Submitted 12-Aug-11 ED

GIS REGISTRY
Cover Sheet

August 2011
(RR-5367)

Source Property Information

CLOSURE DATE: Aug 8, 2011

BRRTS #: 02-41-552981

FID #: 241007690

ACTIVITY NAME: Oak Creek Power Plant - Fire Protection Area

DATCP #:

PROPERTY ADDRESS: 11060 South Chicago Road

PECFA#:

MUNICIPALITY: Oak Creek, WI

PARCEL ID #: 965-9999-001

***WTM COORDINATES:**

X: 697414 Y: 266016

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

WTM COORDINATES REPRESENT:

○ Approximate Center Of Contaminant Source

◉ Approximate Source Parcel Center

Please check as appropriate: (BRRTS Action Code)

Contaminated Media:

☐ Groundwater Contamination > ES *(236)*

- ☐ Contamination in ROW
- ☐ Off-Source Contamination

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

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

- ☐ Contamination in ROW
- ☐ Off-Source Contamination

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

Land Use Controls:

☐ N/A (*Not Applicable*)

☐ Soil: maintain industrial zoning *(220)*

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

☒ Structural Impediment *(224)*

☐ Site Specific Condition *(228)*

☒ Cover or Barrier *(222)*

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

☐ Vapor Mitigation *(226)*

☐ Maintain Liability Exemption *(230)*

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

Monitoring Wells:

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

○ Yes ○ No ◉ N/A

** Residual Contaminant Level*
***Site Specific Residual Contaminant Level*

State of Wisconsin Department of Natural Resources http://dnr.wi.gov	**GIS Registry Checklist** Form 4400-245 (R 4/08) Page 1 of 3

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

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

BRRTS #: 02-41-552981 PARCEL ID #: NA - see attached Legal Description Statement
9659999001, tax Key# 04-23-06-001-000

ACTIVITY NAME: Oak Creek Power Plant - Fire Protection Project WTM COORDINATES: X: 697414 Y: 266016

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

- [x] **Closure Letter**
- [x] **Maintenance Plan** *(if activity is closed with a land use limitation or condition (land use control) under s. 292.12, Wis. Stats.)*
- [ ] **Conditional Closure Letter**
- [ ] **Certificate of Completion (COC)** for VPLE sites

SOURCE LEGAL DOCUMENTS

- [x] **Deed:** The most recent deed as well as legal descriptions, for the **Source Property** (where the contamination originated). Deeds for other, off-source (off-site) properties are located in the **Notification** section.
  Note: *If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*
- [x] **Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map *for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map.* (lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).

  Figure #: **Title:**
- [x] **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description accurately describes the correct contaminated property.

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

Maps must be no larger than 8.5 x 14 inches unless the map is submitted electronically.

- [x] **Location Map:** A map outlining all properties within the contaminated site boundaries on a U.S.G.S. topographic map or plat map in sufficient detail to permit easy location of all parcels. If groundwater standards are exceeded, include the location of all potable wells within 1200 feet of the site.
  Note: *Due to security reasons municipal wells are not identified on GIS Packet maps. However, the locations of these municipal wells must be identified on Case Closure Request maps.*

  Figure #: 1 **Title: Figure 1: Site Location Map**
- [x] **Detailed Site Map:** A map that shows all relevant features (buildings, roads, individual property boundaries, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding a ch. NR 140 Enforcement Standard (ES), and/or in relation to the boundaries of soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Levels (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.

  Figure #: 2 **Title: Site Vicinity Map**
- [x] **Soil Contamination Contour Map:** For sites closing with residual soil contamination, this map is to show the location of all contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL)as determined under s. NR 720.09, 720.11 and 720.19.

  Figure #: 4 **Title: Soil Removal Map**

BRRTS #: 02-41-552981 ACTIVITY NAME: Oak Creek Power Plant - Fire Protection Project

MAPS (continued)

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

Figure #: **Title:**

Figure #: **Title:**

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

Figure #: **Title:**

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

Figure #: **Title:**

Figure #: **Title:**

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

Tables must be no larger than 8.5 x 14 inches unless the table is submitted electronically. Tables must not contain shading and/or cross-hatching. The use of **BOLD** or *ITALICS* is acceptable.

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

Table #: 2 **Title: Summary of Post-Soil Removal Soil Sample Analytical Results**

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

Table #: **Title:**

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

Table #: **Title:**

IMPROPERLY ABANDONED MONITORING WELLS

For each monitoring well not properly abandoned according to requirements of s. NR 141.25 include the following documents.
Note: *If the site is being listed on the GIS Registry for only an improperly abandoned monitoring well you will only need to submit the documents in this section for the GIS Registry Packet.*

☒ **Not Applicable**

☐ **Site Location Map:** A map showing all surveyed monitoring wells with specific identification of the monitoring wells which have not been properly abandoned.
Note: *If the applicable monitoring wells are distinctly identified on the Detailed Site Map this Site Location Map is not needed.*

Figure #: **Title:**

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

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

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

BRRTS #: 02-41-552981 ACTIVITY NAME: Oak Creek Power Plant - Fire Protection Project

NOTIFICATIONS

Source Property

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

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

Off-Source Property

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

☐ **Letter To "Off-Source" Property Owners:** Copies of all letters sent by the Responsible Party (RP) to owners of properties with groundwater exceeding an Enforcement Standard (ES), and to owners of properties that will be affected by a land use control under s. 292.12, Wis. Stats.
Note: *Letters sent to off-source properties regarding residual contamination must contain standard provisions in Appendix A of ch. NR 726.*

Number of "Off-Source" Letters:

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

☐ **Deed of "Off-Source" Property:** The most recent deed(s) as well as legal descriptions, for all affected deeded **off-source property(ies).** This does not apply to right-of-ways.
Note: *If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*

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

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

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Southeast Region Headquarters
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee WI 53212-3128

Scott Walker, Governor
Cathy Stepp, Secretary
John Hammen, Acting Regional Director
Telephone 414-263-8500
FAX 414-263-8606
TTY Access via relay - 711

August 8, 2011

Mr. Tent Kohl
WE Energies
333 West Everett Street
Milwaukee, WI 53203

SUBJECT: Case Closure with Continuing Obligations
Oak Creek Power Plant - Fire Protection Project
11060 South Chicago Road, Oak Creek, WI 53154
FID #: 241007690
BRRTS #: 02-41-552981

Dear Mr. Kohl:

On March 2, 2010, the Southeast Region Closure Committee reviewed the above referenced case for closure. This committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. On March 19, 2010, you were notified that the Closure Committee requested additional information to complete the case closure requirement/determination.

On April 25, 2011, the Department received information or documentation indicating that you have complied with the requirement for closure determination. The requirement was a request to the RP to provide a maintenance plan for the on-site barrier/cap that exists at the area where residual soil contamination are above direct contact levels and/or pose groundwater pathway threat.

Based on the correspondence and data provided, it appears that the volatile organic compounds (VOCs) and polynuclear aromatic hydrocarbons (PAHs) contamination which were discovered during the Fire Protection Project (FPP) tank construction and were attributed to historical use/incidental release of solvents in the vicinity of Oak Creek Power Plant - FPP area, have been investigated and remediated to Department standards and your case meets the closure requirements in ch. NR 726, Wisconsin Administrative Code. Therefore, the Department considers this case closed and no further investigation or remediation is required at this time; however, you and future property owners must comply with certain continuing obligations as explained in this letter.

GIS Registry

This site will be listed on the Remediation and Redevelopment Program's GIS Registry. The specific reasons are summarized below:

- Residual soil contamination exists that must be properly managed should it be excavated or removed
- If a structural impediment that obstructed a complete site investigation or cleanup is removed or modified, additional environmental work must be completed
- Pavement, an engineered cover or a soil barrier must be maintained over contaminated soil and the state must approve any changes to this barrier.

This letter and information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit the RR Sites Map page at http://dnr.wi.gov/org/aw/rr/gis/index.htm. If the property is listed on the GIS Registry because of remaining contamination and you intend to construct or reconstruct a well, you will need prior Department approval in accordance with s. NR 812.09(4)(w), Wis. Adm. Code. To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line http://dnr.wi.gov/org/water/dwg/3300254.pdf or at the web address listed above for the GIS Registry.

Closure Conditions

Please be aware that pursuant to s. 292.12 Wisconsin Statutes, compliance with the requirements of this letter is a responsibility to which you the current property owner and any subsequent property owners must adhere. You must pass on the information about these continuing obligations to the next property owner or owners. If these requirements are not followed or if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, welfare, or the environment, the Department may take enforcement action under s. 292.11 Wisconsin Statutes to ensure compliance with the specified requirements, limitations or other conditions related to the property or this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code. The Department intends to conduct inspections in the future to ensure that the conditions included in this letter including compliance with referenced maintenance plans are met.

Impervious Barrier Required

Pursuant to s. 292.12(2)(a), Wis. Stats., the asphalt/concrete pad or other impervious cap that currently exists in the location shown on the attached map **(Figure 1: Cover Maintenance Plan, Oak Creek Power Plant - Fire Protection Project, 11060 S. Chicago Road, Oak Creek, Wisconsin),** shall be maintained in compliance with the attached maintenance plan in order to prevent direct contact with residual soil contamination shown the attached map **(Figure 4: Soil Removal Map, Oak Creek Power Plant - Fire Protection Project, 11060 S. Chicago Road, Oak Creek, Wisconsin),** that might otherwise pose a threat to human health and to minimize the infiltration of water and prevent groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code. If soil in the specific locations described above is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present the property owner at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans.

Prohibited Activities

The following activities are prohibited on any portion of the property where pavement, a building foundation, soil cover, engineered cap or other barrier is required as shown on the attached map **(Figure 1: Cover Maintenance Plan, Oak Creek Power Plant - Fire Protection Project, 11060 S. Chicago Road, Oak Creek, Wisconsin)**, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure.

