RE: Certificate of Completion for the Former Allis Chalmers/DuPont Facility
Oak Creek, WI.
BRRTS #: 06-41-554563
Page 2 of 2

Conclusions

The Department appreciates the work undertaken by DuPont, 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 DuPont 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 (414) 263-8639.

Sincerely,


Eric Amadi - Hydrogeologist
Remediation & Redevelopment Program
Southeast Region - Milwaukee

Attachment: *Certificate of Completion*

cc: Michael Prager - RR/5 (electronic submittal)
Kathryn Huibregtse - Environ International Corporation (electronic submittal)
SER Case File #: 06-41-554563

State of Wisconsin
Department of Natural Resources

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

Whereas, the City of Oak Creek has applied for an exemption from liability under s. 292.15, Wis. Stats., for the property located at **9180 South 5th Avenue, Oak Creek, Wisconsin**, which is commonly referred to as the **Former Allis Chalmers/ DuPont** site, 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, DuPont 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 **January 19, 2012**;

Whereas, the WDNR has determined that the historic fill material brought onto or existing at the Property in the past does not qualify as exempt under s. NR 500.08, Wis. Adm. Code. If anyone proposes to do any future construction work on the Property, that person would have to obtain approval Conditional Grant of Exemption for Development on Historic fill from the WDNR under s. NR 506.085, Wis. Adm. Code, prior to initiating any construction on the Property;

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 requires an engineering control to direct contact, 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. DuPont has submitted to the WDNR all the information necessary to be included on the GIS Registry, pursuant to Wis. Adm. Code;

Whereas, on **September 29, 1989 and October 21, 2014**, the WDNR issued case closure letters for the Property (Attachment C). 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 letter and maintenance plan(s). The WDNR requires maintenance of a cover or barrier in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to public health and the environment. The closure letter requires 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, state and local laws. Also, because of the possibility of vapor intrusion, the closure letter requires property owners and occupants use vapor control technologies in future construction;

Whereas, the WDNR has determined that the response action is complete and was based on the Property being used for commercial, multi-family residential and recreational purposes in accordance with the Barrier Maintenance Plan (Attachment C). In the event that the cover or barrier 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 single family residential use, or use by certain sensitive populations, such as a day care center, school, a senior center, hospital or a similar use, or any changes contrary to the Barrier Maintenance Plan, notification of the Department 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;

Whereas, if the requirements of this Certificate, the case closure letter 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, DuPont 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; and

Whereas, on **October 21, 2014** the WDNR determined that response actions

necessary to restore the environment were completed, except with respect to groundwater contaminated with **1,2-dichlorobenzene (1,2-DCB), 1,4-DCB, Benzene, 2,4-dinitrotoluene(2,4-DNT), 2,6-DNT, Naphthalene, Arsenic, Trichloroethene (TCE) and Vinyl Chloride** 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.

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 **1,2-dichlorobenzene (1,2-DCB), 1,4-DCB, Benzene, 2,4-dinitrotoluene(2,4-DNT), 2,6-DNT, Naphthalene, Arsenic, Trichloroethene (TCE) and Vinyl Chloride** 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, **the City of Oak Creek** 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 **October 21, 2014** case closure letter, 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 **the City of Oak Creek** 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 20 day of November, 2014.

Darsi Foss

Darsi Foss, Director
Bureau for Remediation and Redevelopment
Wisconsin Department of Natural Resources

**ATTACHMENT A
LEGAL DESCRIPTION
Former Allis Chalmers/ DuPont Facility**

See attached November 22, 2013, Statement of Legal Property Description Accuracy for Allis Chalmers/ DuPont Site (Site) and DuPont Deed Exhibit.

Attachment G.4

Statement of Legal Property Description Accuracy for
Allis Chalmers / DuPont Site (Site)
9180 South 5th Avenue
Oak Creek, WI
BRRTS No. 06-41-554563

This statement is to verify that the following legal description of the above referenced property for the purpose of listing this site in the GIS Registry of Closed Remediation Sites, is complete and accurate to the best of my knowledge.

The following legal description of the above-mentioned property is described as follows on the Certified Survey Map of the property dated January 1, 2009:


THAT PART OF THE SOUTHWEST 1/4 AND THE SOUTHEAST 1/4 OF SECTION 24, TOWNSHIP 5 NORTH, RANGE 22 EAST IN THE CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN, BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF THE SOUTHWEST 1/4 OF SAID SECTION, THENCE SOUTH 00°51'52" WEST ALONG THE WEST LINE OF THE SOUTHWEST 1/4 OF SAID SECTION, 601.27 FEET TO A POINT; THENCE NORTH 89°43'52" EAST, 33.01 FEET TO A POINT ON THE EAST LINE OF SOUTH 5TH AVENUE AND THE POINT OF BEGINNING OF LAND TO BE DESCRIBED; THENCE CONTINUING NORTH 89°43'52" EAST, 1053.26 FEET TO A POINT; THENCE NORTH 69°03'52" EAST, 283.46 FEET TO A POINT; THENCE NORTH 89°43'52" EAST, 904.70 FEET TO A POINT ON A MEANDER LINE OF LAKE MICHIGAN; THENCE SOUTH 04°25'31" EAST ALONG SAID MEANDER LINE, 992.64 FEET TO A POINT; THENCE SOUTH 89°46'05" WEST, 2050.18 FEET TO A POINT; THENCE NORTHWESTERLY 468.04 FEET ALONG THE ARC OF A CURVE WHOSE CENTER LIES TO THE WEST, WHOSE RADIUS IS 960.00 FEET AND WHOSE CHORD BEARS NORTH 18°10'07" WEST, 463.42 FEET TO A POINT; THENCE NORTH 32°08'08" WEST, 204.44 FEET TO A POINT ON THE EAST LINE OF SOUTH 5TH AVENUE; THENCE NORTH 00°51'52" EAST, ALONG THE EAST LINE OF SOUTH 5TH AVENUE AND PARALLEL TO THE WEST LINE OF THE SOUTHWEST 1/4 OF SAID SECTION, 274.11 FEET TO THE POINT OF BEGINNING, INCLUDING THOSE LANDS BETWEEN THE AFORESAID DESCRIBED MEANDER LINE AND THE SHORE OF LAKE MICHIGAN.

EXCLUDING THE FOLLOWING DESCRIBED PARCEL:

COMMENCING AT THE INTERSECTION OF THE MEANDER LINE DESCRIBED AND THE SOUTH LINE OF PARCEL "A"; THENCE NORTH 89°46'05" EAST ALONG THE OLD ORDINARY HIGH WATER MARK, 343 FEET, MORE OR LESS, TO THE POINT OF BEGINNING OF THE EXCLUDED AREA; THENCE ALONG THE OLD ORDINARY HIGH WATER MARK FOR THE NEXT 7 CALLS: NORTHEAST, 23 FEET; THENCE NORTHEAST, 29 FEET; THENCE NORTHEAST, 13 FEET; THENCE SOUTHEAST, 19 FEET; THENCE NORTHEAST, 9 FEET; THENCE NORTHEAST, 17 FEET; THENCE NORTHEAST, 34 FEET, MORE OR LESS, TO THE CURRENT ORDINARY HIGH WATER MARK OF LAKE MICHIGAN; THENCE SOUTHERLY ALONG THE SAID ORDINARY HIGH WATER MARK OF LAKE MICHIGAN, 69 FEET, MORE OR LESS, TO THE INTERSECTION OF THE SAID ORDINARY HIGH WATER MARK AND THE SOUTH LINE OF PARCEL "A" EXTENDED EAST; THENCE SOUTH 89°46'05" WEST ALONG THE SAID SOUTH LINE, 150 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

SAID PARCEL "A" CONTAINS 2,023,218 SQUARE FEET OR 46.446 ACRES TO THE MEANDER LINE AND 2,391,490 SQUARE FEET OR 55 ACRES, MORE OR LESS, TO THE ORDINARY HIGH WATER MARK.



Signature

November 22, 2013
Date

Douglas P. Fletcher, DuPont Project Director
Printed / Typed Name and Title

ATTACHMENT B
INVESTIGATION AND REMEDIAL ACTION PLAN REPORTS
Former Allis Chalmers/ DuPont Facility

- April 25th, 2014. *VPLE Barrier Construction Completion Report, Allis Chalmers/DuPont Site.* By URS Corporation.
- April 1st, 2014. *Transmittal of Well filling & Sealing Form 3300-005 for all wells at the Allis Chalmers/DuPont VPLE Site.* By DuPont Corporate Remediation Group.
- December 23rd, 2013. *Results of Post-Remedial Action Groundwater Sampling Event on December, 2013, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- November 1st, 2013. *Results of Post-Remedial Action Groundwater Sampling Event on September, 2013, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- September 23rd, 2013. *Update on Free Product Monitoring/Recovery, Request for No Further Action of the Interim Remedial Action (IRA), Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- February 13th, 2013. *Remedy Completion Report, In-Situ Stabilization of Arsenic in Soil, Allis Chalmers/DuPont Site (FID#: 241434710) and EPEC Polymers Site (FID#: 241869870), Oak Creek, Wisconsin.* By ENTACT Corporation.
- November 16th, 2012. *Construction Quality Assurance Quality Control Plan, In Situ Stabilization of Arsenic in Soil, Former Newport Chemical and Dye Site, Oak Creek Wisconsin.* By ENTACT Corporation.
- November 2nd, 2012. *Letter Addendum to the "Supplemental Arsenic Hot Spot Delineation Sampling Results Memo", Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- September 10th, 2012. *Supplemental Arsenic Hot Spot Delineation Sampling Results Memo, Allis Chalmers/DuPont Site.* By URS Corporation.
- August 1st, 2012. *Results of Supplemental Groundwater Sampling Event May 2012, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- July 27th, 2012. *Work Plan for Free Product Monitoring and Removal in the Area of MW-16/RW-1, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- July 19th, 2012. *Design Report, Allis Chalmers/DuPont Site.* By URS Corporation.
- June 8th, 2012. *VPLE Final Remedial Action Plan (RAP).* By URS Corporation.
- April 18th, 2012. *Arsenic Hot Spot Delineation Sampling Results Memo, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- February 27th, 2012. *Clarification Memorandum for DuPont Conceptual RAP.* By DuPont Corporate Remediation Group and URS Corporation.
- February 7th, 2012. *VPLE Conceptual Remedial Action Plan (RAP), Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- January 9th, 2012. *Recap of Free Product Investigation and Current Status of Area MW-16/RW-1, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.

- December 16th, 2011. *Final Response to WDNR Letter Dated May 6, 2011, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- November 23rd, 2011. *October 2011 West Side Soil Sampling Results and Proposed Additional Sampling and Analysis for Arsenic, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- November 4th, 2011. *VPLE Site Investigation Report, Addendum 2 – West Side Soil Characterization.* By DuPont Corporate Remediation Group.
- October 24th, 2011. *West Side Soil Sampling Work Plan Addendum: Additional Soil core Intervals for Laboratory Analysis, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- May 24th, 2011. *Letter Work Plan for West Side Grid Soil Sampling, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- May 18th, 2011. *Memo: Approach to Establishing a Representative Arsenic Background concentration and Evaluating Residual Contaminant Levels for the DuPont and EPEC Polymers Sites, Oak Creek, WI – Tech Memo #1 – Identifying a Background Dataset for Arsenic.* By Pioneer Technologies Corporation.
- April 19th, 2011. *Request for Cessation of Interim Remedial Action (Free Product Recover) in the Area of MW-16/RW-1, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- March 25th, 2011. *VPLE Site Investigation Addendum Report, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- February 8th, 2011. *VPLE Site Investigation Addendum for Groundwater Second Round Sampling Results for MW-23 and MW-24 and Request to Abandon Wells in Soil Stockpile Area, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- December 15, 2010. *VPLE Site Investigation Addendum for Groundwater Sampling Results for MW-23 and MW-24 and Request to Abandon Wells in Soil Stockpile Area, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- October 11, 2010. *Phase II VPLE Soil Sampling Results at Three Locations for Determining Groundwater Monitoring Well Locations, Allis Chalmers/DuPont Site.* By DuPont Corporate Remediation Group.
- August 31, 2010. *Response to WDNR Letter Dated August 23, 2010 Following Review of the DuPont Submittal “Summary of Process Building/Areas and Sampling Results Table and Figure, Allis Chalmers/DuPont Site [i.e. VPLE SI Work Plan].* By DuPont Corporate Remediation Group.
- April, 2010. *VPLE Phase II Data Summary Report, Allis Chalmers/DuPont Site.* By URS Corporation
- September 22, 2009. *2nd Progress Report and Request for Cessation of Interim Remedial Action (Free Product Recovery) in the Area of MW-16, Allis Chalmers/DuPont Site.* By URS Corporation.
- August, 2009. *Phase I Environmental Site Assessment Report E.I. DuPont De Nemours and Company Property Oak Creek Wisconsin.* Prepared for U.S. Environmental Protection Agency (USEPA) Region V by STN JV-START.
- May 29, 2009. *Groundwater Monitoring 2003-2008 Summary Report – Allis Chalmers/DuPont Site.* By URS Corporation.

- May 29, 2009. *Response to WDNR Comments on the Additional Site Investigation Report – Allis Chalmers/DuPont Site.* By URS Corporation.
- December 21, 2007. *Additional Site Investigation Report – Allis Chalmers/DuPont Site.* By URS Corporation.
- May 30, 2007. *Quarterly Groundwater Sampling/Western Portion of Site Request for Waiver – Six Wells, Allis Chalmers/DuPont Site.* By URS Corporation.
- February 21, 2007. *1st Progress Report on Interim Remedial Action (Free Product Recovery) in the Area of MW-16 - Allis Chalmers/DuPont Site.* By URS Corporation.
- August 14, 2006. *7/31/06 Meeting Summary, Transmittal of Groundwater Sampling Results along Bluff and Request for WDNR Dispersion Model Information – Allis Chalmers/DuPont Site.* By URS Corporation.
- July 5, 2006. *Report on Results of Free Product Investigation in the Area of MW-16 and Free Product Recovery System Design.* By URS Corporation.
- May 3, 2006. *Work Plan for Free Product Investigation in the Area of MW-16 – Allis Chalmers/DuPont Site.* By URS Corporation.
- April 13, 2006. *3rd and Final Progress Report for the Additional Investigation and Interim Remedial Action for MW-16 – Allis Chalmers/DuPont Site.* By URS Corporation.
- January 23, 2006. *2nd Progress Report for Additional Investigation - Allis Chalmers/DuPont Site.* By URS Corporation.
- December 21, 2005. *Progress Report for Additional Investigation - Allis Chalmers/DuPont Site, Oak Creek, Wisconsin.* By URS Corporation.
- August 17, 2005. *Work Plan – Additional Investigation Activities, Allis Chalmers – DuPont Site.* By URS Corporation.
- June 30, 2005. *Draft Site Conceptual Model Report - DuPont Oak Creek Site, Oak Creek, Wisconsin.* By URS Corporation.
- September 4, 2003. *Environmental Summary of Lakeview Village – Properties of Interest.* By Sigma Environmental Services.
- July, 2002. *Site Investigation Report for Oak Creek Industrial Property - Oak Creek, Wisconsin.* By URS Corporation.
- September, 2001. *Underground Storage Tank Closure Report – DuPont Oak Creek Site.* By Key Engineering.
- July 9, 2001. *Field Investigation Work Plan – DuPont Oak Creek Property.* By URS Corporation.
- May, 2001. *Project-Specific Waste Management Procedures for the Oak Creek Field Investigation and Oak Creek Geotechnical Pre-Design Investigation.* By URS Corporation.
- August 14, 2000. *Site Conditions Report - DuPont Oak Creek Site, Oak Creek, Wisconsin.* By URS Corporation.
- February, 1998. *Environmental Media Investigation Report.* DuPont Environmental Remediation Services (DERS).
- August 12, 1997. *Field Report Soil Boring and Environmental Media Sampling – Allis Chalmers Trust Site, Oak Creek Wisconsin.* By DERS.

- May 7, 1997. *Maps and Tables from the Remedial Investigation Data Package – Former DuPont Property*. Prepared for Foley & Lardner by STS Consultants Ltd.
- February 19, 1997. *Final Soil Remedial Activity Report – Former DuPont Facility Oak Creek, Wisconsin*. By DERS.
- May 23, 1996. *Soil Removal Activity Report, former DuPont Facility, Oak Creek, Wisconsin*. By Applied Technology and Management, Inc. (ATM).
- November, 1991. *Underground Storage Tank Removal Activities and Soil Remediation Report – The Former Allis-Chalmers Facility, Oak Creek, Wisconsin*. By Geraghty and Miller Environmental Services.
- September 15, 1989. *Final Report for the Remedial Action at the Allis Chalmers Site – Oak Creek Wisconsin*. By O.H. Materials Corporation.
- December 6, 1988. *Design Report for Groundwater Collection System – Boliden-Allis Test Facility, Oak Creek, Wisconsin*. By O.H. Materials Corporation.
- August 12, 1988. *Final Report on Thermal Destruction System Operation*. By Boliden-Allis, Incorporated.
- April 19, 1988. *Application of Thermal Destruction technology to the cleanup of Contaminated soils in Oak Creek, Wisconsin*. By Boliden-Allis, Incorporated.
- September 9, 1986. *Remediation Plan: Former Carrollville Plant, Oak Creek, Wisconsin*. By DuPont Company.
- July, 1986. *Geotechnical Report C-12498 Bluff Stability Investigation, Former Carrollville Site, Oak Creek, Wisconsin*. By Warzyn Engineering.
- June 24, 1986. *Project Plan for Removal Activities – Lagoon/ponds Area – Oak Creek, Wisconsin*. By O.H. Materials Corporation.
- August 1, 1985. *Interim Report: Investigative and Remedial Activities – Former Carrollville Plant, Oak Creek, Wisconsin (Volume 1 and 2)*. By O.H. Materials Company.
- April 7, 1976. *Investigation of Reported Possible Hazardous Material Burial on the E.M. Boerke Property in Oak Creek, Wisconsin*. By United States Department of the Army, Surveillance and Analysis Division.
- Case file for Allis Chalmers/DuPont Site, WDNR FID#341041580.

