

GIS REGISTRY INFORMATION

SITE NAME: US Coast Guard - Plum Island
BRRTS #: 03-15-000197 **FID #** 415119210
COMMERCE # (if appropriate): _____
CLOSURE DATE: 08/30/2006
STREET ADDRESS: Plum Island
CITY: Washington Tn

SOURCE PROPERTY GPS COORDINATES (meters in WTM91 projection): X= 758850 Y= 541887

CONTAMINATED MEDIA: Groundwater Soil Both
OFF-SOURCE GW CONTAMINATION >ES: Yes No

IF YES, STREET ADDRESS 1: _____
GPS COORDINATES (meters in WTM91 projection): X= _____ Y= _____

OFF-SOURCE SOIL CONTAMINATION >Generic or Site-Specific RCL (SSRCL): Yes No

IF YES, STREET ADDRESS 1: _____
GPS COORDINATES (meters in WTM91 projection): X= _____ Y= _____

CONTAMINATION IN RIGHT OF WAY: Yes No

DOCUMENTS NEEDED:

- Closure Letter, and any conditional closure letter or denial letter issued X
- Copy of any maintenance plan referenced in the final closure letter. X
- Copy of (soil or land use) deed notice *if any required as a condition of closure* NA
- Copy of most recent deed, including legal description, for all affected properties X
- Certified survey map or relevant portion of the recorded plat map (*if referenced in the legal description*) for all affected properties NA
- County Parcel ID number, *if used for county*, for all affected properties X
- Location Map** which outlines all properties within contaminated site boundaries on USGS topographic map or plat map in sufficient detail to permit the parcels to be located easily (8.5x14" if paper copy). If groundwater standards are exceeded, the map must also include the location of all municipal and potable wells within 1200' of the site. X
- Detailed Site Map(s) for all affected properties**, showing buildings, roads, property boundaries, contaminant sources, utility lines, monitoring wells and potable wells. (8.5x14", if paper copy) This map shall also show the location of all contaminated public streets, highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding ch. NR 140 ESs and soil contamination exceeding ch. NR 720 generic or SSRCLs. X
- Tables of Latest Groundwater Analytical Results (no shading or cross-hatching)** NA
- Tables of Latest Soil Analytical Results (no shading or cross-hatching)** X
- Isoconcentration map(s), if required for site investigation (SI)** (8.5x14" if paper copy). The isoconcentration map should have flow direction and extent of groundwater contamination defined. If not available, include the latest extent of contaminant plume map. NA
- GW: Table of water level elevations, with sampling dates, and free product noted if present** NA
- GW: Latest groundwater flow direction/monitoring well location map (should be 2 maps if maximum variation in flow direction is greater than 20 degrees)** NA
- SOIL: Latest horizontal extent of contamination exceeding generic or SSRCLs, with one contour** X
- Geologic cross-sections, if required for SI.** (8.5x14" if paper copy) X
- RP certified statement that legal descriptions are complete and accurate** X
- Copies of off-source notification letters (if applicable)** NA
- Letter informing ROW owner of residual contamination (if applicable)**(public, highway or railroad ROW) NA



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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

Northeast Region Headquarters
2984 Shawano Ave., P.O. Box 10448
Green Bay, Wisconsin 54307-0448
Telephone 920-662-5100
FAX 920-662-5413
TTY Access via relay - 711

August 30, 2006

USCG Civil Engineering Unit
Attn: Lynn Keller
1240 East 9th St., Room 2179
Cleveland OH 44199-2060

Subject: Final Case Closure with Conditions Met
USCG Plum Island Light Station, Plum Island, Wisconsin
WDNR BRRTS Activity # 03-15-000197

Dear Ms. Keller:

On June 21, 2005, the Department of Natural Resources Northeast Region (NER) 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 June 27, 2005, you were notified that the Closure Committee had granted conditional closure to this case.

On June 19, 2006, and August 28, 2006, the Department received correspondence indicating that you have complied with the requirements of closure. A cap maintenance plan, GIS registry packet, and Conceptual Management plan were received, and signs were posted to notify visitors of the soil contamination at the site. Based on the correspondence and data provided, it appears that your case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code. The Department considers this case closed and no further investigation, remediation or other action is required at this time.

GIS REGISTRY

Your site will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. Information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit <http://dnr.wi.gov/org/aw/rr/gis/index.htm>. If your property is listed on the GIS Registry and you intend to construct or reconstruct a well, you will need Department approval. Department approval is required before construction or reconstruction of a well on a property listed on the GIS Registry, in accordance with s. NR 812.09(4)(w). 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://www.dnr.state.wi.us/org/water/dwg/3300254.pdf> or at the web address listed above for the GIS Registry.

MAINTENANCE PLAN

Your site was closed with the requirement of a Maintenance Plan; a soil cap be maintained over the area of contaminated soil. The maintenance of the cap is to be conducted as described in the Cap Maintenance Plan, dated June 2006. The maintenance plan and inspection log are to be kept up-to-date and the inspection log need only be submitted to the Department upon request. A copy of the cap maintenance plan can be found in the Department's regional files, or they can be viewed on the GIS Registry for this site, at <http://dnr.wi.gov/org/aw/rr/gis/index.htm>.

PLACEMENT OF SIGNS AROUND THE LEAD IMPACTED AREAS

Signs were posted and must be maintained in order to notify visitors to the site that soil contamination remains on the property.

PROPERTY MUST REMAIN ZONED AS A NATURAL AREA

The Wildlife Conceptual Management Plan states that this area will remain a natural area.

FUTURE EXCAVATION OF RESIDUAL CONTAMINATED SOIL

Residual soil contamination remains at the Fog Signal Building, Station Building, Rear Range Light, Keepers Dwelling, Dump Site Number 1, Dump Site Number 2, and the Firing Range as indicated in the information submitted to the Department of Natural Resources. If soil in these specific locations is excavated in the future, the property owner at the time of excavation will be required to sample and analyze the excavated soil to determine whether the contamination still remains. If contamination remains, 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 at the time of excavation. **Special precautions may need to be taken during excavation activities to prevent a direct contact health threat to humans.** Based upon the results of sample analysis, the current owner will also have to properly store, treat, or dispose of any excavated materials, in accordance with state and federal laws.

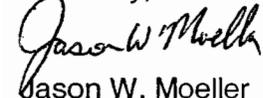
BUILDING EXTERIOR MAINTENANCE

The lead-based paint continues to flake off of the buildings. The future maintenance of these buildings shall eliminate the continued lead release to the soil. The building exteriors shall be stabilized prior to allowing public access to the buildings.

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

We appreciate your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at (920) 662-5492.

Sincerely,



Jason W. Moeller

NER Spills Coordinator - Hydrogeologist

Department of Natural Resources, Bureau for Remediation & Redevelopment

cc: Bureau of Land Management, Carol Grundman / Marcia Sieckman, 626 E WI Avenue, Suite 200, Milwaukee, WI 53202
U.S. Fish & Wildlife Service, Patti Meyers - Refuge Manager, Horicon National Wildlife Refuge Complex, W4279 Headquarters Road, Mayville, WI 53050

CAP MAINTENANCE PLAN

June 2006

Property Located at:

Plum Island, Door County, Wisconsin

FID # 415119210, BRRTS # 03-15-00097

LEGAL DESCRIPTION:

The island known as Plum Island, located in the Portes des Mortes Passage at the entrance to Green Bay, Wisconsin, lying in Section 26 and 27 Township 33 North, Range 29 East of the Fourth Principal Meridian containing approximately 325 acres of land, more or less, in Door County, Wisconsin.

U.S. COAST GUARD SITE
PLUM ISLAND LIGHT STATION
PLUM ISLAND, WISCONSIN

TAX #: N/A

Introduction

The purpose of this document is to present a Maintenance Plan for a soil cap at the above-referenced property per the requirements of NR 724.13(2) of the Wisconsin Administrative Code. The maintenance activities relate to the existing soil cap occupying the area over the contaminated soil on-site. The contaminated soil is impacted by lead. The location of the soil cap to be maintained in accordance with this Maintenance Plan, as well as the impacted soil is identified in Exhibit A. Exhibit A consists of Sheets 1 through 15 of Drawing 7141-D from the Site Closure Report (MWH 2005), depicting elevated lead in soil concentration areas (between 50 and 1200 ppm lead) around the Fog Signal Building, Former Shooting Range, Former Dump Sites 1 and 2, Station Building, Dump Site West of Station Building, Keeper's Dwelling, and Rear Range Light. Additionally, pages 1 through 12 of Table 1 from the Site Closure Report (MWH 2005) are included in Exhibit A to illustrate confirmatory sample concentrations throughout these elevated lead in soil areas.

Soil Cap Purpose

The soil cap over the contaminated soil serves as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. Based on the current and future use of the property, the soil cap should function as intended unless disturbed.

Annual Inspection

The soil cap consists of at least six inches of clean borrowed soil, rock, and gravel from other areas on the island, which was seeded with a native seed mixture overlying the

contaminated soil (as depicted in Exhibit A). The soil cap will be inspected once a year by the current property owner for potential exposures to underlying soils. The inspections will be performed to evaluate disturbance to the layer of clean fill separating soil with elevated lead levels from potential receptors on the surface. Disturbances may be due to exposure to the weather, damage from wild life, and other factors. Any area where underlying soils have become or are likely to become exposed will be documented. A log of the inspections will be maintained by the property owner and is included as Exhibit B, *Cap Inspection Log*. The log will include recommendations for necessary fill or seeding in any areas where underlying soils are exposed. Once repairs are completed, they will be documented in the inspection log.

Maintenance Activities

If exposed soils are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Maintenance activities can include fill, revegetation, or other necessary actions. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protective equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the soil cap overlying the contaminated soil is removed or replaced, the replacement barrier must be equally sufficient to cover the contaminated soil. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the Wisconsin Department of Natural Resources (WDNR) or its successor.

The current property owner, in order to maintain the integrity of the soil cap, will maintain a copy of this Maintenance Plan on-site (if appropriate) and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

Amendment or Withdrawal of Maintenance Plan

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



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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

Northeast Region Headquarters
2984 Shawano Ave., P.O. Box 10448
Green Bay, Wisconsin 54307-0448
Telephone 920-662-5100
FAX 920-662-5413
TTY Access via relay - 711

June 13, 2006

USCG Civil Engineering Unit
Attn: Lynn Keller
1240 East 9th St., Room 2179
Cleveland OH 44199-2060

Subject: Requirements to Achieve Final Closure per Act 418
USCG Plum Island Light Station, Plum Island, Wisconsin
WDNR BRRTS Activity # 03-15-000197

Dear Ms. Keller:

On June 27, 2005 the Department sent you a Conditional Closure letter that required a deed restriction for the contaminated soil on this property. On June 3, 2006, new legislation (Act 418) went into effect which eliminated the requirement of a deed restriction for these types of properties. Therefore, a deed restriction is no longer required for this property. Instead of the deed restriction, the property will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. To review the site on the GIS Registry web page, visit <http://maps.dnr.state.wi.us/brrts>.

I have included a checklist of documents needed for the GIS Registry packet. This includes;

- (A) Parcel identification number,
- (B) Geographic position,
- (C) Location Map,
- (D) Map of contaminated area,
- (E) Table of the most recent analytical results,
- (F) Map showing location of soil samples,
- (G) Geologic cross section map of the contamination, and
- (H) Legal description signed by the responsible party.

Also, the other requirements listed in the June 27, 2005 letter still apply;

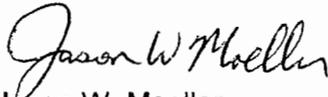
- (1) Maintenance Plan,
- (2) Placement of signs,
- (3) Property must remain a Natural Area – no deed restriction needed,
- (4) Future Excavation of Contaminated Soil, and
- (5) Future Building Exterior Maintenance.

When the above conditions have been satisfied, please submit a letter to let me know that applicable conditions have been met, along with the GIS Registry Packet, the Maintenance Plan, and photos of sign placement and your case will be closed.

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

We appreciate your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at (920) 662-5492.

Sincerely,

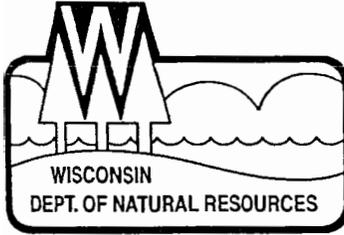


Jason W. Moeller
NER Spills Coordinator - Hydrogeologist
Bureau for Remediation & Redevelopment

Enc: GIS Registry Checklist and a copy of the June 27, 2005 Conditional Closure Letter

cc: Carol Grundman / Marcia Sieckman, Bureau of Land Management, 626 E WI Avenue,
Suite 200, Milwaukee, WI 53202

File



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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

Northeast Region Headquarters
2984 Shawano Ave., P.O. Box 10448
Green Bay, Wisconsin 54307-0448
Telephone 920-662-5100
FAX 920-662-5413
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June 27, 2005

United State Coast Guard
Attn: Lynn Keller
1240 East 9th Street
Room 2179
Cleveland OH 44199-2060

Subject: Conditional Closure Decision with Requirements to Achieve Final Closure
USCG Plum Island Light Station, Plum Island Wisconsin
WDNR BRRTS # 03-15-000197

Dear Ms. Keller:

On June 21, 2005, the Department of Natural Resources Northeast Region (NER) Closure Committee reviewed your request for closure of the case described above. The NER Closure committee reviews environmental remediation cases for compliance with state rules and statutes to maintain consistency in the closure of these cases. After careful review of the closure request, the NER Closure Committee has determined that the petroleum and lead contamination on the site near the fog signal building, station building, keepers dwelling, and rear range light, former dump site number 1, former dump site number 2, and former shooting range appears to have been investigated and remediated to the extent practicable under site conditions. Your case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code and will be closed if the following conditions are satisfied:

DEED RESTRICTION FOR CONTAMINATED SOIL

To close this site, the Department requires that a deed restriction be signed and recorded to address the issue of the remaining soil contamination associated with the site. The purpose of the restriction is to:

- (1) Limit the use of the contaminated property to natural area uses. (see Option 2 in the model deed restriction in the appendix of PUB-RR-606, Guidance on Case Close Out and the Requirements for Institutional Controls and VPLE Environmental Insurance.)
- (2) Maintain a vegetative barrier over the remaining soil contamination to:
 - (A) prevent lead contamination from impacting human health and wildlife through direct contact.
- (3) Posting and maintaining of signs notifying the public of lead contamination in the soils.

You will need to submit a draft deed restriction to me before the document is signed and recorded. You may find a model deed restriction enclosed for your use or you can visit our web site at www.dnr.state.wi.us/org/aw/rr to find an electronic copy of PUB-RR_606, which includes a

model deed restriction. To assist us in our review of the deed restriction, you should submit a copy of the property deed (or other instrument) to me along with the draft document. After the Department of Natural Resources has reviewed the draft document for completeness and given written approval of the draft document, you should sign it if you own the property, or have the appropriate property owner sign it, and have it recorded by the Door County Register of Deeds. Then you must submit a copy of the recorded document, with the recording information stamped on it, to me. Please be aware that if a deed restriction is recorded for the wrong property because of an inaccurate legal description, you will be responsible for recording corrected documents at the Register of Deeds Office to correct the problem.

MAINTENANCE PLAN

As a condition of this closure, a vegetative cap at the site must be maintained where the lead in the soil is above 50 ppm to minimize direct contact concerns. The cover is to be maintained in accordance with a plan prepared and submitted to the Department of Natural Resources pursuant to s. NR 724.13(2), Wis. Adm. Code. Submit a draft maintenance plan to me with the draft deed restriction.

PLACEMENT OF SIGNS AROUND THE LEAD IMPACTED AREAS

In order to notify any visitors to the site that soil contamination remains on the property above the 50 ppm, residential standard, signs shall be posted in the areas of the remaining soil contamination. The language on the signs should notify the public of the direct contact risk from lead in the soils and the health impacts of lead to humans. Submit a draft sign to me with the draft deed restriction.

PROPERTY MUST REMAIN ZONED AS A NATURAL AREA

All future owners of this property need to be aware that the property must retain its current zoning as a natural area. The deed restriction must state that the zoning of the property will remain a natural area. If the lead contamination is addressed in the future the zoning of the property can be reevaluated by the Department of Natural Resources or its successor agency.

EXCAVATION OF CONTAMINATED SOIL

Residual soil contamination remains at the fog signal building, station building, rear range light, keepers dwelling, Dump Site number 1, Dump Site Number 2, and the Firing Range as indicated in the information submitted to the Department of Natural Resources. If soil in these locations is excavated in the future, the property owner at that time will be required to sample and analyze the excavated soil in order to determine whether the contamination still remains. The owner will also have to properly store, treat, or dispose of any excavated materials, based upon the results of that characterization, and take special precautions during excavation activities to prevent a direct contact threat to humans. All future owners and occupants of this property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard at the time of excavation.

BUILDING EXTERIOR MAINTENANCE

The lead-based paint continues to flake off of the buildings. The building exteriors shall be stabilized to prevent the continued release of lead based paint to the surrounding soils.

The property is currently in the process of being transferred. As a condition of the property transfer and this closure the buildings will be maintained in the future. The maintenance of these buildings by a future property owner(s) will eliminate the continued lead release and contamination to the soil. It is the intent of the Coast Guard to transfer the property to BLM in the near future. Based upon our information, this property will be utilized by the public in the

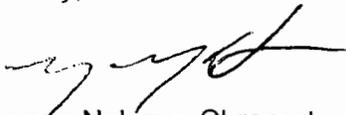
future and the new owner will maintain the existing buildings.

When the above conditions have been satisfied, please submit a letter to let me know that applicable conditions have been met, and your case will be closed. Your site will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. Information that was submitted with your closure request application will be included on the GIS Registry. To review the site on the GIS Registry web page, visit <http://maps.dnr.state.wi.us/brrts>.

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

We appreciate your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at 920-662-5492.