Vapor Migration

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

Post-Closure Notification Requirements

In accordance with ss, 292.12 and 292.13, Wis. Stats., you must notify the Department before making changes that affect or relate to the conditions of closure in this letter. For this case, examples of changed conditions requiring prior notification include, but are not limited to:

- Any activity or construction that results in the removal or modification of a structural impediment that obstructed a complete site investigation or cleanup
- Disturbance, construction on, change or removal in whole or part of pavement, an engineered cover or a soil barrier that must be maintained over contaminated soil.

Please send written notifications in accordance with the above requirements to Southeast Region RR Program, 2300 N. Dr. MLK Jr., Drive, Milwaukee, WI 53212, to the attention of Victoria Stovall.

The Department appreciates your efforts to restore the environment at this site. If you have any questions, please contact Eric Amadi at (414) 263-8639.

Sincerely,

James A. Schmidt

James A. Schmidt - Team Supervisor
Remediation & Redevelopment Program - Southeast Region
Milwaukee Service Center

Enclosures: Maintenance Plan; Barrier/Cap Map (Figure 1) & Residual Soils Impact Map (Figure 4)

cc: Gregory Johnson - Geosyntec. / SER Case File #: 02-41-552981

COVER MAINTENANCE PLAN

OAK CREEK POWER PLANT
FIRE PROTECTION PROJECT
11060 South Chicago Road
Oak Creek, Wisconsin
WDNR BRRTS #02-41-552981
WDNR FID #~~3411400580~~
24100769O

RECEIVED
APR 25 2011
By KS

INTRODUCTION

This *Cover Maintenance Plan* (CMP) was prepared for an existing cover located on the east side of Unit 2 of the Oak Creek Power Plant (OCPP) property. The CMP was prepared in accordance with the requirements of NR 724.13(2), Wisconsin Administrative Code. The existing cover prevents direct contact with and erosion and runoff of residual soil impacts at the site.

Implementation of this CMP will be the responsibility of Wisconsin Electric Power Company (d.b.a. We Energies) (Managing Party).

BACKGROUND INFORMATION

Soil sampling and remediation activities are documented in a publically available Wisconsin Department of Natural Resources (WDNR) file referenced by WDNR Facility Identification (FID) Number 3411400580 and Bureau for Remediation and Redevelopment Tracking System (BRRTS) Number 02-41-552981. The WDNR file includes the following documents:

- 30 October 2008 - We Energies submittal of *Notification For Hazardous Substance Discharge* (Form 4400-225) to WDNR
- 4 December 2008 - WDNR "Responsible Party" (RP) letter to We Energies
- 19 December 2008 - *Consultant Notification/Project Status Update* to WDNR from Geosyntec on behalf of We Energies
- 2 April 2009 - *Project Status Update* to WDNR from Geosyntec on behalf of We Energies
- 31 July 2009 - *Project Status Update* to WDNR from Geosyntec on behalf of We Energies
- 16 December 2009 - *Remedial Action Documentation Report* to WDNR from Geosyntec on behalf of We Energies

- 19 March 2010 - WDNR Case Closure Request denial letter to We Energies

The WDNR contact for the site is as follows:

Mr. Eric Amadi
Wisconsin Department of Natural Resources
Remediation and Redevelopment Program
2300 North Martin Luther King, Jr. Drive
Milwaukee, WI 53212
Phone: 414-263-8639
Fax: 414-263-8606
Email: eric.amadi@wisconsin.gov

DESCRIPTION OF RESIDUAL CONTAMINATION

Residual contamination at the site generally consists of unsaturated soil impacted by volatile organic compounds (VOCs) greater than site-specific groundwater protection residual contaminant levels (RCLs) and polynuclear aromatic hydrocarbons (PAHs) greater than WDNR interim guidance direct contact (industrial) RCLs.

The existing site cover prevents direct contact with and the erosion and runoff of residual unsaturated soil impacts.

DESCRIPTION OF EXISTING COVER

The existing cover consists of an approximately 6 to 8 inch thick asphalt/concrete pad surrounding a 40-foot diameter 355,000-gallon fire protection water storage tank. Residual contamination remains at depths greater than approximately 5 feet below ground surface (bgs) in the soil removal area (beneath and immediately adjacent to the water storage tank) and at depths greater than approximately 2 feet bgs outside the soil removal area (beneath the existing asphalt/concrete pad.

The extent of the cover is depicted on the attached Figure.

The existing cover is located within an active power plant and will remain as such for the foreseeable future. Site access is limited to authorized workers.

ANNUAL INSPECTION

The cover will be inspected once per year, normally in the spring after snow and ice melt to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. The inspections will assess erosion, cracks and deterioration that may cause exposure to underlying soils. The inspections will be performed by We Energies. Any area where underlying impacted soils have become or are likely to become exposed will be

documented. A log of the inspections and any repairs will be maintained by We Energies and documented on the attached Cover Inspection Log. The Cover Inspection Log will include recommendations for necessary repair of any areas where underlying impacted soils are exposed. Once repairs are completed, they will be documented in the Cover Inspection Log. A copy of the Cover Inspection Log will be kept at the address of the Managing Party and available for review by WDNR representatives upon request.

MAINTENANCE ACTIVITIES

If cover deterioration is observed during the annual inspection or at any other time during the year, repairs will be scheduled as soon as practical. Cover repairs may include isolated patching, filling or resurfacing or reconstruction of a portion of the cover. In the event that necessary maintenance activities expose the underlying impacted soil, the Managing Party must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personnel protection equipment (PPE). The Managing Party must also sample any soil that is excavated from the site prior to disposal to identify management options. The soil must be treated, stored and disposed by the Managing Party in accordance with applicable local, state and federal law.

In the event the cover overlying the impacted soil is 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 herein unless indicated otherwise by the WDNR or its successor.

A copy of this *Cover Maintenance Plan* will be maintained at the address of the Managing Party.

LIMITATION OF ACTIVITIES AND NOTIFICATIONS PRIOR TO MODIFYING THE COVER

The following activities are prohibited on any portion of the cover unless prior written approval has been obtained from the WDNR:

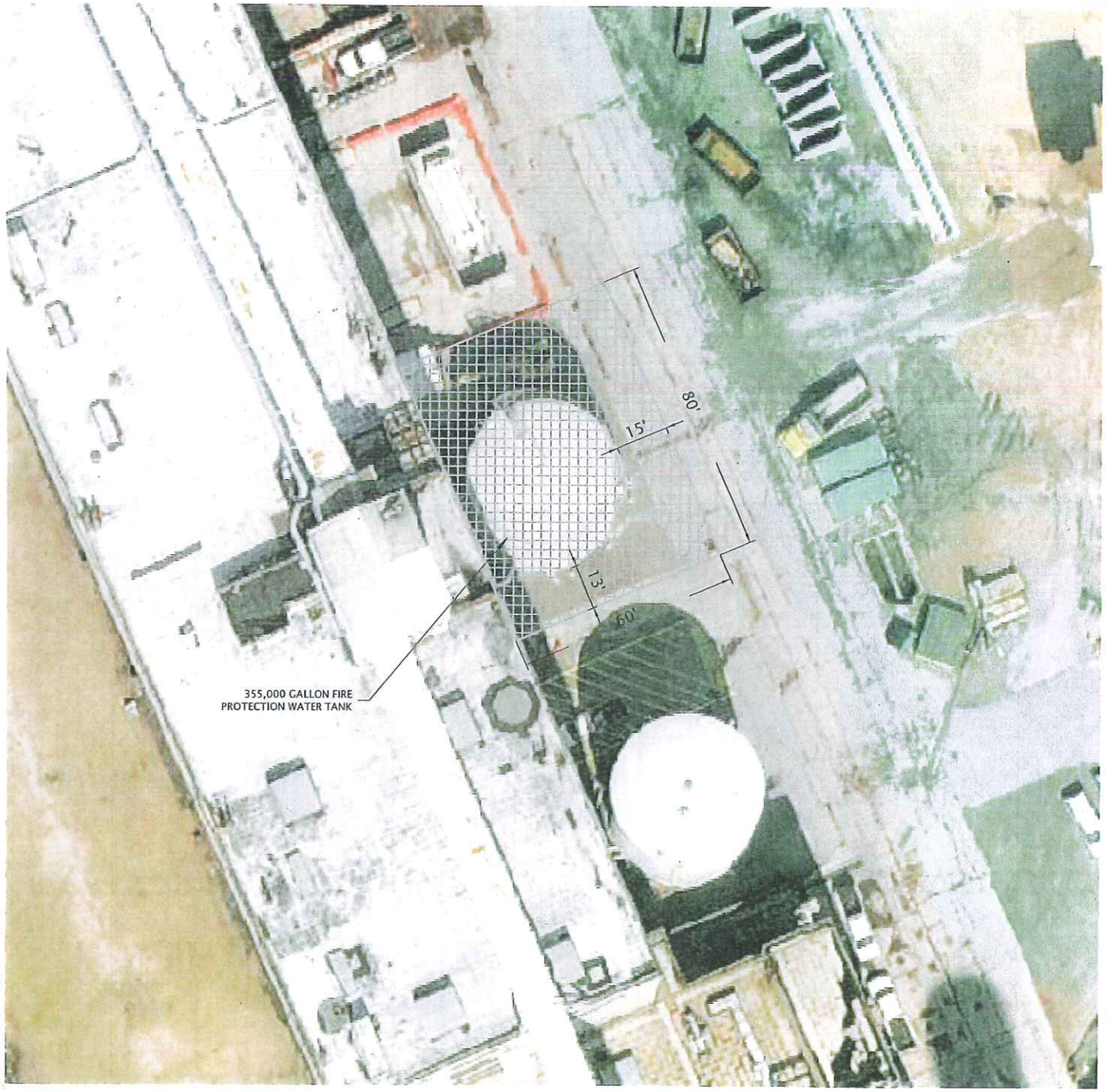
- Removal of the existing cover
- Replacement with another cover
- Excavating or grading
- Filling
- Plowing for agricultural cultivation
- Construction or placement of a building or other structure

AMEDNDMENT OR WITHDRAWAL OF COVER MAINTENANCE PLAN

This *Cover Maintenance Plan* can be amended or withdrawn by the Managing Party and its successors with the written approval of the WDNR.