ATTACHMENT C
Closure Letters and Cap Maintenance Plan
Former Allis Chalmers/ DuPont Facility

See Attached **October 21, 2014** Case Closure Letter and Barrier Maintenance Plan for and the **September 29, 1989** LUST closure letter the Former Allis Chalmers/ DuPont Facility site.



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

Box 12436
Milwaukee, Wisconsin 53212
Fax: (414) 562-1258

September 29, 1989

File Ref: 4440

Mr. Daniel Spanaus
Allis-Chalmers
P.O. Box 512
Milwaukee, WI 53201

Dear Mr. Spanaus:

RE: 9250 South 5th Avenue, Oak Creek

Your report of the information requested in the Department's September 11, 1989 letter was received by this office on September 27, 1989 (verbal response by September 20, 1989). Based on all of the information supplied, no further action is required at this time. Should any environmental problems related to the former underground storage tank operations at the above referenced location arise in the future, further work may be necessary.

Any questions you may have regarding this letter should be addressed to Mr. Jim Schmidt at (414) 562-9648, or to the letterhead address.

Sincerely,

Bernice A. Aument
Bernice A. Aument
Environmental Repair Specialist

BAA:jmw

c: Mr. Thomas Bergamini - SW/3
Mr. Chauncy C. Barber - A-C Reorganization Trust
SED Case File



October 21, 2014

Mr. Douglas Fletcher
DuPont Corporate Remediation Group
Chestnut Run Plaza Bldg. 715-216
974 Centre Road
P. O. Box 2915
Wilmington, Delaware 19805

KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

Subject: Final Case Closure with Continuing Obligations
Allis Chalmers/DuPont Facility (Former)
9180 South 5th Avenue, Oak Creek, WI 53154
FID #: 341041580; BRRTS #s: 02-41-278988; 02-41-280624 & 06-41-554563

Dear Mr. Fletcher:

The Department of Natural Resources (DNR) considers Allis Chalmers/DuPont Facility (Former) site closed, with continuing obligations. No further investigation or remediation is required at this time. However, you, future property owners, and occupants of the property 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 any attachments listed at the end of this letter to anyone who purchases, rents or leases this property from you. For residential property transactions, you may be required to make disclosures under s. 709.02, Wis. Stats.

This final closure decision is based on the correspondence and data provided, and is issued under chs. NR 726 and 727, Wis. Adm. Code. The Southeast Region Closure Committee reviewed the request for closure to determine compliance with state laws and standards and to maintain consistency in the closure of these cases.

The subject property (Site) is about 55 acres and is currently undeveloped and vacant. The Site has a long history of industrial activities. In 1915, the Newport Chemical Company (Newport) purchased 304 acres of land along Lake Michigan from Mr. John Schaizinger. In 1931, the E.I. DuPont de Nemours (DuPont) purchased 128 acres of this land from Newport. Both of these firms produced dye and dye intermediates. The dye and intermediate production occurred in the northern and eastern buildings of the plant and in three buildings in the west-central area of plant as shown on **the attached maps, Figure B.1.b, Detailed Site Map, Allis Chalmers/DuPont Site, Oak Creek, WI, and Figure 2-3: Historical Building Locations, DuPont Facility, Oak Creek, WI.** In general, no industrial activities were conducted on the western portion of the Site. DuPont ceased operations in 1938.

In the early 1940's, DuPont vacated the property, razing all of the dye plant buildings. In 1944, DuPont sold the northern parcel (Site) to the United States Reconstruction Financing Corporation (USRFC). DuPont also transferred ownership of the southern parcel to Mr. Edison Boerke. The USRFC constructed three large warehouses on the site. The warehouses were believed to be used to store and distribute surplus machines the government purchased for war production. The warehouses were later demolished, but the three large concrete floor slabs still remain. The USRFC sold the Site to the U.S.

Mr. Douglas Fletcher
RE: Final Case Closure with Continuing Obligations
Allis Chalmers/DuPont Facility (Former)
Oak Creek, WI.
BRRTS #: 02-41-278988; 02-41-280624 & 06-41-554563
Page 2 of 7

War Assets Administration in March 1946. In 1949, Allis Chalmers Company purchased the property using it as iron ore processing and coal gasification research and development facility. In the late 1980's, Allis Chalmers declared bankruptcy and the property was passed on to the AC reorganization Trust (AC Trust). In 1987, Svedala Industries (Svedala) purchased some of the AC Trust assets and the Site. In 1999, DuPont purchased the Site from AC Trust and decommissioned all the structures that were not being used by Svedala. During the late 2000, Svedala ended their lease with DuPont and ceased operations. In early 2001, DuPont decommissioned the remaining structures, but the building foundations, including large concrete floor slabs were left in-place. Since then, no operations have occurred at the Site.

Various environmental investigations have been conducted on the property. In January 1985, a "red icicle" was observed on the lake bluff east of the property (**Figure 2-4: 1985 OHM Test Pits & Red Icicle Locations, DuPont Facility, Oak Creek, WI**). The discovery was reported to the DNR and led to the identification, investigation and initial remediation of a naphthylamine release. The investigation and initial remediation of the materials focused on the former settling pond/lagoons.

In 2009, the Site was accepted into the Voluntary Party Liability Exemption (VPLE) program. Additional investigation was conducted to determine the degree and extent of the soil and groundwater contamination. Contaminants of concern included: polynuclear aromatic hydrocarbons (PAHs), and RCRA metals, in soils; and volatile organic compounds (VOCs), semi volatile organic compounds (SVOCs); and RCRA metals in groundwater. Remedial activities have been performed to address this contamination including in-situ stabilization of the detected elevated levels of arsenic ("hot spot") areas and placement of clean soil cover on the entire Site. The residual contaminated soil and groundwater still remain in place at the Site.

To satisfy the case closure conditions, the Site was required to be placed on the GIS registry due to the residual impacted soil and groundwater left in place. The continuing obligations are meant to address any potential exposure to the residual contamination. The conditions of closure and continuing obligations required were based on the property being used for commercial/residential (multi-family residential)/industrial and recreational purposes as shown on **Figure A1: Barrier Maintenance Plan, Appendix A - Institutional Controls, Allis Chalmers/DuPont Site, Inc. Site, Oak Creek, WI**.

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, Wis. Adm. Code enforcement standards.
- Residual soil contamination exists that must be properly managed should it be excavated or removed.
- A soil cover must be maintained over contaminated soil and the DNR must approve any changes to this barrier.
- Remaining soil contamination could result in vapor intrusion if future construction activities occur. Vapor control technologies will be required for occupied buildings, unless the property owner assesses the potential for vapor intrusion, and the DNR agrees that vapor control technologies are not needed.

Mr. Douglas Fletcher
RE: Final Case Closure with Continuing Obligations
Allis Chalmers/DuPont Facility (Former)
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Page 3 of 7

The DNR fact sheet, "Continuing Obligations for Environmental Protection", RR-819, helps to explain a property owner's responsibility for continuing obligations on their property. The fact sheet may be obtained at <http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf>.

GIS Registry

This site will be included on the Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web) at <http://dnr.wi.gov/topic/Brownfields/clean.html>, to provide public notice of residual contamination and of any continuing obligations. The site can also be viewed on the Remediation and Redevelopment Sites Map (RRSM), a map view, under the Geographic Information System (GIS) Registry layer, at the same web address.

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. This requirement applies to private drinking water wells and high capacity wells. 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/topic/wells/documents/3300254.pdf>.

All site information is also on file at the Southeast Regional DNR office, at 2300 N. Dr. Martin Luther King, Jr. Drive, Milwaukee, WI. This letter and information that was submitted with your closure request application, including any maintenance plan and maps, can be found as a Portable Document Format (PDF) in BRRTS on the Web.

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, a soil cover, an engineered cover or other barrier is required, as shown on the attached map **Figure 1: Barrier Maintenance Plan, Investigation Sampling Locations, Area Subject to Inspection and Maintenance Requirements, Allis Chalmers/DuPont Site, Oak Creek, WI**, unless prior written approval has been obtained from the DNR:

- removal of the existing barrier or cover;
- replacement with another barrier or cover;
- 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 any portion of the property contrary to the "land use restriction plan" as shown on **Figure A1: Barrier Maintenance Plan, Appendix A - Institutional Controls, Allis Chalmers/DuPont Site, Oak Creek, WI.**

Mr. Douglas Fletcher
RE: Final Case Closure with Continuing Obligations
Allis Chalmers/DuPont Facility (Former)
Oak Creek, WI.
BRRTS #: 02-41-278988; 02-41-280624 & 06-41-554563
Page 4 of 7

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 plan are met. If these requirements are not followed, the DNR may take enforcement action under s. 292.11, Wis. Stats. to ensure compliance with the specified requirements, limitations or other conditions related to the property.

Please send written notifications in accordance with the following requirements to:

Department of Natural Resources
Attn: Remediation and Redevelopment Program Environmental Program Associate
2300 N. Dr. Martin Luther King Jr. Drive
Milwaukee, WI 53212

Residual Groundwater Contamination (ch. NR 140, 812, Wis. Adm. Code)

Groundwater contamination greater than enforcement standards is present on this contaminated property, as shown on the **attached map Figures B.3.b (1&2): Groundwater Isoconcentration Enforcement Standard Exceedance, Allis Chalmers/DuPont Site, Oak Creek, WI.** 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, chs. 500 to 536, Wis. Adm. Code or ch. 289, Wis. Stats.)

Soil contamination remains on most portions of the property as indicated on the **attached map Figure B.2.c, Pre/Post Remaining Soil contamination, Allis Chalmers/DuPont Site, Oak creek, WI.** If soil in the specific locations described above is excavated in the future, the property owner or right-of-way holder 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 or right-of-way holder 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. Contaminated soil may be managed in accordance with ch. NR 718, Wis. Adm. Code, with prior DNR approval. In addition, all current and future owners and occupants of the property and right-of-way holders 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.

Depending on site-specific conditions, construction over contaminated soils or groundwater 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.

Mr. Douglas Fletcher
RE: Final Case Closure with Continuing Obligations
Allis Chalmers/DuPont Facility (Former)
Oak Creek, WI.
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Page 5 of 7

Cover or Barrier (s. 292.12 (2) (a), Wis. Stats., s. NR 726.15, s. NR 727.07 Wis. Adm. Code)

The soil cover that exists in the location shown on the attached map **Figure 1: Barrier Maintenance Plan, Investigation Sampling Locations, Area Subject to Inspection and Maintenance Requirements, Allis Chalmers/DuPont Site, Oak Creek, WI**, shall be maintained in compliance with the attached barrier maintenance plan (BMP) in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. Also, compliance with the **Institutional Controls and the Soil Management Plan (associated with this BMP)**, is a requirement that shall be met.

A cover or barrier for industrial land uses, or certain types of commercial land uses may not be protective if the 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. In addition, a cover or barrier for multi-family residential housing use may not be appropriate for use at a single family residence.

The cover approved for the "Clean Cover Soil Area (CCSA - western portion of DuPont and parts of EPEC) of this closure as shown on **Figure A1: Barrier Maintenance Plan, Appendix A - Institutional Controls, Allis Chalmers/DuPont Site, Oak Creek, WI**, was designed to be protective for a multi-family residential use setting. Before using the property for single family residential purposes, you must notify the DNR at least 45 days before taking an action, 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 (DNR form 4400-305) are to be kept up-to-date and on-site. Inspections shall be conducted annually in accordance with the attached maintenance plan. Submit the inspection log to the DNR only upon request.

Vapor Mitigation or Evaluation (s. 292.12 (2), Wis. Stats., s. NR 726.15, s. NR 727.07, Wis. Adm. Code)

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.

Future Concern:

Chlorinated volatile organic compounds remain on site in groundwater as shown on **Figures B.3.b (1&2): Groundwater Isoconcentration Enforcement Standard Exceedance, Allis Chalmers/DuPont Site, Oak Creek, WI**, at levels that may be of concern for vapor intrusion in the future, depending on construction and occupancy of a building. Also due to site historical information, chlorinated organic compounds may remain in site soils. Therefore, before a building is constructed and/or an existing building is modified, the property owner must notify the DNR at least 45 days before the change. Vapor control technologies are required for construction of occupied buildings unless the property owner assesses the vapor pathway and DNR agrees that vapor control technologies are not needed.

Mr. Douglas Fletcher
RE: Final Case Closure with Continuing Obligations
Allis Chalmers/DuPont Facility (Former)
Oak Creek, WI.
BRRTS #: 02-41-278988; 02-41-280624 & 06-41-554563
Page 6 of 7

General Wastewater Permits for Construction Related Dewatering Activities

The DNR's Water Quality Program regulates point source discharges of contaminated water, including discharges to surface waters, storm sewers, pits, or to the ground surface. This includes discharges from construction related dewatering activities, including utility and building construction.

If you or any other person plan to conduct such activities, you or that person must contact that program, and if necessary, apply for the necessary discharge permit. Additional information regarding discharge permits is available at <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>. If residual soil or groundwater contamination is likely to affect water collected in a pit/trench that requires dewatering, a general permit for Discharge of Contaminated Groundwater from Remedial Action Operations may be needed. If water collecting in a pit/trench that requires dewatering is expected to be free of pollutants other than suspended solids and oil and grease, a general permit for Pit/Trench Dewatering may be needed.

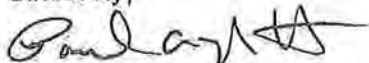
In Closing

Please be aware that the case may be reopened pursuant to s. NR 727.13, Wis. Adm. Code, for any of the following situations:

- if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment,
- if the property owner does not comply with the conditions of closure, with any deed restrictions applied to the property, or with a certificate of completion issued under s. 292.15, Wis. Stats, or
- a property owner fails to maintain or comply with a continuing obligation (imposed under this closure approval letter).

The DNR appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Eric Amadi at 414.263.8639, or at Eric.Amadi@Wisconsin.gov.

Sincerely,



Pamela A. Mylotta, Team Supervisor
Remediation & Redevelopment Program
Southeast Region, Milwaukee

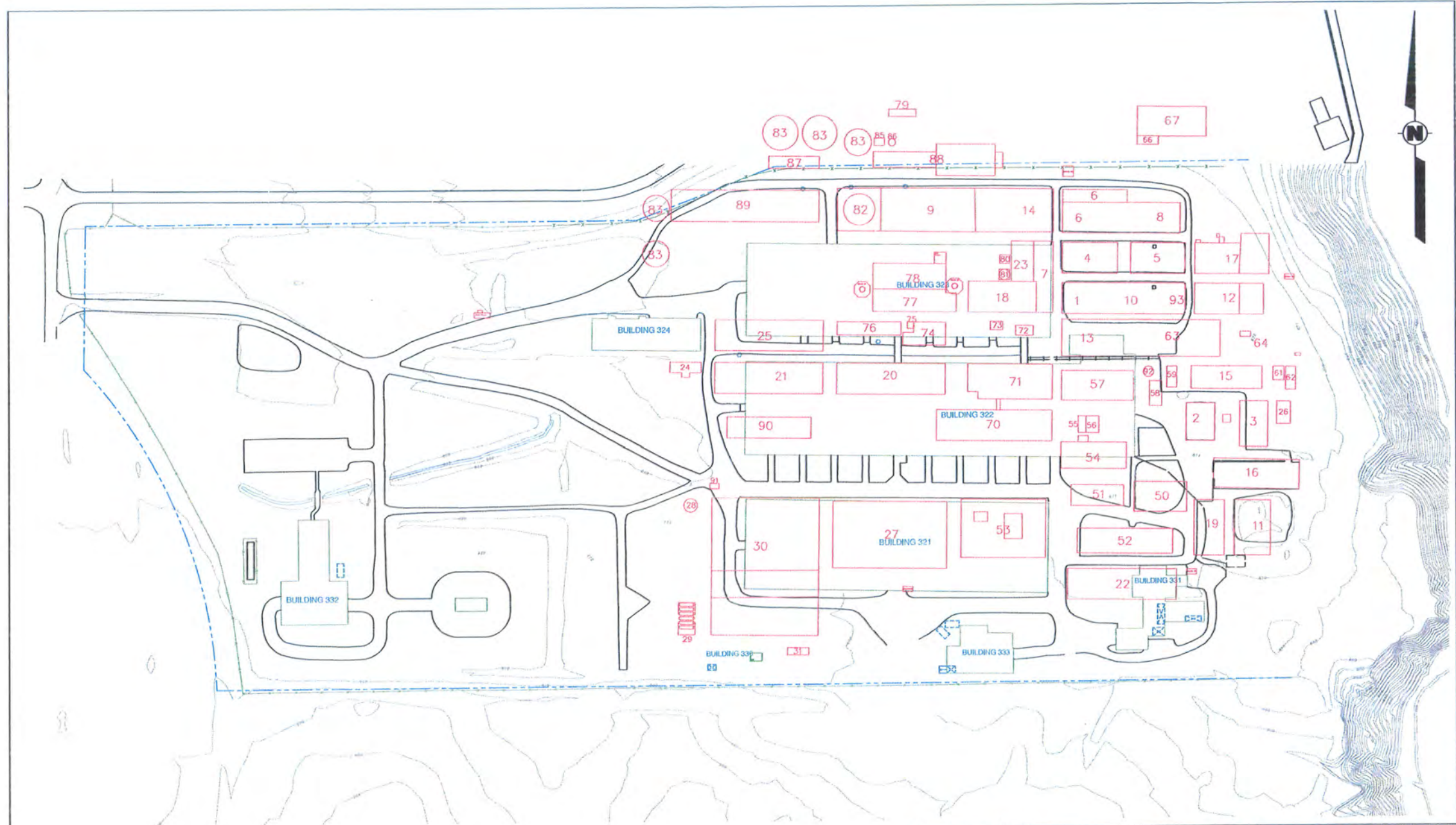
Mr. Douglas Fletcher
RE: Final Case Closure with Continuing Obligations
Allis Chalmers/DuPont Facility (Former)
Oak Creek, WI.
BRRTS #: 02-41-278988; 02-41-280624 & 06-41-554563
Page 7 of 7

