



Michigan Department of Environment, Great Lakes, and Energy
Materials Management Division

SOLID WASTE DISPOSAL AREA OPERATING LICENSE

Effective April 22, 2019, the Michigan Department of Environmental Quality, by Executive Order Number 2019-06, became the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Effective April 22, 2019, the Waste Management and Radiological Protection Division became the Materials Management Division (MMD).

This license is issued under the provisions of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.11501 et seq., and authorizes the operation of this solid waste disposal area (Facility) in the state of Michigan. This license does not obviate the need to obtain other authorizations as may be required by state law.

FACILITY NAME: JR Whiting Solid Waste Disposal Area

LICENSEE/OPERATOR: Consumers Energy Company

FACILITY OWNER: Consumers Energy Company

PROPERTY OWNER: Consumers Energy Company

FACILITY TYPE(S): Coal Ash Surface Impoundment

FACILITY ID NUMBER: 397664

COUNTY: Monroe

LICENSE NUMBER: 9601

ISSUE DATE: May 11, 2020

EXPIRATION DATE: May 11, 2025

FACILITY DESCRIPTION: The JR Whiting Solid Waste Disposal Area, a Coal Ash Surface Impoundment, consists of 180.88 acres located in Sections 11 and 14, T8S, R8E, Erie Township, Monroe County, Michigan, as identified in Attachment A – Pages 1-6 and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: Identified in item 2 of this license.

RESPONSIBLE PARTY: Ms. Michelle Marion
Consumers Energy Company
1945 West Parnall Road
Jackson, MI 49201
517-788-5824

RENEWAL OPERATING LICENSE: This License Number 9601 supersedes and replaces Solid Waste Disposal Area Operating License Number 9403 issued to Consumers Energy Company on August 25, 2014.

This license is subject to revocation by the Director of the Michigan Department of Environment, Great Lakes, and Energy, if the Director finds that this Facility is not being constructed or operated in accordance with the approved plans, the conditions of a permit or license, Part 115, or the rules promulgated under Part 115. Failure to comply with the terms and provisions of this license may result in legal action leading to civil and/or criminal penalties pursuant to Part 115. This license shall be available through the licensee during its term and remains the property of the Director.

THIS LICENSE IS NOT TRANSFERABLE.

Rhonda S. Oyer, Manager, Solid Waste Section
Materials Management Division

Licensee: Consumers Energy Company
Facility Name: JR Whiting Solid Waste Disposal Area
Operating License Number: 9601
Issue Date: May 11, 2020

The licensee shall comply with all terms of this license and the provisions of Part 115 and the administrative rules implementing Part 115 (Part 115 Rules). This license includes the license application and any attachments to this license.

1. The licensee shall operate the Facility in a manner that will prevent violations of any state or federal law.
2. The following portions of the Facility are authorized to receive solid waste by this license: None.
3. The following portions of the Facility **WILL BE** authorized to receive solid waste by this license following approval by EGLE of construction certification: None.
4. The following portions of the Facility are **NOT** authorized to receive solid waste by this license:
 - a. **UNCLOSED AREA(S):** The area(s) identified as Ash Ponds 1 and 2 are at final grade but have not had final cover certification approved by EGLE. This area's total acreage is 23.82 acres.
 - b. **CLOSED UNIT(S) OR A PORTION OF A UNIT WHERE THE FINAL COVER HAS BEEN CERTIFIED CLOSED AND ACCEPTED BY EGLE:** The following unit(s) and/or portion(s) are closed:
 - i. **PRE-EXISTING UNIT(S):** The unit(s) identified as Borrow Pit No. 1 (5.44 acres) and No. 2 (11.87 acres) had final closure certified on by the end of 1989. This area's total acreage is 17.31 acres.
 - ii. **EXISTING UNIT(S):** The unit(s) or portion(s) of unit(s) identified as 35.08 acres of Ponds 3, 4 and 5 (making up a single unit) had partial closure certified on December 2005, March 2008, January 2009 and approved on December 28, 2006 (16.8 acres), July 16, 2008 (12.19 acres), and April 1, 2009 (6.09 acres). Its remaining area (49.2 acres) had a partial closure certified on December 17, 2010, revised October 18, 2016, and approved on October 21, 2016, a partial closure certified on May 16, 2014, and approved on May 24, 2016, and a partial closure certified on January 27, 2015, and approved on March 1, 2017. Pond 6 (55.47 acres) was certified closed on December 2017 and approved on August 24, 2018. This area's total acreage is 139.75 acres.
5. The attached map (Attachment A) shows the Facility, the area permitted for construction, monitoring points, leachate storage units, site roads, other disposal areas, and related appurtenances.
6. Issuance of this license is conditioned on the accuracy of the information submitted by the Applicant in the Application for License to Operate a Solid Waste Disposal Area (Application) received by EGLE on August 12, 2019, and any subsequent amendments. Any material or intentional inaccuracies found in that information is grounds for the revocation or modification of this license and may be grounds for enforcement action. The licensee shall inform EGLE's MMD Jackson District Supervisor, of any inaccuracies in the information in the Application upon discovery.
7. This license is issued based on EGLE's review of the Application, submitted by Consumers Energy Company, for the JR Whiting Solid Waste Disposal Area, dated August 8, 2019. The Application consists of the following:
 - a. Application Form EQP 5507.
 - b. Application fee in the amount of \$13,000.00.
 - c. Certification of construction: N/A
 - d. Waste Characterization: N/A