Sincerely,



Roxanne Nelezen Chronert
Spill Coordinator - Hydrogeologist
Bureau for Remediation & Redevelopment

cc: Marcia Sieckman, Bureau of Land Management, 626 E WI Avenue, Suite 200,
Milwaukee, WI 53202
File

SUPPLEMENTAL
ATTORNEY'S REPORT OF TITLE

PLUM ISLAND LIGHT STATION
DOOR COUNTY, LAKE MICHIGAN, WISCONSIN
REPORT OF EXCESS NO. BS-32-023-95L

As a supplement to the Attorney's Report of Title which was issued April 16, 1996, I hereby certify that I have re-examined the available real property records of the U. S. Coast Guard, Civil Engineering Unit Cleveland, 1240 E. 9th Street, Cleveland, Ohio 44199-2060 in light of the Phase I Environmental Site Assessment (ESA) prepared November 5, 1997. The ESA has been referenced in this Report of Title and has been included as an exhibit in its complete form in this Report of Excess (ROE) at Tab 19.

On the basis of my aforementioned examination of the available real property records, I conclude that the subject property was reserved from the public domain by an Executive Order (E.O.), dated December 11, 1848, by former President of the United States, James K. Polk, a copy of which is attached hereto as *Enclosure (A)*. Included with said enclosure "A" is the recommendation from the Secretary of the Treasury that the subject property ("Plum Island") be reserved for "light house purposes". A "Plot Plan" of the property is included herewith for reference as *Enclosure (B)*, and is also included in the ROE at Tab 3.

The island property to be excessed consists of 325 acres, more or less, along with the following structures: A station building, a boathouse, a paint locker, a fog signal building, a light keeper's dwelling, and the REAR range light tower. The Coast Guard is retaining ownership of the FRONT range light tower (its aid to navigation (LLNR 21305), and its associated equipment) and the REAR range lens (LLNR 21310) (as well as its associated equipment including underground electrical cables). In addition, the Coast Guard is retaining easements for the arc of visibility, ingress/egress, and maintenance of the FRONT range tower and the REAR range lens. (See the brief legal description ("Schedule A") of the property included herewith as enclosure (C), along with a description of the reservation language ("Schedule B") as enclosure (D)).

ENCLOSURE(17)

I also conclude, based upon the available real estate records, that the property rights described in Schedule "A" have continued in the United States from the date of acquisition up to and including the date of my examination.

1. Property address

Coast Guard Station Plum Island Light
Lake Michigan
Door County, Wisconsin

(See ENCLOSURE (C) - for Legal Description)

2. Screening of Property

This property has been screened against the known needs of the holding agency (departmental level).

3. How Government Acquired Title

Title was acquired by an Executive Order dated 11 December 1848 in which the land was reserved from public domain.

(See ENCLOSURE (A) - for Acquisition Document)

4. Exceptions to Title Acquired

The title is free and clear of all encumbrances, defects, or interests impairing or adversely affecting the title to said property except for the following:

- A. Subject to any state of facts that may be disclosed by a physical examination of the premises described in Schedule "A".
- B. Subject to any state of facts that may be disclosed by an accurate and adequate survey of the premises described in Schedule "A".
- C. Subject to existing easements or licenses for public roads and highways, for public utilities, for pipelines, and for drainage and sewer lines of the premises described in Schedule "A", if any.

5. Actions that occurred after acquisition by the Government which have or may have affected title

There were no known actions occurring after acquisition of title by the Government that affect right, title or interest in the excess property.

6. Jurisdiction

Civil and criminal jurisdiction over the excess area is

() EXCLUSIVE (X) PROPRIETORIAL () PARTIAL () CONCURRENT

(Ref: Inventory Report On Jurisdictional Status Of Federal Areas Within The States, page 869, June 30, 1962, Compiled by GSA)

7. Floodplain/Wetland Certification

The property is NOT located within the 100-year floodplain.

This property is NOT located in an identified wetland.

(See the August 15, 1995 letter to LCDR Cutts from Ms. Catherine J. Carnes with the U. S. Department of the Interior, Fish and Wildlife Service, included in the ROE as Tab 14.)

8. Historic Fixtures or Related Personal Property

There ARE fixtures or related personal property that have architectural, archeological, or cultural value. As noted earlier, the REAR light tower contains a 4th order classical Fresnel Lens (LLNR 21310) ownership of which is to be retained by the Coast Guard.

This would include sacred or cultural items identified pursuant to the American Graves Protection and Repatriation Act (24 U.S.C. 3003(d)).

9. Historic Significance of Property

The property HAS known historical, architectural, archeological, or cultural significance. Plum Island Light itself is listed on the National Register of

Historic Places. The ancillary buildings on the property are likely eligible for listing "as contributing resources within a possible historic district."

There are two (2) known, and possibly more, archeological sites on Plum Island, as well as four (4) known historic shipwrecks close to the shores of the island.

(See May 14, 1996 letter to LCDR Cutts from Richard A. Bernstein with the Wisconsin Historical Society included in the ROE as Tab 5.)

10. Asbestos

The island contains numerous buildings that have exteriors, shingled roofs, flooring, and drop down ceilings suspected of containing asbestos. Asbestos is also suspected to be present in the steps leading from the garage into the main station building and in the piping insulation in the basement of the station building. The keeper's dwelling is also suspected to have a roof containing asbestos. As reported therein no testing was done.

(See ROE Tab 19, Phase I Environmental Site Assessment (ESA) by Woodward-Clyde, dated November 5, 1997, pgs. 5-1 to 5-3, & 7-1.

11. Hazardous Substance Activity

On September 10, 1995, the Coast Guard conducted an environmental inspection of the property finding no polychlorinated biphenyl's (PCB's), underground tanks or friable asbestos containing materials (ACM's). There were two (2) aboveground tanks, numerous drums, and at least nine (9) separate dumpsites that contained residential trash, batteries and paint cans and the remains of a small rifle range. The Coast Guard cleaned up the island in August 1996.

(See Tab 8 October 2, 1995 Contamination Statement and the September 10, 1996 After Action Report by the USCG.)

In the Phase I Environmental Site Assessment (ESA) it is stated that, "The Coast Guard has determined, in accordance with regulations issued by the Environmental Protection Agency at 40 CFR Part 373, that there is NO evidence to

indicate that hazardous substance activity took place on the property during the time the property was owned by the United States."

(See Tab 19, Phase I ESA dated November 5, 1997 at pg. 4-1)

12. Polychlorinated Biphenyls (PCB's)

There are NO known PCB's on or associated with the excess property.

13. Lead Based Paint (LBP)

Any building constructed or rehabilitated prior to 1978 is assumed to contain LBP.

Therefore, based upon the age of the structures, which all were constructed prior to 1978, there is a high probability that LBP was used inside and outside the buildings. Peeling and chipped paint was observed, so the soils immediately surrounding the buildings may contain elevated concentrations of lead. However, no testing for LBP was conducted.

(See Tab 19, ESA, pg. 8-1)

14. Underground Storage Tanks

There are NO underground storage tanks.

(See Tab 19, ESA, pg. 6-1)

15. Contamination by Ordnance/Explosives

The excess property does contain a former shooting range that was cleaned of all debris in August 1996 (See item 11 above). The property was not known to be used for any other ammunition training or activity in which ordnance or explosives were used.

16. Sound Signal Properties

The property does not have an operating sound signal.

17. Protection and Maintenance (P&M)

The Coast Guard is expending approximately five-thousand five-hundred and no/100 (\$5,500.00) dollars per year in protection and maintenance costs on the subject property.

18. National Park or Indian Reservation

The property is NOT located within the boundaries of a National Park or Indian Reservation.

DATE: August 21, 1998

BY: 
NAME: THOMAS A. GUSTIN
TITLE: Attorney-Advisor
AGENCY: UNITED STATES COAST GUARD
MLCLANT (lg)
TELEPHONE: (757) 628-4193

SCHEDULE "A"

U. S. COAST GUARD SITE
PLUM ISLAND STATION
PLUM ISLAND, WISCONSIN

The island known as Plum Island, located in the Portes des Mortes Passage at the entrance to Green Bay, Wisconsin, lying in Section 26 and 27 Township 33 North, Range 29 East of the Fourth Principal Meridian containing approximately 325 acres of land, more or less, in Door County, Wisconsin.

SCHEDULE "B"

U. S. COAST GUARD SITE
PLUM ISLAND STATION
PLUM ISLAND, WISCONSIN

Reserving and excepting from the conveyance of the property described in Schedule "A" the following ownership rights and easements to the United States of America ("United States"):

Ownership in the United States of the Plum Island Front Range Light structure itself (white, skeletal tower), as well as ownership of the lenses and equipment associated with the operation of the said Front Range Light (LLNR 21305) and the Rear Range Light (LLNR 21310) (hereinafter Aids to Navigation, or ATON).

Full and sufficient rights and easements are reserved to the United States of America for access and maintenance, including the use of motor vehicles, over, across and below the premises to be excused so as to permit the operation and maintenance of the two (2) above-referenced active ATON without hindrance or interference from or by any structure, building or activity that might be constructed or permitted upon the premises to be excused unless and until permission for such structure, building or activity that might interfere with or hinder the operation of said light as an ATON shall have been given in writing by the Commandant, United States Coast Guard or his authorized agent. The said maintenance easement shall include the right to install, maintain, repair, replace and/or remove all equipment, utilities or services necessary or proper for the operation of said light as an ATON, including, but not limited to, electrical power lines and poles and underground or underwater cables to the ATON or elsewhere in, on, or upon the property to be excused. The maintenance easement shall also include full and sufficient rights to the United States to maintain the structure of the Front Range Light tower itself, ownership of which is being hereby retained by the United States, as mentioned above.

Any structure, building or activity which shall in any manner interfere with the beams of light of either of the ATON lights, or which shall make either light as it presently is operated or as it may be operated in the future, less discernible as an ATON, including any lights, structure, building or activity which might cause confusion with or apparent diminution of the beams of light or might interfere with the use of the lighthouse structure as an ATON, shall be deemed to be an interference with or hindrance of the operation of said light as an ATON. The grantee shall not interfere or allow interference in any manner with any navigational aids in use on the property without express written permission from the United States.

An easement to the United States for the aforementioned active range ATON lights and the land located on Plum Island situated in the County of Door, State of Wisconsin and being more or less described as follows:

All that land contained within the arc of visibility of the light between the range lights and the shores of Lake Michigan, said arc of visibility being between lines from the center of the lights on an azimuth of 330° true and shall encompass an arc of visibility 315° to 345° true, from the rear of the structures.

U. S. C. G. STATION PLUM ISLAND



COAST GUARD STATION
BUILDING, BOATHOUSE,
AND LOCKER

POND

FOG
SIGNAL
BLDG

ELECT./TEL. LINES

REAR
RANGE LIGHT

KEEPERS DWELLING

FRONT RANGE LIGHT

PORT DES MORTS PASSAGE

STATION PLUM ISLAND
PLOT PLAN

USCG PLUM ISLAND LIGHT STATION

Parcel Identification Number: 028-01-26332960

WASHINGTON ISLAND SW QUADRANGLE
 DOOR COUNTY - WISCONSIN
 7.5 MINUTE SERIES (TOPOGRAPHIC) 1994

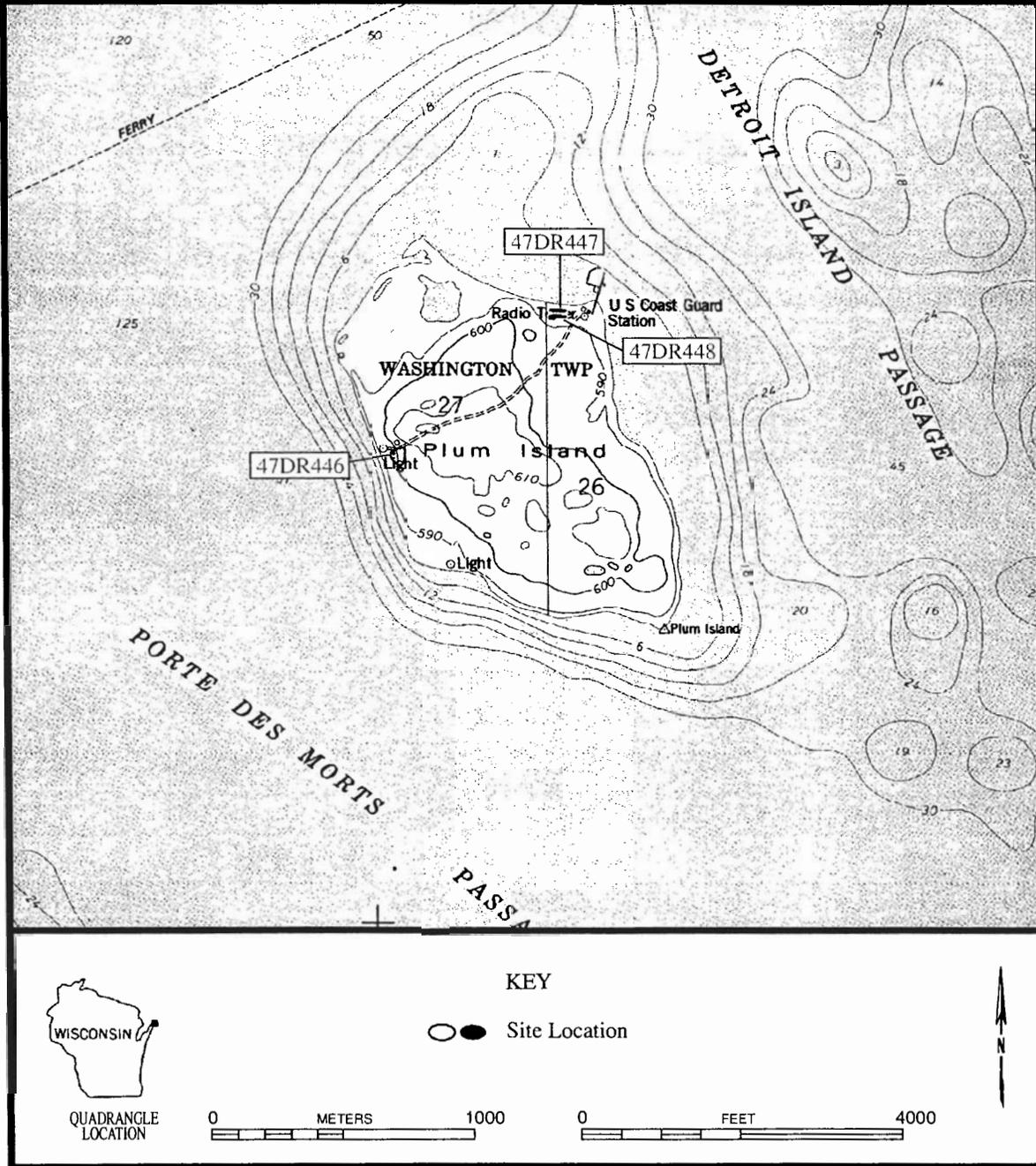


Figure 6. Location of sites identified.

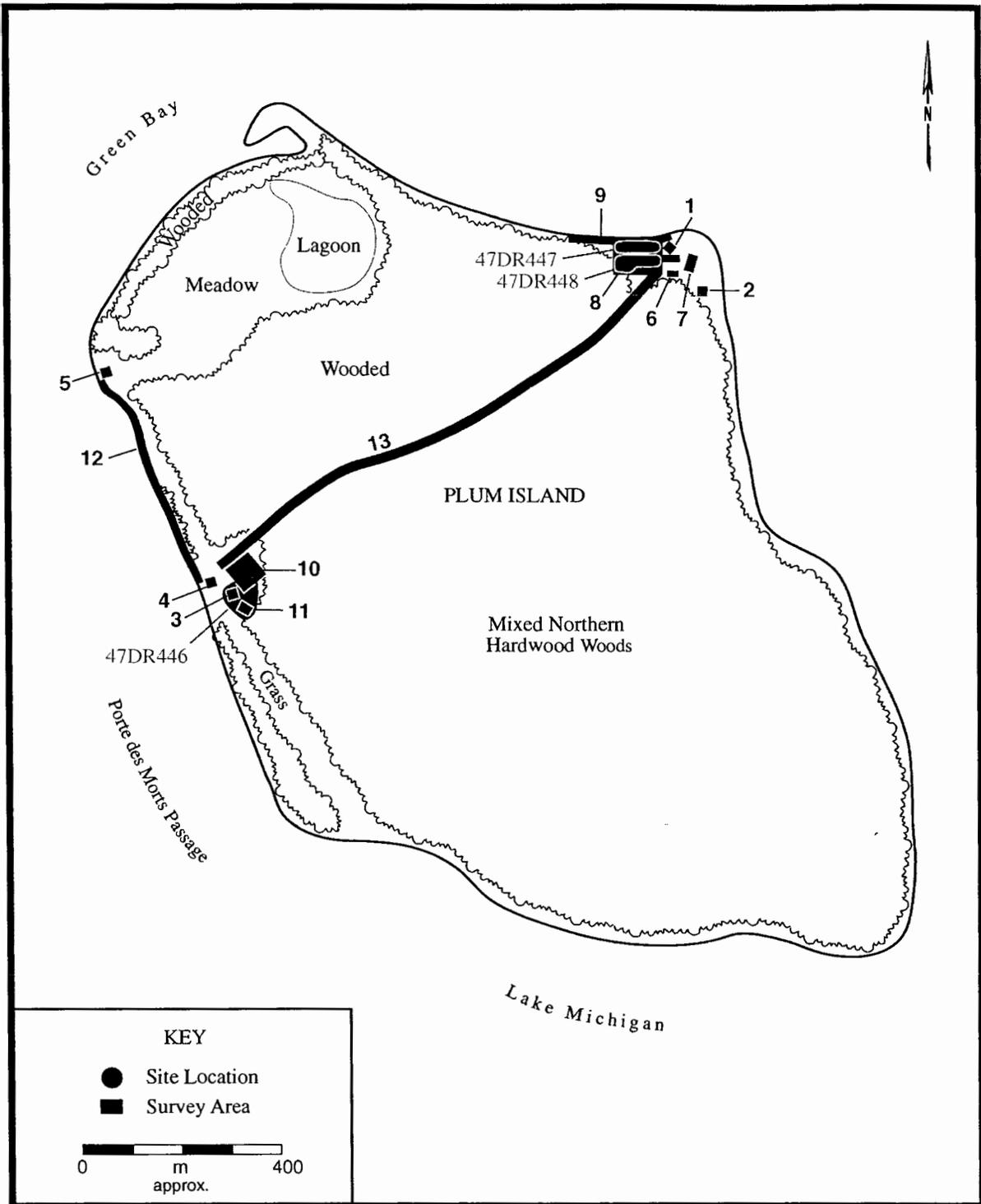


Figure 4. Sketch map of project and survey areas.