Attachments:

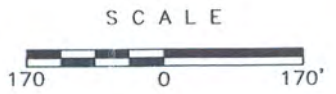
Figure 2-3: Historical Building Locations, DuPont Facility, Oak Creek, WI
Figure B.1.b: Detailed Site Map, DuPont Facility, Oak Creek, WI.
Figure 2-4: 1985 OHM Test Pits & Red Icicle Locations, DuPont Facility, Oak Creek, WI.
Figure A1: Barrier Maintenance Plan, Appendix A - Institutional Controls, Allis Chalmers/DuPont Site Oak Creek, WI.
Figure B.3.b (1&2): Groundwater Isoconcentration Enforcement Standard Exceedance, Allis Chalmers/DuPont Site, Oak Creek, WI.
Figure B.2.c: Pre/Post Remaining Soil Contamination, Allis Chalmers/DuPont Site, Oak Creek, WI.
Figure 1: Barrier Maintenance Plan, Investigation Sampling Locations, Area Subject to Inspection and Maintenance Requirements, Allis Chalmers/DuPont Site, Oak Creek, WI

Barrier Maintenance Plan
Institutional Controls
Soil Management Plan
Inspection Log, DNR Form 4400-305

cc: Matt Brill - URS Corporation (letter only, electronic submittal)
Paul Sklar - URS Corporation (letter only, electronic submittal)
Larry Haskin - City of Oak Creek, 8640 S. Howell Avenue, Oak Creek, WI 53154
Kathryn Huibregtse - ENVIRON International Corporation (letter only, electronic submittal)
SER Case File #: 02-41-278988; 02-41-280624 & 06-41-554563



LEGEND:
53 NEWPORT CHEMICAL BUILDINGS
53 A-C BUILDINGS



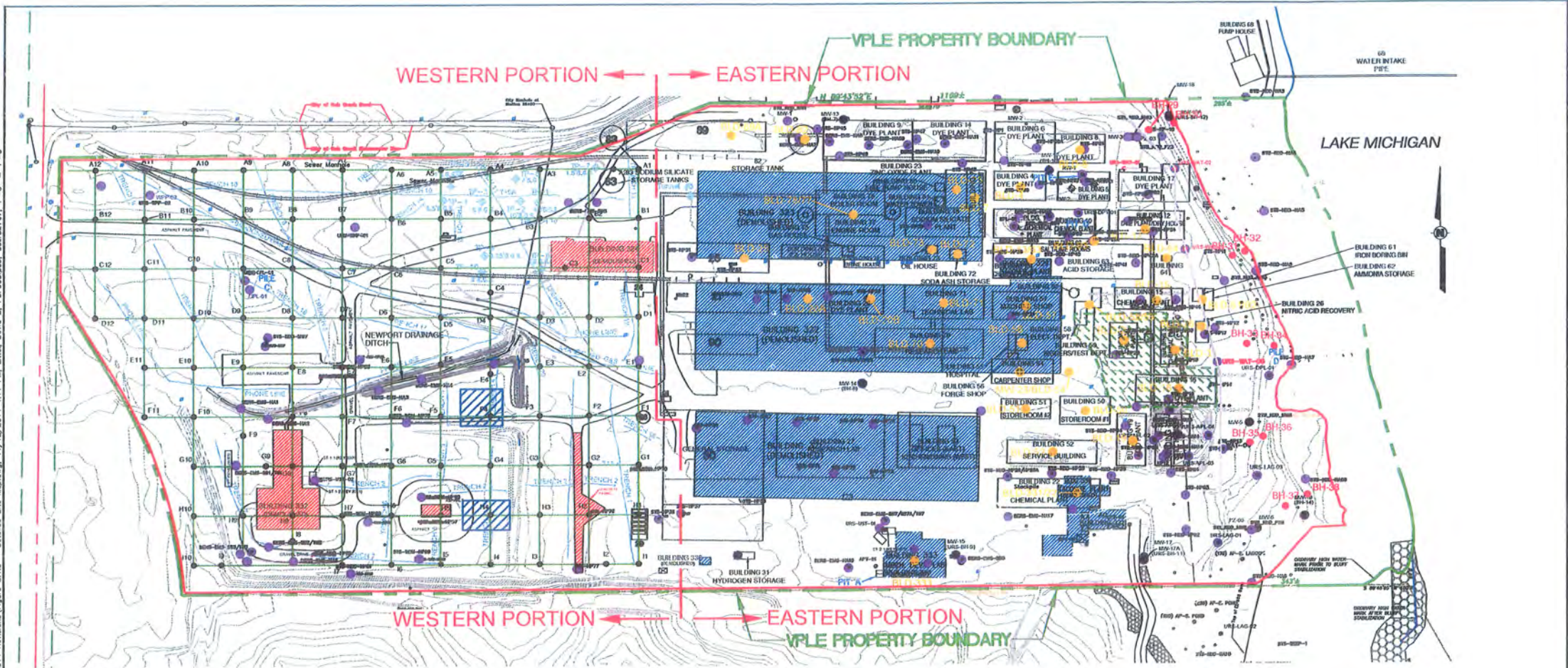
DESIGNED	REVISED
T. RATSEP	
DRAWN	
D.H. ENGLISH	
CHECKED	
T. RATSEP	
APPROVED(DESIGN)	
APPROVED(CONSTRUCTION)	

Corporate Remediation Group
*An Alliance between
 DuPont and URS Diamond*

Barley Mill Plaza, Building 27
 Wilmington, Delaware 19805

HISTORICAL BUILDING LOCATIONS			
Oak Creek Facility Oak Creek, Wisconsin			
SCALE	DATE	JOB FILE NO.	FIGURE
As shown	04/17/2002	FIG-3	2-3

V:\Projects\Dupont\Oak Creek\CAD\VPLE Case Closure Registry drawings\November 2014_Revision\Figure B.1.b - Detailed Site Map.dwg, 11/12/2014, 4:11 PM, Littell, David E., PDS995.dwg, User:DL2287, 1"-0" = 1'-0"




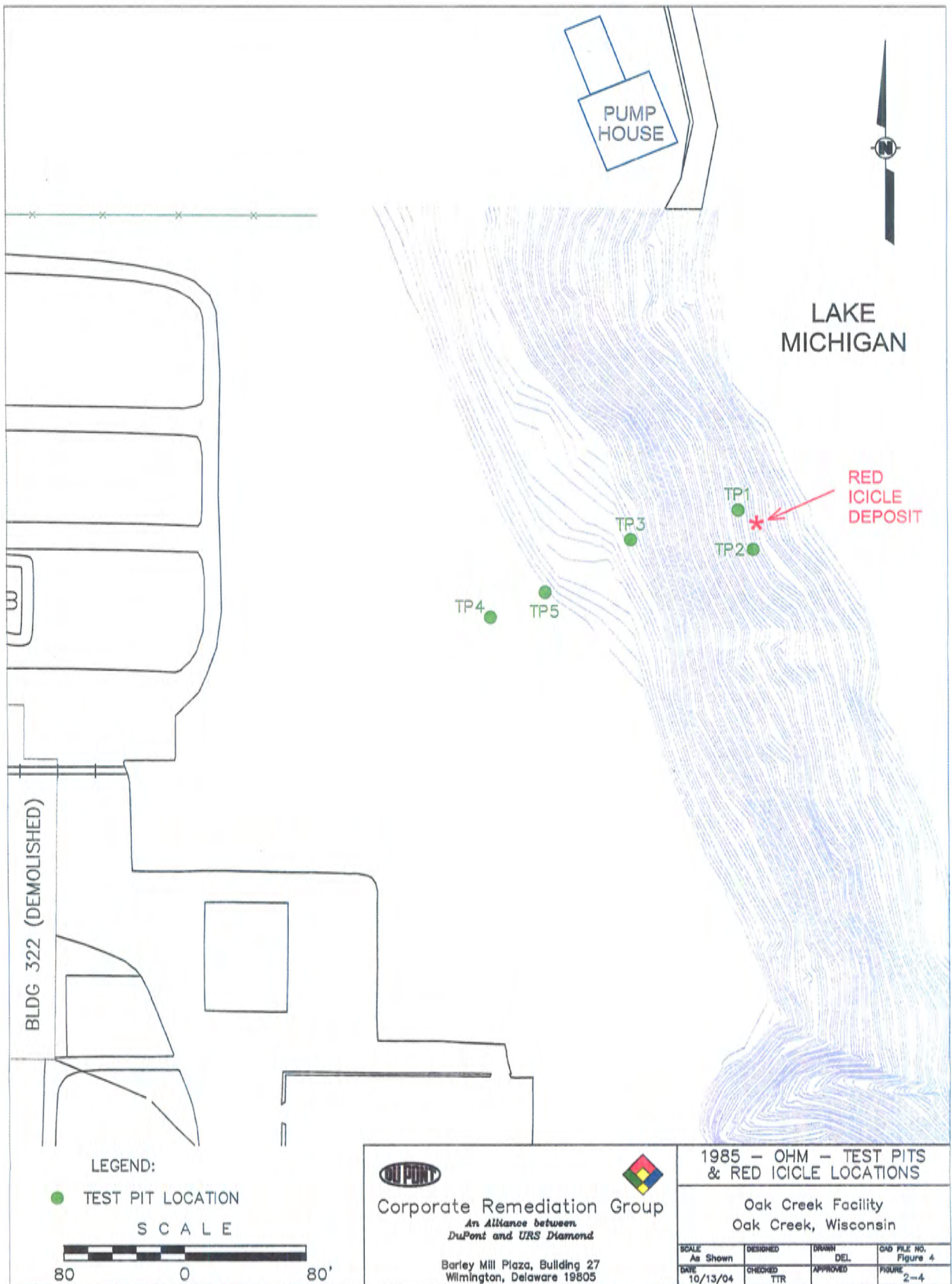
LEGEND:

- | | | | |
|---|--|--|---|
|  | FORMER ELEVATED ARSENIC AREAS STABILIZED AND RELOCATED DURING REMEDIAL ACTION |  | 1955-1980's ALLIS CHALMERS STRUCTURE - DEMOLISHED |
|  | FORMER BUILDING FOUNDATION AREA WHERE ARSENIC STABILIZED SOIL WAS PLACED AND COVERED |  | 1920's BUILDING STRUCTURE - DEMOLISHED |
|  | SLABS REMAINING IN PLACE AFTER PLACEMENT OF BARRIER |  | UNDERGROUND CONCRETE PIPE CHASE |
|  | SLABS REMOVED DURING REMEDIAL ACTION |  | NR 700 SAMPLE LOCATION |
|  | VPLE WEST SIDE SOIL CHARACTERIZATION SAMPLE GRID |  | VPLE SAMPLE LOCATION |
|  | COAL / ASH AREA |  | CREST OF BLUFF WASTE THICKNESS BORING (JUNE 2011) |
| | |  | TEST PIT LOCATION |
| | |  | TRENCH LOCATION |

NOTE: THERE ARE NO CONTAMINATED PUBLIC STREETS, HIGHWAYS OR RAILROAD RIGHT-OF-WAYS IN RELATION TO THE SITE'S SOIL OR GROUNDWATER CONTAMINATION.



DESIGNED BY: M. BRILL	 URS Corporation Iron Hill Corporate Center 4051 Ogletown Road, Suite 300 Newark, Delaware 19713 Phone: 302-781-5900 Fax: 302-781-5901	DETAILED SITE MAP	PROJECT NO. 18985583
DRAWN BY: D. LITTEL			DATE 11/12/14
DATA QUALITY CHKD: M. BRILL		ALLIS CHALMERS/DUPONT SITE OAK CREEK, WISCONSIN	FIGURE No: B.1.b
APPROVED BY:			



LEGEND:

● TEST PIT LOCATION

S C A L E



Corporate Remediation Group

An Alliance between
DuPont and URS Diamond

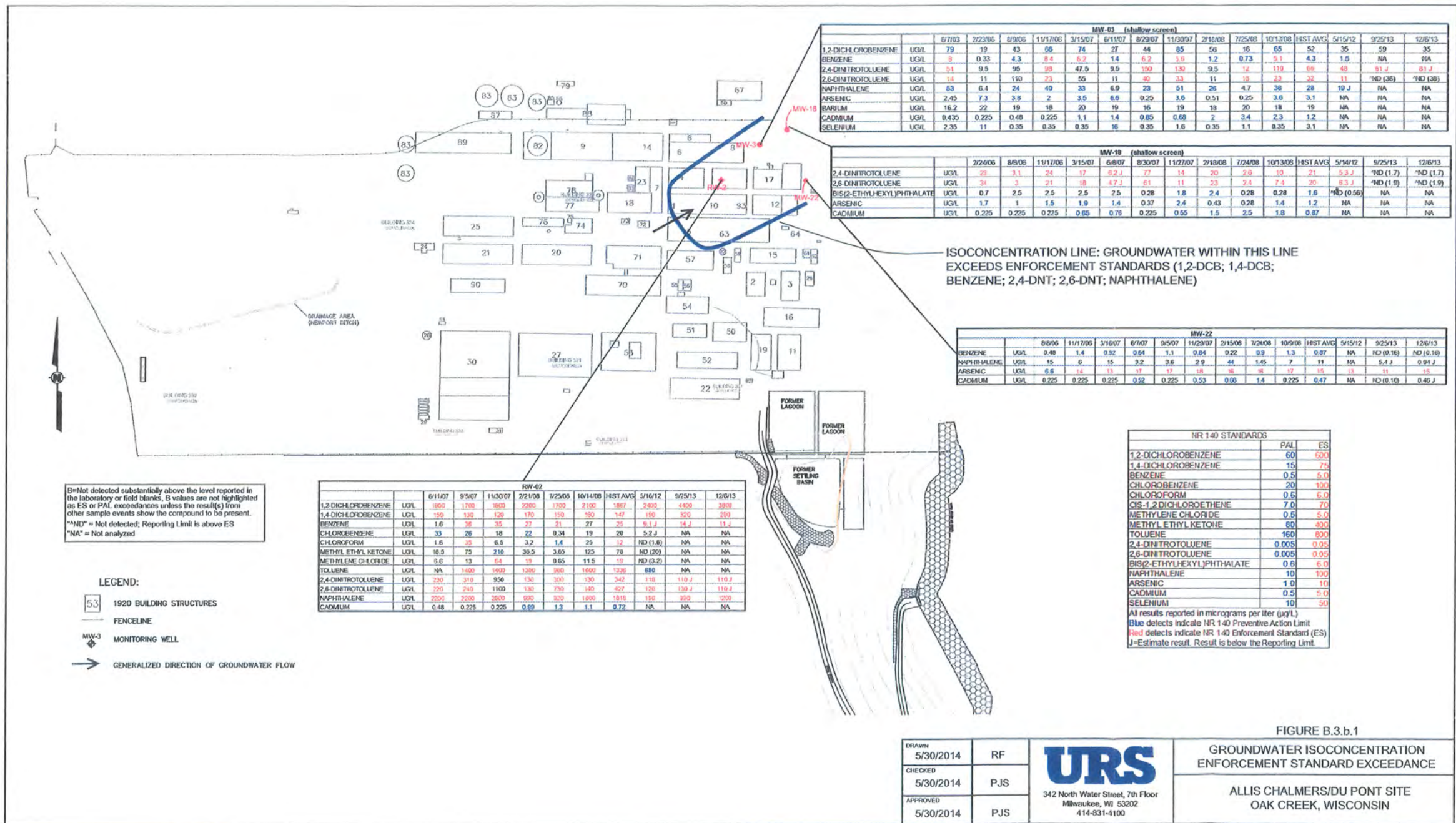
Barley Mill Plaza, Building 27
Wilmington, Delaware 19805