Contact Information

WDNR	Eric Amadi Remediation and Redevelopment Program 2300 North Martin Luther King, Jr. Drive Milwaukee, WI 53212	Phone: 414.263.8639 Email: eric.amadi@wisconsin.gov
We Energies	Trent Kohl, P.E., Manager – Env. Compliance 333 West Everett Street, Room A231 Milwaukee, WI 53203	Phone: 414.221.2438 Email: trent.kohl@we-energies.com
We Energies	Semyon Relin, Sr. Engineer Oak Creek Power Plant 11060 S. Chicago Road Oak Creek, WI 53154	Phone: 414.571.3219 Email: semyon.relin@we-energies.com



LEGEND

APPROXIMATE EXTENT OF ASPHALT / CONCRETE COVER (60' x 80')

SOURCE: MILWAUKEE COUNTY GIS WEBSITE, 2011

N

SCALE IN FEET

0 30'

Geosyntec consultants

CLIENT:	WE ENERGIES
PROJECT:	OAK CREEK POWER PLANT - FIRE PROTECTION PROJECT 11060 SOUTH CHICAGO ROAD OAK CREEK, WISCONSIN
TITLE:	COVER MAINTENANCE PLAN MAP

PROJECT: CHE8094FN	FIGURE NO.: 1	DRAWING NO.: 1 OF 1
DATE: January 25, 2011	FILE NO.:1101OCFireProo12	

COVER INSPECTION LOG

FIRE PROTECTION PROJECT
OAK CREEK POWER PLANT
11060 South Chicago Road
Oak Creek, Wisconsin

Inspection Date	Inspector	Condition of Cover	Recommendations	Has recommended maintenance from previous inspection been implemented?

WARRANTY DEED

VOL 531 PAGE 376

THIS INDENTURE, made this 27 day of November, 1950, between ETHEL H. BARRETT, party of the first part, and WISCONSIN ELECTRIC POWER COMPANY, a Corporation duly organized and existing under and by virtue of the laws of the State of Wisconsin, located at Milwaukee, Wisconsin, party of the second part.

WITNESSETH, That the said party of the first part, for and in consideration of the sum of One ($1.00) Dollar and other good and valuable considerations to her in hand paid by the said party of the second part, the receipt whereof is hereby confessed and acknowledged, has given, granted, bargained, sold, remised, released, aliened, conveyed and confirmed, and by these presents does give, grant, bargain, sell, remise, release, alien, convey and confirm unto the said party of the second part, its successors and assigns forever, the following described real estate, situated in the Counties of Milwaukee and Racine, and State of Wisconsin, to-wit:

PARCEL I

The Southwest Fractional one-quarter (SW Fr. ¼) of Section numbered Thirty-one (31), Township numbered Five (5) North, Range numbered Twenty-three (23) East, in the Town of Oak Creek, Milwaukee County, Wisconsin, containing 97.57 acres, more or less;

PARCEL II

ALSO all that part of the Southeast one-quarter (SE¼) of Section numbered Thirty-six (36), Township numbered Five (5) North, Range numbered Twenty-two (22) East, Town of Oak Creek, Milwaukee County, Wisconsin, lying easterly of the right of way of Wisconsin Electric Power Company;

ALSO all that part of the Southeast one-quarter (SE¼) of said Section Thirty-six (36) lying west of the railway right of way of the Chicago and North Western Railway Company, EXCEPTING THEREFROM the following described parcel of land lying on the west side of the right of way of the Chicago and North Western Railway Company, consisting of eighty (80) rods of land in the form of a rhomboid, described as follows: Commencing at a point seventeen (17) feet south of the dwelling house on said tract formerly occupied by Andrew McAndrew; thence west eight (8) rods twelve (12) feet; thence north eight (8) rods twelve (12) feet; thence east eight (8) rods twelve

feet; thence southerly eight (8) rods twelve (12) feet along the westerly line of said right of way to the place of beginning; ALSO EXCEPTING THEREFROM the right of way of Green Bay, Milwaukee and Chicago Railroad Company now occupied by the Chicago and North Western Railway Company;

The lands herein described located in said Southeast one-quarter (SE¼) of Section Thirty-six (36), contain 142.62 acres, more or less;

PARCEL III

ALSO all that part of the Southwest one-quarter (SW¼) of Section numbered Thirty-six (36), Township numbered Five (5) North, Range numbered Twenty-two (22) East, Town of Oak Creek, Milwaukee County, Wisconsin, described as follows, to-wit: Commencing at a stone monument at the southeast corner of said Southwest one-quarter (SW¼) of Section Thirty-six (36); running thence west along the south line of said Section, two thousand one hundred twenty (2120) feet to the center of State Trunk Highway No. 42 (also known as the Milwaukee Road); thence northwesterly along said road center line five hundred fifty (550) feet to a point which is four hundred forty-seven (447) feet due north from the south line of said Section Thirty-six (36); thence east and parallel with the south line of said Section Thirty-six (36), two thousand four hundred thirty-one (2431) feet to the north and south one-quarter section line of said Section Thirty-six (36); thence south along said one-quarter section line four hundred forty-seven (447) feet to the place of beginning, containing 23.436 acres; 467

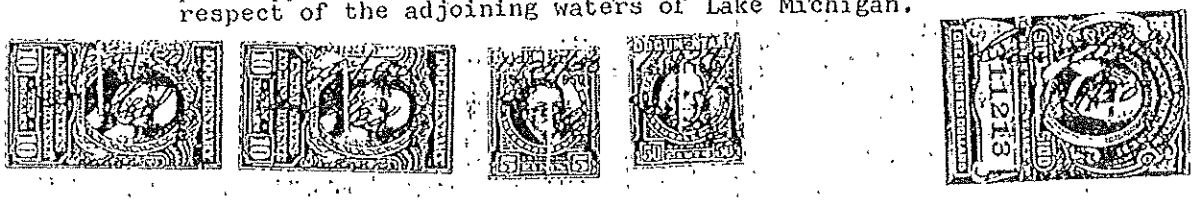
PARCEL IV

ALSO all that part of the Northwest one-quarter (NW¼) of Section numbered One (1), Township numbered Four (4) North, Range numbered Twenty-two (22) East, Town of Caledonia, Racine County, Wisconsin, described as follows, to-wit: Commencing at a stone monument at the northeast corner of said Northwest one-quarter (NW¼) of Section One (1); running thence North eighty-nine degrees fourteen minutes West (N. 89° 14' W.) along the north line of said Section, two thousand one hundred twenty (2120) feet to the center line of State Trunk Highway No. 42 (also known as the Milwaukee Road); thence South forty-four degrees thirty minutes East (S. 44° 30' E.) along said road center line five hundred thirty-eight (538) feet to a point; thence South eighty-nine degrees fourteen minutes East (S. 89° 14' E.) parallel with the north line of said Section One (1), one thousand seven hundred thirty-nine and thirty-six hundredths (1739.36) feet to the north and south quarter section line; thence north along said quarter section line three hundred eighty-three and seventy-one hundredths (383.71) feet to the place of beginning, containing 17 acres;

PARCEL V VOL 511 PAGE 378

ALSO all that part of the North Fractional one-half (N. Fr. ½) of Section numbered Six (6), Township numbered Four (4) North, Range numbered Twenty-three (23) East, Town of Caledonia, Racine County, Wisconsin, described as follows, to-wit: Commencing at the northwest corner of said Section Six (6); thence south on the west line of said Section Six (6), one thousand five hundred twenty-two and fifty-seven hundredths (1522.57) feet to a point on the north line of the south eighty (80) acres of the North Fractional one-half (N. Fr. ½) of said Section Six (6); thence east on the north line of said south eighty (80) acres two thousand nine hundred (2900) feet to the water's edge of Lake Michigan; thence northwesterly along the water's edge one thousand seven hundred ten (1710) feet to a point on the north line of said Section Six (6); thence west on the north line of said Section Six (6), two thousand one hundred fifty-two (2152) feet to the place of beginning, containing 87.02 acres of land;

including all riparian rights of the party of the first part appurtenant to all of the above described lands in respect of the adjoining waters of Lake Michigan.



TOGETHER with all and singular the hereditaments and appurtenances thereunto belonging or in any wise appertaining; and all the estate, right, title, interest, claim or demand whatsoever, of the said party of the first part, either in law or equity, either in possession or expectancy of, in and to the above bargained premises, and their hereditaments and appurtenances.

TO HAVE AND TO HOLD the said premises as above described with the hereditaments and appurtenances, unto the said party of the second part, and to its successors and assigns FOREVER.

And the said ETHEL H. BARRETT for herself and her heirs, executors and administrators, does covenant, grant, bargain and agree to and with the said party of the second part, its successors and

assigns, that at the time of the ensealing and delivery of these presents she was well seized of the premises above described, as of a good, sure, perfect, absolute and indefeasible estate of inheritance in the law, in fee simple, and that the same are free and clear from all incumbrances whatever, and that the above bargained premises in the quiet and peaceful possession of the said party of the second part, its successors and assigns, against all and every person or persons lawfully claiming the whole or any part thereof, she will forever WARRANT AND DEFEND.

IN WITNESS WHEREOF, the said party of the first part has hereunto set her hand and seal this 27 day of November, 1950.

Signed and Sealed in
Presence of

Barbara B. Howe
Barbara B. Howe

Carlyn B. Brosious
Carlyn B. Brosious

Ethel H. Barrett (SEAL)
Ethel H. Barrett

STATE OF ILLINOIS)
)SS.
COOK COUNTY)

Personally came before me, this 27 day of November, 1950, the above named ETHEL H. BARRETT to me known to be the person who executed the foregoing instrument and acknowledged the same.