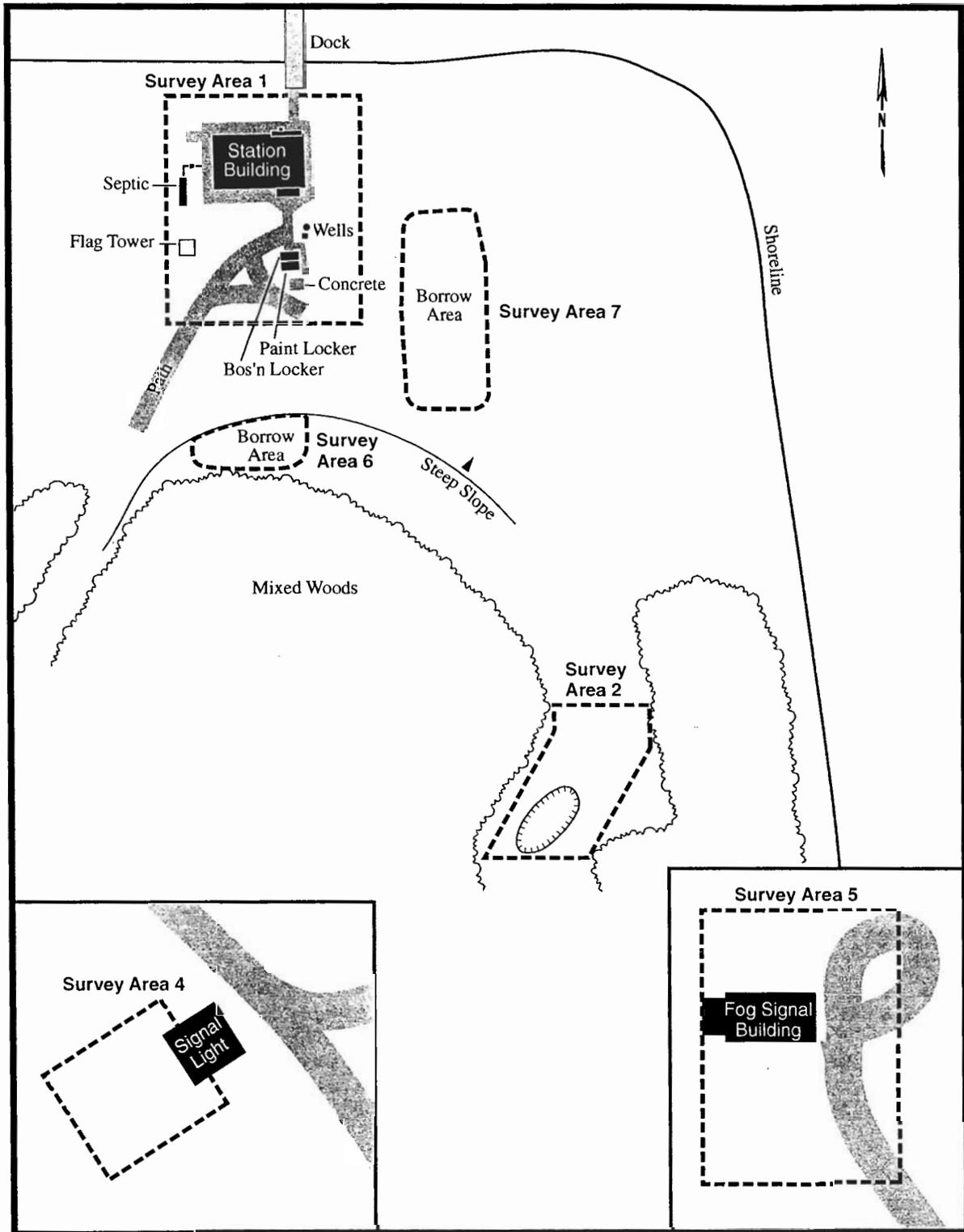


Figure 5. Survey Areas 1, 2, 4, 5, 6, and 7.

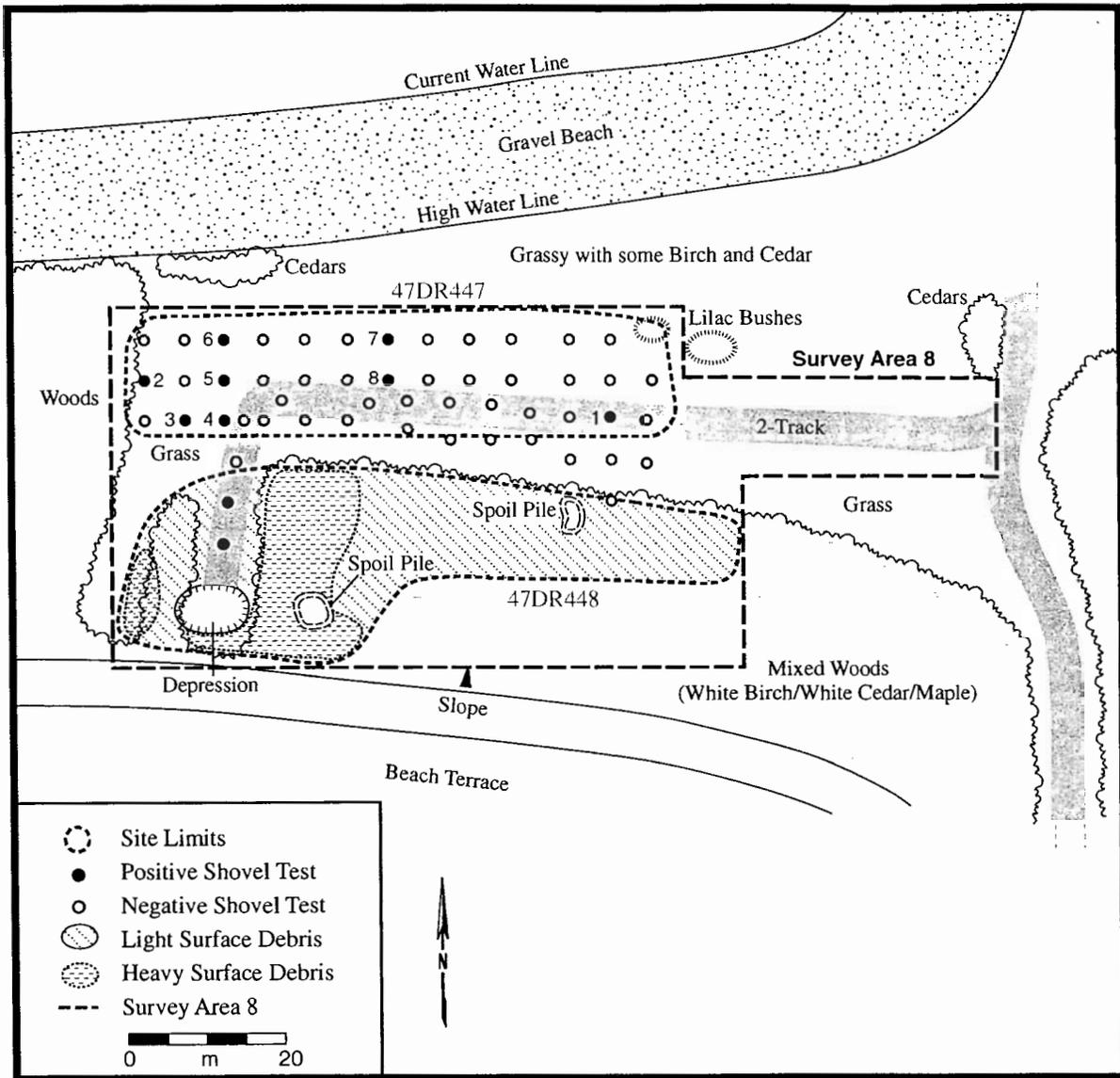


Figure 7. Sketch of Survey Area 8, and 47DR447 and 47DR448.

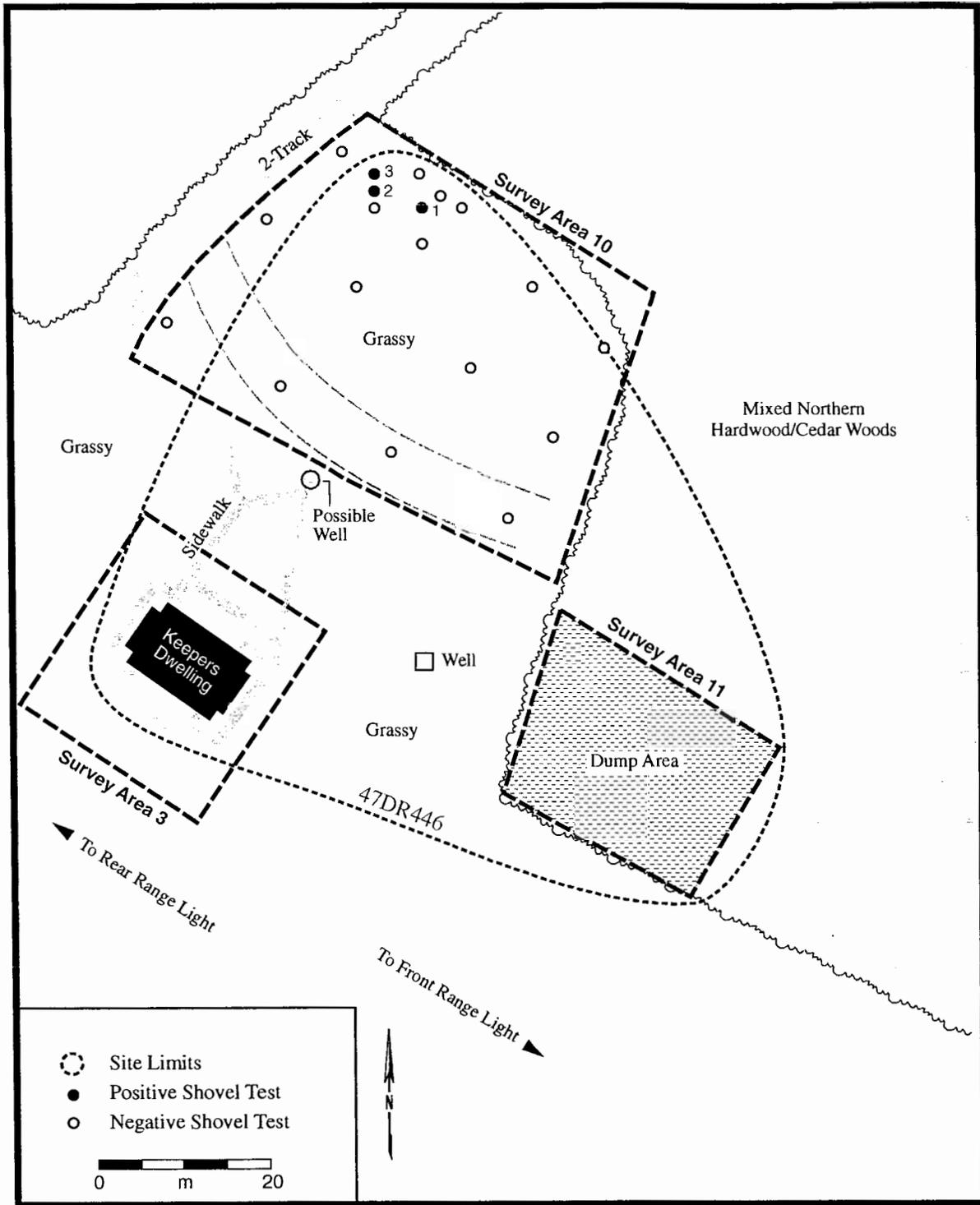


Figure 8. Sketch map of Survey Areas 3, 10, 11, and 47DR446.

MWH

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 CIVIL ENGINEERING UNIT
 CLEVELAND



USCG, CEU CLEVELAND
 1240 EAST 9TH STREET
 CLEVELAND, OH 44199-2060

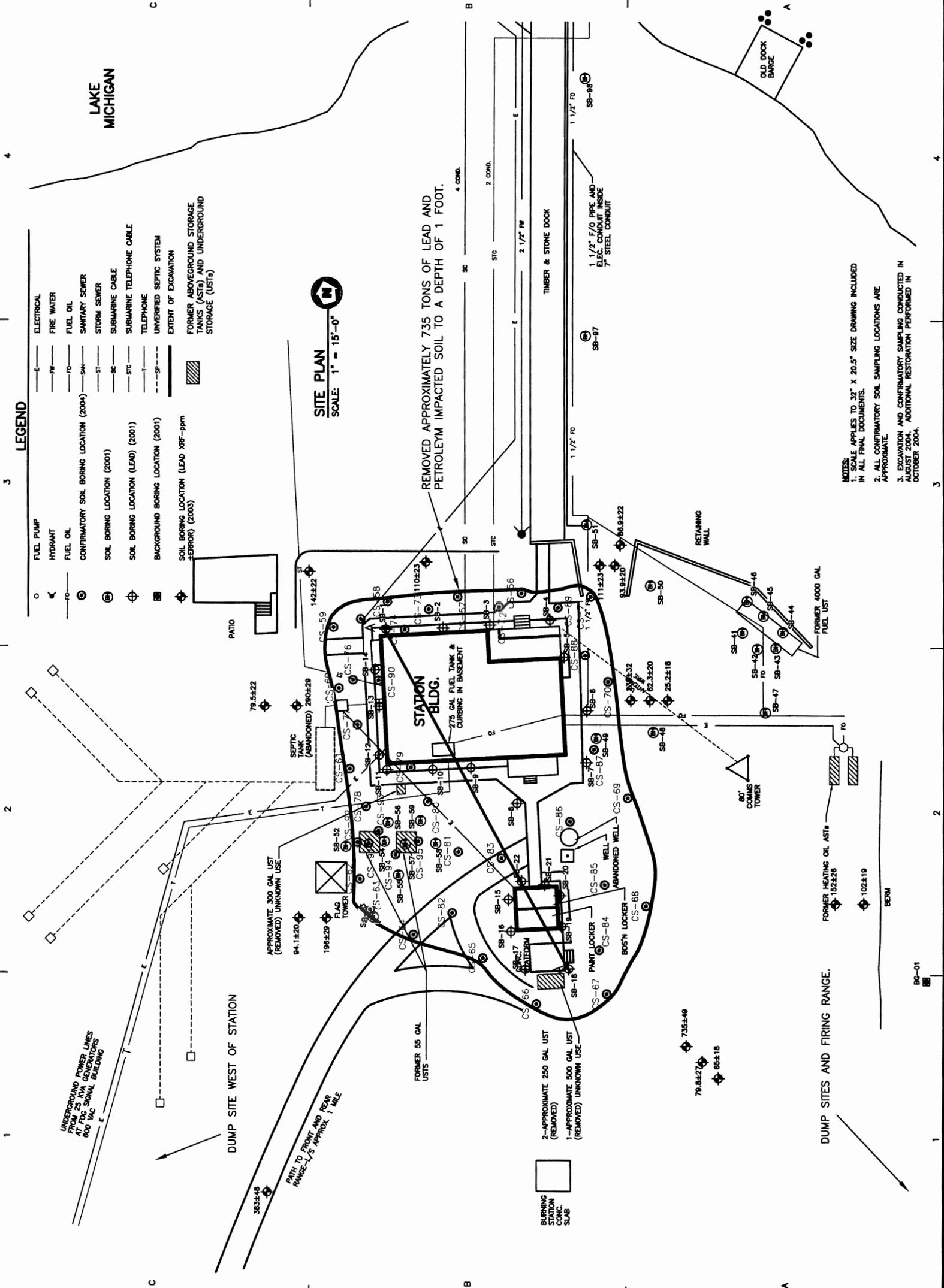
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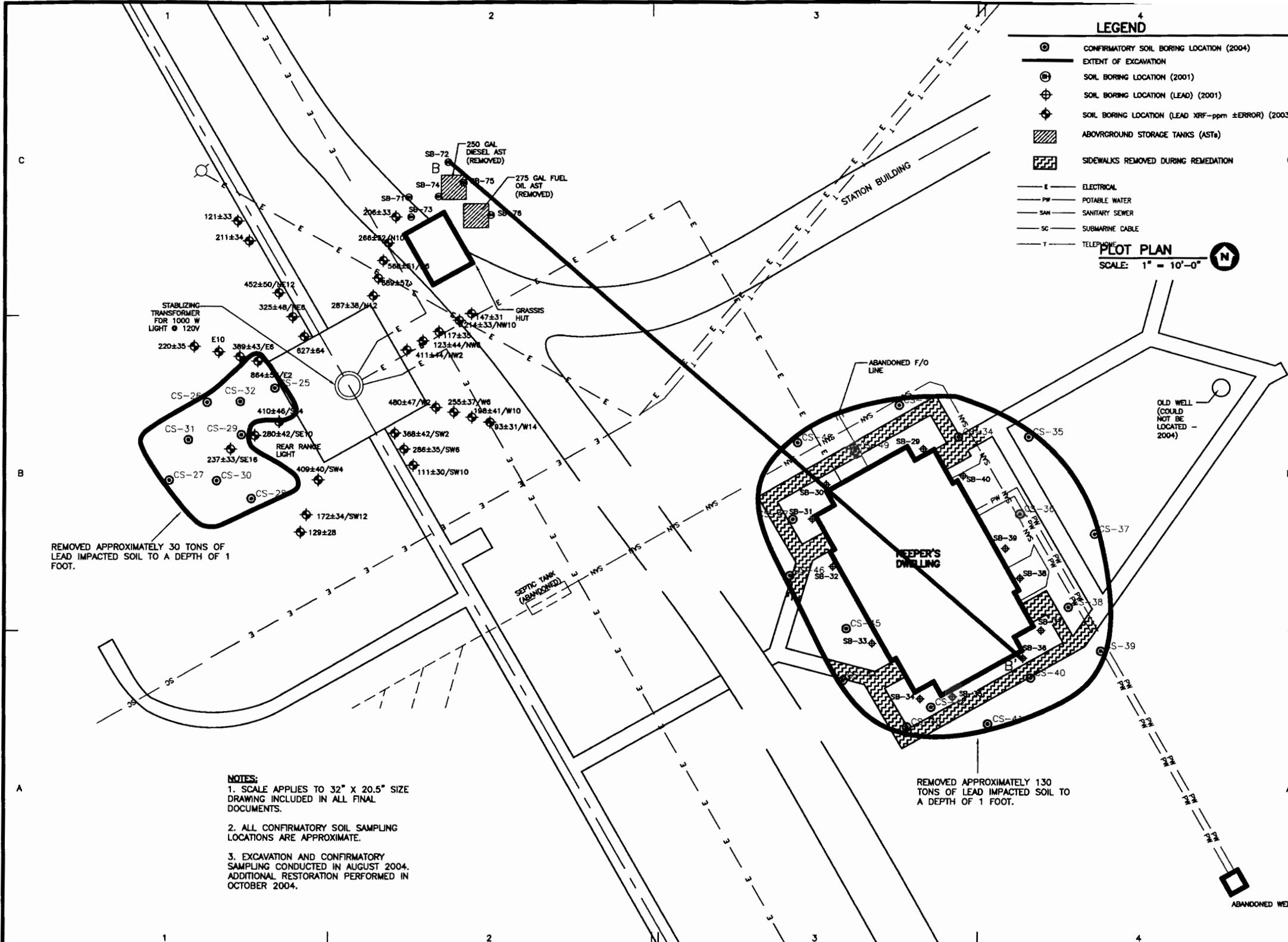
1/2" PROJECT NO: 09-08155
 OLD FILE NAME: 09-08155
 DESIGNED BY: KSK
 DRAWN BY: STR
 EDITED BY: STR
 CHECKED BY: DM