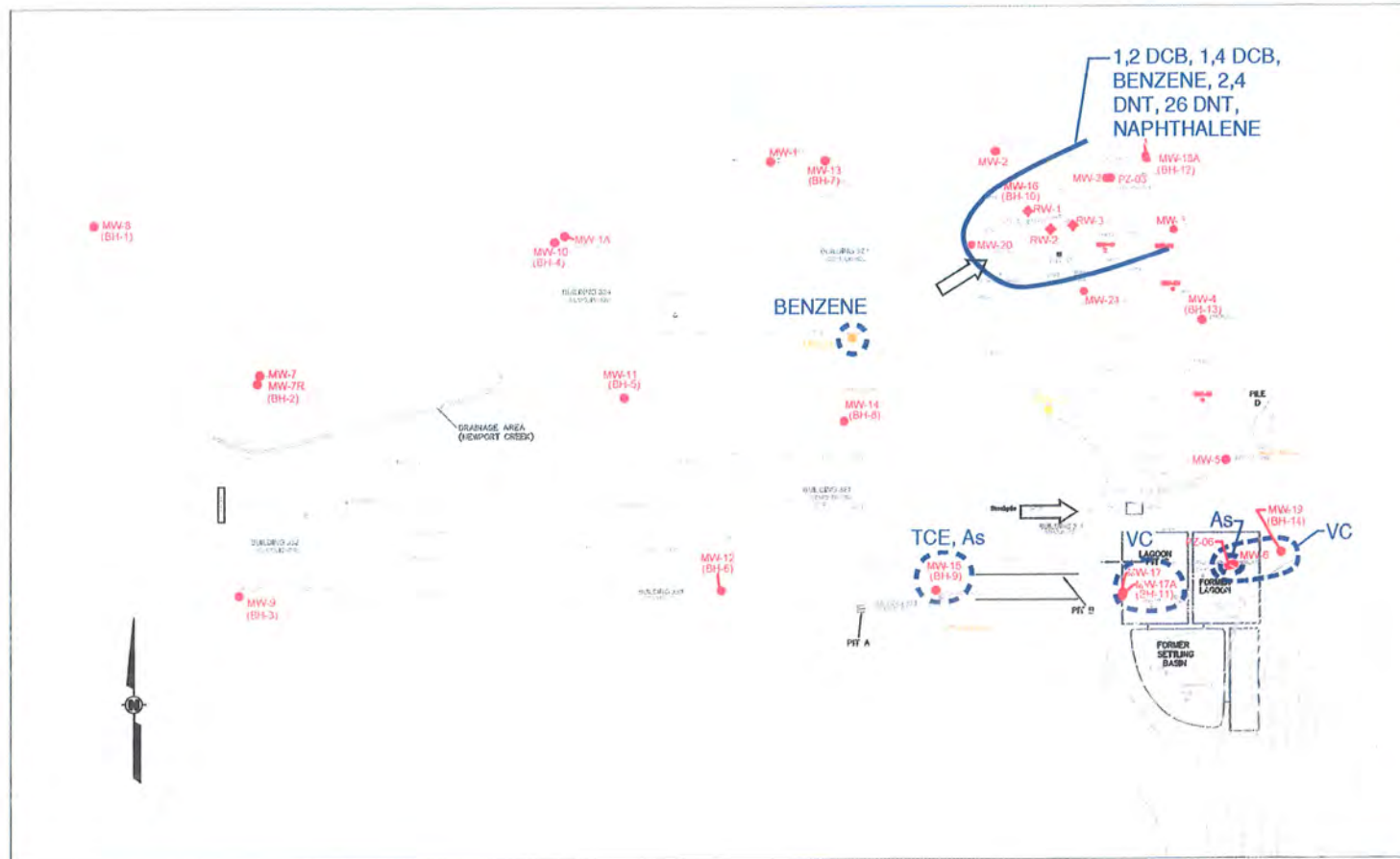
1985 - OHM - TEST PITS
& RED ICICLE LOCATIONS

Oak Creek Facility
Oak Creek, Wisconsin

SCALE	DESIGNED	DRAWN	CAD FILE NO.
As Shown		DEL	Figure 4
DATE	CHECKED	APPROVED	FIGURE
10/13/04	TTR		2-4



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LEGEND:

- 1920 BUILDING STRUCTURES
- EXISTING FENCELINE
- MW-10 (BH-4) 2005 - 2008 SI MONITORING WELL LOCATION (ORIGINAL BOREHOLE LOG NUMBER)
- 2001 SAMPLE LOCATIONS
- 1997 STS SAMPLE LOCATIONS
- MW-11 2010-2011 VPLE MONITORING WELL LOCATION

→ GENERALIZED DIRECTION OF GROUNDWATER FLOW

1,2 DCB

○

TCE, As

○

GROUNDWATER ISOCONCENTRATION WHERE GROUNDWATER EXCEEDS ENFORCEMENT STANDARDS. PARAMETER EXCEEDING ES IS LABELED.

○

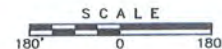
APPROXIMATE GROUNDWATER ISOCONCENTRATION WHERE GROUNDWATER EXCEEDS ENFORCEMENT STANDARDS. PARAMETER EXCEEDING ES IS LABELED.

NOTES:

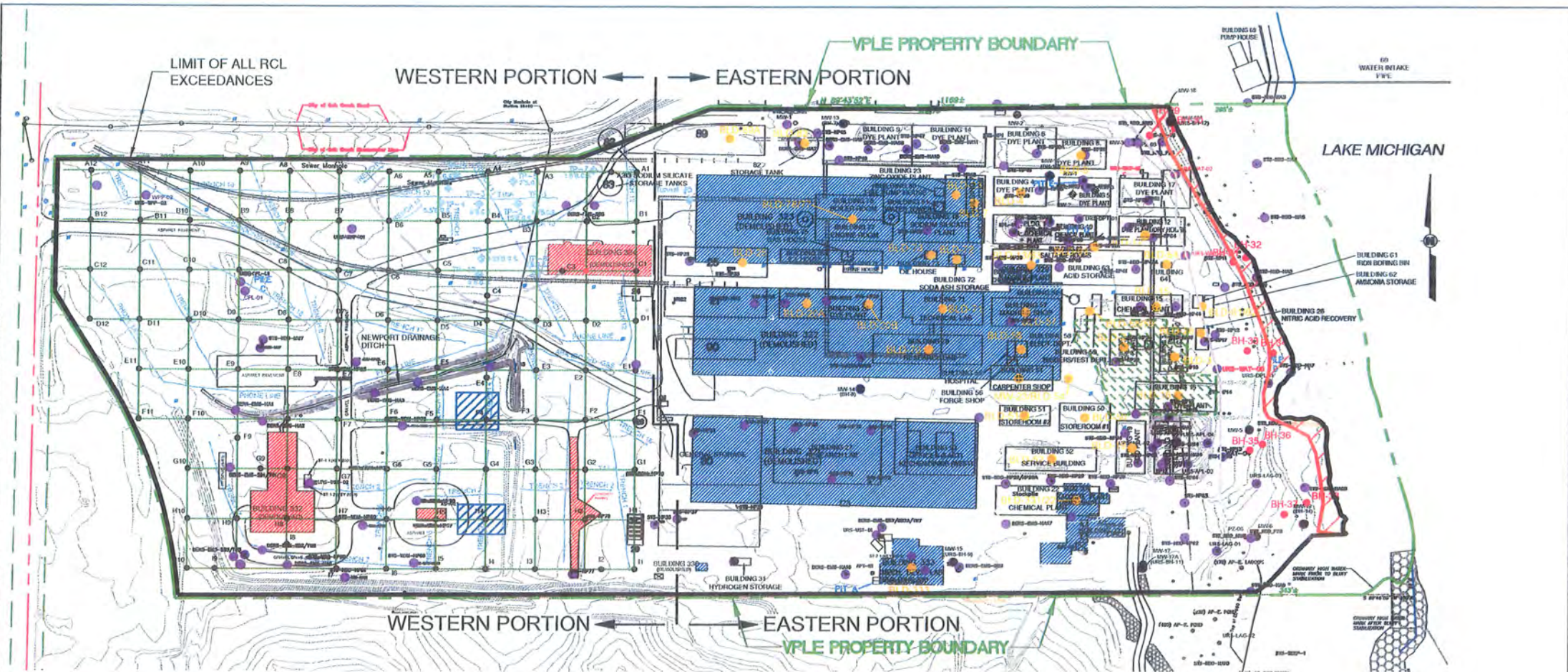
ALL WELLS HAD FULL RCRA APPENDIX IX PARAMETERS ANALYZED; ONLY EXCEEDANCES OF ES ARE SHOWN.

ALL SITE WELLS HAVE BEEN ABANDONED AS OF MARCH 5, 2014.

DESIGNED BY M. BRILL	 URS Corporation Iron Hill Corporate Center 8054 Cuyahoga Road, Suite 300 Newark, Delaware 19713 Phone: 302.781.9800	GROUNDWATER ISOCONCENTRATION ENFORCEMENT STANDARD EXCEEDANCE	PROJECT NO. 18985583
DRAWN BY D. LITTEL		ALLIS CHALMERS/DUPONT SITE OAK CREEK, WISCONSIN	DATE 5/29/14
DATE QUALITY CONTROL M. BRILL			PROJECT No. B.3.b.2
APPROVED BY D. FLETCHER			



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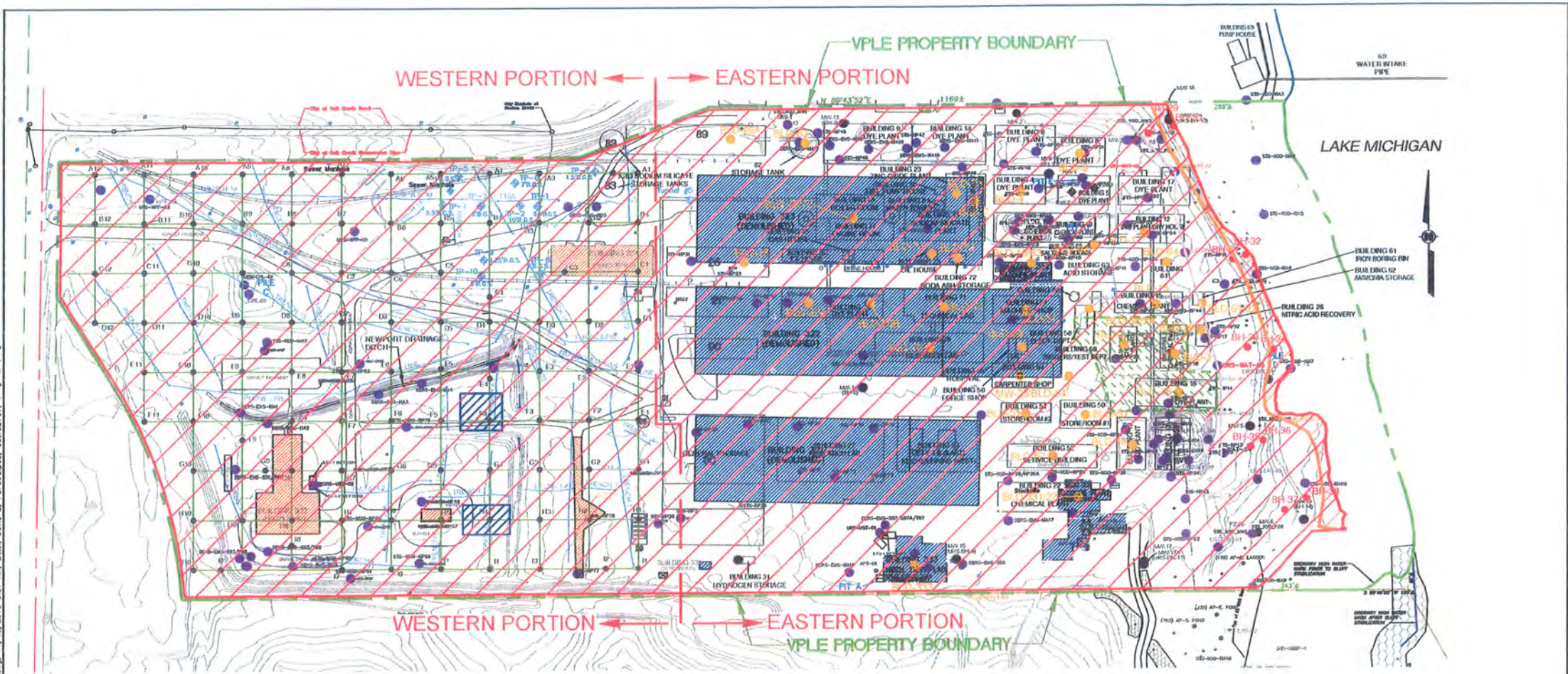


- LEGEND:**
- LIMIT OF ALL RCL EXCEEDANCES
 - FORMER ELEVATED ARSENIC AREAS STABILIZED AND RELOCATED DURING REMEDIAL ACTION
 - FORMER BUILDING FOUNDATION AREA WHERE ARSENIC STABILIZED SOIL WAS PLACED AND COVERED
 - FILL MATERIAL ON CREST OF BLUFF "PULL BACK" AREA
 - SLABS REMAINING IN PLACE AFTER PLACEMENT OF BARRIER
 - SLABS REMOVED DURING REMEDIAL ACTION
 - 1955-1980's ALLIS CHALMERS STRUCTURE - DEMOLISHED
 - 1920's BUILDING STRUCTURE - DEMOLISHED
 - UNDERGROUND CONCRETE PIPE CHASE
 - NR 700 SAMPLE LOCATION
 - VPLE SAMPLE LOCATION
 - CREST OF BLUFF WASTE THICKNESS BORING (JUNE 2011)
 - TEST PIT LOCATION
 - TRENCH LOCATION







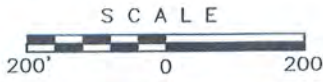
DESIGNED BY: M. BRILL DRAWN BY: D. LITTEL DATA QUALITY CHKD: M. BRILL APPROVED BY:	<p>URS Corporation Iron Hill Corporate Center 4051 Ogletown Road, Suite 300 Newark, Delaware 19713 Phone: 302-781-5900 Fax: 302-781-5901</p>	<p>PRE/POST REMAINING SOIL CONTAMINATION</p> <p>ALLIS CHALMERS/DUPONT SITE OAK CREEK, WISCONSIN</p>	PROJECT NO. 18985883 DATE 11/4/14 FIGURE No: B.2.c
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V:\Projects\Dupont\Oak Creek\CAD\VPE Closure drawings\Figure 1 for Dupont_BMP.dwg, 11/15/2013 8:57 AM, Littel, David E., R09895.p03, User:32787, 1'-0" = 1'-0"



LEGEND:

-  MINIMUM 2 FT. THICK CLEAN SOIL BARRIER AREA SUBJECT TO INSPECTION AND MAINTENANCE REQUIREMENTS OF BMP
-  FORMER ELEVATED ARSENIC AREAS STABILIZED AND RELOCATED DURING REMEDIAL ACTION
-  FORMER BUILDING FOUNDATION AREA WHERE ARSENIC STABILIZED SOIL WAS PLACED AND COVERED
-  FILL MATERIAL ON CREST OF BLUFF "PULL BACK" AREA
-  SLABS REMAINING IN PLACE AFTER PLACEMENT OF BARRIER
-  SLABS REMOVED DURING REMEDIAL ACTION
-  1955-1980's ALLIS CHALMERS STRUCTURE - DEMOLISHED
-  1920's BUILDING STRUCTURE - DEMOLISHED
-  UNDERGROUND CONCRETE PIPE CHASE
-  NR 700 SAMPLE LOCATION
-  VPLE SAMPLE LOCATION
-  CREST OF BLUFF WASTE THICKNESS BORING (JUNE 2011)
-  TEST PIT LOCATION
-  TRENCH LOCATION
-  VPLE WEST SIDE SOIL CHARACTERIZATION SAMPLE GRID
-  COAL / ASH AREA



DESIGNED BY: M. BRILL DRAWN BY: D. LITTEL DATA QUALITY CHKD: M. BRILL APPROVED BY:	 URS Corporation Iron Hill Corporate Center 4051 Ogletown Road, Suite 300 Newark, Delaware 19713 Phone: 302-781-5900 Fax: 302-781-5901	BARRIER MAINTENANCE PLAN Investigation Sampling Locations Area Subject to Inspection and Maintenance Requirements ALLIS/CHALMERS/DUPONT SITE OAK CREEK, WISCONSIN	PROJECT NO: 18985883 DATE: 11/11/13 FIGURE No: 1
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FINAL COVER BARRIER MAINTENANCE PLAN

Allis Chalmers/DuPont Site
Oak Creek, Wisconsin

April 2014

Property located:

9180 South 5th Avenue

Oak Creek, Wisconsin

FID# 341041580

BRRTS #: 06-41-554563, 02-41-2789988 and 02-41-280624

Tax #8689995-001(part), 8689996-001 and 8689996-002

The following Figures are part of this Barrier Maintenance Plan:

Figure 1 – Investigation Sampling Locations and Area Subject to Inspection and Maintenance Requirements.

Figure 2 – Summary of Groundwater Monitoring Data.

Figure 3 – Future Property Use Areas.

Figure 4 – Final Barrier Engineering As-Built.

Appendix A, Figure A1 – Institutional Controls.

Appendix A, Figure A2 – Boundary of Former Newport Chemical Manufacturing Area.

Appendix A, Figure A3 – Arsenic Excavation Boundary Area.

Appendix A, Figure A4 – Boundary of Clean Soil Cover Area.

Appendix A, Figure A5 – Utility-Ready Areas.

1.0 Introduction

This document is the Barrier Maintenance Plan (BMP) for the soil barrier that covers the former Allis Chalmers/DuPont Site (the “Site”). The barrier area is divided into three sub-areas as shown in Figure A1. These areas include the Former Newport Chemical Manufacturing Area (the “Eastern Portion”), the Clean Cover Soil Area (the “Western Portion”), and the Arsenic Excavation Boundary Area (the “AEBA”). This BMP has been prepared consistent with applicable requirements of the Wisconsin Administrative Code (“WAC”). The BMP is required because the final environmental remedy requires an engineered barrier across the Site to prevent direct contact with the historically contaminated soil and/or fill material. Another integral part of the final environmental remedy is the institutional controls that have been established for the Site. These institutional controls are described in detail in Appendix A of this BMP.

This BMP is intended to address routine inspection and maintenance of the installed soil barrier. Planned activities that will disturb the soil barrier will require notification of and approval by the Wisconsin Department of Natural Resources (WDNR). In addition, if these activities expose historically contaminated soil and/or fill below the soil cover, the requirements of the Soil Management Plan (SMP)

will need to be followed.

This BMP, the associated institutional control (deed restriction) document (Appendix A), and the SMP contain all the restrictions applicable to future development of the Site. At present there are no conflicts between the deed restriction document and the BMP and SMP. In the future, any conflicts between the deed restrictions and proposed modifications to the BMP and/or SMP shall be resolved in favor of the deed restrictions.

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

- The case file in the WDNR Southeast regional office;
- Bureau of Remediation and Redevelopment Tracking System (BRRTS) on the Web (WDNR's internet based data base of contaminated sites): <http://dnr.wi.gov/botw/SetUpBasicSearchForm.do>; and
- GIS Registry PDF file for further information on the nature and extent of contamination: <http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=brrts2>.

2.0 WDNR Notification, Approval and Documentation

Prior to any planned disturbance of the minimum two-foot thick clean soil barrier layer the property owner will notify the WDNR of the activity and obtain prior approval from WDNR consistent with the requirements of WAC Chapter NR 718, Chapter NR 727, and the WDNR issued "Closure Letter". Unless otherwise defined in the WAC or closure letter, "disturbance" means any excavation or future construction activities **on or within** the soil barrier layer, including the "utility corridor" areas.