D. Treasurer
D. Treasurer
Notary Public, Cook County, Illinois
My Commission Expires Aug 1 1952

9306A
Envr. 1
(Large)

RECEIVED
DEC 29 1950
SECRETARY AND TREASURER

December 28, 1950

Mr. John Dockendorf:

OAK CREEK POWER PLANT SITE

Herewith are transmitted to you for W.E.P.Co.'s permanent file, the following important papers relating to the purchase from Ethel H. Barrett and Arthur M. Barrett, her husband, certain lands in the Town of Oak Creek, Milwaukee County, and Town of Caledonia, Racine County, for use as a power plant site:

1. Original recorded warranty deed of Ethel H. Barrett to W.E.P.Co. 122541

2. Original recorded quit-claim deed of Arthur M. Barrett to W.E.P.Co. 122542

3. Unrecorded affidavit of Ethel H. Barrett made for the purpose of showing adverse possession of the premises.

4. Certified copy of burial or removal permit of Abel Davis obtained from the County Clerk of Cook County at Chicago. This pertains to Mr. Prosser's instructions as set forth in his letter of November 22, 1950, in the file.

5. Four abstracts of title continued to date showing title in W.E.P.Co.

6. Five letters of opinion of Mr. Fred Prosser together with supplemental opinion dated November 22, 1950.

7. Letter of Mr. John O'Brien, Attorney, relating to the objections to title raised by Mr. Prosser.

On October 3, 1950, I sent you the original buy and sell agreement between the Barretts and W.E.P.Co. in connection with the purchase of the above tract of land. At that time the purchase was under cover and you kept the agreement in your personal file. I believe it now advisable to remove it from you personal file and add it to this file.

EDM/F

122541

Confidential

October 3, 1950

Mr. John Dockendorf:

PURCHASE OF LAND AT COUNTY LINE FROM ETHEL H. BARRETT

I wish to transmit to you for safe keeping the attached original buy and sell agreement between Ethel H. Barrett, Seller, and W.E.P.Co., Buyer, covering certain lands located at Milwaukee and Racine County Line and Lake Michigan.

I have retained copies of this contract and will follow through the completion of the purchase of the property according to the terms thereof. Mr. Seybold thought it advisable to have the original document filed with you.

E. Mosheler

EDM/F

Fd 209 9306a Env (Lge)

2991094

11/27/50

ETHEL H. BARRETT

VOL 5[illegible] PAGE 350

TO

WISCONSIN ELECTRIC POWER COMPANY

122541

567988

WARRANTY DEED

REGISTER'S OFFICE } ss.
Milwaukee County, Wis.
RECEIVED
for record [illegible] 1950 at 3 55
P.M., and recorded in vol 28 Deeds
Page 594 to 598 Incl.
Philip C. Wratfahl
REGISTER DEEDS

Return to:
E. D. Mishelow
Room 308, Public Service Bldg.
Milwaukee 1, Wisconsin
~~Box 129~~

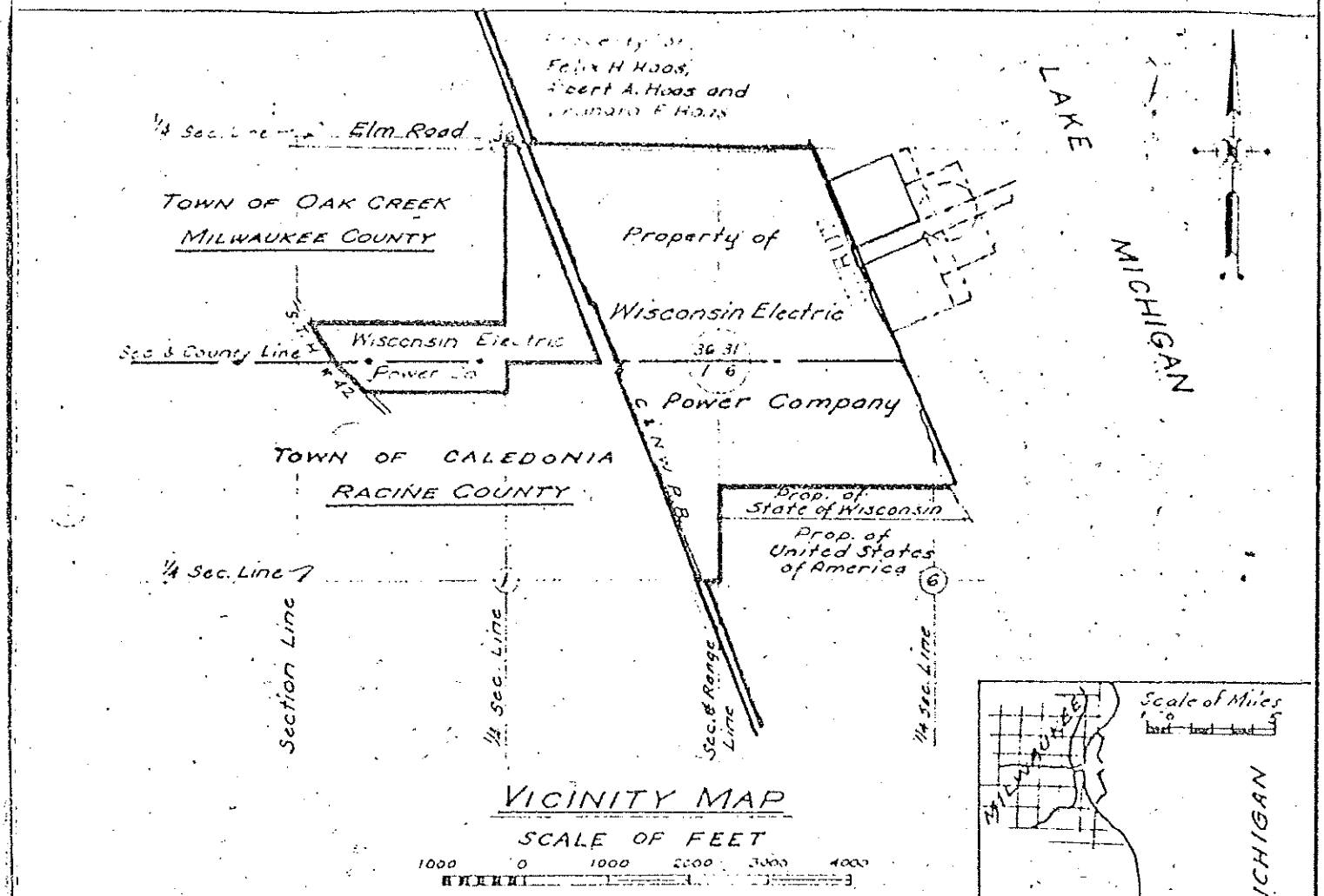
[illegible] record 6 day of December [illegible] 1950 at 11:36 [illegible] 541 Deeds [illegible] 376-380
Louis A. Peterson
By Harrick R Gifford

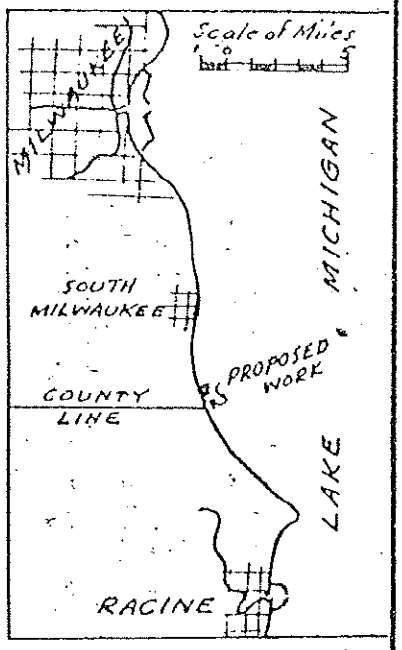
.55

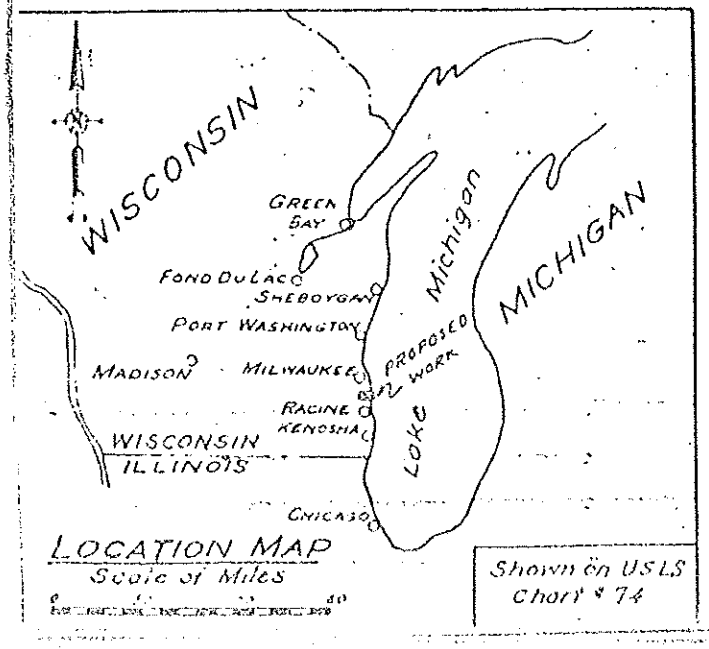
CERTIFICATE OF [illegible] OF RECORDS

Type of Re[illegible]

This is to certify that the [illegible] film negative are [illegible] and [illegible] original records of [illegible] FILM COMPANY, & that the film negative [illegible] in accordance with pre[illegible] person who has executed [illegible] of the [illegible]