SCALE: AS SHOWN PLOT SCALE: 1" = 15'-0"

SHEET TITLE
 USCG PULM ISLAND LIGHT STATION
 DOOR COUNTY WISCONSIN
CROSS SECTION A-A'
 STATION BUILDING
 SITE PLAN

REVIEWED BY:	BRANCH CHIEF	TECH. DIRECTOR
PROJECT ENG:		
APPROVING OFFICER:		DATE:
PROJECT NUMBER:	09-08155	DRAWING NUMBER:
DISCIPLINE/SIT NO:	09-C9266	7141-D
	D/08	SHEET 8 OF 15





- LEGEND**
- ⊙ CONFIRMATORY SOIL BORING LOCATION (2004)
 - ▭ EXTENT OF EXCAVATION
 - ⊕ SOIL BORING LOCATION (2001)
 - ⊕ SOIL BORING LOCATION (LEAD) (2001)
 - ⊕ SOIL BORING LOCATION (LEAD XRF-ppm ±ERROR) (2003)
 - ▨ ABOVEGROUND STORAGE TANKS (ASTs)
 - ▨ SIDEWALKS REMOVED DURING REMEDIATION
 - E — ELECTRICAL
 - PW — POTABLE WATER
 - SAN — SANITARY SEWER
 - SC — SUBMARINE CABLE
 - T — TELEPHONE

PLOT PLAN
SCALE: 1" = 10'-0"

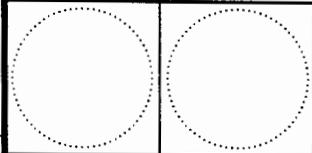


REMOVED APPROXIMATELY 30 TONS OF LEAD IMPACTED SOIL TO A DEPTH OF 1 FOOT.

REMOVED APPROXIMATELY 130 TONS OF LEAD IMPACTED SOIL TO A DEPTH OF 1 FOOT.

- NOTES:**
1. SCALE APPLIES TO 32" X 20.5" SIZE DRAWING INCLUDED IN ALL FINAL DOCUMENTS.
 2. ALL CONFIRMATORY SOIL SAMPLING LOCATIONS ARE APPROXIMATE.
 3. EXCAVATION AND CONFIRMATORY SAMPLING CONDUCTED IN AUGUST 2004. ADDITIONAL RESTORATION PERFORMED IN OCTOBER 2004.

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U. S. COAST GUARD CIVIL ENGINEERING UNIT CLEVELAND	
USCG, CEU CLEVELAND 1240 EAST 9TH STREET CLEVELAND, OH 44199-2080	
ISSUE	
MARK	DATE DESCRIPTION
A/E PROJECT NO: J:\uscg\2002\831\c\c r CAD FILE NAME: c8809d09 DESIGNED BY: KBK DRAWN BY: STR EDITED BY: STR CHECKED BY: DMH	
SCALE: AS SHOWN PLOT SCALE: 1" = 10'-0"	
SHEET TITLE	
USCG PLUM ISLAND LIGHT STATION DOOR COUNTY WISCONSIN CROSS SECTION B-B' KEEPER'S DWELLING/REAR RANGE LIGHT SITE PLAN	
REVIEWED BY:	REVIEWED BY:
PROJECT ENG	BRANCH CHIEF TECH. DIRECTOR
APPROVING OFFICER _____ DATE _____	
PROJECT NUMBER	DRAWING NUMBER
09-C8155	7141-D
09-C9266	
DISCIPLINE/SHT NO	SHEET 9 OF 15
D/09	



**U. S. COAST GUARD
CIVIL ENGINEERING UNIT
CLEVELAND**



USCG, CEU CLEVELAND
1240 EAST 9TH STREET
CLEVELAND, OH 44199-2080

ISSUE

MARK	DATE	DESCRIPTION

A/E PROJECT NO: [unclear] 2002\631\c\p\c r
CAD FILE NAME: c8809d10
DESIGNED BY: KBK
DRAWN BY: STR
EDITED BY: STR
CHECKED BY: DM

SCALE: AS SHOWN PLOT SCALE: 1" = 10'-0"

SHEET TITLE
**USCG PLUM ISLAND LIGHT STATION
DOOR COUNTY WISCONSIN
CROSS SECTION
C-C'
FOG SIGNAL BUILDING
SITE PLAN**

REVIEWED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT ENG	BRANCH CHIEF	TECH. DIRECTOR

APPROVING OFFICER	DATE
-------------------	------

PROJECT NUMBER	DRAWING NUMBER
09-C8155	7141-D
DISCIPLINE/SHT NO	
D/10	SHEET 10 OF 15

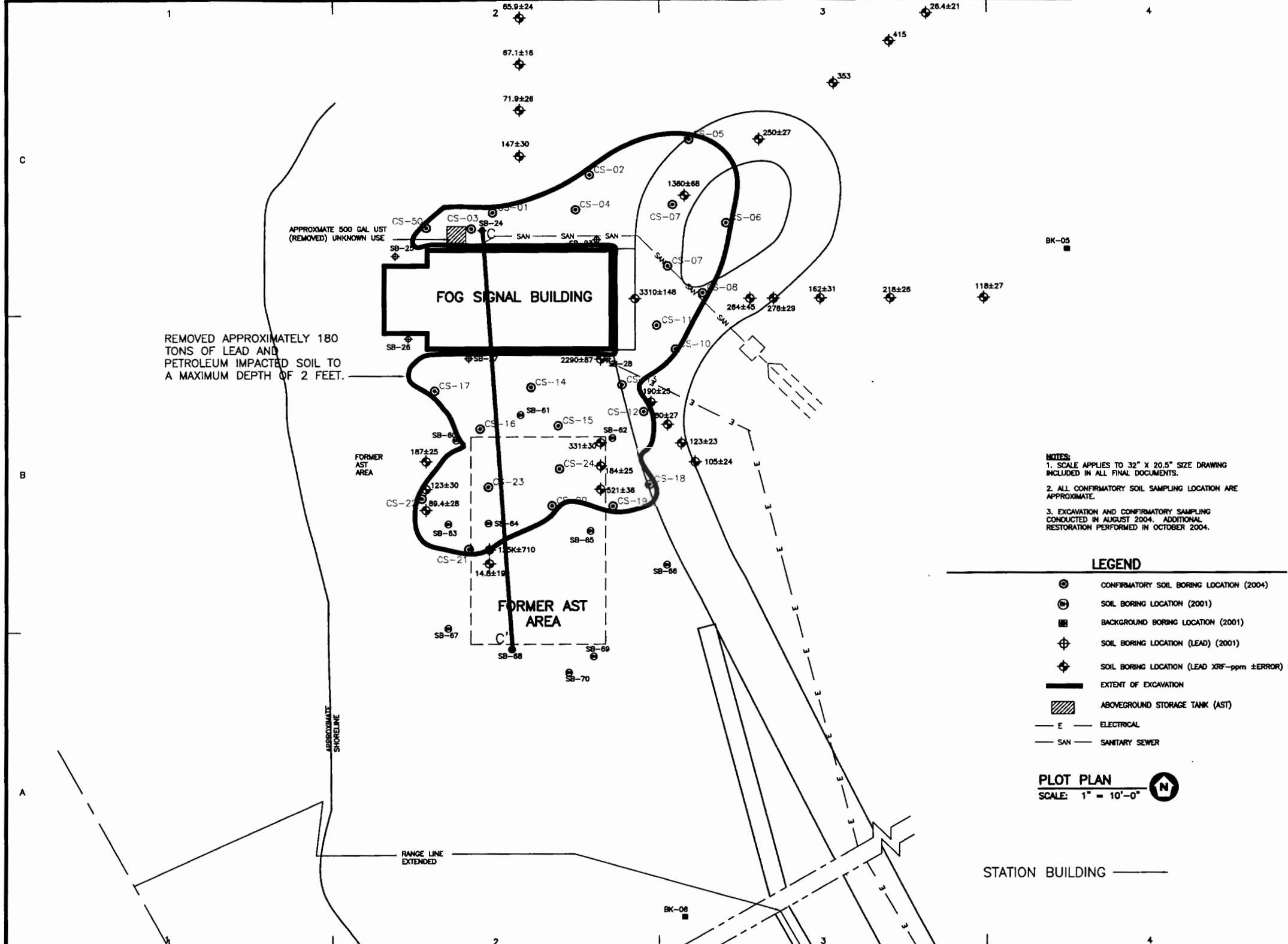


TABLE 1
Soil Confirmatory Sample Results
Fog Signal Building

USCG Plum Island Light Station – Remedial Action Activities
Door County, Wisconsin

Page 2 of 11

Analytes	Soil to Groundwater Pathway (a) PAL-Based	Soil to Groundwater Pathway (a) ES-Based	Site-Specific Direct Contact (b)		Fog Signal Building AST Area								
			Non-Industrial	Industrial	CS-18 8/3/04	CS-18D 8/3/04	CS-19 8/3/04	CS-20 8/3/04	CS-21 8/3/04	CS-22 8/3/04	CS-23 8/3/04	CS-24 8/3/04	
PVOCs													
benzene	0.0055	0.055	11.6	52	<.025	<.025	<.025	<.025	<.025	0.027	<.025	<.025	
toluene	1.5	7.5	15,600	204,000	<.025	<.025	<.025	0.026	<.025	0.14	<.025	<.025	
ethylbenzene	2.9	14.5	7,820	102,000	<.025	<.025	<.025	<.025	<.025	0.045	<.025	<.025	
xylenes	4.1	41	15,600	204,000	<.025	<.025	<.025	0.033	<.025	0.16	<.025	<.025	
MTBE	0.034	0.17	NC	NC	<.025	<.025	<.025	<.025	<.025	<.025	<.025	<.025	
1,2,4-TMB	28	140	3,910	5,110	<.025	<.025	<.025	<.025	<.025	0.062	<.025	<.025	
1,3,5-TMB	13	65	3,910	5,110	<.025	<.025	<.025	<.025	<.025	<.025	<.025	<.025	
PAHs													
1-methylnaphthalene	NC	NC	NC	NC	<0.062 J	<0.063 J	<0.0057 J	<0.0063 J	<0.31 R	<0.0062 J	4.1 J	<0.0061 J	
2-methylnaphthalene	NC	NC	313	4,090	<0.062 J	<0.063 J	<0.0057 J	<0.0063 J	<0.31 R	<0.0062 J	<0.03 J	<0.0061 J	
acenaphthene	63	315	4,690	61,300	0.24 J	0.6 J	<0.0047 J	<0.0053 J	1.7 R	<0.0052 J	6.7 J	<0.0051 J	
acenaphthylene	NC	NC	NC	NC	<0.052 J	<0.053 J	<0.0047 J	<0.0053 J	<0.26 R	<0.0052 J	<0.025 J	<0.0051 J	
anthracene	1,300	6500	23,500	307,000	0.012 J	0.032 J	0.0073 J	0.017 J	0.21 R	0.011 J	0.18 J	0.0029 J	
benzo (a) anthracene	NC	NC	0.875	3.92	0.13 J	0.16 J	0.022 J	0.24 J	0.92 R	0.055 J	1.1 J	0.0093 J	
benzo (a) pyrene	0.315	3.15	0.0875	0.392	0.11 J	0.088 J	0.026 J	0.12 J	1.1 R	0.047 J	<0.005 J	0.0066 J	
benzo (b) fluoranthene	0.321	3.21	0.875	3.92	0.13 J	0.12 J	0.062 J	0.047 J	1.1 R	0.092 J	0.088 J	0.019 J	
benzo (g,h,i) perylene	NC	NC	NC	NC	0.11 J	0.087 J	0.056 J	0.022 J	0.68 R	0.21 J	<0.005 J	0.014 J	
benzo (k) fluoranthene	NC	NC	8.75	39.2	0.052 J	0.05 J	0.016 J	0.029 J	0.48 R	0.042 J	<0.005 J	0.0048 J	
chrysene	0.094	0.94	87.5	392	0.095 J	0.13 J	0.058 J	0.066 J	1.5 R	0.078 J	<0.005 J	0.026 J	
dibenzo (a,h) anthracene	NC	NC	0.0875	0.392	<0.031 J	<0.032 J	<0.0028 J	<0.0032 J	<0.15 R	<0.0031 J	<0.015 J	<0.003 J	
fluoranthene	630	3150	3,130	40,900	0.17 J	0.25 J	0.097 J	0.094 J	2.2 R	0.14 J	4.7 J	0.033 J	
fluorene	81	405	3,130	40,900	<0.021 J	<0.021 J	<0.0019 J	<0.0021 J	0.36 R	<0.0021 J	1.2 J	<0.002 J	
Indeno (1,2,3-cd) pyrene	NC	NC	0.875	3.92	0.081 J	0.062 J	0.052 J	0.038 J	0.64 R	0.12 J	<0.005 J	0.011 J	
naphthalene	6.2	31	1,560	20,400	<0.11 J	<0.12 J	<0.01 J	<0.012 J	<0.56 R	<0.01 J	<0.056 J	<0.011 J	
phenanthrene	NC	NC	NC	NC	0.054 J	0.1 J	0.075 J	0.069 J	1 R	0.07 J	3.4 J	0.013 J	
pyrene	460	2300	2,350	30,700	0.24 J	0.27 J	<0.0019	<0.0021	1.6 R	<0.0021	<0.010	<0.002	
TPH													
DRO	NC	NC	2,350	2,350	31	28	<1.3	22	12	19	160	90	
GRO	NC	NC	2,350	2,350	<1.3	2	5.5	4.1	<1.3	1.7	6.3	11	
Metals													
Total lead	27	270	50	1,200**	NA	NA	NA	NA	NA	NA	NA	NA	
Total cadmium	1.5	15	78.2	102	NA	NA	NA	NA	NA	NA	NA	NA	
Total arsenic	0.58	5.8	0.426	4.19***	NA	NA	NA	NA	NA	NA	NA	NA	

NOTES:

- All data in milligrams per kilogram (mg/kg).
- TPH: total petroleum hydrocarbons.
- PVOCs: petroleum volatile organic compounds.
- PAHs: polynuclear aromatic hydrocarbons.
- NA: constituent not analyzed.
- D: Duplicate sample.
- DRO: diesel range organic.
- GRO: gasoline range organic.
- TMB: trimethylbenzene.
- MTBE: methyl tertiary-butyl ether.
- NC: no criteria established.
- Bolded, highlighted data represents concentrations in exceedance of criteria.
- J: estimated sample result.
- R: rejected sample result.

(a) Soil to Groundwater migration pathway values were obtained from Table 1 of NR 720 for benzene, toluene, ethylbenzene, and xylenes. Analytes without a Table value were calculated based on the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002). Analytes with a federal groundwater MCL were calculated directly using the USEPA Soil Screening Guidance for Chemicals website using Method 1. For analytes with a federal standard, but with a NR 140 standard, the Soil Screening Level Website Method 1 was used to calculate the groundwater pathway values in a spreadsheet as suggested in the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002). The values were used: a dilution factor of 2 (carcinogenic) or 4 (non-carcinogenic), 0.2 for water-filled soil porosity, and a fraction organic carbon value of 0.001. It could not be used to calculate a value (e.g., no Federal MCL) chemical specific properties (i.e., Koc, Kd, Henry Law Constant) were obtained from the Risk Assessment Information System - Toxicity and Chemical-Specific Factors Database, November 2004. Analytes without a federal or NR 140 standard were not calculated (N).

(b) These values were calculated from the USEPA Soil Screening Guidance for Chemicals website. For non-industrial values the lower of the noncarcinogenic and industrial sites the lower of the noncarcinogenic and carcinogenic (nonadjusted) value was used.