Based on current/applicable rules and guidance, WDNR will determine what additional information will be required to evaluate and approve the specified disturbance activity. If WDNR approves the disturbance, it will be determined what documentation will be required for that activity. This documentation will be completed after the approved actions are finalized. If the barrier is modified, an updated barrier map shall be filed with the WDNR for placement in the GIS Registry. All required work plans and documentation, as required by WDNR, shall be prepared by a "qualified environmental professional" as defined in NR 712.

The property owner should review the "Closure Letter" found on the WDNR's online Bureau for Remediation and Redevelopment Tracking System (BRRTS) prior to notifying the WDNR so that they have an understanding of the restrictions currently in place.

3.0 Description of Contamination

The historically contaminated soil/fill on the Eastern Portion of the Site is impacted by Volatile Organic Compounds (VOCs), Semi-VOCs, and metals within approximately 15 feet from the ground surface.

Many foundation walls, footers, floor slabs, abandoned sewers, and other historic subsurface infrastructure features exist below grade in the Eastern Portion of the Site. Figure 1 shows the locations of the samples used to define and delineate the nature and extent of soil contamination at the Site and remaining subsurface infrastructure. Removal of a dense non-aqueous phase liquid (DNAPL) was completed in the area of RW-1, located in the northeastern quadrant of the Site. Dissolved phase groundwater contamination resulted from this DNAPL. Dissolved-phase concentrations, as shown by analytical results for wells MW-3 and MW-18, are stable and/or decreasing due to natural attenuation (see Figure 2).

Soil and/or fill material on the Western Portion of the Site are contaminated primarily with arsenic and Polycyclic Aromatic Hydrocarbons (PAHs). Two areas on the Western Portion of the Site contained arsenic concentrations above the Resource Conservation and Recovery Act (RCRA) Toxicity Characteristic Leaching Procedure (TCLP) based criteria of 5 mg/l. These two areas have been remediated by in-situ stabilization during remedial construction, in accordance with the approved Final Remedial Action Plan (FRAP) for the Site. The remediated soil was then relocated to a designated location on the Eastern Portion of the Site, where it was covered with the final barrier (see Figure 1).

4.0 Description of the Barrier to be Maintained

The entire barrier area subject to the inspection and maintenance requirements of this BMP is shown on Figure 1 in diagonal red cross-hatch. Initially, a minimum two-foot thick clean soil barrier layer has been placed over the barrier area of the Site. This soil barrier will remain over the Eastern Portion of the property and be integrated with roads; parking features; small seasonal buildings and shelters (on top of it), as needed to support future recreational activities. Much of the soil barrier on the Western Portion of the Site will be covered over or replaced over time with permanent buildings, roads and walkways; and parking areas consistent with the Future Property Use Areas, shown in Figure 3. Any contaminated soil below the existing clean barrier which is disturbed during construction of these components on the Western Portion of the Site will be managed according to the SMP for this Site. Figure A1 identifies relevant areas where industrial, commercial, condominium, and multi-family residential development under common land ownership will be permitted (the "Authorized Uses"). Future development will not include any uses which are not Authorized Uses.

This BMP is focused primarily on the initially placed soil barrier that has been constructed according to the design documents prepared in July 2012 and provides general maintenance guidance for other components of the barrier. The area addressed by this Plan is shown on Figure 1. The as-built location and topography for the barrier are shown on Figure 4.

Through the Eastern Portion, the Western Portion, and the AEBA, the City will construct a road built to specifications determined by the City Engineer; however, the construction of the road through the AEBA will be subject to prior approval by the United States Environmental Protection Agency (EPA) or WDNR, where appropriate. The road will follow a path identical to that shown in Figures 3, 4 and A5. At the

location identified on the figures where the road will traverse the AEBA and associated swale, the road will include either a storm water management feature (i.e. box culvert) or foundations for above grade crossing.

5.0 Barrier Purpose

The barriers on this Site will consist of various components that will serve as barrier to limit direct contact with the underlying soil and historic fill material that might otherwise pose a threat to human health. The specific configuration of the barrier layer in the Western Portion will be modified and is anticipated to include building slabs, parking lots, roadways as well as vegetated soil cover as the development proceeds. Based on the current and future use of the property, the barrier should function as intended unless disturbed. Because of the hydrogeological conditions beneath the Site and the groundwater quality, there is no permeability requirement for the barrier, and the barrier is not intended to perform as an infiltration barrier. Groundwater contaminant concentrations on-Site have been shown to be stable or receding prior to construction of the barrier. However, surface water infiltration will be reduced and as such, precipitation run-off managed as described in the barrier configuration design and as-built drawing set.

6.0 Vapor Intrusion Mitigation System for Buildings or Structures

There are currently no buildings or inhabitable structures on Site. No enclosed building or structure shall be constructed on the property unless a WDNR-approved vapor intrusion mitigation system that meets the objective of protecting human health is installed, or as the alternative, a vapor intrusion assessment is performed in accordance with guidelines issued by WDNR. A vapor mitigation system would not be installed if not required by the finding of the vapor intrusion assessment; contingent upon WDNR's approval of said assessment. Since any vapor intrusion mitigation system needs to be maintained in perpetuity, any future modifications to the buildings need to take in account the long-term integrity of this system.

7.0 Annual Inspection

The barrier overlying the contaminated soil and/or fill soils, as depicted on Figure 1, will be inspected once a year. The annual inspections shall be conducted in the spring after all snow and ice are gone and once vegetation is starting to re-emerge. The inspection shall identify and document any deterioration, cracks, erosion and other potential problems that can allow direct contact with underlying soil and fill materials. The inspections will also be performed to evaluate damage due to settling, loss of vegetation, exposure to the weather, wear from traffic, increasing age and other factors that can lead to additional deterioration of the barrier layer. A log of the inspections and any repairs will be maintained by the property owner on a Barrier Inspection and Maintenance Log (attached). The log will include recommendations for necessary repair of any areas where underlying soil and or fill are exposed or are likely to become exposed. Once repairs are completed, they will be documented in the inspection log.

8.0 Maintenance Activities

If problems with the barrier are noted during the annual inspections or are brought to the attention of the property owner at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling operations, or they can include larger resurfacing or construction operations. In the event that necessary maintenance or authorized development activities expose the underlying soil below the barrier layer, the exposed soil is to be assumed contaminated and handled according to the requirements of the SMP. For future planned development on the Western Portion of the property which will disturb subsurface soils below the barrier (i.e. deeper than two feet), the SMP must be followed (which includes obtaining WDNR's approval prior to and after the development activity). The excavated soil must be handled, stored and disposed of by the owner in accordance with applicable local, state and federal law.

9.0 Prohibition of Activities

9.1 Prohibition of Activities on the Eastern Portion of the Site

Driving (in a manner that does not bring material from beneath the barrier into the barrier layer or to the surface) of recreational amenity items into the subsurface of the Eastern Portion of the property, such as installation of fence posts, lighting structures, sign posts, baseball backstops, playground equipment, etc., is allowed, but not to depths greater than five (5) feet.

There are no subsurface disturbances allowed on the Eastern Portion of the property (as designated on Figure 1) that will result in bringing material from beneath the barrier into the barrier layer or to the surface.

Given the restriction above, certain designated areas of the barrier layer on the Eastern Portion of the Site were constructed with a thickness greater than 2 feet in anticipation of future use of the property. The locations of these designated areas (Utility-ready Areas) are depicted on Figure 4. Construction of Utility-ready Areas included the excavation and relocation of contaminated soil from proposed future utility corridors prior to placement of clean soil barrier. The excavations were performed to a depth of at least four feet below final grade, and the excavations were backfilled with clean barrier soil (resulting in a thickened barrier layer in these Utility-ready Areas). Utility-ready Areas were constructed for the following proposed site features on the eastern Allis Chalmers/DuPont site:

- Future light poles along the proposed perimeter road
- Water, sewer and electric service for potential restrooms at a designated location near the roadway on the north side of the property
- Culverts and storm sewers to control surface water associated with the proposed perimeter road at a designated location on the side of the property.

Disturbance of the soil barrier in the Utility-Ready Areas will require notification of and approval by WDNR prior to performing any of the activities listed above.

The City is permitted to build the road at the location shown on Figure A1 on the Eastern Portion of the property provided the City complies with applicable regulatory approval procedure for barrier disturbance for such road construction. The road will be built to specifications determined by the City engineer. The road will not disturb contaminated soil located beneath the clean soil cover barrier. It is also not anticipated that contaminated soils will be disturbed where the roadway crosses the former AEBA based upon the current plans for the crossing. However, if any contaminated soil is encountered, it will be handled according to the requirements of the SMP.

The property owner(s), in order to maintain the integrity of the barrier, will maintain a copy of this BMP on Site (or a nearby location such as Oak Creek City Hall) and make it available to all interested parties (i.e., employees, contractors, future property owners, tenants, etc.) for their use.

Any groundwater well installation or the withdrawal of groundwater from beneath the Eastern Portion shall be prohibited unless expressly required and approved by the WDNR in writing. Withdrawal of any water from any well required by WDNR is expressly limited to sample collection only, in accordance with industry standard procedures for groundwater sample collection.

9.2 Prohibition of Activities in the Western Portion of the Site

Development is allowed in the Western Portion of the Site consistent with the Authorized Uses listed on Figure A1. In the event the barrier overlying the Western Portion of the Site is disturbed, removed or replaced, the replacement barrier must be equally protective. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this BMP and modified, if necessary, to reflect the different barrier components and will remain consistent with the existing barriers unless indicated otherwise by the WDNR or its successor.

Any groundwater well installation or the withdrawal of groundwater from beneath the Western Portion shall be prohibited unless expressly required and approved by the WDNR in writing. Withdrawal of any water from any well required by WDNR is expressly limited to sample collection only, in accordance with industry standard procedures for groundwater sample collection.

9.3 Prohibition of Activities in the AEBA

With the exception of the aforementioned road crossing shown in Figures 3 and A5 and subject to EPA or WDNR approval, where appropriate, any activities that are not park, passive recreational use, or open space are prohibited in the AEBA. All commercial, residential, and industrial development of the AEBA is prohibited. Any replacement of cover material with

another barrier, excavation or grading of the land surface, filling, plowing for agricultural cultivation, or construction or placement of a building or other structure is prohibited. Any groundwater well installation or the withdrawal of groundwater from beneath the AEBA shall be prohibited unless expressly required and approved by the WDNR in writing. Withdrawal of any water from any well required by WDNR is expressly limited to sample collection only, in accordance with industry standard procedures for groundwater sample collection.

10.0 Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and their successors with the written approval of the WDNR.

11.0 Contact Information

February 2014

Property Owner

City of Oak Creek
Gerald R. Peterson, City Administrator
8640 South Howell Avenue
Oak Creek, WI 53154
414 768-6504

Signature

Environmental Consultant:

Kathryn Huibregtse
ENVIRON International Corporation
175 Corporate Drive, Suite 160
Brookfield, WI 53045 262-901-0082

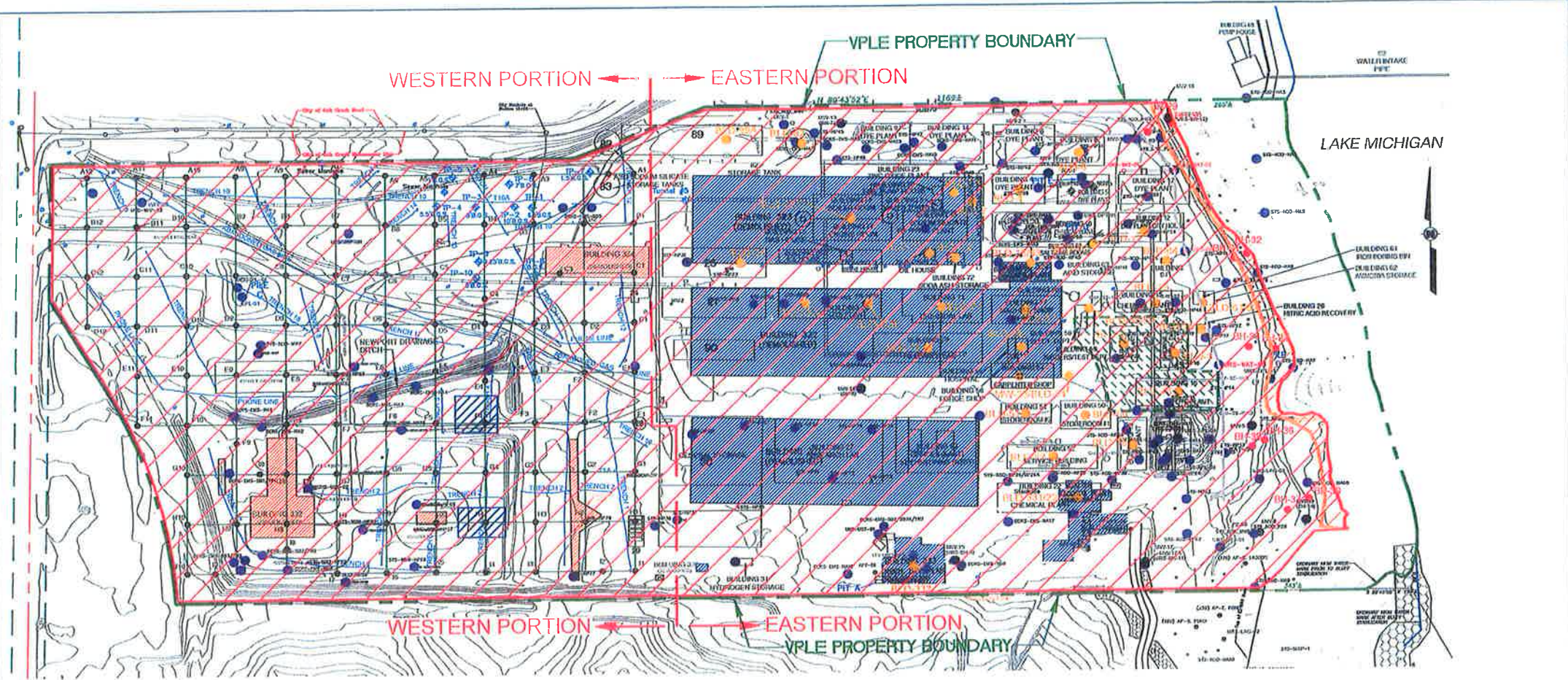
WDNR Project Manager:

Mr. Eric Amadi
2300 North M.L. King Jr. Drive
Milwaukee, WI 53212
414 263-8639

BRRTS#: 06-41-554563 Former Allis Chambers/DuPont Site Barrier Inspection and Maintenance Log

Inspection Date:	Inspector:	Condition of Barrier:	Recommendations:	Has Recommended Maintenance From Previous Inspection Been Implemented?

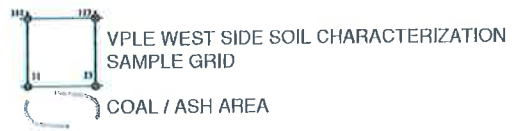
V:\Projects\DuPont\Oak Creek\GIS\VPLE Closure drawings\Figure 1 for DuPont BMP.dwg, 11/11/2013 9:57 AM, Littell, David E., P:\P\955.ec3, User:32767, 1"=100'



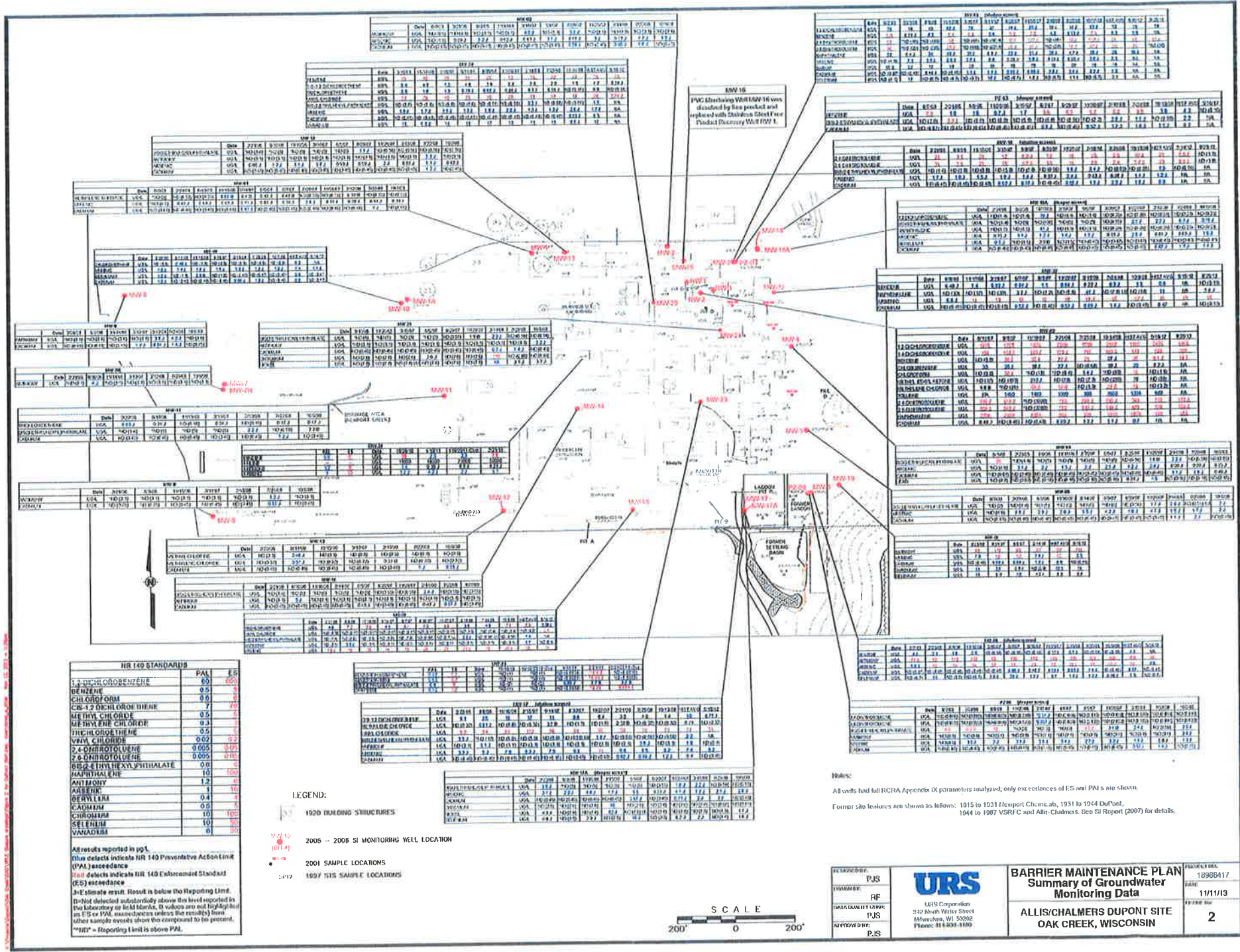
LEGEND:

- MINIMUM 2 FT. THICK CLEAN SOIL BARRIER AREA SUBJECT TO INSPECTION AND MAINTENANCE REQUIREMENTS OF BMP
- FORMER ELEVATED ARSENIC AREAS STABILIZED AND RELOCATED DURING REMEDIAL ACTION
- FORMER BUILDING FOUNDATION AREA WHERE ARSENIC STABILIZED SOIL WAS PLACED AND COVERED
- FILL MATERIAL ON CREST OF BLUFF "PULL BACK" AREA
- SLABS REMAINING IN PLACE AFTER PLACEMENT OF BARRIER
- SLABS REMOVED DURING REMEDIAL ACTION

- 1955-1980's ALLIS CHALMERS STRUCTURE - DEMOLISHED
- 1920's BUILDING STRUCTURE - DEMOLISHED
- UNDERGROUND CONCRETE PIPE CHASE
- NR 700 SAMPLE LOCATION
- VPLE SAMPLE LOCATION
- CREST OF BLUFF WASTE THICKNESS BORING (JUNE 2011)
- TEST PIT LOCATION
- TRENCH LOCATION



DESIGNED BY: M. BRILL DRAWN BY: D. LITTEL DATA QUALITY CHKD: M. BRILL APPROVED BY:	<p> URS Corporation Iron Hill Corporate Center 4051 Oglethorpe Road, Suite 300 Newark, Delaware 19713 Phone: 302-781-5900 Fax: 302-781-5901 </p>	BARRIER MAINTENANCE PLAN Investigation Sampling Locations Area Subject to Inspection and Maintenance Requirements ALLIS/CHALMERS/DUPONT SITE OAK CREEK, WISCONSIN	PROJECT NO. 18985883 DATE 11/11/13 FIGURE No. 1
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HR 140 STANDARDS	PAI	ES
1,2-DICHLOROBENZENE	60	200
BENZENE	0.5	5
CHLOROFORM	0.0	0.1
CB-12 DICHLOROBENZENE	7	20
METHYL CHLORIDE	0.5	5
METHYLENE CHLORIDE	0.5	5
TRICHLOROETHYLENE	0.5	5
VINYL CHLORIDE	0.02	0.2
2,4-DINITROTOLUENE	0.005	0.05
2,6-DINITROTOLUENE	0.005	0.05
BIS(2-ETHYLHEXYL)SEBACATE	0.0	0
HEXACHLOROCYCLOHEXANE	1.0	10
ANTHRACENE	1.0	10
ARSENIC	1	10
DEXYLUM	0.5	5
CADMIUM	0.05	0.5
COPPER	10	100
SELENIUM	10	100
VANADIUM	0	20

All results reported in µg/L.
 Blue detects indicate HR 140 Preventive Action Limit (PAL) exceedance.
 Red detects indicate HR 140 Enforcement Standard (ES) exceedance.
 In-Eliminate result. Result is below the Reporting Limit.
 D-Not detected substantially above the level reported in the laboratory or field Manual. D values are not by Agilent in ES or PAL exceedances unless the result is from other sample events above the compound to be present.
 "ND" = Reporting Limit is above PAL.

LEGEND:

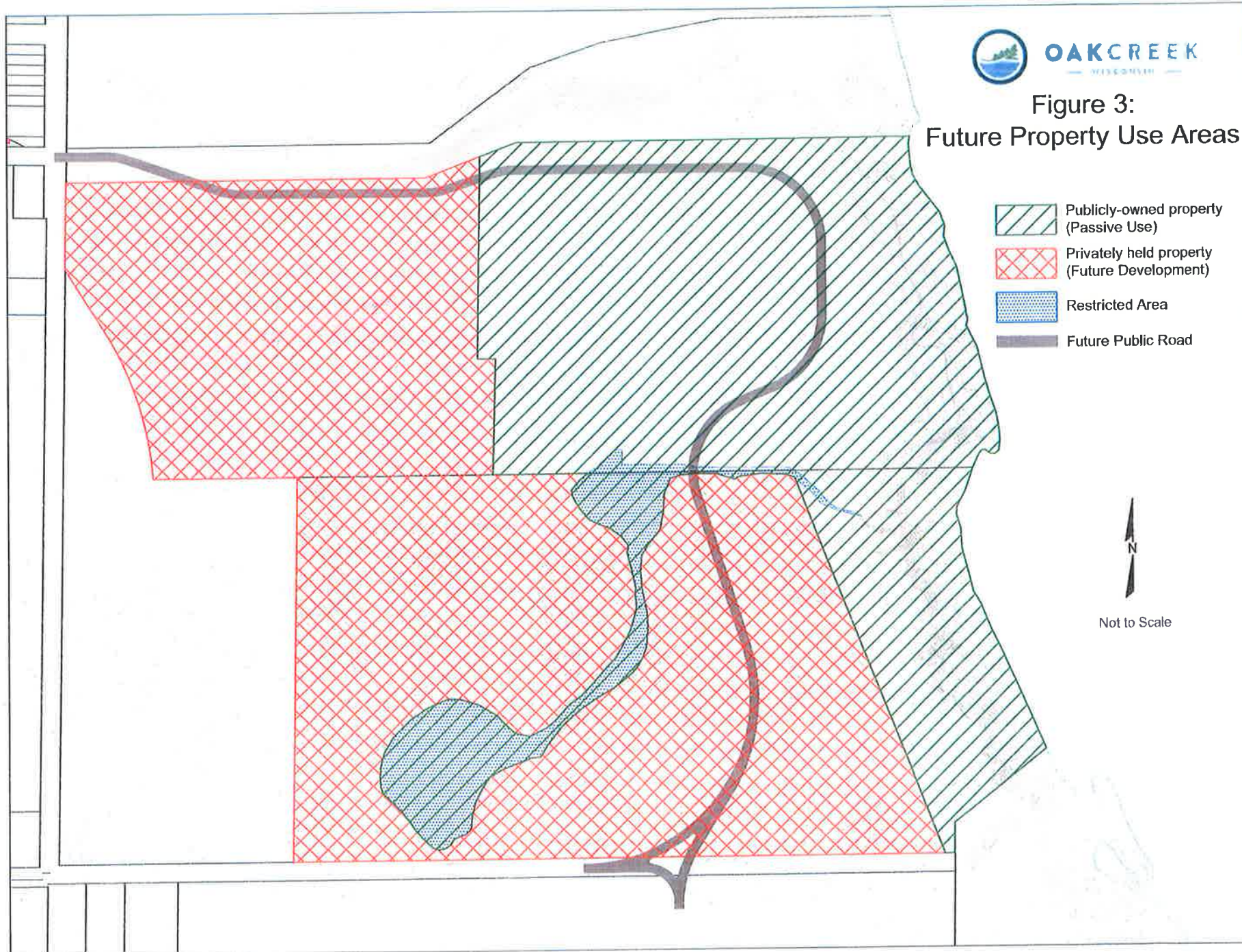
- 1920 BUILDING STRUCTURES
- 2005 - 2008 SI MONITORING WELL LOCATION
- 2001 SAMPLE LOCATIONS
- 1997 S1/S2 SAMPLE LOCATIONS

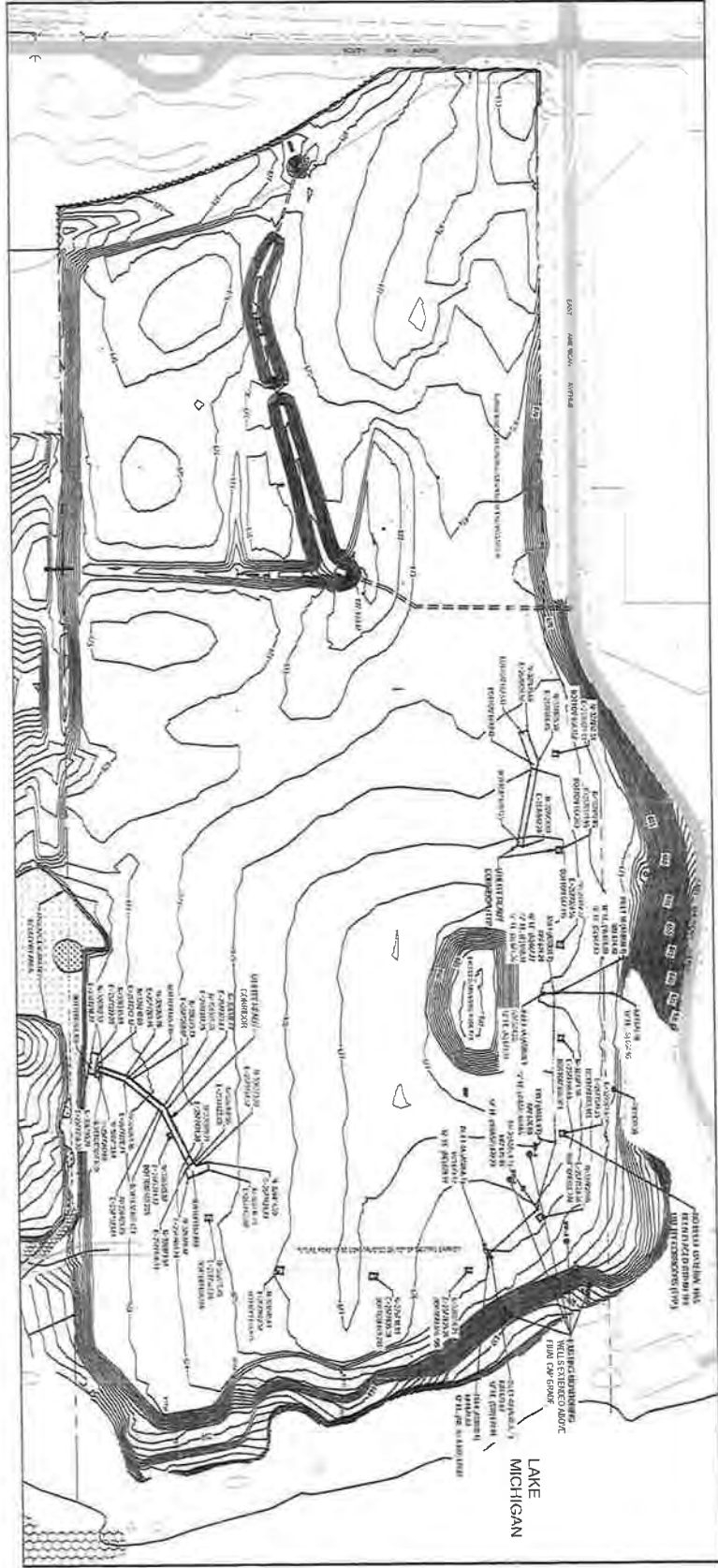
Notes:
 All wells had full RCRA Appendix IX parameters analyzed; only exceedances of ES and PAL's are shown.
 Former S1a features are shown as follows: 1015 to 1031 Hewlett-Packard, 1931 to 1944 DuPont, 1944 to 1987 VGRFC and Allis-Chalmers. See SI Report (2007) for details.



DRAWN BY: PJS CHECKED BY: RF DATA ENTRY: PJS APPROVED BY: PJS	URS Corporation 942 North Water Street Milwaukee, WI 53202 Phone: 414-903-1800	BARRIER MAINTENANCE PLAN Summary of Groundwater Monitoring Data ALLIS-CHALMERS DUPONT SITE OAK CREEK, WISCONSIN	PROJECT NO.: 19386417 DATE: 1/11/13 PAGE NO.: 2
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Figure 3:
Future Property Use Areas



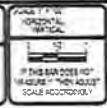


NOTE: ALL BARRIERS SHALL BE CONSTRUCTED PER THE SPECIFICATIONS OF THE STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION.

4	PROJECT NO.	111111
4	DATE	11/11/11
4	DRAWN BY	J. SMITH
4	CHECKED BY	D. JONES
4	APPROVED BY	M. GARCIA
4	SCALE	AS SHOWN

BARRIER MAINTENANCE PLAN
Final Barrier Engineering As-Built

Alis Chalmers / DuPont Site
Oak Creek, Wisconsin



NO.	REVISION	DATE	BY	CHK



**APPENDIX A
INSTITUTIONAL CONTROLS**

Institutional Controls: Land Use Restricted Areas

The Site is divided into three distinct areas: the Former Newport Chemical Manufacturing Area, the “Eastern Portion”, or FNMCA), the Arsenic Excavation Boundary Area (the “AEBA”), and the Clean Cover Soil Area (the “Western Portion”). The following presents the land use restrictions associated with each of these areas.

Former Newport Chemical Manufacturing Area (FNMCA) (Eastern Portion of DuPont Property)

The FNMCA is designated on Figure A1 as a diagonal blue hatched area on the Eastern Portion of the property, extending all the way to Lake Michigan. Figure A2 illustrates the surveyed boundaries of this area along with its legal description. The historically contaminated soil/fill on this portion of the Site is impacted by Volatile Organic Compounds (VOCs), Semi-VOCs, and metals within approximately 15 feet from the ground surface. For this area, the following Land Use Restrictions apply:

- A. The FNCMA shall be used exclusively for park, passive recreational use, or open space. All commercial, residential, and industrial development of the FNCMA is prohibited. With the exception of the road to be constructed over the existing clean cover soil material, the location of which is shown on Figure A1, and the utility installation in the Utility-ready Areas as described below, any replacement of clean cover soil material with another barrier, excavation or grading of the land surface, plowing for agricultural cultivation, or construction or placement of a building or other habitable structure is prohibited.

Given the restriction above, certain designated areas of the barrier layer on the eastern portion of the site were constructed in 2013 in anticipation of future use of the property. The location of these designated areas (Utility-ready Areas) is depicted on Figure A5. Construction of the Utility-ready Areas included the excavation and relocation of contaminated soil from proposed future utility corridors prior to placement of the clean soil barrier. The excavations were performed to a depth of at least four (4) feet below final grade, and the excavations were backfilled with clean soil from the approved soil stockpile. Utility-ready Areas were constructed for the following proposed site features on the eastern Allis Chalmers/DuPont site: Future light poles along the proposed perimeter road; water, sewer and electric service for potential restrooms at a designated location; and culverts and storm sewers to control surface water associated with the proposed perimeter road.

The City is permitted to construct a road as shown on Figure A1 in the FNCMA provided the City complies with applicable regulatory approval for barrier disturbance for such road construction. The road will be built to specifications determined by the City engineer. The road will not disturb contaminated soil located beneath the clean soil cover barrier in the FNCMA.

Construction of small recreational use structures not intended for permanent occupancy, e.g. restroom facilities, kiosks or concession stands are allowed. Additional clean material may be placed on top of the existing remedial barrier, e.g. sand for baseball fields, top soil for landscaping. Driving (in a manner that does not bring potentially contaminated soils below the barrier up into or above the clean soil barrier) of

recreational amenity items into the subsurface of the FNCMA, such as installation of fence posts, lighting structures, sign posts, baseball backstops, playground equipment, etc., is allowed, but not to depths greater than five (5) feet.

- B. Any groundwater well installation or the withdrawal of groundwater from beneath the FNCMA is prohibited unless expressly required and approved by the Wisconsin Department of Natural Resources (WDNR) or its successor in writing. Withdrawal of any water from any well required by WDNR is expressly limited to sample collection only, in accordance with industry standard procedures for groundwater sample collection.
- C. All owners of the FNCMA shall comply with the obligations and restrictions in the Barrier Maintenance Plan (BMP) relating to the property as approved by WDNR.
- D. No enclosed building or structure shall be constructed on the property unless a WDNR-approved vapor intrusion mitigation system that meets the objective of protecting human health is installed, or as the alternative, a vapor intrusion assessment is performed in accordance with guidelines issued by the WDNR. A vapor mitigation system would not be installed if not required by the finding of the vapor intrusion assessment; contingent upon WDNR's approval of said assessment. Since any vapor intrusion mitigation system needs to be maintained in perpetuity, any future modifications to the buildings need to take in account the long-term integrity of this system.

Arsenic Excavation Boundary Area (AEBA)

The AEBA is designated on Figure A1 as a red horizontal hatched area. Figure A2 illustrates the surveyed boundaries of this area along with its legal description. The AEBA is where excavation work was performed in 2003 and 2004 and was backfilled with 1 foot to 10 feet of clean soil barrier. Soils below this barrier contain arsenic concentrations that exceed 40 milligrams per kilogram (mg/kg). For this area, the following Land Use Restrictions apply:

- A. Subject to United States Environmental Protection Agency (EPA) or Wisconsin Department of Natural Resources (WDNR) approval, where appropriate, the City is authorized to construct a road, the location of which is shown on Figure A1. With the exception of the road shown on Figure A1 and described immediately below, any activities that are not park, passive recreational use, or open space are prohibited in the AEBA. All commercial, residential, and industrial development of the AEBA is prohibited. With the exception of the road discussed below, any replacement of cover material with another barrier, excavation or upgrading of the land surface, filling, plowing for agricultural cultivation, or construction or placement of a building or other structure is prohibited.