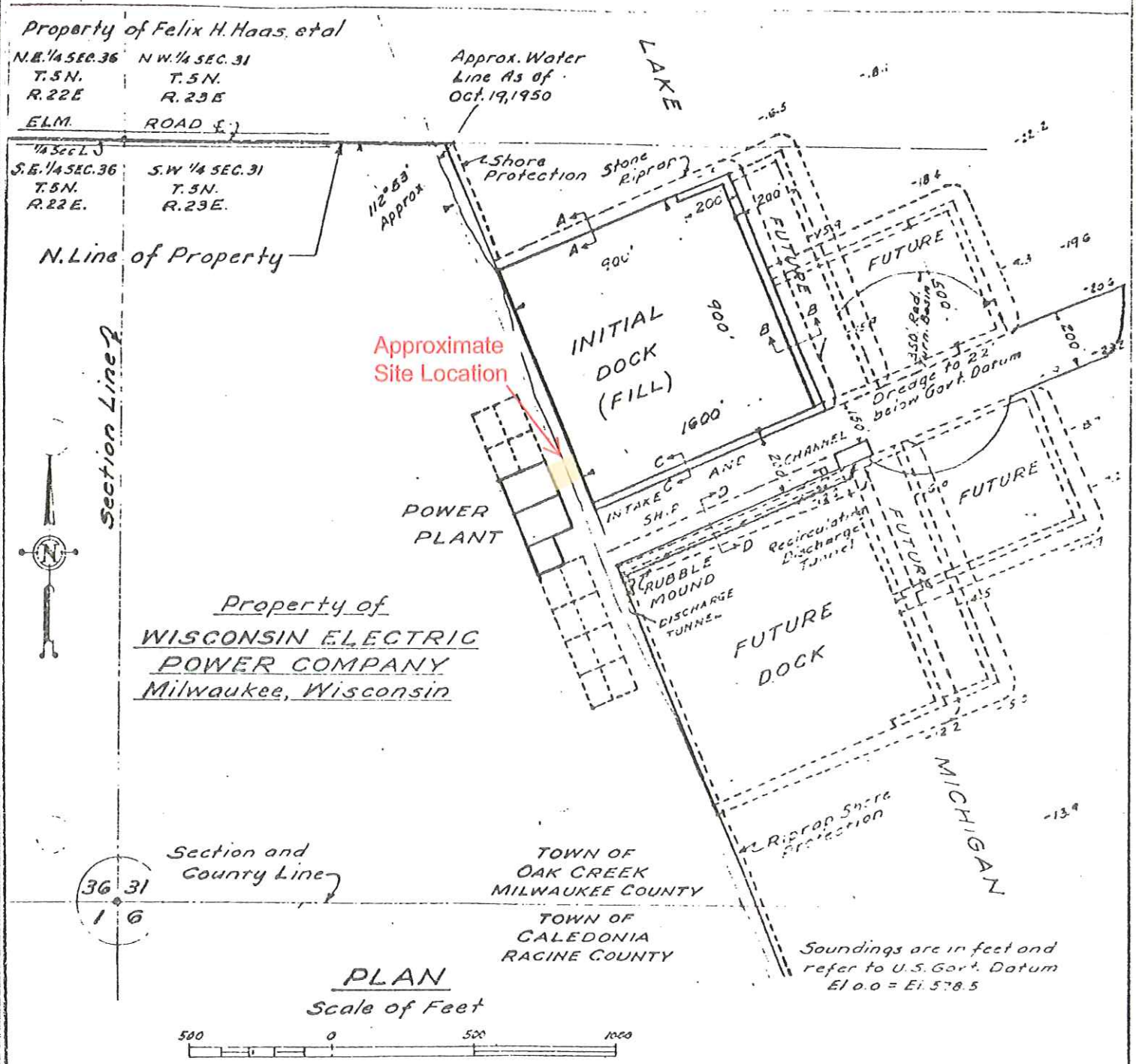






Proposed DOCK, PIER AND DREDGING
FOR POWER PLANT DEVELOPMENT
In TOWN OF OAK CREEK
At SHORE OF LAKE MICHIGAN
County of MILWAUKEE State WIS.
Application by WISCONSIN ELECTRIC POWER CO.
MILWAUKEE, WIS. Date MAR. 3, 1951.

FILE No. 5-V-70 In 4 Sheets - Sheet No. 1



Note:
All dredged material, in excess of that used for fill, shall be deposited in Lake Michigan in not less than 50 feet of water.

Proposed DOCK, PIER AND DREDGING FOR POWER PLANT DEVELOPMENT

In TOWN OF OAK CREEK

At SHORE OF LAKE MICHIGAN

County of MILWAUKEE State WIS.

Application by WISCONSIN ELECTRIC POWER CO

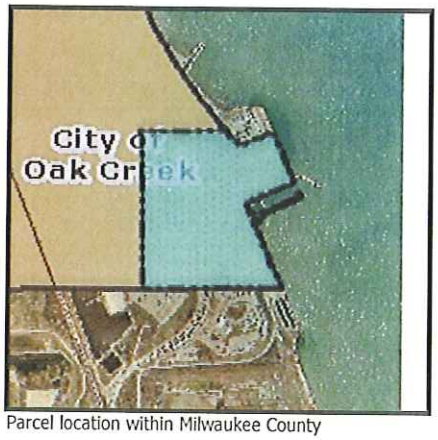
MILWAUKEE, WIS. Date MAR. 3, 1951

FILE No. 5-V-70 In 4 Sheets - Sheet No. 2

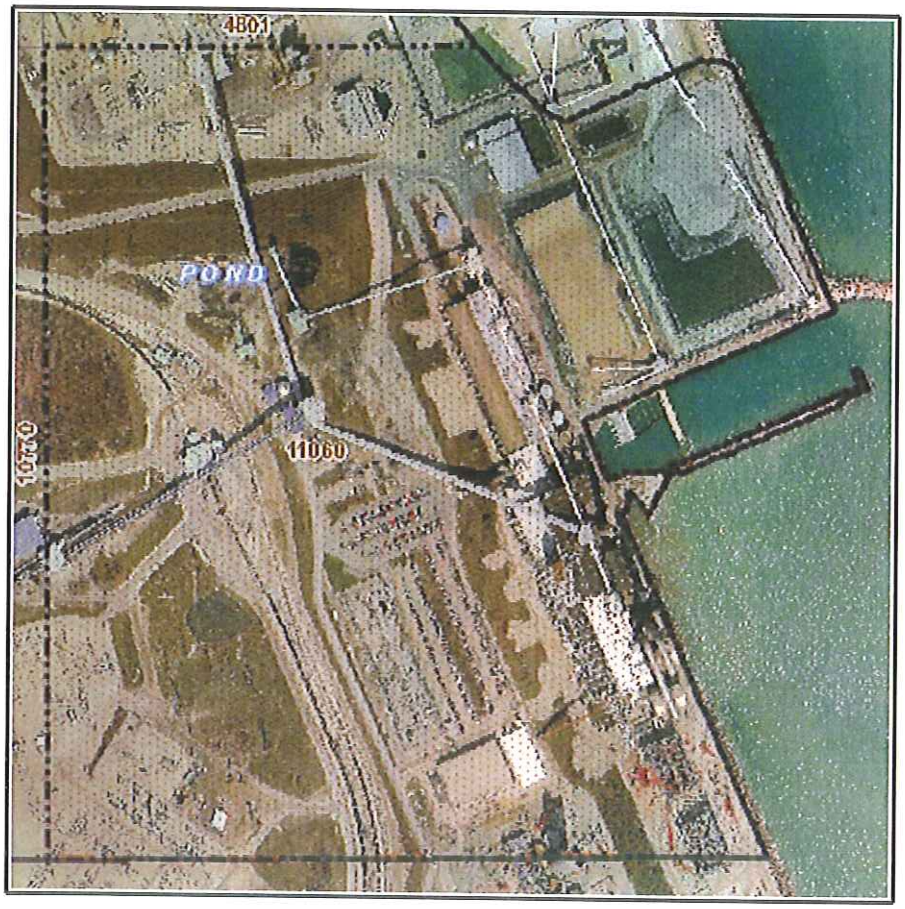
Milwaukee County Land Information Parcel Report

TAXKEY: **9659999001**

Report generated 4/27/2011 12:42:08 PM



Parcel location within Milwaukee County



Selected parcel highlighted

Parcel Information

TAXKEY: 9659999001

Record Date: 12/31/2009

Owner(s): WIS ELEC POWER CO

Address: 11060 S CHICAGO RD

Municipality: Oak Creek

Acres: 128.89

Assessed Value: $0

Parcel Description: OTHER

Legal Description: WEPCO POWER PLANT SW 1/4 SEC 31-5-23 ALSO THE LAND FILLED AREA CONT 128.33 ACS (AS OF 1970 SHORELINE) & INCL PT OF VAC RD (128.891 ACS)

Parcel Photo Not Available

Parcel photo

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

GIS Registry Information
Legal Description Statement

Oak Creek Power Plant – Fire Protection Project
11060 South Chicago Road
Oak Creek, Wisconsin
WDNR BRRTS #: 02-41-552981
WDNR FID#: 341140580

A legal description for the portion of the Oak Creek Power Plant (inclusive of the Fire Protection Project Area) is included in the attached Warranty Deed dated November 1950 (parcel 1). The extent of the property is depicted on the attached map (Sheet No. 1). The area inclusive of residual soil impacts in the Fire Protection Project (FPP) area is highlighted on the second drawing (Sheet No 2).