*Samples CS-1 through CS-4 and CS-50 were analyzed for PVOCs, PAHs, and TPH after discovering underground storage tanks.

** Clean-up criteria for lead established under United States Environmental Protection Agency (USEPA) Toxic Substances Control Act (TSCA).

*** Clean-up criteria for arsenic is site-specific calculated background.

TABLE 2
Soil Confirmatory Sample Results
Firing Range and Dump Sites

USCG Plum Island Light Station – Remedial Action Activities
Door County, Wisconsin

Page 3 of 11

Analytes	Soil to Groundwater Pathway (1) PAL-Based	Soil to Groundwater Pathway (1) ES-Based	Site-Specific Direct Contact (b)		Firing Range				Dump Site 2			Dump Site 1						
			Non-Industrial	Industrial	CS-50 8/5/04	CS-50 D 8/5/04	CS-51 8/5/04	CS-52 8/5/04	CS-53 8/5/04	CS-54 8/5/04	CS-55 8/5/04	CSH-96 8/13/04	CSH-97 8/13/04	CSH-98 8/13/04	CSH-99 8/13/04	CSH-100 8/13/04	CSH-101 8/13/04	CSH-102 8/13/04
PVOCs																		
Benzene	0.0055	0.055	11.6	52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1.5	7.5	15,600	204,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	2.9	14.5	7,820	102,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes	4.1	41	15,600	204,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	0.034	0.17	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TMB	28	140	3,910	5,110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-TMB	13	65	3,910	5,110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PAHs																		
1-methylnaphthalene	NC	NC	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-methylnaphthalene	NC	NC	313	4,090	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
acenaphthene	63	315	4,690	61,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
acenaphthylene	NC	NC	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
anthracene	1,300	6,500	23,500	307,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
benzo (a) anthracene	NC	NC	0.875	3.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
benzo (a) pyrene	0.315	3.15	0.0875	0.392	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
benzo (b) fluoranthene	0.321	3.21	0.875	3.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
benzo (g,h,i) perylene	NC	NC	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
benzo (k) fluoranthene	NC	NC	8.75	39.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
chrysene	0.094	0.94	87.5	392	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
dibenzo (a,h) anthracene	NC	NC	0.0875	0.392	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
fluoranthene	630	3,150	3,130	40,900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
fluorene	81	405	3,130	40,900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
indeno (1,2,3-cd) pyrene	NC	NC	0.875	3.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	6.2	31	1,560	20,400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
phenanthrene	NC	NC	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pyrene	460	2,300	2,350	30,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
DRO	NC	NC	2,350	2,350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GRO	NC	NC	2,350	2,350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals																		
Total lead	27	270	50	1,200*	92.8 J	128 J	13.1 J	126 J	177 J	89.3 J	358 J	41.7 J	37.3 J	72.2 J	127 J	12.6 J	144 J	23.1 J
Total cadmium	1.5	15	78.2	102	NA	NA	NA	NA	NA	NA	NA	<0.069	<0.070	0.41	0.6	0.24	2.2	0.37
Total arsenic	0.58	5.8	0.426	4.19**	NA	NA	NA	NA	2.8	2.7	8.6	1.2	0.87	1.6	1.5	0.88	2.7	0.93

NOTES:

- All data in milligrams per kilogram (mg/kg)
 - TPH: total petroleum hydrocarbons.
 - PVOCs: petroleum volatile organic compounds.
 - PAHs: polynuclear aromatic hydrocarbons.
 - NA: constituent not analyzed.
 - DUP: Duplicate sample.
 - DRO: diesel range organic.
 - GRO: gasoline range organic.
 - TMB: trimethylbenzene.
 - MTBE: methyl tertiary-butyl ether.
 - Bolded, highlighted data represents concentrations in exceedance of criteria.
 - J: estimated sample result.
- (a) Soil to Groundwater migration pathway values were obtained from Table 1 of NR 720 for benzene, toluene, ethylbenzene, and xylenes. Analytes without a Table 1 value were calculated based on the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002). Analytes with a federal groundwater MCL were calculated directly using the USEPA Soil Screening Guidance for Chemicals website using Method 1. For analytes without as suggested in the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002) the following default values were used: a dilution factor of 2 (carcinogenic) or 4 (non-carcinogenic), 0.2 for water-filled soil porosity, and a fraction organic carbon value of 0.001. When the Web site could not be used to calculate a value (e.g., no Federal MCL) chemical specific properties (i.e., Koc, Kd, Henry Law Constant) were obtained from the Risk Assessment Information System - Toxicity and Chemical-Specific Factors Database, November 2004. Analytes without a federal or NR 140 standard were not calculated (NC).
- (b) These values were calculated from the USEPA Soil Screening Guidance for Chemicals website. For non-industrial values the lower of the noncarcinogenic and carcinogenic (age adjusted) was used. For industrial sites the lower of the noncarcinogenic and carcinogenic (nonadjusted) value was used.
- * Clean-up criteria for lead established under United States Environmental Protection Agency (USEPA) Toxic Substances Control Act (TSCA).
- ** Clean-up criteria for arsenic is site-specific calculated background.

TABLE 3
Soil Confirmatory Sample Results
Station Building

USCG Plum Island Light Station -- Remedial Action Activities
Door County, Wisconsin

Page 6 of 11

Analytes	Soil to Groundwater Pathway (1) PAL-Based	Soil to Groundwater Pathway (1) ES-Based	Site-Specific Direct Contact (b)		Station Building Lead Area								Station Building 55-Gal UST Area						
			Non-Industrial	Industrial	CS-85 8/6/04	CS-86 8/6/04	CS-87 8/6/04	CS-87D 8/6/04	CS-88* 8/6/04	CS-88R* 8/11/04	CS-89 8/6/04	CS-90 8/6/07	TS-91 8/6/04	TS-91D 8/6/04	TS-92 8/6/04	TS-93 8/6/04	TS-94 8/6/04	TS-95 8/6/04	
PVOCs																			
Benzene	0.0055	0.055	11.6	52	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Toluene	1.5	7.5	15,600	204,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Ethylbenzene	2.9	14.5	7,820	102,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Xylenes	4.1	41	15,600	204,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
MTBE	0.034	0.17	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,2,4-TMB	28	140	3,910	5,110	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,3,5-TMB	13	65	3,910	5,110	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
PAHs																			
1-methylnaphthalene	NC	NC	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0061 J	<0.0062 J	<0.0062 J	<0.0061 J	<0.0062 J	<0.0061 J
2-methylnaphthalene	NC	NC	313	4,090	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0061 J	<0.0062 J	<0.0062 J	<0.0061 J	<0.0062 J	<0.0061 J
acenaphthene	63	315	4,690	61,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0051 J	<0.0051 J	<0.0052 J	<0.0051 J	<0.0052 J	<0.0051 J
acenaphthylene	NC	NC	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0051 J	<0.0051 J	<0.0052 J	<0.0051 J	<0.0052 J	<0.0051 J
anthracene	1,300	6500	23,500	307,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.001 J	0.0011 J	0.0015 J	0.0034 J	<0.001 J	<0.001 J
benzo (a) anthracene	NC	NC	0.875	3.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0035 J	0.0048 J	0.0093 J	0.052 J	0.0091 J	0.0032 J
benzo (a) pyrene	0.315	3.15	0.0875	0.392	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0029 J	0.0031 J	0.0086 J	0.076 J	0.0035 J	<0.001 J
benzo (b) fluoranthene	0.321	3.21	0.875	3.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0043 J	0.0038 J	0.01 J	0.042 J	0.0074 J	0.001 J
benzo (g,h,i) perylene	NC	NC	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.001 J	<0.001 J	<0.001 J	0.058 J	<0.001 J	<0.001 J
benzo (k) fluoranthene	NC	NC	8.75	39.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0014 J	0.0013 J	0.0041 J	0.02 J	0.0025 J	<0.001 J
chrysene	0.094	0.94	87.5	392	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0092 J	0.0084 J	0.014 J	0.065 J	0.011 J	0.014 J
dibenzo (a,h) anthracene	NC	NC	0.0875	0.392	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0031 J	<0.0031 J	<0.0031 J	<0.0031 J	<0.0031 J	<0.0031 J
fluoranthene	630	3150	3,130	40,900	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0097 J	0.009 J	0.022 J	0.16 J	0.012 J	0.0094 J
fluorene	81	405	3,130	40,900	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.002 J	<0.0021 J	<0.0021 J	0.0062 J	<0.0021 J	<0.002 J
indeno (1,2,3-cd) pyrene	NC	NC	0.875	3.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.001 J	<0.0010 J	<0.001 J	0.034 J	<0.001 J	0.0046 J
Naphthalene	6.2	31	1,560	20,400	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.011 J	<0.011 J	<0.011 J	<0.011 J	<0.011 J	<0.011 J
phenanthrene	NC	NC	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.001 J	<0.001 J	<0.001 J	0.062 J	<0.001 J	<0.001 J
pyrene	460	2300	2,350	30,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.012 J	0.016 J	0.031 J	0.18 J	0.0091 J	<0.002 J
TPH																			
DRO	NC	NC	2,350	2,350	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.2	<1.2	<1.2	2.1	<1.2	<1.2
GRO	NC	NC	2,350	2,350	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.3	<1.3	<1.4	<1.3	<1.3	<1.3
Metals																			
Total lead	27	270	50	1,200**	90.7 J	92.9 J	39.8 J	53.5 J	5800 J	1.1	306 J	579 J	NA	NA	NA	NA	NA	NA	NA
Total cadmium	1.5	15	78.2	102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total arsenic	0.58	5.8	0.426	4.19***	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

- All data in milligrams per kilogram (mg/kg).
- TPH: total petroleum hydrocarbons
- PVOCs: petroleum volatile organic compounds.
- PAHs: polynuclear aromatic hydrocarbons.
- NA: constituent not analyzed.
- D: Duplicate sample.
- DRO: diesel range organic.
- GRO: gasoline range organic.
- TMB: trimethylbenzene.
- MTBE: methyl tertiary-butyl ether.
- Bolded, highlighted data represents concentrations in exceedance of criteria.
- J: estimated sample result.

(a) Soil to Groundwater migration pathway values were obtained from Table 1 of NR 720 for benzene, toluene, ethylbenzene, and xylenes. Analytes without a Table 1 value were calculated based on the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11). Analytes with a federal groundwater MCL were calculated directly using the USEPA Soil Screening Guidance for Chemicals website using Method 1. For analytes with a federal standard, but with a NR 140 standard, the Soil Screening Level Website Method 1 was used to calculate the groundwater pathway values in a spreadsheet. As suggested in the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002) the following values were used: a dilution factor of 2 (carcinogenic) or 4 (non-carcinogenic), 0.2 for water-filled soil porosity, and a fraction organic carbon value of 0.001. When could not be used to calculate a value (e.g., no Federal MCL, chemical specific properties (i.e., Koc, Kd, Henry Law Constant) were obtained from the Risk Assessment Information System - Toxicity and Chemical Specific Factors Database, November 2004. Analytes without a federal or NR 140 standard were not calculated (NC).

(b) These values were calculated from the USEPA Soil Screening Guidance for Chemicals website. For non-industrial values the lower of the noncarcinogenic and carcinogenic (nonadjusted) value was used.

- For industrial sites the lower of the noncarcinogenic and carcinogenic (nonadjusted) value was used.
- * Samples were excavated further, and resamples were taken as designated with an "R." This does not indicate that sample results were rejected.
- ** Clean-up criteria for lead established under United States Environmental Protection Agency (USEPA) Toxic Substances Control Act (TSCA)
- *** Clean-up criteria for arsenic is site-specific calculated background.

TABLE 3
Soil Confirmatory Sample Results
Station Building

USCG Plum Island Light Station -- Remedial Action Activities
Door County, Wisconsin

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Analytes	Soil to Groundwater Pathway (1) PAL-Based	Soil to Groundwater Pathway (1) ES-Based	Site-Specific Direct Contact (b)		Station Building UST Areas							
			Non-Industrial	Industrial	CS-UST-01 8/18/04	CS-UST-02 8/18/04	CS-UST-03 8/18/04	CS-UST-04 8/18/04	CS-UST-04 DUP 8/18/04	CS-UST-05 8/18/04	CS-UST-06 8/18/04	
PVOCs												
Benzene	0.0055	0.055	11.6	52	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Toluene	1.5	7.5	15,600	204,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Ethylbenzene	2.9	14.5	7,820	102,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Xylenes	4.1	41	15,600	204,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
mTBE	0.034	0.17	NC	NC	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,2,4-TMB	28	140	3,910	5,110	<0.025	<0.025	<0.025	<0.025	0.026	<0.025	<0.025	<0.025
1,3,5-TMB	13	65	3,910	5,110	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
PAHs												
1-methylnaphthalene	NC	NC	NC	NC	<0.0061 J	<0.031 J	<0.031 J	<0.0072 J	<0.032 J	<0.0061 J	<0.0061 J	<0.0061 J
2-methylnaphthalene	NC	NC	313	4,090	<0.0061 J	<0.031 J	<0.031 J	<0.0072 J	<0.032 J	<0.0061 J	<0.0061 J	<0.0061 J
acenaphthene	63	315	4,690	61,300	0.055 J	0.45 J	<0.026 J	<0.0060 J	0.54 J	<0.0051 J	<0.0051 J	<0.0051 J
acenaphthylene	NC	NC	NC	NC	<0.0051 J	<0.025 J	<0.026 J	<0.0060 J	<0.026 J	<0.0051 J	<0.0051 J	<0.0051 J
anthracene	1,300	6500	23,500	307,000	0.003 J	0.024 J	0.026 J	0.0019 J	0.097 J	<0.001 J	<0.001 J	<0.001 J
benzo (a) anthracene	NC	NC	0.875	3.92	0.0059 J	0.23 J	0.088 J	0.025 J	0.26 J	0.0041 J	0.0056 J	0.0056 J
benzo (a) pyrene	0.315	3.15	0.0875	0.392	0.008 J	0.54 J	0.14 J	0.03 J	0.27 J	0.0043 J	0.01 J	0.01 J
benzo (b) fluoranthene	0.321	3.21	0.875	3.92	0.013 J	0.49 J	0.17 J	0.037 J	0.29 J	0.0047 J	0.013 J	0.013 J
benzo (g,h,i) perylene	NC	NC	NC	NC	0.018 J	0.61 J	0.17 J	0.037 J	0.22 J	0.013 J	0.038 J	0.038 J
benzo (k) fluoranthene	NC	NC	8.75	39.2	0.0032 J	0.16 J	0.041 J	0.009 J	0.1 J	0.0017 J	0.0034 J	0.0034 J
chrysene	0.094	0.94	87.5	392	0.018 J	0.3 J	0.11 J	0.027 J	0.29 J	0.0079 J	0.013 J	0.013 J
dibenzo (a,h) anthracene	NC	NC	0.0875	0.392	<0.0030 J	<0.015 J	<0.015 J	<0.0036 J	<0.016 J	<0.0031 J	<0.0031 J	<0.0031 J
fluoranthene	630	3150	3,130	40,900	0.027 J	0.41 J	0.36 J	0.073 J	0.59 J	0.01 J	0.019 J	0.019 J
fluorene	81	405	3,130	40,900	0.0088 J	0.055 J	0.044 J	<0.0024 J	0.13 J	<0.002 J	<0.0020 J	<0.0020 J
indeno (1,2,3-cd) pyrene	NC	NC	0.875	3.92	0.013 J	0.48 J	0.15 J	0.047 J	0.19 J	0.0061 J	0.021 J	0.021 J
Naphthalene	6.2	31	1,560	20,400	<0.011 J	<0.056 J	<0.057 J	<0.013 J	<0.058 J	<0.011 J	<0.011 J	<0.011 J
phenanthrene	NC	NC	NC	NC	0.018 J	0.084 J	0.12 J	0.023 J	0.12 J	<0.001 J	0.0067 J	0.0067 J
pyrene	460	2300	2,350	30,700	0.009	0.42 J	0.24	0.067	0.43 J	0.0025 J	0.012 J	0.012 J
TPH												
DRO	NC	NC	2,350	2,350	23	310	300	160	110	<1.2	4.5	4.5
GRO	NC	NC	2,350	2,350	<1.03	<1.3	33	7.8	13	2.3	1.5	1.5
Metals												
Total lead	27	270	50	i.200**	NA	NA	NA	NA	NA	NA	NA	NA
Total cadmium	1.5	15	78.2	102	NA	NA	NA	NA	NA	NA	NA	NA
Total arsenic	0.58	5.8	0.426	4.19***	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

- All data in milligrams per kilogram (mg/kg).
 - TPH: total petroleum hydrocarbons.
 - PVOCs: petroleum volatile organic compounds.
 - PAHs: polynuclear aromatic hydrocarbons.
 - NA: constituent not analyzed.
 - D: Duplicate sample.
 - DRO: diesel range organic.
 - GRO: gasoline range organic.
 - TMB: trimethylbenzene.
 - MTBE: methyl tertiary-butyl ether.
 - Bolded, highlighted data represents concentrations in exceedance of criteria.
 - J: estimated sample result
- (a) Soil to Groundwater migration pathway values were obtained from Table 1 of NR 720 for benzene, toluene, ethylbenzene, and xylenes. Analytes without a Table 1 value were calculated based on the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11). Analytes with a federal groundwater MCL were calculated directly using the USEPA Soil Screening Guidance for Chemicals website using Method 1. For analytes v a federal standard, but with a NR 140 standard, the Soil Screening Level Website Method 1 was used to calculate the groundwater pathway values in a spreadsheet f As suggested in the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002) the foll values were used: a dilution factor of 2 (carcinogenic) or 4 (non-carcinogenic), 0.2 for water-filled soil porosity, and a fraction organic carbon value of 0.001. When could not be used to calculate a value (e.g., no Federal MCL), chemical specific properties (i.e., Koc, Kd, Henry Law Constant) were obtained from the Risk Asses Information System - Toxicity and Chemical-Specific Factors Database, November 2004. Analytes without a federal or NR 140 standard were not calculated (NC).
- (b) These values were calculated from the USEPA Soil Screening Guidance for Chemicals website. For non-industrial values the lower of the noncarcinogenic and car For industrial sites the lower of the noncarcinogenic and carcinogenic (nonadjusted) value was used.
- Samples were excavated further, and resamples were taken as designated with an "R." This does not indicate that sample results were rejected.
 - ** Clean-up criteria for lead established under United States Environmental Protection Agency (USEPA) Toxic Substances Control Act (TSCA).
 - *** Clean-up criteria for arsenic is site-specific calculated background.