The City is permitted to construct a road in the location shown on Figure A1 in the AEBA provided the

City obtains and complies with applicable regulatory approval by EPA or WDNR for barrier disturbance for such road construction. After EPA or WDNR approval, the road will be built to specifications determined by the City engineer. Barrier soil disturbances required for construction of the road in the AEBA will be managed according to the Barrier Maintenance Plan (BMP) for this Site and applicable state and federal law.

- B. Any groundwater well installation or the withdrawal of groundwater from beneath the AEBA shall be prohibited unless expressly required and approved by the WDNR or EPA in writing for groundwater sampling. Withdrawal of any water from any well required by WDNR or EPA is expressly limited to sample collection only, in accordance with industry standard procedures for groundwater sample collection.
- C. All owners of the AEBA shall comply with the obligations and restrictions in the BMP relating to the property, as approved by WDNR.

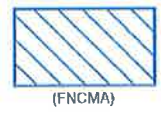
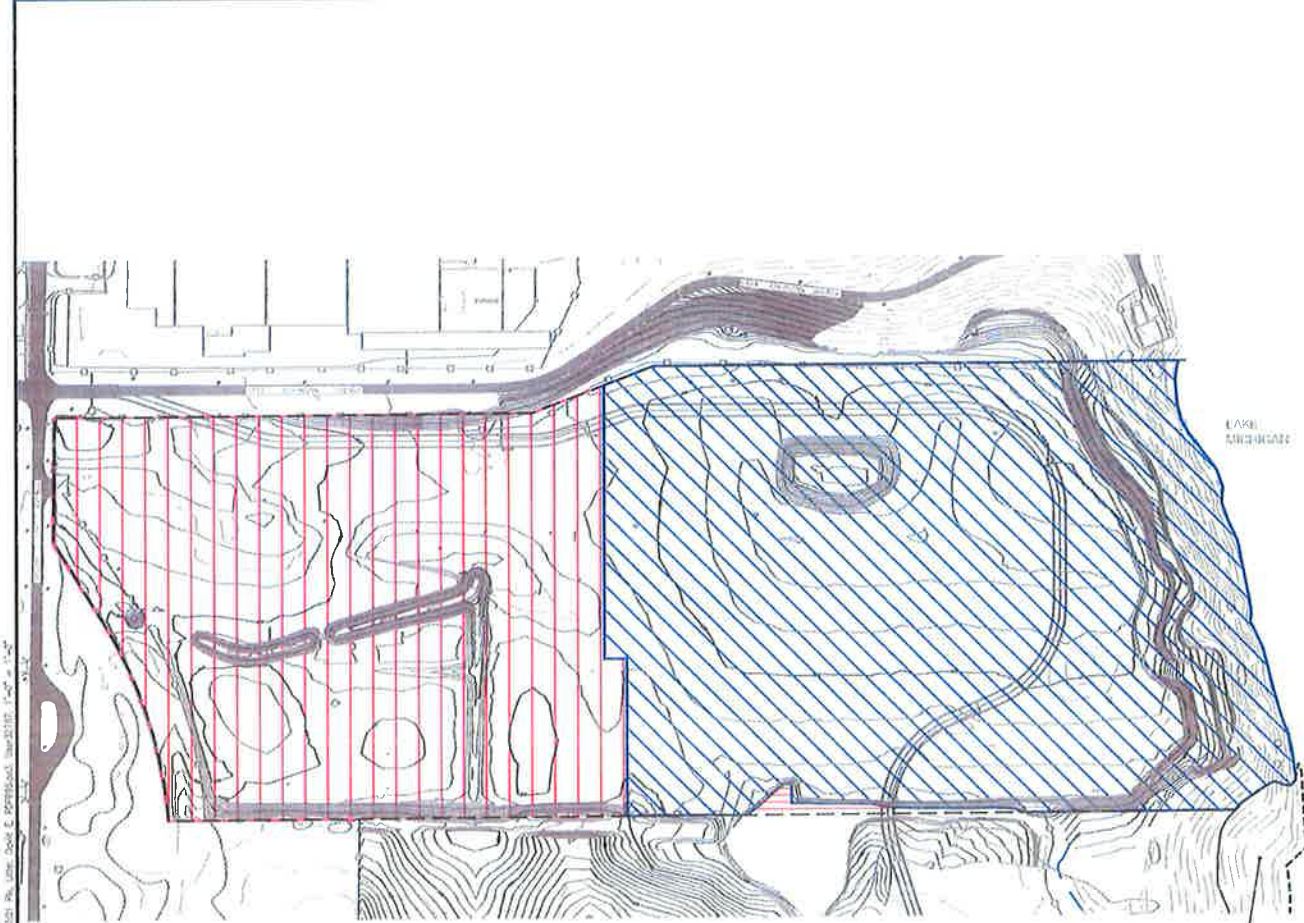
Clean Cover Soil Area (Western Portion)

The Western Portion is designated on Figure A1 as a magenta vertical hatched area in the Western Portion of the property. Figure A4 illustrates the surveyed boundaries of this area along with its legal description. These soils have been covered by a minimum 2-foot clean soil barrier to prevent direct contact. For this area, the following Land Use Restrictions apply:

- A. Subject to paragraph B, all types of development shall be permitted in the CCSA. All owners of the CCSA shall comply with the obligations and restrictions in the Barrier Maintenance Plan (BMP) and the Soil Management Plan (SMP) relating to the property, as approved by the Wisconsin Department of Natural Resources (WDNR).
- B. Industrial, commercial, condominium, and residential development on the CCSA shall be permitted; provided, however, that any such residential development shall be limited to multi-family housing with the land under common ownership where there is an oversight body responsible for enforcing compliance with the BMP and SMP for each such residential development. No single family homes will be permitted.
- C. Any groundwater well installation or the withdrawal of groundwater from beneath the CCSA is prohibited unless expressly required and approved by the WDNR in writing. Withdrawal of any water from any well required by WDNR is expressly limited to sample collection only, in accordance with industry standard procedures for groundwater sample collection.
- D. Any enclosed buildings or structures on the CCSA that are intended for occupancy, including, but not limited to, industrial, residential or commercial buildings, restroom facilities, kiosks or

concession stands, shall not be constructed unless a WDNR-approved vapor intrusion mitigation system that meets the objective of protecting human health is installed, or as the alternative, a vapor intrusion assessment is performed in accordance with guidelines issued by the State of Wisconsin. A vapor mitigation system would not be installed if not required by the finding of the vapor intrusion assessment; contingent upon WDNR's approval of said assessment. Since any vapor intrusion mitigation system needs to be maintained in perpetuity, any future modifications to the buildings need to take in account the long-term integrity of this system.

- E. Any construction or excavation activities on the CCSA shall comply with the SMP for the property, as approved by WDNR.



Former Newport Chemical Manufacturing Area (FNCMA) [western portion of DuPont property]

A. The FNCMA shall be used exclusively for park, passive recreational use, or open space. All commercial, residential, and industrial development of the FNCMA is prohibited. With the exception of the road to be constructed over the existing clean cover soil material, the location of which is shown in this figure, and the utility installation in the Utility ready Areas as described below, any replacement of clean cover soil material with another barrier, excavation or upgrading of the land surface, plowing for agricultural cultivation, or construction or placement of a building or other habitable structure is prohibited.

Given the restriction above, certain designated areas of the barrier layer on the eastern portion of the site were constructed in 2013 in anticipation of future use of the property. The location of these designated areas (Utility ready Areas) is depicted on Figure A5. Construction of the Utility ready Areas included the excavation and relocation of contaminated soil from proposed future utility corridors prior to placement of the clean soil barrier. The excavations were performed to a depth of at least four (4) feet below final grade, and the excavations were backfilled with clean soil from the approved soil stockpile. Utility ready Areas were constructed for the following proposed site features on the eastern Allis Chalmers/DuPont site: Future light poles along the proposed perimeter road; water, sewer and electric service for potential restrooms at a designated location; and culverts and storm sewers to control surface water associated with the proposed perimeter road.

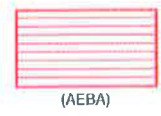
The City is permitted to construct a road as shown in this figure in the FNCMA provided the City complies with applicable regulatory approval for barrier disturbance for such road construction. The road will be built to specifications determined by the City engineer. The road will not disturb contaminated soil located beneath the clean soil cover barrier in the FNCMA.

Construction of small recreational use structures not intended for permanent occupancy, e.g. restroom facilities, kiosks or concession stands are allowed. Additional clean material may be placed on top of the existing remedial barrier, e.g. sand for baseball fields, top soil for landscaping. Driving (in a manner that does not bring potentially contaminated soils below the barrier or into or above the clean soil barrier) of recreational amenity items into the subsurface of the FNCMA, such as installation of fence posts, lighting structures, sign posts, baseball backstops, playground equipment, etc., is allowed, but not to depths greater than five (5) feet.

B. Any groundwater well installation or the withdrawal of groundwater from beneath the FNCMA is prohibited unless expressly required and approved by the Wisconsin Department of Natural Resources (WDNR) or its successor in writing. Withdrawal of any water from any well required by WDNR is expressly limited to sample collection only, in accordance with industry standard procedures for groundwater sample collection.

C. All owners of the FNCMA shall comply with the obligations and restrictions in the Barrier Maintenance Plan (BMP) relating to the property as approved by WDNR.

D. No enclosed building or structure shall be constructed on the property unless a WDNR approved vapor intrusion mitigation system that meets the objective of protecting human health is installed, or as the alternative, a vapor intrusion assessment is performed in accordance with guidelines issued by the WDNR. A vapor mitigation system would not be installed if not required by the finding of the vapor intrusion assessment; contingent upon WDNR's approval of said assessment. Since any vapor intrusion mitigation system needs to be maintained in perpetuity, any future modifications to the buildings need to take in account the long-term integrity of this system.



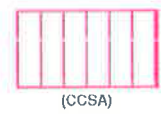
Arsenic Excavation Boundary Area (ABEA)

A. Subject to United States Environmental Protection Agency (EPA) or Wisconsin Department of Natural Resources (WDNR) approval, where appropriate, the City is authorized to construct a road, the location of which is shown in this figure. With the exception of the road shown in this figure and described immediately below, any activities that are not park, passive recreational use, or open space are prohibited in the ABEA. All commercial, residential, and industrial development of the ABEA is prohibited. With the exception of the road discussed below, any replacement of cover material with another barrier, excavation or upgrading of the land surface, filling, plowing for agricultural cultivation, or construction or placement of a building or other structure is prohibited.

The City is permitted to construct a road in the location shown in this figure in the ABEA provided the City obtains and complies with applicable regulatory approval by EPA or WDNR for barrier disturbance for such road construction. After EPA or WDNR approval, the road will be built to specifications determined by the City engineer. Barrier soil disturbances required for construction of the road in the ABEA will be managed according to the Barrier Maintenance Plan (BMP) for this site and applicable state and federal law.

B. Any groundwater well installation or the withdrawal of groundwater from beneath the ABEA shall be prohibited unless expressly required and approved by the WDNR or EPA in writing for groundwater sampling. Withdrawal of any water from any well required by WDNR or EPA is expressly limited to sample collection only, in accordance with industry standard procedures for groundwater sample collection.

C. All owners of the ABEA shall comply with the obligations and restrictions in the BMP relating to the property, as approved by WDNR.



Clean Cover Soil Area (CCSA) [western portion of DuPont property and parts of EPEC property]

A. Subject to paragraph D, all types of development shall be permitted in the CCSA. All owners of the CCSA shall comply with the obligations and restrictions in the Barrier Maintenance Plan (BMP) and the Soil Management Plan (SMP) relating to the property, as approved by the Wisconsin Department of Natural Resources (WDNR).

B. Industrial, commercial, condominium, and residential development on the CCSA shall be permitted; provided, however, that any such residential development shall be limited to multi-family housing with the land under common ownership where there is an oversight body responsible for enforcing compliance with the BMP and SMP for each such residential development. No single family homes will be permitted.

C. Any groundwater well installation or the withdrawal of groundwater from beneath the CCSA is prohibited unless expressly required and approved by the WDNR in writing. Withdrawal of any water from any well required by WDNR is expressly limited to sample collection only, in accordance with industry standard procedures for groundwater sample collection.

D. Any enclosed buildings or structures on the CCSA that are intended for occupancy, including, but not limited to, industrial, residential or commercial buildings, restroom facilities, kiosks or concession stands, shall not be constructed unless a WDNR approved vapor intrusion mitigation system that meets the objective of protecting human health is installed, or as the alternative, a vapor intrusion assessment is performed in accordance with guidelines issued by the State of Wisconsin. A vapor mitigation system would not be installed if not required by the finding of the vapor intrusion assessment; contingent upon WDNR's approval of said assessment. Since any vapor intrusion mitigation system needs to be maintained in perpetuity, any future modifications to the buildings need to take in account the long-term integrity of this system.

F. Any construction or excavation activities on the CCSA shall comply with the SMP for the property, as approved by WDNR.

W:\Projects\2014\14-0001\GIS\Drawings\Appendix A - Institutional Controls.mxd, Date: 1/21/14, User: daniel.e.kopp@URS.com, Plot Date: 1/21/14, Plot Time: 10:47 AM



DESIGNED BY: M. BRILL	 URS Corporation Iron Hill Corporate Center 4051 Ogletown Road, Suite 300 Newark, Delaware 19713 Phone: 302-781-5900	BARRIER MAINTENANCE PLAN	PROJECT NO. 18986417
DRAWN BY: D. LITTEL		APPENDIX A - INSTITUTIONAL CONTROLS	DATE 2/7/14
DATA QUALITY CHGR: M. BRILL		ALLIS CHALMERS/DUPONT SITE	FIGURE NO. A1
APPROVED BY:		OAK CREEK, WISCONSIN	

Final Soil Management Plan
Former Allis Chalmers/DuPont Site – Western Portion
Oak Creek, Wisconsin

April, 2014

Property located at:
9180 South 5th Avenue
Oak Creek, Wisconsin

BRRTS #: 06-41-554563, 02-41-278988 and 02-41-280624
FID# 341041580
Tax #8689995-001(part), 8689996-001 and 8689996-002

The following items are attached to this Soil Management Plan:

Impacted Subsurface Soil Disturbance Log.

Figure 5 – Clean Cover Soil Area Subject to SMP.

1.0 Introduction

This document is the Soil Management Plan (SMP) for the Western Portion of the former Allis Chalmers/DuPont VPLE Site (the “Site”), as shown on Figure 5. This SMP has been prepared consistent with requirements of Chapter NR 700 Wisconsin Administrative Code (“WAC”). The soil management activities relate to the historically contaminated soil and/or fill materials (the “Historic Soil”) that may be encountered during post-remedial action construction activities in support of future (i.e. after 2013) Site use. Soil and/or fill material on the Western Portion of the Site are generally contaminated with arsenic and Polycyclic Aromatic Hydrocarbons (PAHs), herein referred to as Contaminants of Concern (COCs). Soils in two areas of the Western Portion of the Site had arsenic concentrations at levels above the Resource Conservation and Recovery Act (RCRA) hazardous waste threshold (5 mg/l) when tested using the Toxicity Characteristic Leaching Procedure (TCLP). These areas were remediated during remedial construction, in accordance with the approved Final Remedial Action Plan (FRAP) for the Site, and the remediated soils were relocated to the Eastern Portion of the Site, where the soils were consolidated with similar stabilized soil from one area on the western EPEC Polymers, Inc. site and then covered with a clean soil barrier. See Figure 5.

The final VPLE environmental remedy, as approved by the Wisconsin Department of Natural Resources (WDNR), requires placement and maintenance of a minimum two foot thick clean soil barrier (“barrier”) across the Allis Chalmers/DuPont Site to prevent direct contact with the

historically contaminated soil. This barrier has been constructed in the required areas of the Site.

2.0 WDNR Notification, Approval and Documentation

Prior to any planned disturbance of the minimum two-foot thick clean soil barrier layer, the property owner will notify the WDNR of the activity and obtain prior approval from WDNR consistent with the requirements of WAC Chapter NR 718, Chapter NR 727, and the WDNR issued "Closure Letter". Unless otherwise defined in the WAC or closure letter, "disturbance" means any excavation or future construction activities **on or within** the soil barrier layer, including the "utility corridor" areas. Based on current/applicable rules and guidance WDNR will determine what additional information will be required to evaluate and approve the specified disturbance activity. If WDNR approves the disturbance, it will be determined what documentation will be required for that activity. This documentation will be completed after the approved actions are finalized. One possible form of documentation is the "Impacted Subsurface Soil Disturbance Log" attached to this SMP. If the barrier is modified, an updated barrier map shall be filed with the WDNR for placement in the GIS Registry. All required work plans and documentation, as required by WDNR, shall be prepared by a "qualified environmental professional" as defined in NR 712.

The property owner should review the "Closure Letter" found on the WDNR's online Bureau for Remediation and Redevelopment Tracking System (BRRTS) prior to notifying the WDNR so that they have an understanding of the restrictions currently in place.

3.0 Area Subject to the Requirements of the SMP

This SMP applies to the area designated as the Clean Cover Soil Area (CCSA) as shown on Figure 5. This area of the Site is also designated as the "Western Portion" of the Site. Development of the Eastern Portion of the Site and the Arsenic Excavation Boundary Area (AEBA) is governed by the Barrier Maintenance Plan (BMP) for the Site and relevant deed restriction documents. At present there are no conflicts between the BMP, SMP and the deed restriction documents. In the future, any conflicts between any deed restrictions and proposed modifications to the BMP and/or SMP shall be resolved in favor of the deed restrictions.