e. Restrictive Covenant:

- i. The June 1, 2000, restrictive covenant on 170.88 acres is on file at the Monroe County Register of Deeds recorded on August 20, 2000, as Liber 1936 pages 0705-0713. The June 1, 2000, Restrictive Covenant was amended by an "Affidavit of Correction" dated July 20, 2009, and filed on August 6, 2009, as liber 2009R14542, resulting in a corrected acreage of 180.88 acres. A copy is on file with EGLE.

- f. Perpetual Care Fund Agreement, established as a trust account, signed by Mr. Robert A. French, Senior Vice President, Consumers Energy Company on August 14, 1997, was executed by EGLE on September 23, 1997.

g. Financial Assurance.

i. Financial Assurance Required:

The amount of financial assurance required for this Facility was calculated based on the calculation worksheet form EQP 5507A entitled, "Form A, Financial Assurance Required," and is \$1,000,000.00.

The Facility has provided financial assurance totaling \$1,108,666.00, based on the requirements of Section 11523 of Part 115, consisting of a combination of the Perpetual Care Fund established under Section 11525 of Part 115, bonds, and the financial capability of the Applicant as evidenced by a financial test. The financial assurance mechanisms used by the Facility are summarized below in Items ii, iii, and iv, respectively.

ii. Financial Assurance Provided Via a Perpetual Care Fund:

The Perpetual Care Fund Agreement statement showed a balance of \$108,666.00 in the Facility's Perpetual Care Fund as of September 30, 2018. Of this amount, EGLE has granted the request to use \$108,666.00 toward the total amount of financial assurance required.

iii. Financial Assurance Provided Via Bond:

The following financial assurance has been received from the Applicant to meet the amount of financial assurance required:

Irrevocable Letter of Credit	\$1,000,000.00
Total Amount Received:	\$1,000,000.00

- 8. This previously "grandfathered" facility did not have a construction permit, but the following documents are incorporated in this license by reference:
 - a. Hydrogeological Investigation of Fly Ash Disposal Ponds, JR Whiting Plant, Keck Consulting Services, Inc., received by the EGLE on April 21, 1980.
 - b. Soil Boring Logs, February 1976, Soil and Materials Engineers, Inc.
 - c. Soil Boring Logs, June 1977, Soil and Materials Engineers, Inc.
 - d. Monitor Well Installation Report, Soil and Materials Engineers, Inc., dated March 26, 1979.
 - e. Soil Boring Logs, Material Testing Consultants, Inc., dated August 1988.
 - f. Hydrogeologic Work Plan, dated February 23, 1993, prepared by STS Consultants, Ltd.
 - g. Monitor Well Installation and Hydrogeological Report, dated August 12, 1993, prepared by STS Consultants, Ltd.