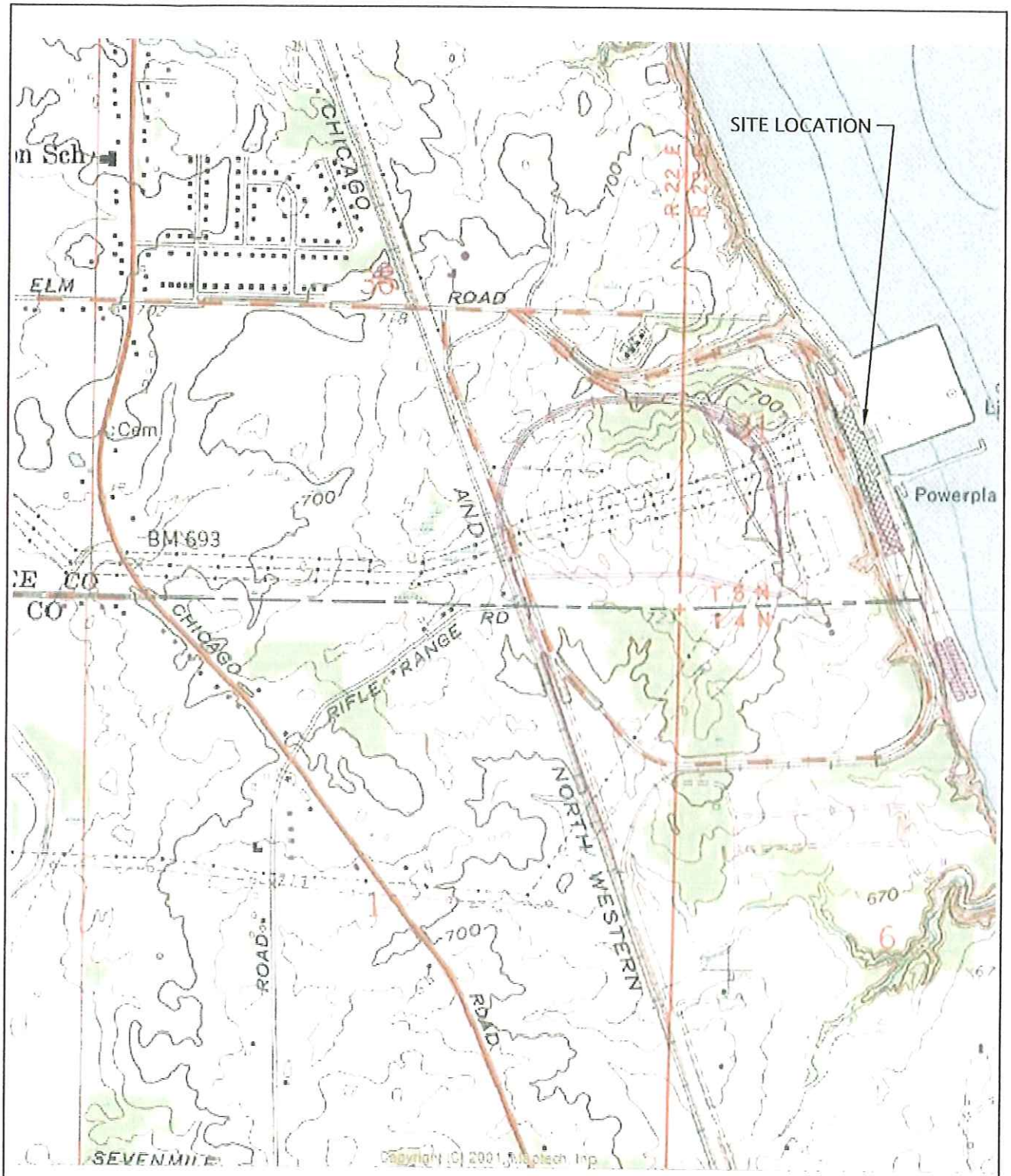
The subject area, centered on WTM coordinates of 678455, 285503, is depicted on the attached WDNR Remediation and Redevelopment Sites Map. Residual volatile organic compound (VOC) and polynuclear aromatic hydrocarbon (PAH) concentrations in soil exceed applicable residual contaminant levels (RCLs) in the FPP area.

Signature

TRENT KOHL
Name

PRINCIPAL ENGINEER
Title

12/15/09
Date



SOURCE: USGS RACINE NORTH, WISCONSIN QUADRANGLE MAP
TOPOGRAPHIC MAP 1958
PHOTOREVISED 1976

SCALE IN FEET

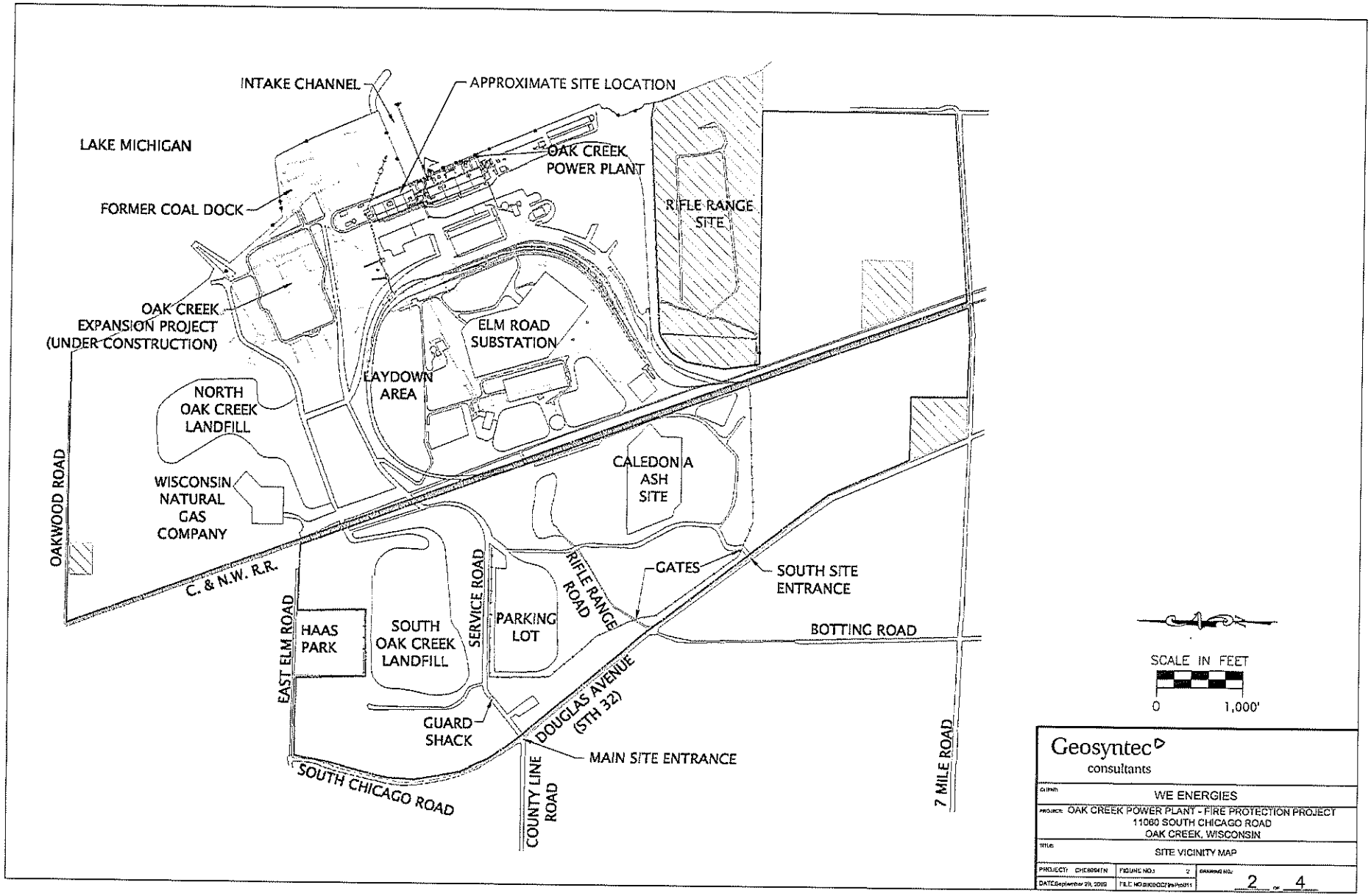
0 1,200'

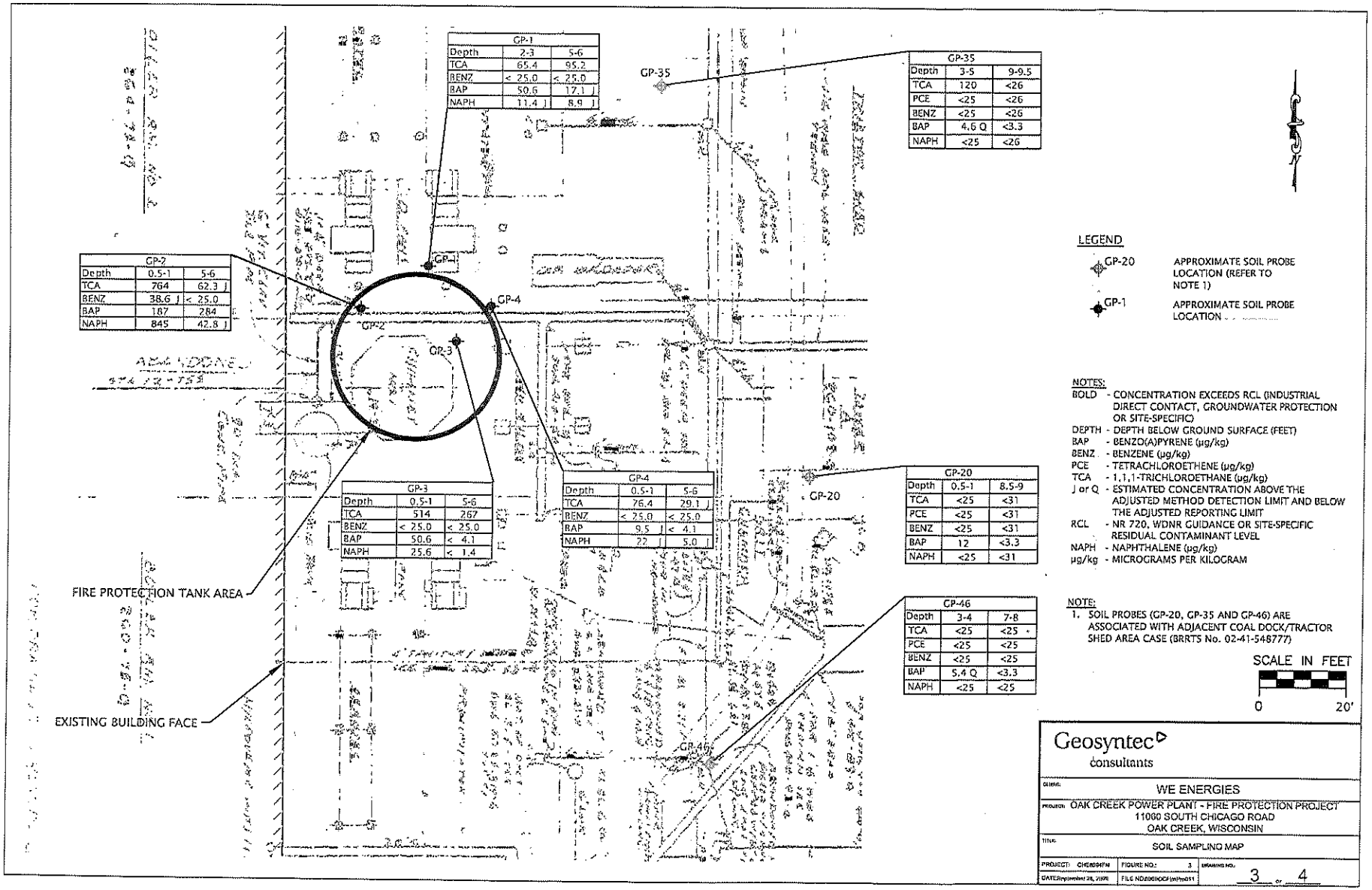
N

Geosyntec consultants

CLIENT:	WE ENERGIES
PROJECT:	OAK CREEK POWER PLANT - FIRE PROTECTION PROJECT 11060 SOUTH CHICAGO ROAD OAK CREEK, WISCONSIN
TITLE:	SITE LOCATION MAP
PROJECT: CHE8094FN	FIGURE NO.: 1
DATE: September 25, 2009	FILE: N:\908OCFirePro010
DRAWING NO.:	1 OF 4