4.0 Purpose and Goal

The purpose of this SMP is to provide a framework for managing any potentially impacted

Historical Soil that may be encountered during future investigation, development and construction in the Western Portion. Authorized Uses on the Western Portion include industrial, commercial, condominium, and multi-family residential development under common land ownership. Specifically, this SMP establishes appropriate management protocols for potentially impacted soil that is uncovered, excavated, temporarily stockpiled, graded, moved, or otherwise handled during and after future investigation and development-related construction activities. In general, all on site soils below the cap are considered impacted based upon previous testing during the site investigations. Any excavated soil must be segregated and either reused on site under a barrier layer or characterized and disposed at a licensed off-site facility. The replaced or modified barrier layer must be equally protective and is subject to applicable maintenance and inspection requirements as outlined in the barrier maintenance plan. During construction activities associated with development on the Site, soils that are excavated from depths below the barrier (below two feet) for foundation, roadway, utility trench, or other construction, will be inspected for signs of potential contamination including staining, discoloration, odors, oily sheens, etc.

A copy of this SMP will be provided to the City of Oak Creek (City) who is to be the initial property owner after issuance of the VPLE Certificate of Completion and Site closure. Consistent with the requirements of the site closure, the City must provide a copy to any developer or future property owner, future tenant, and any General Contractor overseeing construction work. It is important that all personnel responsible for working with soil on the Western Portion of the Site (including equipment operators) are familiar with this SMP. The minimum two foot thick WDNR-approved soil barrier over the contaminated soil and/or fill areas will serve as a barrier to limit direct contact with the underlying soil and historic fill material and must be maintained in accordance with the Site Barrier Maintenance Plan (BMP). Based on the current and future use of the property, the barrier should function as intended unless disturbed. Because of the hydrogeological conditions beneath the Site and the groundwater quality, there is no permeability requirement for the barrier, and the barrier is not intended to perform as an infiltration barrier.

This SMP will be included in Attachment D to the Case Closure – GIS Registry (Form 4400-202) for the Site. Any post-remedial construction (i.e. after 2013) intrusive activities conducted at the Site in the Western Portion will be subject to approval of the WDNR and consistent with the procedures contained in this SMP.

5.0 Qualified Environmental Professional

All future intrusive work on the Site must be planned and performed consistent with NR

712. Specifically, future barrier disturbance work must be performed under the supervision of a professional engineer, a hydrogeologist, or a scientist (a “qualified environmental professional”), as defined by NR 712.

6.0 Soil Management Protocol

This soil management protocol is intended to provide a simple set of guidelines for managing soils beneath the barrier. This soil management protocol relies on existing data to establish the framework to be followed. The comprehensive site investigation approved by the WDNR under the VPLE process has provided an extensive data set that identifies generally low level metals and poly-nuclear aromatic hydrocarbons (PAHs) across the site. Areas of elevated arsenic that were found have been treated and relocated to the eastern side of the property. Given this existing data, this plan assumes that all below-barrier soils are contaminated. If soil from below the barrier is excavated, it must be managed according to this plan. Prior to excavation, the excavating party must notify the WDNR that it intends to disturb the barrier. Soil excavated from below the barrier can be replaced under a soil barrier onsite or disposed of at a licensed off-site facility. Before replacing excavated soil beneath a barrier or disposing of excavated soil offsite, excavated soil will be temporarily stored onsite in accordance with the procedures outlined in NR 718.

It is intended that this protocol be in compliance with NR 718 “Management of Contaminated Soil or Solid Wastes Excavated during Response Actions.” By complying with the technical requirements of NR 718 (or successor regulations), the integrity (i.e. protectiveness of human health and the environment) of the previously completed remedial action will be maintained. WDNR will make final determination as to the applicability and appropriateness of specific technical requirements of NR 718 during their interactions with the property owner and their environmental professional.

The general steps to be taken during all future intrusive activities permitted on the Western Portion of the Site are as follows:

1. Determine the exact location of the disturbance area and the bottom depth of any excavation;
2. If the disturbance area is on, within or beneath the soil barrier layer, the property owner shall notify the WDNR regarding the project (per Section 2.0 above). Any excavation typically greater than 2 feet deep can anticipate encountering Historical Soils;

3. The property owner shall have its qualified environmental professional review the amount of soil to be excavated and the duration for which the excavated soil will be exposed before being placed back beneath a barrier or transported off site;
4. After reviewing the items in number 3 above, the qualified environmental professional shall identify applicable temporary storage measures in NR 718 that are necessary to contain excavated soil before it is replaced beneath a barrier or disposed of off-site.;
5. Historical Soil will be separated and stored as required by NR 718 unless otherwise approved by the WDNR. Any contaminated soil brought to the surface shall be managed in such a way as to not contaminate other clean soils including cover soils or materials at the ground surface. Sub-barrier soil from an excavation shall be managed as if it is contaminated.
6. Soils from the excavation that are returned to the excavation shall be returned in the order in which they were removed.
7. Soils from the excavation that are re-used under nearby structures or pavement shall be placed below the modified barrier layer after the modification is approved by WDNR.
8. Soils from the excavation that cannot be reused on site must be disposed off-site in a licensed facility and must be characterized and manifested according to local, state and federal requirements as well as the requirements of the disposal facility.
9. After construction activities are completed, the disturbance footprint must have a barrier that is equally protective of human health and the environment, in accordance with the Site BMP and as determined and approved by WDNR.
10. Documentation of proposed changes to the barrier layer will be provided to the WDNR for its approval and use in updating the closure records and GIS registry.

7.0 Health and Safety Requirements

During any excavation and soil handling activities involving material from below the clean soil barrier, all actions shall be conducted in accordance with a Site-specific environmental Health & Safety Plan (HASP) complying with the Occupational Safety and Health Administration (OSHA) standard for Hazardous Waste Operation and Emergency Response (HAZWOPER), 29 CFR 1910.120 and other applicable state and local requirements.

8.0 Soil Staging and Controls

Management of excavated contaminated soils will occur in accordance with the requirements of the WAC. If a temporary staging area is needed, it will be designated to temporarily stockpile the excavated materials. Soil stockpiles will conform to the requirements of NR718 with regards to location, placement of soil on an impervious base (e.g., concrete, asphalt, plastic sheeting,), cover and anchoring. Excavated soils that are to be disposed of off-site shall be done so at a licensed facility in accordance with all local, state, and federal laws. Copies of the material shipping records associated with the disposal of the material shall be maintained by the City or current property owner, and provided contemporaneously to WDNR. Waste characterization sampling for off-site disposal shall be completed at the frequency required by the disposal facility. Copies of any laboratory analysis results shall be maintained by the Site owner and be provided to WDNR for review as part of the barrier disturbance approval review. Soil barrier disturbed during development activities will be repaired or replaced in compliance with the BMP.

9.0 Amendment or Withdrawal of Soil Management Plan

This SMP cannot be amended or withdrawn by the future property owner(s) and their successors without the written approval of the WDNR.

10.0 Contact Information

April, 2014:

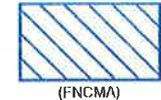
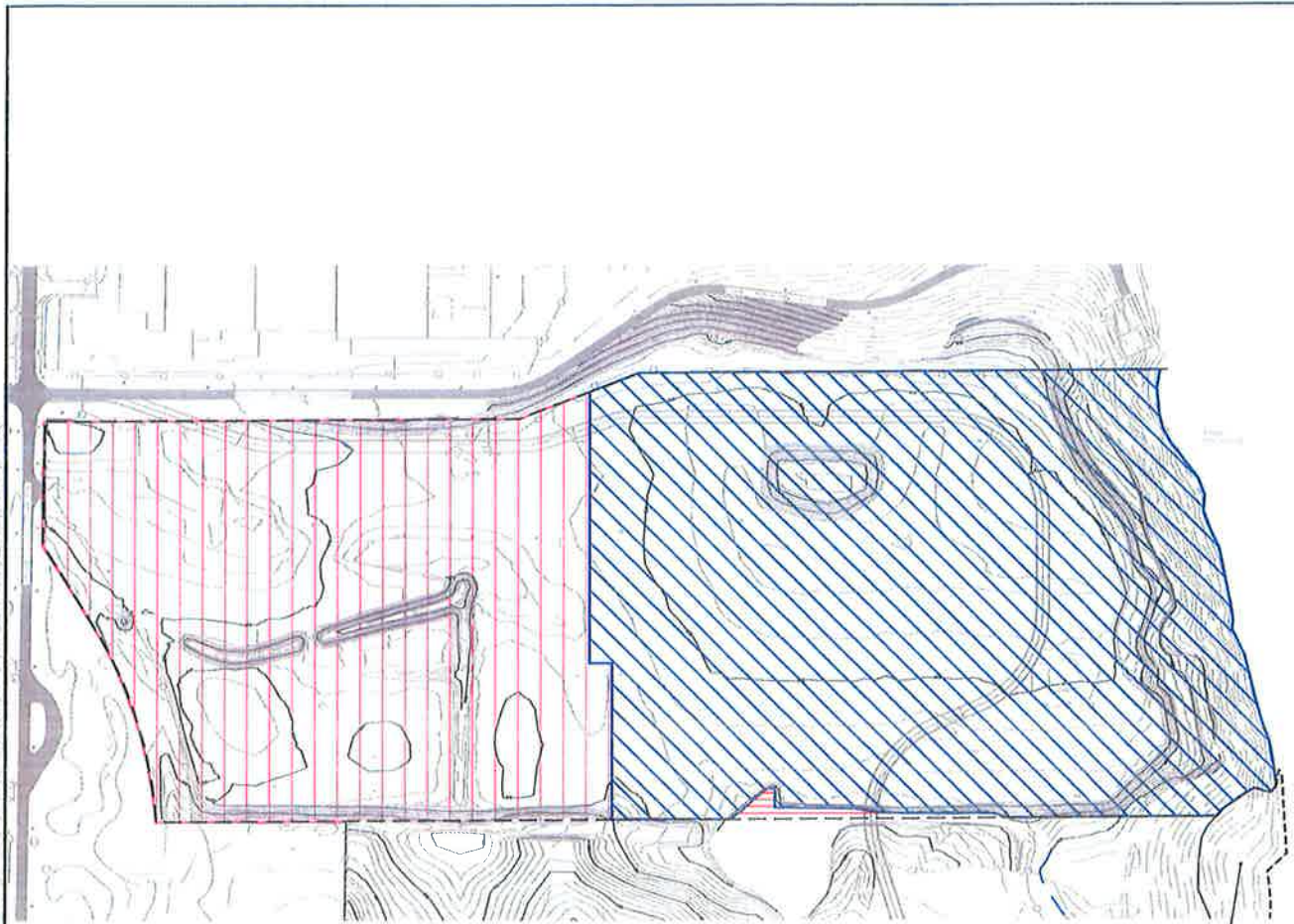
Property Owner	City of Oak Creek Gerald R. Peterson, City Administrator 8640 South Howell Avenue Oak Creek, WI 53154 414-768-6504
Environmental Consultant:	Kathryn Huibregtse ENVIRON International Corporation 175 Corporate Drive, Suite 160 Brookfield, WI 53045 262-901-0082

WDNR Project Manager:

Mr. Eric Amadi
2300 North M.L. King Jr. Drive
Milwaukee, WI 53212
414-263-8639

BRRTS#: 06-41-554563 Former Allis Chalmers/DuPont Site Impacted Subsurface Soil Disturbance Log

Type of Disturbance Activity:	Proposed Date of Disturbance Activity:	Date of Supplemental Subsurface Soil Sampling and Results, if Applicable:	Specific Subsurface Soil Management Plan:	Dates of WDNR Approval of Disturbance and Post-Disturbance Reporting:



Former Newport Chemical Manufacturing Area (FNCMA) (eastern portion of DuPont property)

A. The FNCMA shall be used exclusively for park, passive recreational use, or open space. All commercial, residential, and industrial development of the FNCMA is prohibited. With the exception of the road to be constructed over the existing barrier layer, the location of which is shown in this figure, and the utility installation in the Utility-ready Areas as described below, any replacement of clean cover soil material with another barrier, excavation or upgrading of the land surface, plowing for agricultural cultivation, or construction or placement of a building or other fabricable structure is prohibited.

Given the restriction above, certain designated areas of the barrier layer on the eastern portion of the site were constructed in anticipation of future use of the property. The location of these designated areas (Utility-ready Areas) is depicted on Figure A5. Construction of the Utility-ready Areas included the excavation and relocation of recontaminated soil from proposed future utility corridors prior to placement of the clean soil barrier. The excavations were performed to a depth of at least four (4) feet below final grade, and the excavations were backfilled with clean soil from the approved soil stockpile. Utility-ready Areas were constructed for the following proposed site features on the eastern Allis Chalmers/DuPont site: Future light poles along the proposed perimeter road, water, sewer and electric service for potential rooms at a designated location; and culverts and storm sewers to control surface water associated with the proposed perimeter road.

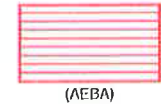
The City is permitted to construct a road as shown in this figure in the FNCMA provided the City complies with applicable regulatory approval for barrier disturbance for such road construction. The road will be built to specifications determined by the City engineer. The road will not disturb contaminated soil located beneath the clean soil cover barrier in the FNCMA.

Construction of small recreational use structures not intended for permanent occupancy, e.g., restroom facilities, kiosks or concession stands are allowed. Additional clean material may be placed on top of the existing remedial barrier, e.g., sand for baseball fields, top soil for landscaping. Digging in a manner that does not bring potentially contaminated soils below the barrier up into or above the clean soil barrier) of recreational amenity items into the subsurface of the FNCMA, such as installation of fence posts, lighting structures, sign posts, baseball backstops, playground equipment, etc., is allowed, but not to depths greater than five (5) feet.

B. Any groundwater well installation or the withdrawal of groundwater from beneath the FNCMA is prohibited unless expressly required and approved by the Wisconsin Department of Natural Resources (WDNR) or its successor in writing. Withdrawal of any water from any well required by WDNR is expressly limited to sample collection only, in accordance with industry standard procedures for groundwater sample collection.

C. All owners of the FNCMA shall comply with the obligations and restrictions in the Barrier Maintenance Plan (BMP) relating to the property as approved by WDNR.

D. No enclosed building or structure shall be constructed on the property unless a WDNR approved vapor intrusion mitigation system that meets the objective of protecting human health is installed, or as the alternative, a vapor intrusion assessment is performed in accordance with guidelines issued by the WDNR. A vapor intrusion system would not be installed if not required by the finding of the vapor intrusion assessment, contingent upon WDNR's approval of said assessment. Since any vapor intrusion mitigation system needs to be maintained in perpetuity, any future modifications to the buildings need to take account the long-term integrity of this system.



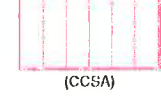
Arsenic Excavation Boundary Area (AEBA)

A. Subject to United States Environmental Protection Agency (EPA) or Wisconsin Department of Natural Resources (WDNR) approval, where appropriate, the City is authorized to construct a road, the location of which is shown in this figure. With the exception of the road shown in this figure and described immediately below, any activities that are not park, passive recreational use, or open space are prohibited in the AEBA. All commercial, residential, and industrial development of the AEBA is prohibited. With the exception of the road discussed below, any replacement of cover material with another barrier, excavation or upgrading of the land surface, filling, plowing for agricultural cultivation, or construction or placement of a building or other structure is prohibited.

The City is permitted to construct a road in the location shown in this figure in the AEBA provided the City obtains and complies with applicable regulatory approval by EPA or WDNR for barrier disturbance for such road construction. After EPA or WDNR approval, the road will be built to specifications determined by the City engineer. Barrier soil disturbance is required for construction of the road in the AEBA will be managed according to the Barrier Maintenance Plan (BMP) for this Site and applicable state and federal law.

B. Any groundwater well installation or the withdrawal of groundwater from beneath the AEBA shall be prohibited unless expressly required and approved by the WDNR or EPA in writing for groundwater sampling. Withdrawal of any water from any well required by WDNR or EPA is expressly limited to sample collection only, in accordance with industry standard procedures for groundwater sample collection.

C. All owners of the AEBA shall comply with the obligations and restrictions in the BMP relating to the property, as approved by WDNR.



Clean Cover Soil Area (CCSA) (western portion of DuPont property and parts of EPEC property)

A. Subject to paragraph D, all types of development shall be permitted in the CCSA. All owners of the CCSA shall comply with the obligations and restrictions in the Barrier Maintenance Plan (BMP) and the Soil Management Plan (SMP) relating to the property, as approved by the Wisconsin Department of Natural Resources (WDNR).

B. Industrial, commercial, condominium, and residential development on the CCSA shall be permitted, provided, however, that any such residential development shall be limited to multi-family housing with the land under common ownership where there is an oversight body responsible for enforcing compliance with the BMP and SMP for such residential development. No single family homes will be permitted.

C. Any groundwater well installation or the withdrawal of groundwater from beneath the CCSA is prohibited unless expressly required and approved by the WDNR in writing. Withdrawal of any water from any well required by WDNR is expressly limited to sample collection only, in accordance with industry standard procedures for groundwater sample collection.

D. Any enclosed buildings or structures on the CCSA that are intended for occupancy, including, but not limited to, industrial, residential or commercial buildings, restroom facilities, kiosks or concession stands, shall not be constructed unless a WDNR approved vapor intrusion mitigation system that meets the objective of protecting human health is installed, or as the alternative, a vapor intrusion assessment is performed in accordance with guidelines issued by the State of Wisconsin. A vapor intrusion system could not be installed if not required by the finding of the vapor intrusion assessment, contingent upon WDNR's approval of said assessment. Since any vapor intrusion mitigation system needs to be maintained in perpetuity, any future modifications to the buildings need to take account the long-term integrity of this system.

E. Any construction or excavation activities on the CCSA shall comply with the SMP for the property, as approved by WDNR.



DESIGNED BY:
M. BRILL
DRAWN BY:
D. LITTEL
DATA QUALITY CHKD:
M. BRILL
APPROVED BY:



SOIL MANAGEMENT PLAN
Clean Cover Soil Area Subject to SMP

ALLIS CHALMERS/DUPONT SITE
OAK CREEK, WISCONSIN

FIGURE NO.
18986417
DATE
2/7/14
FIGURE No.
5