Licensee: Consumers Energy Company
Facility Name: JR Whiting Solid Waste Disposal Area
Operating License Number: 9601
Issue Date: May 11, 2020

- h. Hydrogeological Monitoring Plan, Consumers Power Company, dated October 1995, revised November 10, 1997, November 26, 1997, and February 25, 2020.
- i. Petition to Waive Groundwater Monitoring Requirements at J.R. Whiting Plant dated January 23, 1995, resubmitted on August 18, 2006, and approved on September 2, 2009.
- j. JR Whiting Solid Waste Disposal Area Engineering Plan (report) dated February 1, 1991, revised February 7, 1991, including the following attached engineering drawings:
 - (1) Whiting Plant Ash Dike Topo Ponds 1 & 2 (drawing No. SF 18514 sheet 1), dated December 28, 1990.
 - (2) Whiting Plant Ash Dike Topo Ponds 3, 4, & 5 (drawing No. SG 18514 sheet 1), dated December 28, 1990.
 - (3) Whiting Ash Dike Checks Pond # 6 (drawing No. S-G 17804 sheet 65), dated January 29, 1991.
 - (4) Plan and Sections of Fill Areas and Fields 1 & 2 (drawing No. 400-G-4022), dated July 6, 1983.
 - (5) Plant Site Layout J R Whiting Plan (drawing No. 400-G-1907 sheet 1A), dated May 8, 1974.
- k. J R Whiting Plant Area C West Dike Reconstruction - Transmittal of "As-Built" Field Notes and Drawings, dated March 3, 1994, with attached engineering drawing titled "Proposed 1992 Reconstruction Ash Field # 6 Plan, Sections and Details" sheet 3 revision 1, dated September 25, 1992.
- l. Final Closure Plan for Ash Ponds 3, 4, and 5, dated July 19, 2002.
- m. Final Closure Plan for Ash Ponds 3, 4, and 5, revision dated February 18, 2005.
- n. Construction Certification Consumers Energy Company, JR Whiting Plant Ash Disposal Area Final Cover System for Ash Ponds 3, 4, and 5, 2004 and 2005 Closures, dated December 2005.
- o. Final closure system report for Ash Ponds 3, 4, and 5, dated March 17, 2008, as approved by EGLE letter dated July 17, 2009.
- p. Final Cover System Report for Ash Pond 6 dated March 17, 2008.
- q. Construction Certification Consumers Energy JR Whiting Plant Ash Disposal Area, Ponds 3, 4, and 5, dated March 2008.
- r. Construction Certification Consumers Energy JR Whiting Plant Ash Disposal Area, Ponds 3, 4, and 5, dated January 2009.
- s. Construction Certification Consumers Energy JR Whiting Plant Ash disposal Area, Ponds 3, 4, and 5, dated December 17, 2010, revised October 18, 2016.
- t. Construction Certification Consumers Energy JR Whiting Plant Ash Disposal Area, Ponds 3, 4, and 5, dated May 16, 2014,
- u. Construction Certification Consumers Energy JR Whiting Plant Ash Disposal Area, Ponds 3, 4, and 5, dated January 27, 2015.
- v. Construction Certification Consumers Energy JR Whiting Plant Ash Disposal Area, Pond 6, dated December 2017.
- w. Fugitive Dust Control Plan for Coal Combustion Residuals, JR Whiting Plant, dated December 3, 2018.
- x. Inflow Design Flood Control System Plan, Ponds 1 & 2, JR Whiting Plant, dated October 13, 2016.
- y. Emergency Action Plan for Coal Combustion Residuals Unit, JR Whiting Facility, dated June 18, 2019.