F:\Projects\GeoSyntec\Oak Creek Power Plant\dwg\09-09 OCFirePro 010.dwg, FIG 1, 9/25/2009 1:40:48 PM, Adobe PDF


INTAKE CHANNEL
APPROXIMATE SITE LOCATION
LAKE MICHIGAN
OAK CREEK POWER PLANT
FORMER COAL DOCK
RIFLE RANGE SITE
OAK CREEK EXPANSION PROJECT (UNDER CONSTRUCTION)
ELM ROAD SUBSTATION
LAYDOWN AREA
NORTH OAK CREEK LANDFILL
CALEDONIA ASH SITE
WISCONSIN NATURAL GAS COMPANY
OAKWOOD ROAD
C. & N.W. R.R.
GATES
SOUTH SITE ENTRANCE
RIFLE RANGE ROAD
SERVICE ROAD
PARKING LOT
HAAS PARK
SOUTH OAK CREEK LANDFILL
BOTTING ROAD
EAST ELM ROAD
DOUGLAS AVENUE (STH 32)
GUARD SHACK
MAIN SITE ENTRANCE
SOUTH CHICAGO ROAD
COUNTY LINE ROAD
7 MILE ROAD
SCALE IN FEET
0
1,000'
Geosyntec consultants
WE ENERGIES
OAK CREEK POWER PLANT - FIRE PROTECTION PROJECT
11060 SOUTH CHICAGO ROAD
OAK CREEK, WISCONSIN
SITE VICINITY MAP
2 OF 4



GP-1		
Depth	2-3	5-6
TCA	65.4	95.2
BENZ	< 25.0	< 25.0
BAP	50.6	17.1 J
NAPH	11.4 J	8.9 J

GP-2		
Depth	0.5-1	5-6
TCA	764	62.3 J
BENZ	38.6 J	< 25.0
BAP	187	284
NAPH	845	42.8 J

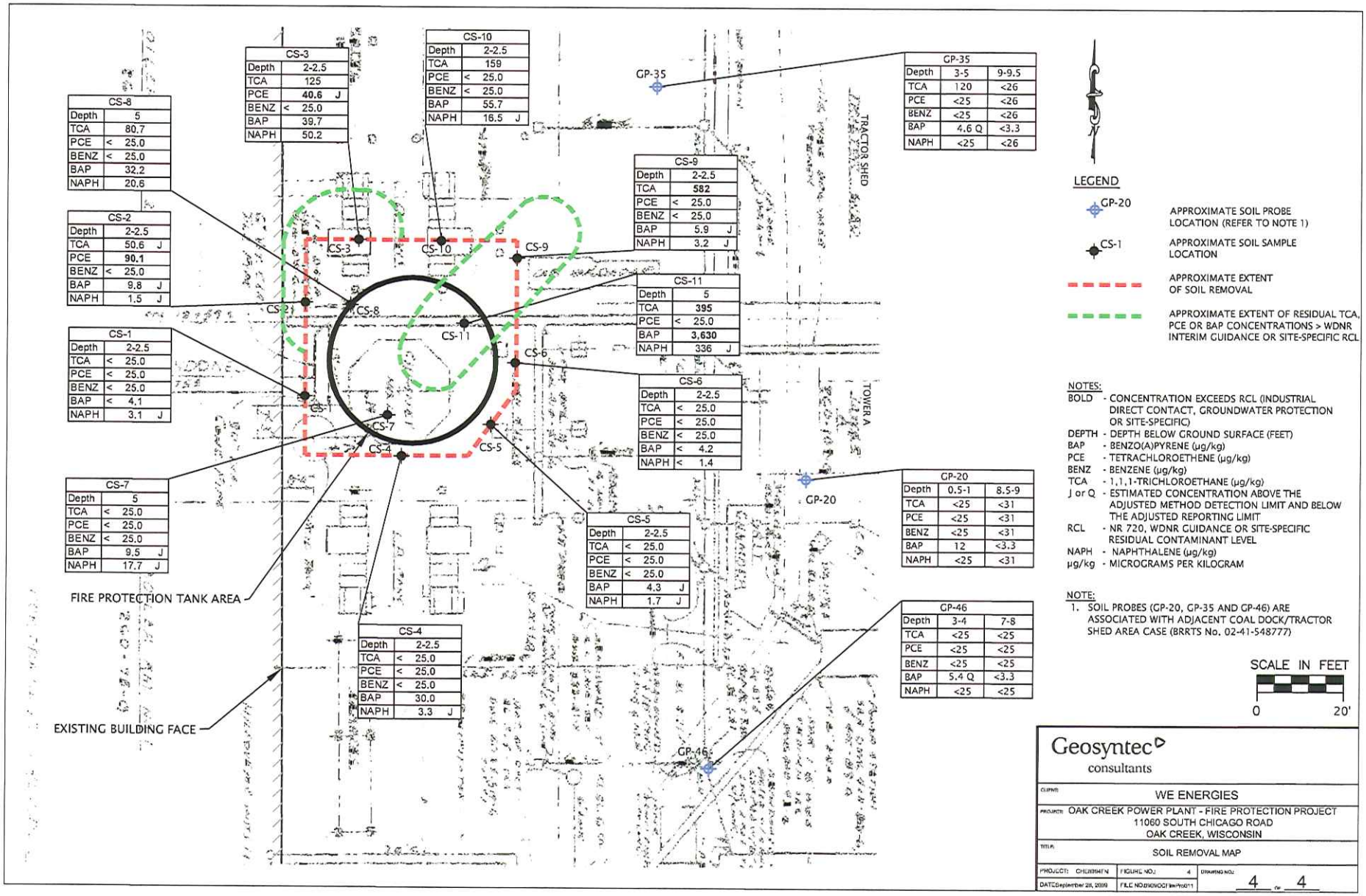
GP-3		
Depth	0.5-1	5-6
TCA	514	267
BENZ	< 25.0	< 25.0
BAP	50.6	< 4.1
NAPH	25.6	< 1.4

GP-4		
Depth	0.5-1	5-6
TCA	76.4	29.1 J
BENZ	< 25.0	< 25.0
BAP	9.5 J	< 4.1
NAPH	22 J	5.0 J

GP-35		
Depth	3-5	9-9.5
TCA	120	<26
PCE	<25	<26
BENZ	<25	<26
BAP	4.6 Q	<3.3
NAPH	<25	<26

GP-20		
Depth	0.5-1	8.5-9
TCA	<25	<31
PCE	<25	<31
BENZ	<25	<31
BAP	12	<3.3
NAPH	<25	<31

GP-46		
Depth	3-4	7-8
TCA	<25	<25
PCE	<25	<25
BENZ	<25	<25
BAP	5.4 Q	<3.3
NAPH	<25	<25



CS-1	
Depth	2-2.5
TCA	< 25.0
PCE	< 25.0
BENZ	< 25.0
BAP	< 4.1
NAPH	3.1 J

CS-2	
Depth	2-2.5
TCA	50.6 J
PCE	**90.1**
BENZ	< 25.0
BAP	9.8 J
NAPH	1.5 J

CS-3	
Depth	2-2.5
TCA	125
PCE	**40.6** J
BENZ	< 25.0
BAP	39.7
NAPH	50.2

CS-4	
Depth	2-2.5
TCA	< 25.0
PCE	< 25.0
BENZ	< 25.0
BAP	30.0
NAPH	3.3 J

CS-5	
Depth	2-2.5
TCA	< 25.0
PCE	< 25.0
BENZ	< 25.0
BAP	4.3 J
NAPH	1.7 J

CS-6	
Depth	2-2.5
TCA	< 25.0
PCE	< 25.0
BENZ	< 25.0
BAP	< 4.2
NAPH	< 1.4

CS-7	
Depth	5
TCA	< 25.0
PCE	< 25.0
BENZ	< 25.0
BAP	9.5 J
NAPH	17.7 J

CS-8	
Depth	5
TCA	80.7
PCE	< 25.0
BENZ	< 25.0
BAP	32.2
NAPH	20.6

CS-9	
Depth	2-2.5
TCA	**582**
PCE	< 25.0
BENZ	< 25.0
BAP	5.9 J
NAPH	3.2 J

CS-10	
Depth	2-2.5
TCA	159
PCE	< 25.0
BENZ	< 25.0
BAP	55.7
NAPH	16.5 J

CS-11	
Depth	5
TCA	**395**
PCE	< 25.0
BAP	**3,630**
NAPH	336 J

GP-20		
Depth	0.5-1	8.5-9
TCA	<25	<31
PCE	<25	<31
BENZ	<25	<31
BAP	12	<3.3
NAPH	<25	<31

GP-35		
Depth	3-5	9-9.5
TCA	120	<26
PCE	<25	<26
BENZ	<25	<26
BAP	4.6 Q	<3.3
NAPH	<25	<26

GP-46		
Depth	3-4	7-8
TCA	<25	<25
PCE	<25	<25
BENZ	<25	<25
BAP	5.4 Q	<3.3
NAPH	<25	<25

TABLE 1

SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

FIRE PROTECTION PROJECT

OAK CREEK POWER PLANT
11060 South Chicago Road
Oak Creek, Wisconsin
Geosyntec Project No. CHE8094FN