TABLE 4
Soil Confirmatory Sample Results
Rear Range Light and Keeper's Dwelling

USCG Plum Island Light Station – Remedial Action Activities
Door County, Wisconsin

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Analytes	Soil to Groundwater Pathway (1) PAL-Based	Soil to Groundwater Pathway (1) ES-Based	Site-Specific Direct Contact (b)		Rear Range Light									
			Non-Industrial	Industrial	CS-25 8/3/04	CS-25D 8/3/04	CS-26 8/3/04	CS-27 8/3/04	CS-28 8/3/04	CS-29 8/3/04	CS-30 8/3/04	CS-31 8/3/04	CS-32 8/3/04	
Metals (mg/kg)														
Total lead	27	270	50	1200*	840 J	548 J	184 J	291 J	239 J	115 J	515 J	20.2 J	172 J	

NOTES:

1. All data in milligrams per kilogram (mg/kg).
2. TPH: total petroleum hydrocarbons.
3. PVOCS: petroleum volatile organic compounds.
4. PAHs: polynuclear aromatic hydrocarbons.
5. NA: constituent not analyzed.
6. D: Duplicate sample
7. J: estimated sample result

- (a) Soil to Groundwater migration pathway values were obtained from Table 1 of NR 720 for benzene, toluene, ethylbenzene, and xylenes. Analytes without a Table 1 value were calculated based on the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002). Analytes with a federal groundwater MCL were calculated directly using the USEPA Soil Screening Guidance for Chemicals website using Method 1. For analytes without a federal standard, but with a NR 140 standard, the Soil Screening Level Website Method 1 was used to calculate the groundwater pathway values in a spreadsheet format. As suggested in the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002) the following default values were used: a dilution factor of 2 (carcinogenic) or 4 (non-carcinogenic), 0.2 for water-filled soil porosity, and a fraction organic carbon value of 0.001. When the Web site could not be used to calculate a value (e.g., no Federal MCL, chemical specific properties (i.e., K_{oc}, K_d, Henry Law Constant) were obtained from the Risk Assessment Information System - Toxicity and Chemical-Specific Factors Database, November 2004. Analytes without a federal or NR 140 standard were not calculated (NC).
- (b) These values were calculated from the USEPA Soil Screening Guidance for Chemicals website. For non-industrial values the lower of the noncarcinogenic and carcinogenic (age adjusted) was used. For industrial sites the lower of the noncarcinogenic and carcinogenic (nonadjusted) value was used.
- * Clean-up criteria for lead established under United States Environmental Protection Agency (USEPA) Toxic Substances Control Act (TSCA).

TABLE 4
Soil Confirmatory Sample Results
Rear Range Light and Keeper's Dwelling

USCG Plum Island Light Station -- Remedial Action Activities
Door County, Wisconsin

Analytes	Soil to Groundwater Pathway (1) PAL-Based	Soil to Groundwater Pathway (1) ES-Based	Site-Specific Direct Contact (b)		Keeper's Dwelling												
			Non-Industrial	Industrial	CS-33 8/4/04	CS-33D 8/4/04	CS-34 8/4/04	CS-35 8/4/04	CS-36 8/4/04	CS-37 8/4/04	CS-38 8/4/04	CS-39 8/4/04	CS-40 8/4/04	CS-41 8/4/04			
Metals (mg/kg)																	
Total lead	27	270	50	1200*	79.9	58.8	85.3	76.9	1,090	16.7	63.1	14.9	27.5	72.9			

NOTES:

- 1 All data in milligrams per kilogram (mg/kg).
 - 2 TPH total petroleum hydrocarbons.
 3. PVOCs petroleum volatile organic compounds.
 4. PAHs polynuclear aromatic hydrocarbons.
 5. NA constituent not analyzed.
 6. D Duplicate sample.
 7. J estimated sample result
- (a) Soil to Groundwater migration pathway values were obtained from Table 1 of NR 720 for benzene, toluene, ethylbenzene, and xylenes. Analytes without a Table 1 value were calculated based on the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002). Analytes with a federal groundwater MCL were calculated directly using the USEPA Soil Screening Guidance for Chemicals website using Method 1. For analytes without a federal standard, but with a NR 140 standard, the Soil Screening Level Website Method 1 was used to calculate the groundwater pathway values in a spreadsheet format. As suggested in the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002) the following default values were used: a dilution factor of 2 (carcinogenic) or 4 (non-carcinogenic), 0.2 for water-filled soil porosity, and a fraction organic carbon value of 0.001. When the Web site could not be used to calculate a value (e.g., no Federal MCL) chemical specific properties (i.e., K_{oc}, K_d, Henry Law Constant) were obtained from the Risk Assessment Information System - Toxicity and Chemical-Specific Factors Database, November 2004. Analytes without a federal or NR 140 standard were not calculated (NC).
- (b) These values were calculated from the USEPA Soil Screening Guidance for Chemicals website. For non-industrial values the lower of the noncarcinogenic and carcinogenic (age adjust) For industrial sites the lower of the noncarcinogenic and carcinogenic (nonadjusted) value was used.
- Clean-up criteria for lead established under United States Environmental Protection Agency (USEPA) Toxic Substances Control Act (TSCA).

TABLE 4
Soil Confirmatory Sample Results
Rear Range Light and Keeper's Dwelling

USCG Plum Island Light Station – Remedial Action Activities
Door County, Wisconsin

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Analytes	Soil to Groundwater Pathway (1) PAL-Based	Soil to Groundwater Pathway (1) ES-Based	Site-Specific Direct Contact (b)		Keeper's Dwelling									
			Non-Industrial	Industrial	CS-42 8/4/04	CS-43 8/4/04	CS-44 8/4/04	CS-45 8/4/04	CS-46 8/4/04	CS-47 8/4/04	CS-48 8/4/04	CS-48D 8/4/04	CS-49 8/4/04	
Metals (mg/kg)														
Total lead	27	270	50	1200*	180	180	250	170	27.1	222	46.8	43.5	109	

NOTES:

1. All data in milligrams per kilogram (mg/kg).
 2. TPH: total petroleum hydrocarbons.
 3. PVOCS: petroleum volatile organic compounds.
 4. PAHs: polynuclear aromatic hydrocarbons.
 5. NA: constituent not analyzed.
 6. D: Duplicate sample.
 7. J: estimated sample result
- (a) Soil to Groundwater migration pathway values were obtained from Table 1 of NR 720 for benzene, toluene, ethylbenzene, and xylenes. Analytes without a Table 1 value were calculated based on the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002). Analytes with a federal groundwater MCL were calculated directly using the USEPA Soil Screening Guidance for Chemicals website using Method 1. For analytes without a federal standard, but with a NR 140 standard, the Soil Screening Level Website Method 1 was used to calculate the groundwater pathway values in a spreadsheet format. As suggested in the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002) the following default values were used: a dilution factor of 2 (carcinogenic) or 4 (non-carcinogenic), 0.2 for water-filled soil porosity, and a fraction organic carbon value of 0.001. When the Web site could not be used to calculate a value (e.g., no Federal MCL) chemical specific properties (i.e., K_{oc}, K_d, Henry Law Constant) were obtained from the Risk Assessment Information System - Toxicity and Chemical-Specific Factors Database, November 2004. Analytes without a federal or NR 140 standard were not calculated (NC).
- (b) These values were calculated from the USEPA Soil Screening Guidance for Chemicals website. For non-industrial values the lower of the noncarcinogenic and carcinogenic (age adjust) For industrial sites the lower of the noncarcinogenic and carcinogenic (nonadjusted) value was used.
- * Clean-up criteria for lead established under United States Environmental Protection Agency (USEPA) Toxic Substances Control Act (TSCA).

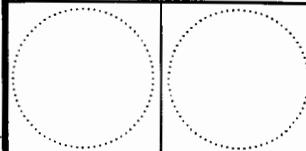
TABLE 5
Soil Confirmatory Sample Results
Dump Site West of Station Building

USCG Plum Island Light Station -- Remedial Action Activities
Door County, Wisconsin

Analytes	Soil to Groundwater Pathway (1) PAL-Based	Soil to Groundwater Pathway (1) ES-Based	Site-Specific Direct Contact (b)		Dump Site West of Station Building					
			Non-Industrial	Industrial	CS-DS-01 10/7/04	CS-DS-01-D 10/7/04	CS-DS-02 10/7/04	CS-DS-03 10/7/04	CS-DS-04 10/7/04	CS-DS-05 10/7/04
PVOCs										
benzene	0.0055	0.055	11.6	52	< 0.18	< 0.19	< 0.21	< 0.19	< 0.24	< 0.24
toluene	1.5	7.5	15,600	204,000	< 0.18	< 0.19	< 0.21	< 0.19	< 0.24	< 0.24
ethylbenzene	2.9	14.5	7,820	102,000	< 0.18	< 0.19	< 0.21	< 0.19	< 0.24	< 0.24
xylenes	4.1	41	15,600	204,000	< 0.37	< 0.38	< 0.42	< 0.39	< 0.47	< 0.47
MTBE	0.034	0.17	NC	NC	< 0.18	< 0.19	< 0.21	< 0.19	< 0.24	< 0.24
1,2,4-TMB	28	140	3,910	5,110	NA	NA	NA	NA	NA	NA
1,3,5-TMB	13	65	3,910	5,110	NA	NA	NA	NA	NA	NA
PAHs										
1-methylnaphthalene	NC	NC	NC	NC	NA	NA	NA	NA	NA	NA
2-methylnaphthalene	NC	NC	313	4,090	NA	NA	NA	NA	NA	NA
acenaphthene	63	315	4,690	61,300	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
acenaphthylene	NC	NC	NC	NC	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
anthracene	1,300	6500	23,500	307,000	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
benzo (a) anthracene	NC	NC	0.875	3.92	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
benzo (a) pyrene	0.315	3.15	0.0875	0.392	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
benzo (b) fluoranthene	0.321	3.21	0.875	3.92	< 0.4	< 0.37	0.480 J	< 0.34	< 0.34	< 0.36
benzo (g,h,i) perylene	NC	NC	NC	NC	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
benzo (k) fluoranthene	NC	NC	8.75	39.2	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
chrysene	0.094	0.94	87.5	392	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
dibenzo (a,h) anthracene	NC	NC	0.0875	0.392	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
fluoranthene	630	3150	3,130	40,900	< 0.4	< 0.37	0.570 J	< 0.34	< 0.34	< 0.36
fluorene	81	405	3,130	40,900	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
indeno (1,2,3-cd) pyrene	NC	NC	0.875	3.92	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
naphthalene	6.2	31	1,560	20,400	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
phenanthrene	NC	NC	NC	NC	< 0.4	< 0.37	< 0.89	< 0.34	< 0.34	< 0.36
pyrene	460	2300	2,350	30,700	< 0.4	< 0.37	0.560 J	< 0.34	< 0.34	< 0.36
TPH										
DRO	NC	NC	2,350	2,350	NA	NA	NA	NA	NA	NA
GRO	NC	NC	2,350	2,350	NA	NA	NA	NA	NA	NA
Metals										
Total lead	27	270	50	1,200*	< 12.3	< 11.1	142	< 10.3	< 10.3	< 11.0
Selenium	1.5	15	78	5,100	< 12.3	< 11.1	< 13.5	< 10.3	< 10.3	6.62 J
Thallium	0.58	5.8	13	82	< 12.3	< 11.1	< 13.5	< 10.3	< 10.3	< 11.0
Antimony	NC	NC	6.3	410	3.75 J	< 11.1	2.94 J	< 10.3	< 10.3	< 11.0
Beryllium	NC	NC	0.015	0.67	< 1.23	< 1.11	< 1.35	< 1.03	< 1.03	< 1.1
Cadmium	8	7.5	78.2	102	< 1.23	< 1.11	2.67	< 1.03	< 1.03	< 1.1
Chromium	NC	NC	NE	NE	< 2.45	3.81	9.26	1.7 J	1.95 J	8.28
Copper	NC	NC	580	38,000	1.2 J	1.31 J	45.7	1.13 J	1.58 J	2.63
Nickel	NC	NC	310	20,000	< 2.45	1.92 J	5.09	< 2.05	< 2.06	1.39 J
Silver	NC	NC	78	5,100	0.731 J	0.562 J	< 2.69	< 2.05	0.661 J	< 2.2
Zinc	NC	NC	4,700	310,000	1.36	5.93	317	1.82	6.73	32.2
Total arsenic	0.039	5.8	0.426	4.19**	< 12.3	< 11.1	< 13.5	< 10.3	< 10.3	< 11.0
Mercury	NC	NC	4.7	310	< 0.123	< 0.111	0.149	< 0.103	< 0.103	< 0.11

NOTES:

- All data in milligrams per kilogram (mg/kg).
 - TPH: total petroleum hydrocarbons.
 - PVOCs: petroleum volatile organic compounds.
 - PAHs: polynuclear aromatic hydrocarbons.
 - NA: constituent not analyzed.
 - D: Duplicate sample.
 - DRO: diesel range organic.
 - GRO: gasoline range organic.
 - TMB: trimethylbenzene.
 - MTBE: methyl tertiary-butyl ether.
 - NC: no criteria established.
 - Bolded, highlighted data represents concentrations in exceedance of criteria.
 - J: estimated sample result
- (a) Soil to Groundwater migration pathway values were obtained from Table 1 of NR 720 for benzene, toluene, ethylbenzene, and xylenes. Analytes without a Table 1 value were calculated based on the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002). Analytes with a federal groundwater MCL were calculated directly using the USEPA Soil Screening Guidance for Chemicals website using Method 1. For analytes without a federal standard, but with a NR 140 standard, the Soil Screening Level Website Method 1 was used to calculate the groundwater pathway values in a spreadsheet format. As suggested in the WDNR guidance "Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site" (WDNR January 11, 2002) the following default values were used: a dilution factor of 2 (carcinogenic) or 4 (non-carcinogenic), 0.2 for water-filled soil porosity, and a fraction organic carbon value of 0.001. When the Web site could not be used to calculate a value (e.g., no Federal MCL), chemical specific properties (i.e., Koc, Kd, Henry Law Constant) were obtained from the Risk Assessment Information System - Toxicity and Chemical-Specific Factors Database, November 2004. Analytes without a federal or NR 140 standard were not calculated (NC).
- (b) These values were calculated from the USEPA Soil Screening Guidance for Chemicals website. For non-industrial values the lower of the noncarcinogenic and carcinogenic (age adjusted) was used. For industrial sites the lower of the noncarcinogenic and carcinogenic (nonadjusted) value was used.
- * Clean-up criteria for lead established under United States Environmental Protection Agency (USEPA) Toxic Substances Control Act (TSCA).
- ** Clean-up criteria for arsenic is site-specific calculated background.



**U. S. COAST GUARD
CIVIL ENGINEERING UNIT
CLEVELAND**



USCG, CEU CLEVELAND
1240 EAST 9TH STREET
CLEVELAND, OH 44199-2060

ISSUE

MARK	DATE	DESCRIPTION

A/E PROJECT NO: J:\ucg\2002\631\cld cr
CAD FILE NAME: c6606d03
DESIGNED BY: KHK
DRAWN BY: STR
EDITED BY: STR
CHECKED BY: DAM

SCALE: AS SHOWN PLOT SCALE: 1" = 10'-0"

SHEET TITLE

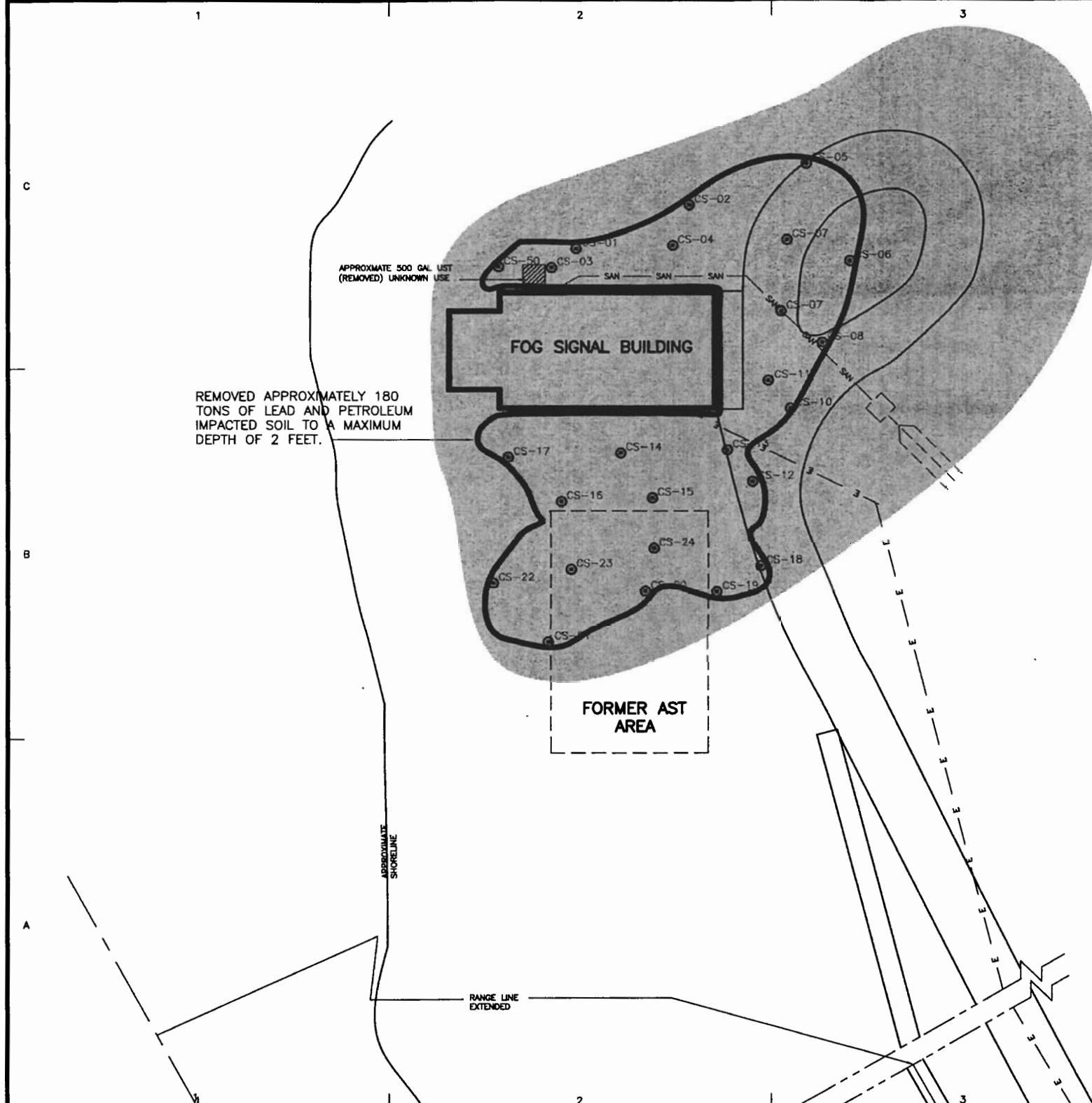
**USCG PLUM ISLAND LIGHT STATION
DOOR COUNTY WISCONSIN
CONFIRMATORY SOIL
SAMPLING LOCATIONS
FOG SIGNAL BUILDING
SITE PLAN**

REVIEWED BY: REVIEWED BY: REVIEWED BY:

PROJECT ENG BRANCH CHIEF TECH. DIRECTOR

APPROVING OFFICER DATE

PROJECT NUMBER	DRAWING NUMBER
09-C8155	7141-D
DISCIPLINE/SHT NO	
D/03	SHEET 3 OF 15



- NOTES:**
- SCALE APPLIES TO 32" X 20.5" SIZE DRAWING INCLUDED IN ALL FINAL DOCUMENTS.
 - ALL CONFIRMATORY SOIL SAMPLING LOCATION ARE APPROXIMATE.
 - EXCAVATION AND SAMPLING PERFORMED IN AUGUST 2004. ADDITIONAL RESTORATION PERFORMED IN OCTOBER 2004.

LEGEND

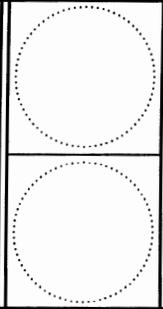
- ⊙ CONFIRMATORY SOIL BORING LOCATION
- EXTENT OF EXCAVATION (SOIL EXCAVATED HAD LEAD IMPACTS GREATER THAN 1,200 PPM)
- ▒ EXTENT OF SOIL WITH LEAD IMPACTS GREATER THAN 50 PPM AND LESS THAN 1,200 PPM
- ▨ ABOVEGROUND STORAGE TANK (AST)
- E — ELECTRICAL
- SAN — SANITARY SEWER

PLOT PLAN
SCALE: 1" = 10'-0"

STATION BUILDING



CONSULTANTS



U. S. COAST GUARD
CML ENGINEERING UNIT
CLEVELAND



USCG, CEU CLEVELAND
1240 EAST 9TH STREET
CLEVELAND, OH 44199-2060

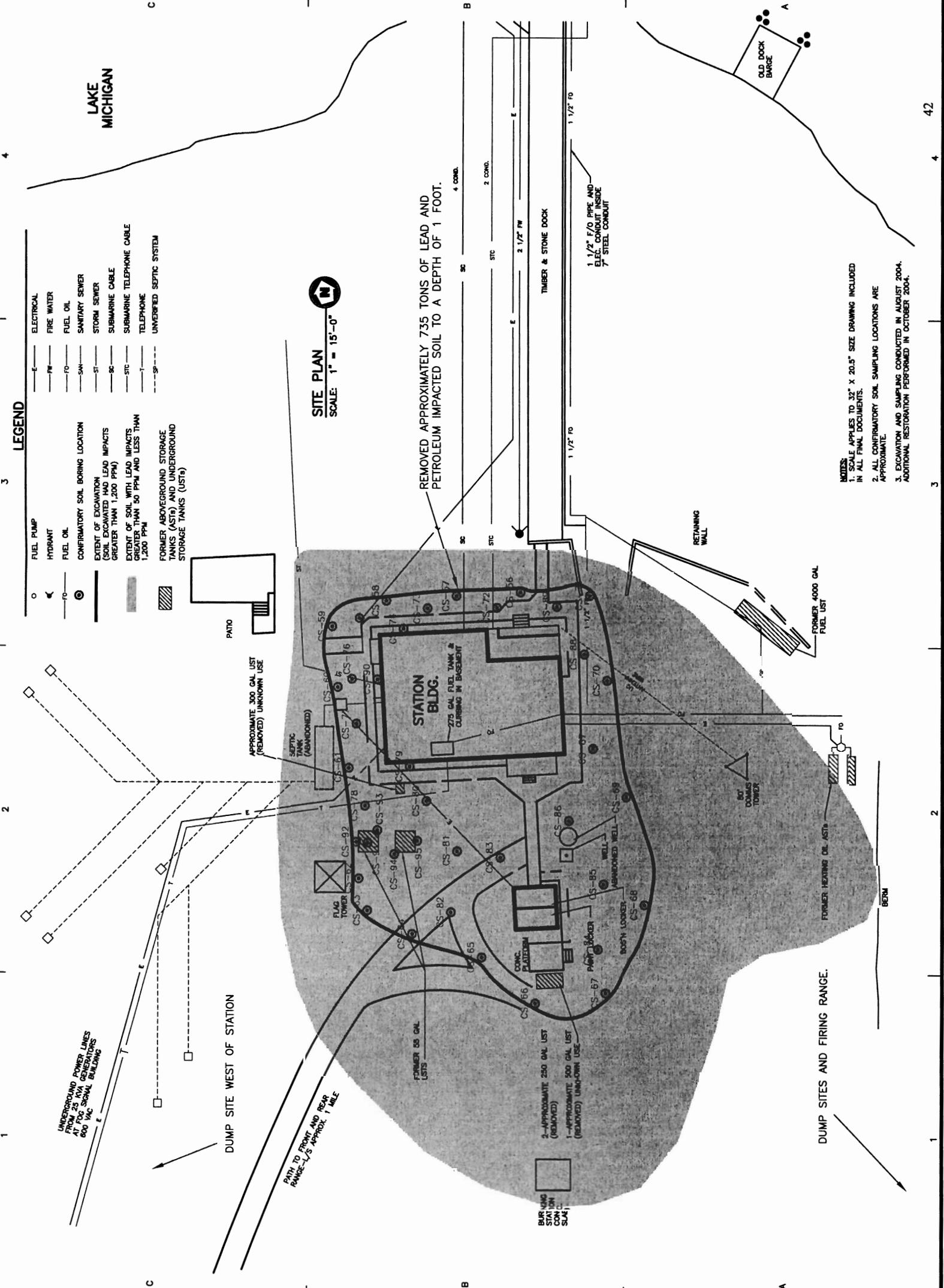
MARK	DATE	DESCRIPTION

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 CAD FILE NAME: 09090903
 DESIGNED BY: KSK
 DRAWN BY: STR
 EDITED BY: STR
 CHECKED BY: DM

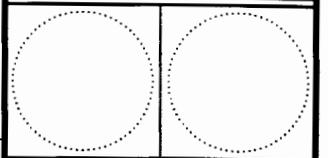
SCALE: AS SHOWN PLOT SCALE: 1" = 15'-0"

SHEET TITLE
 USCG PULM ISLAND LIGHT STATION
 DOOR COUNTY WISCONSIN
 CONFIRMATORY SOIL
 SAMPLE LOCATIONS
 STATION BUILDING
 SITE PLAN

REVIEWED BY:	REVIEWED BY:
PROJECT ENG:	BRANCH CHIEF:
TECH. DIRECTOR	
APPROVING OFFICER:	DATE:
PROJECT NUMBER:	DRAWING NUMBER:
09-C8155	7141-D
09-C9266	
DISCIPLINE/SHEET NO:	
D/05	



- NOTES:
- SCALE APPLIES TO 32" X 20.5" SIZE DRAWING INCLUDED IN ALL FINAL DOCUMENTS.
 - ALL CONFIRMATORY SOIL SAMPLING LOCATIONS ARE APPROXIMATE.
 - EXCAVATION AND SAMPLING CONDUCTED IN AUGUST 2004. ADDITIONAL RESTORATION PERFORMED IN OCTOBER 2004.



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CIVIL ENGINEERING UNIT
CLEVELAND



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 CLEVELAND, OH 44199-2060

ISSUE		
MARK	DATE	DESCRIPTION

A/E PROJECT NO: [unclear] 2002/051/c/d e r
 CAD FILE NAME: c8808d08
 DESIGNED BY: KSK
 DRAWN BY: STR
 EDITED BY: STR
 CHECKED BY: DMH

SCALE: AS SHOWN PLOT SCALE: 1" = 10'-0"

SHEET TITLE
USCG PLUM ISLAND LIGHT STATION
 DOOR COUNTY WISCONSIN
CONFIRMATORY SOIL
SAMPLING LOCATIONS
 KEEPER'S DWELLING/REAR RANGE LIGHT
SITE PLAN

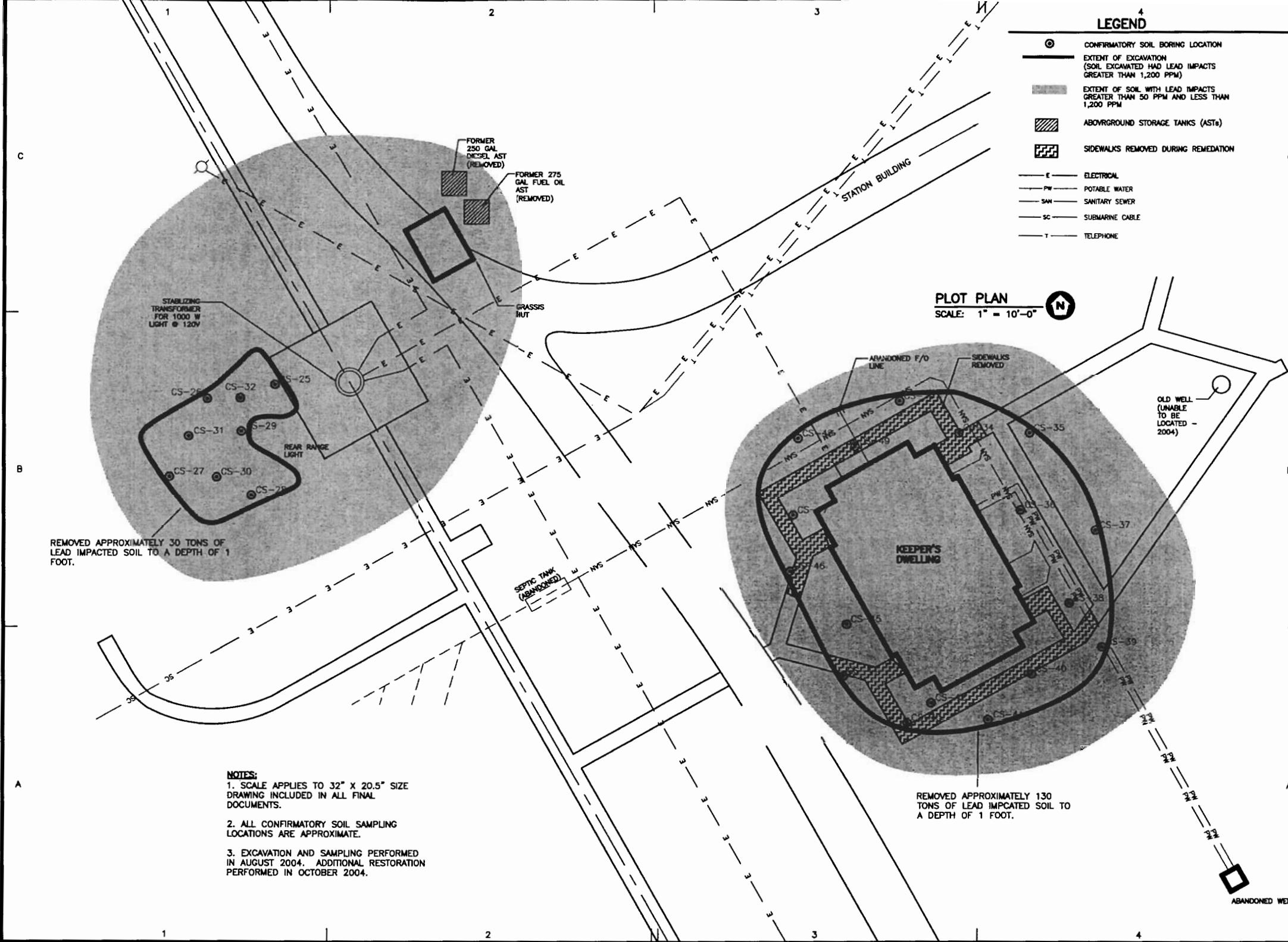
REVIEWED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT ENG	BRANCH CHIEF	TECH. DIRECTOR

PROJECT NUMBER	DRAWING NUMBER
09-C8155	7141-D
09-C9266	
DISCIPLINE/SHT NO	
D/06	SHEET 6 OF 15

LEGEND

- CONFIRMATORY SOIL BORING LOCATION
- ▭ EXTENT OF EXCAVATION (SOIL EXCAVATED HAD LEAD IMPACTS GREATER THAN 1,200 PPM)
- ▨ EXTENT OF SOIL WITH LEAD IMPACTS GREATER THAN 50 PPM AND LESS THAN 1,200 PPM
- ▩ ABOVEGROUND STORAGE TANKS (ASTs)
- ▧ SIDEWALKS REMOVED DURING REMEDIATION
- E — ELECTRICAL
- PW — POTABLE WATER
- SAN — SANITARY SEWER
- SC — SUBMARINE CABLE
- T — TELEPHONE

PLOT PLAN
 SCALE: 1" = 10'-0"



NOTES:
 1. SCALE APPLIES TO 32" X 20.5" SIZE DRAWING INCLUDED IN ALL FINAL DOCUMENTS.
 2. ALL CONFIRMATORY SOIL SAMPLING LOCATIONS ARE APPROXIMATE.
 3. EXCAVATION AND SAMPLING PERFORMED IN AUGUST 2004. ADDITIONAL RESTORATION PERFORMED IN OCTOBER 2004.

REMOVED APPROXIMATELY 30 TONS OF LEAD IMPACTED SOIL TO A DEPTH OF 1 FOOT.

REMOVED APPROXIMATELY 130 TONS OF LEAD IMPACTED SOIL TO A DEPTH OF 1 FOOT.



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CLEVELAND, OH 44199-2060

ISSUE

MARK	DATE	DESCRIPTION

A/E PROJECT NO: J:\uscg\2002\831\c\d cr
 CAD FILE NAME: C6009012
 DESIGNED BY: AJP
 DRAWN BY: STR
 EDITED BY: STR
 CHECKED BY: EAG

SCALE: AS SHOWN PLOT SCALE:

SHEET TITLE

PLUM ISLAND LIGHT STATION
DOOR COUNTY WISCONSIN
CROSS SECTION A-A'

SITE PLAN

REVIEWED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT ENG	BRANCH CHIEF	TECH. DIRECTOR