PARAMETERS	SAMPLE IDENTIFICATION								RCL	
	GP-1		GP-2		GP-3		GP-4		Direct Contact (industrial)	Groundwater Protection
Depth	2-3	5-6	0.5-1	5-6	0.5-1	5-6	0.5-1	5-6		
Date	9/22/08	9/22/08	9/22/08	9/22/08	9/22/08	9/22/08	9/22/08	9/22/08		
DRO (mg/kg)	12.4	4.7	59.7	18.2	33.0	2.6	8.7	1.7 J	---	100/250
Detected VOCs (ug/kg)										
1,1,1-Trichloroethane	65.4	95.2	764	62.3 J	514	267	76.4	29.1 J	---	284*
1,2,4-Trimethylbenzene	< 25.0	< 25.0	173	< 25.0	44.9 J	< 25.0	60.8 J	< 25.0	---	---
1,3,5-Trimethylbenzene	< 25.0	< 25.0	41.2 J	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	---	---
Benzene	< 25.0	< 25.0	38.6 J	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	---	5.5
Ethylbenzene	< 25.0	< 25.0	70.9	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	---	2,900
Isopropylbenzene	< 25.0	< 25.0	35.7 J	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	---	---
Naphthalene	< 25.0	< 25.0	145	< 25.0	< 25.0	< 25.0	56.7 J	< 25.0	110,000	400
n-Propylbenzene	< 25.0	< 25.0	54.4 J	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	---	---
Toluene	< 25.0	< 25.0	193	< 25.0	44.3 J	< 25.0	< 25.0	< 25.0	---	1,500
Xylenes	< 50.0	< 50.0	416	< 50.0	93.1 J	< 50.0	32.8 J	< 50.0	---	4,100
PAHs (ug/kg)										
Acenaphthene	2.8 J	1.5 J	59.0 J	64.1	11.1 J	< 1.0	3.2 J	5.5 J	60,000,000	38,000
Acenaphthylene	3.1 J	< 1.9	37.2 J	15.0 J	2.9 J	< 1.9	< 2.0	< 1.9	360,000	700
Anthracene	44.2	7.4 J	160	132	31.0	< 5.2	6.9 J	6.2 J	300,000,000	3,000,000
Benzo(a)anthracene	56.1	18.1 J	190	237	44.0	< 9.4	< 9.9	< 9.5	3,900	17,000
Benzo(a)pyrene	50.6	17.1 J	187	284	50.6	< 4.1	9.5 J	< 4.1	390	48,000
Benzo(b)fluoranthene	54.0	16.8 J	143	270	51.0	< 6.4	9.2 J	< 6.4	3,900	360,000
Benzo(g,h,i)perylene	31.0	9.1 J	105	208	35.1	< 4.8	7.1 J	< 4.8	39,000	6,800,000
Benzo(k)fluoranthene	47.2	18.1 J	144	249	43.5	< 7.0	7.9 J	< 7.0	39,000	870,000
Chrysene	92.3	20.1	213	258	50.0	< 3.9	10.3 J	6.7 J	390,000	37,000
Dibenzo(a,h)anthracene	10.9 J	< 5.3	38.0 J	64.5	11.5 J	< 5.3	< 5.5	< 5.3	390	38,000
Fluoranthene	201	37.4	317	655	132	< 1.2	28.2	17.2 J	40,000,000	500,000
Fluorene	3.0 J	1.9 J	31.7 J	76.0	7.9 J	< 1.0	2.2 J	4.4 J	40,000,000	100,000
Indeno(1,2,3-cd)pyrene	25.7	8.3 J	83.7	179	30.3	< 4.8	5.8 J	< 4.8	3,900	680,000
1-Methyl Naphthalene	3.8 J	2.5 J	960	40.5 J	25.6	< 2.1	< 2.2	5.0 J	70,000,000	23,000
2-Methyl Naphthalene	5.5 J	3.5 J	1,420	33.5 J	35.8	< 2.1	< 2.2	6.5 J	40,000,000	20,000
Naphthalene	11.4 J	8.9 J	845	42.8 J	25.6	< 1.4	2.2 J	5.0 J	110,000	400
Phenanthrene	83.2	21.8	859	434	109	< 2.2	22.4	20.9	390,000	1,800
Pyrene	118	24.9	252	437	85.1	< 1.1	19.4 J	11.5 J	30,000,000	8,700,000

Notes:
bold concentrations exceed RCL
--- - not analyzed, not established or not applicable
DRO - diesel range organics
J - estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
mg/kg - milligrams per kilogram
PAHs - polynuclear aromatic hydrocarbons
RCL - NR 720, WDNR interim guidance or site specific (*) residual contaminant level
ug/kg - micrograms per kilogram
VOCs - volatile organic compounds

TABLE 2

SUMMARY OF POST-SOIL REMOVAL SOIL SAMPLE ANALYTICAL RESULTS

FIRE PROTECTION PROJECT

OAK CREEK POWER PLANT
11060 South Chicago Road
Oak Creek, Wisconsin
Geosyntec Project No. CHE8094FN

PARAMETERS	SAMPLE IDENTIFICATION											RCL	
	CS-1	CS-2	CS-3	CS-4	CS-5	CS-6	CS-7	CS-8	CS-9	CS-10	CS-11	Direct Contact (industrial)	Groundwater Protection
Depth	2-2.5	2-2.5	2-2.5	2-2.5	2-2.5	2-2.5	5	5	2-2.5	2-2.5	5		
Date	4/1/09	4/1/09	4/1/09	4/1/09	4/1/09	4/1/09	4/1/09	4/1/09	4/1/09	4/1/09	4/1/09		
DRO (mg/kg)	4.3	7.3	19.1	18.7	3.5	3.3	7.4	9.1	4.1	4.7	3.4	---	100/250
Detected VOCs (ug/kg)													
1,1,1-Trichloroethane	< 25.0	50.6 J	125	< 25.0	< 25.0	< 25.0	< 25.0	80.7	**582**	159	**395**	---	284*
Naphthalene	< 25.0	< 25.5	30.9 J	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	29.0 J	< 25.0	110,000	400
Tetrachloroethene	< 25.0	**90.1**	**40.6 J**	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	---	4.1*
Toluene	< 25.0	< 25.5	46.1 J	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	< 25.0	---	1,500
PAHs (ug/kg)													
Acenapthene	< 1.0	< 1.1	11.3 J	2.2 J	< 1.0	1.7 J	4.9 J	10.1 J	1.8 J	4.7 J	310 J	60,000,000	38,000
Acenaphthylene	< 1.9	2.2 J	3.2 J	1.9 J	< 1.9	< 2.0	< 2.1	< 1.9	< 1.9	4.8 J	79.2 J	360,000	700
Anthracene	< 5.2	< 5.3	80.5	18.3	< 5.2	5.5 J	13.6 J	24.1	7.0 J	15.7 J	866	300,000,000	3,000,000
Benzo(a)anthracene	< 9.4	< 9.7	63.9	13.3 J	< 9.4	< 9.6	11.0 J	28.9	< 9.4	49.9	**5,710**	3,900	17,000
Benzo(a)pyrene	< 4.1	9.8 J	39.7	30.0	4.3 J	< 4.2	9.5 J	32.2	5.9 J	55.7	**3,630**	390	48,000
Benzo(b)fluoranthene	< 6.4	8.0 J	37.6	7.2 J	< 6.4	< 6.5	7.7 J	27.0	< 6.4	52.6	1,440	3,900	360,000
Benzo(g,h,i)perylene	< 4.7	7.5 J	20.0	5.3 J	< 4.8	< 4.9	6.1 J	21.7	5.1 J	34.3	3,710	39,000	6,800,000
Benzo(k)fluoranthene	< 7.0	7.7 J	40.0	9.3 J	< 7.0	< 7.1	7.9 J	25.1	< 7.0	48.0	510	39,000	870,000
Chrysene	< 3.9	9.2 J	78.4	15.5 J	6.9 J	7.7 J	13.3 J	32.1	11.3 J	53.9	8,880	390,000	37,000
Dibenzo(a,h)anthracene	< 5.2	< 5.4	8.2 J	< 4.9	< 5.3	< 5.4	< 5.7	7.4 J	< 5.2	12.7 J	**861**	390	38,000
Fluoranthene	4.6 J	9.8 J	491	48.5	9.1 J	11.9 J	29.5	65.1	18.7 J	75.4	829	40,000,000	500,000
Fluorene	< 1.0	< 1.1	13.2 J	1.7 J	< 1.0	< 1.1	3.0 J	7.8 J	1.2 J	2.9 J	482	40,000,000	100,000
Indeno(1,2,3-cd)pyrene	< 4.7	5.9 J	18.4 J	4.5 J	< 4.7	< 4.8	5.1 J	18.9	< 4.7	30.6	515	3,900	680,000
1-Methyl Naphthalene	2.1 J	< 2.1	52.9	2.1 J	< 2.1	< 2.1	14.5 J	8.1 J	3.0 J	13.4 J	984	70,000,000	23,000
2-Methyl Naphthalene	3.1 J	< 2.2	74.3	2.2 J	2.9 J	< 2.1	21.0	11.6 J	4.2 J	18.8	1,590	40,000,000	20,000
Naphthalene	3.1 J	1.5 J	50.2	3.3 J	1.7 J	< 1.4	17.7 J	20.6	3.2 J	16.5 J	336 J	110,000	400
Phenanthrene	3.4 J	6.0 J	189	18.9	5.0 J	9.8 J	23.7	62.2	20.0	42.3	**5,190**	390,000	1,800
Pyrene	3.7 J	8.4 J	375	37.4	7.4 J	14.2 J	21.9	48.9	14.4 J	63.5	5,940	30,000,000	8,700,000

Notes:
bold concentrations exceed RCL
--- - not analyzed, not established or not applicable
DRO - diesel range organics
J - estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
mg/kg - milligrams per kilogram
PAHs - polynuclear aromatic hydrocarbons
RCL - NR 720, WDNR interim guidance or site specific (*) residual contaminant level
ug/kg - micrograms per kilogram
VOCs - volatile organic compounds