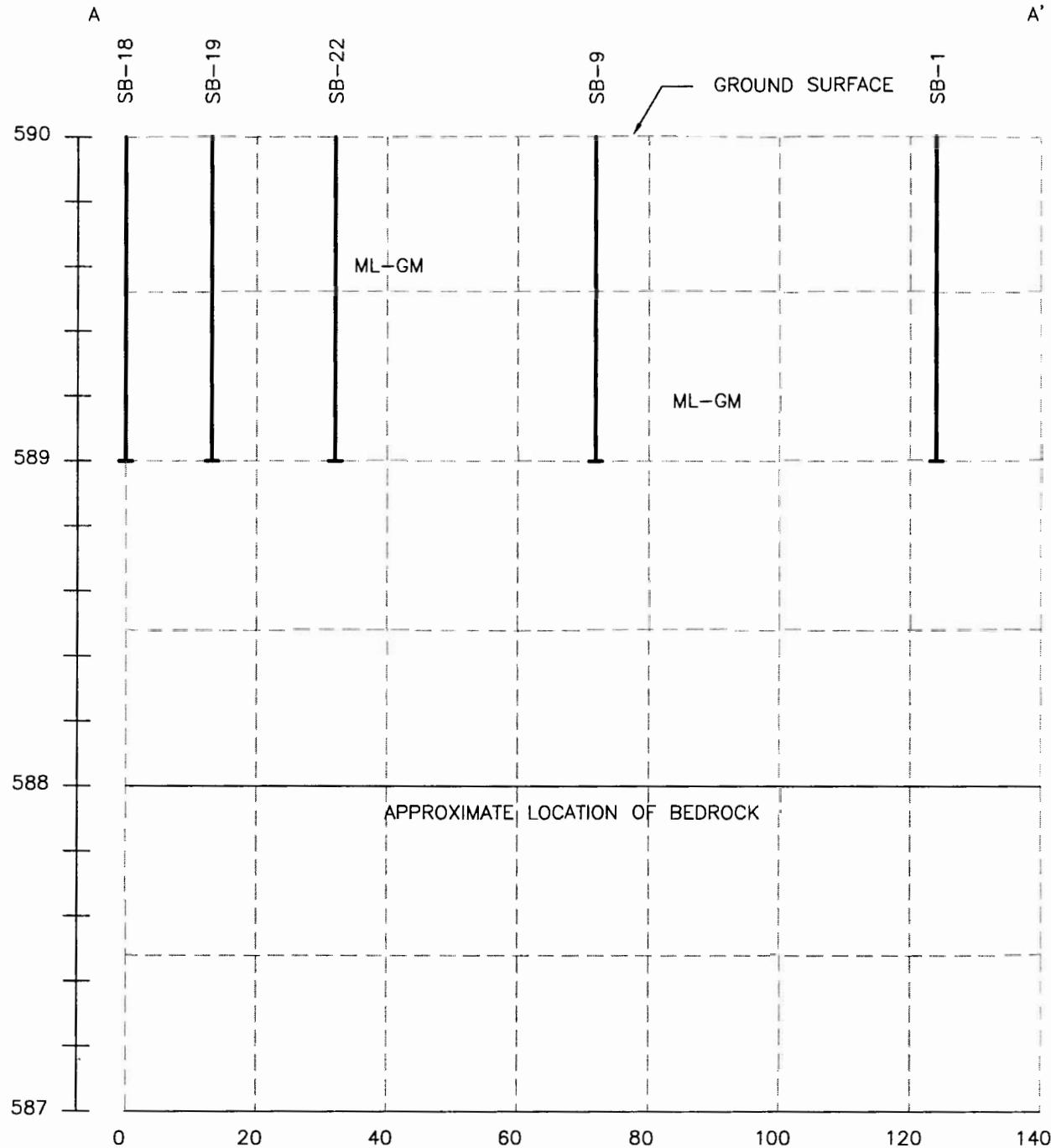
APPROVING OFFICER DATE

PROJECT NUMBER DRAWING NUMBER

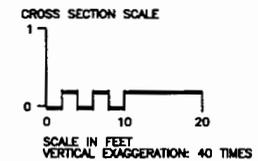
09-C8155 7141-D

DISCIPLINE/SHT NO

D/12 SHEET 12 OF 15



NOTES:
ML-GM = LOW PLASTICITY, SILTY GRAVEL



LEGEND

--- APPROXIMATE EXTENT OF CONTAMINATION



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C

B

A

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1240 EAST 9TH STREET
CLEVELAND, OH 44199-2060

ISSUE

MARK DATE DESCRIPTION

A/E PROJECT NO: j:\uscg\2002\831\c\c.r
 CAD FILE NAME: C8009013
 DESIGNED BY: AJP
 DRAWN BY: SIR
 EDITED BY: SIR
 CHECKED BY: EAG

SCALE: AS SHOWN PLOT SCALE:

SHEET TITLE

PLUM ISLAND LIGHT STATION
DOOR COUNTY WISCONSIN
CROSS SECTION B-B'

SITE PLAN

REVIEWED BY: REVIEWED BY: REVIEWED BY:

PROJECT ENG BRANCH CHIEF TECH. DIRECTOR

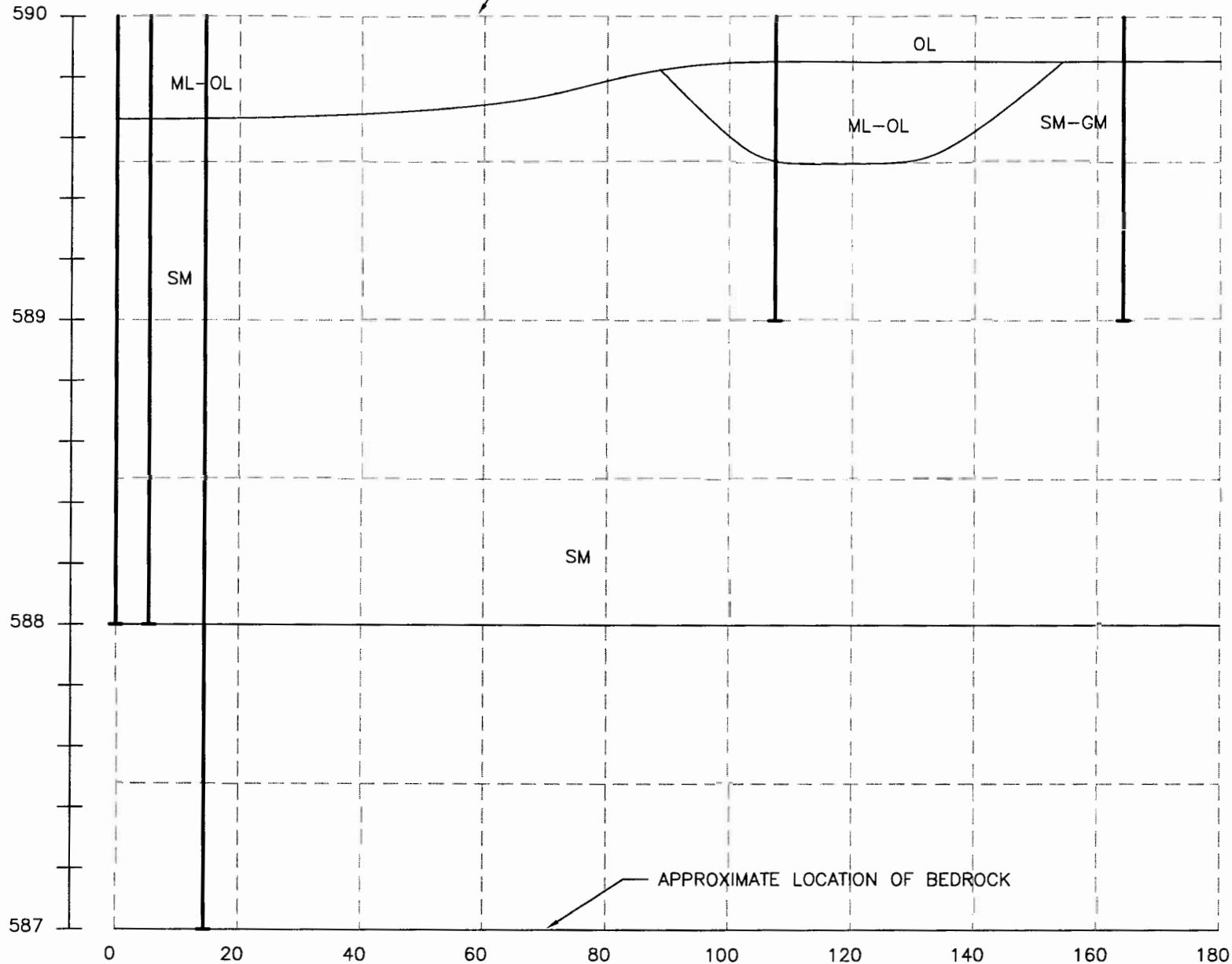
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PROJECT NUMBER DRAWING NUMBER

09-C8155 7141-D

DISCIPLINE/SHT NO

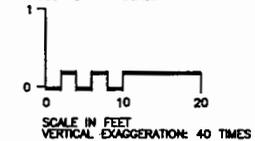
D/13 SHEET 13 OF 15



NOTES:

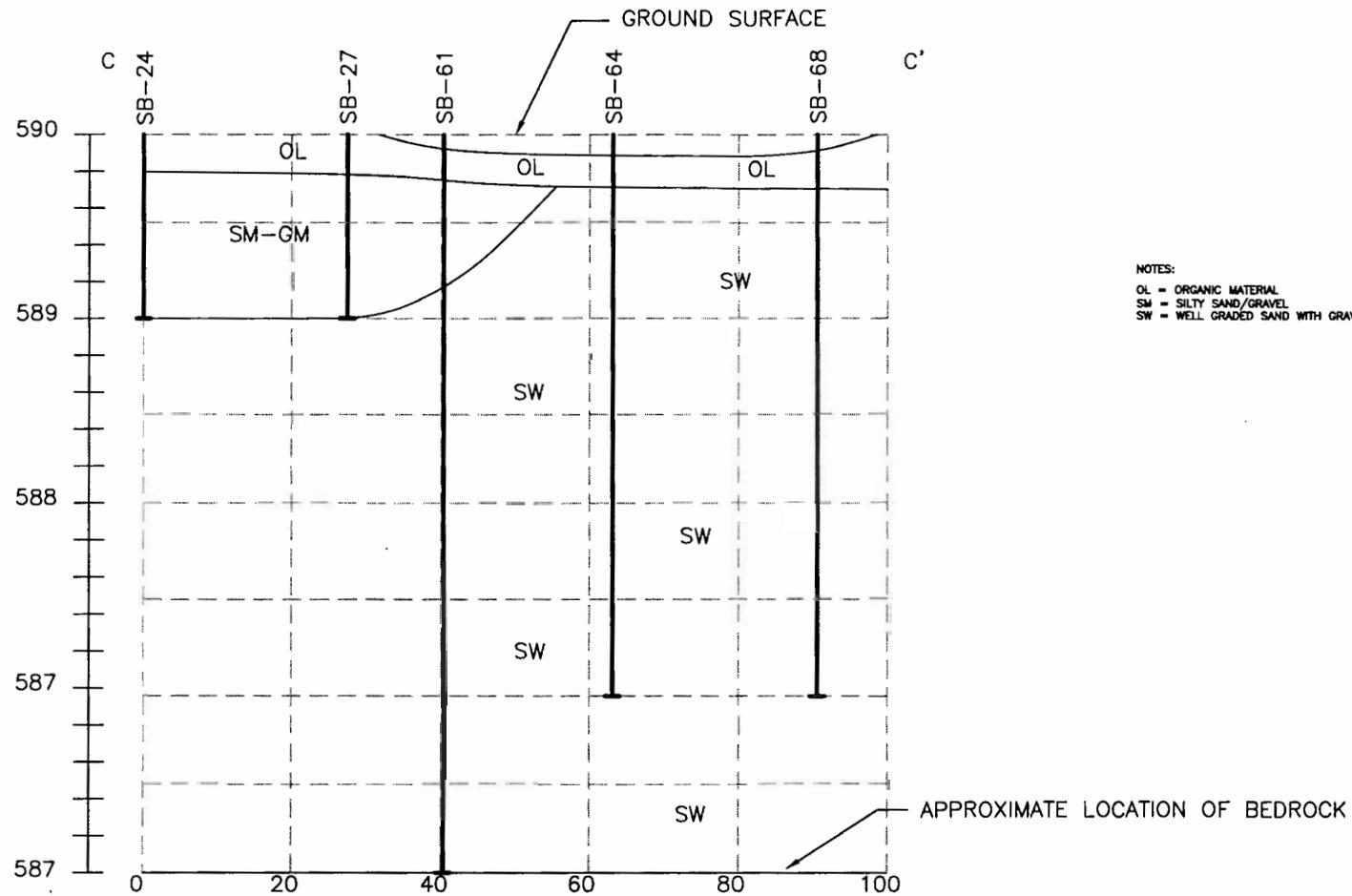
- OL = ORGANIC MATERIAL
- ML-OL = LOW LEVEL PLASTICITY ORGANIC MATERIAL
- SM = SILTY SAND
- SM-GM = SILTY SAND/GRAVEL

CROSS SECTION SCALE

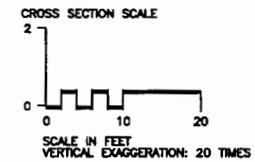


LEGEND

--- APPROXIMATE EXTENT OF CONTAMINATION



NOTES:
 OL = ORGANIC MATERIAL
 SM = SILTY SAND/GRAVEL
 SW = WELL GRADED SAND WITH GRAVEL



LEGEND

--- APPROXIMATE EXTENT OF CONTAMINATION

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 1240 EAST 9TH STREET
 CLEVELAND, OH 44199-2060

ISSUE		
MARK	DATE	DESCRIPTION

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 CAD FILE NAME: C6008014
 DESIGNED BY: AJP
 DRAWN BY: STR
 EDITED BY: STR
 CHECKED BY: EAG

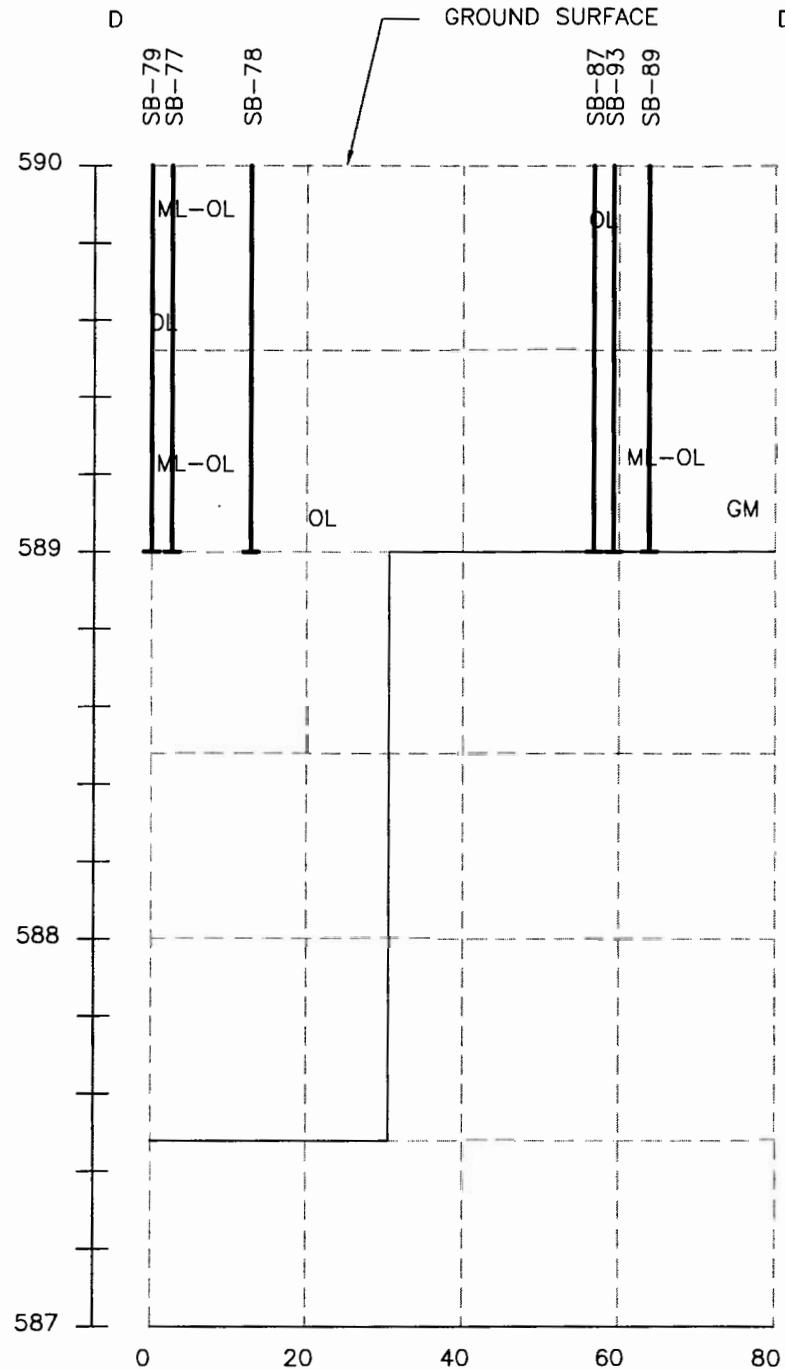
SCALE: AS SHOWN PLOT SCALE:

SHEET TITLE
 PLUM ISLAND LIGHT STATION
 DOOR COUNTY WISCONSIN
 CROSS SECTION C-C'

SITE PLAN

REVIEWED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT ENG	BRANCH CHIEF	TECH. DIRECTOR
APPROVING OFFICER	DATE	

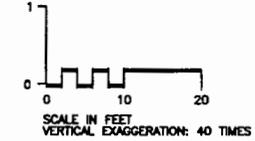
PROJECT NUMBER	DRAWING NUMBER
09-C8155	7141-D
09-C8115	
DISCIPLINE/SHT NO	SHEET 14 OF 15
D/14	



NOTES:

- OL = ORGANIC MATERIAL
- ML-OL = LOW LEVEL PLASTICITY ORGANIC MATERIAL
- GM = SILTY GRAVEL

CROSS SECTION SCALE



LEGEND

--- APPROXIMATE EXTENT OF CONTAMINATION

U. S. COAST GUARD
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USCG, CEU CLEVELAND
1240 EAST 9TH STREET
CLEVELAND, OH 44199-2080

ISSUE		
MARK	DATE	DESCRIPTION

A/E PROJECT NO: j:\uecg\2002\831\c\d e r
 CAD FILE NAME: C8009D15
 DESIGNED BY: AJP
 DRAWN BY: STR
 EDITED BY: STR
 CHECKED BY: EAG

SCALE: AS SHOWN PLOT SCALE:

SHEET TITLE
PLUM ISLAND LIGHT STATION
 DOOR COUNTY WISCONSIN
CROSS SECTION D-D'

SITE PLAN

REVIEWED BY:	REVIEWED BY:	REVIEWED BY:
PROJECT ENG	BRANCH CHIEF	TECH. DIRECTOR

APPROVING OFFICER _____ DATE _____

PROJECT NUMBER	DRAWING NUMBER
09-C8155	7141-D
09-C8115	
DISCIPLINE/SHT NO	SHEET 15 OF 15
D/15	

LEGAL CERTIFICATION

PLUM ISLAND LIGHT STATION
DOOR COUNTY, LAKE MICHIGAN, WISCONSIN
REPORT OF EXCESS NO. BS-32-023-95L

I hereby certify that the legal aspects of the enclosed documents and all attachments thereto are legally sufficient pursuant to the requirements contained in the Real Property Management Manual (COMDTINST M11011.9B series), Section 1-B-2.

DATE: AUGUST 21, 1998

BY: 
NAME: THOMAS A GUSTIN
TITLE: Attorney-Advisor
AGENCY: UNITED STATES COAST GUARD
MLCLANT (lg)
TELEPHONE: (757) 628-4193

ENCLOSURE(18)