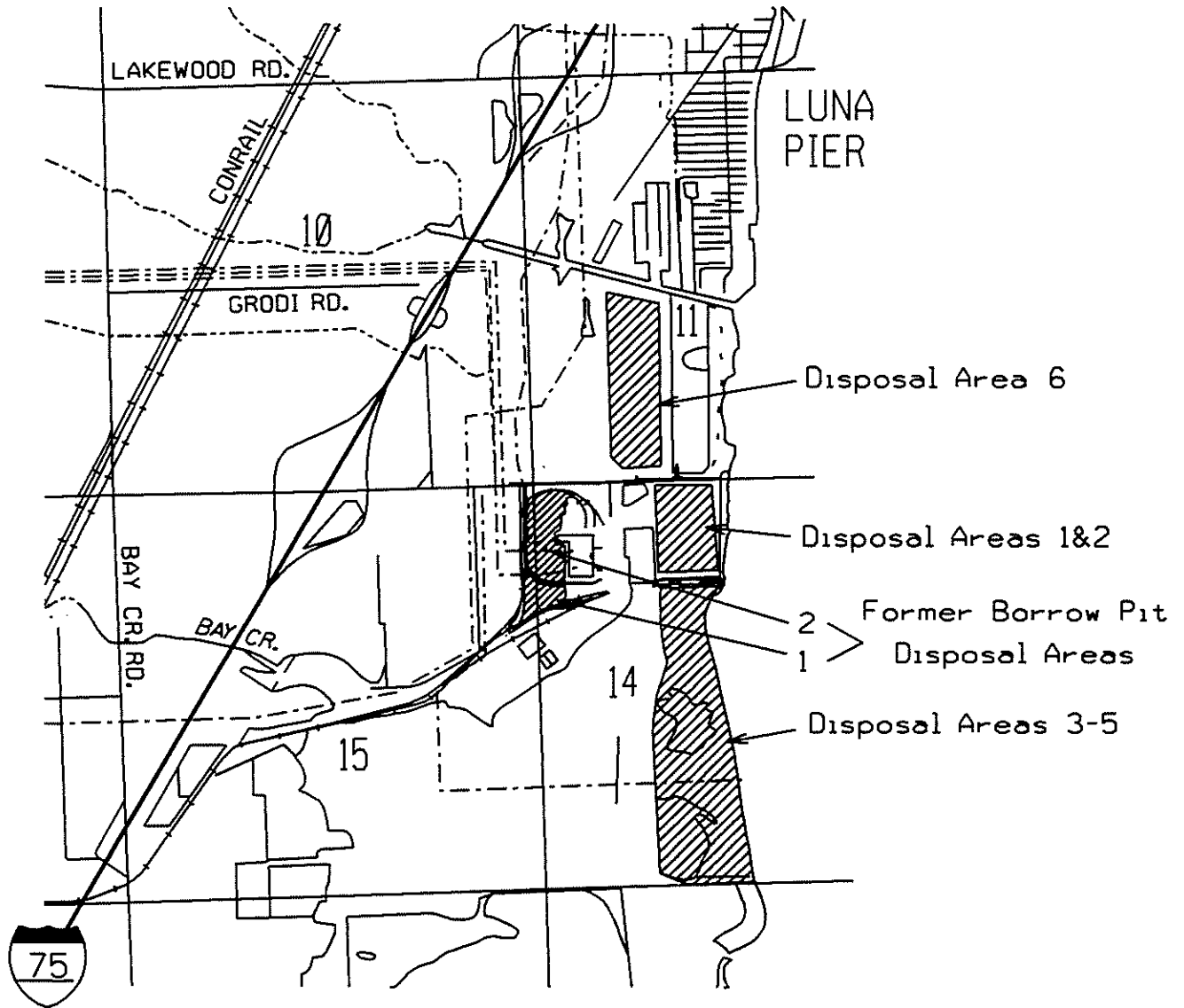
Licensee: Consumers Energy Company
Facility Name: JR Whiting Solid Waste Disposal Area
Operating License Number: 9601
Issue Date: May 11, 2020

9. The following additional documents, approved since the issuance of the construction permit(s) referenced in Item 8, are incorporated in this license by reference: N/A
10. Consent Order/Judgment Number: N/A
11. The licensee shall repair any portion of the certified liner or leachate collection system that is found to be deficient or damaged during the term of this license unless determined otherwise by EGLE.
12. The licensee shall have repairs to any portion of the certified liner or leachate collection system recertified by a registered professional engineer in accordance with R 299.4921 of the Part 115 Rules and approved by EGLE before receiving waste in that portion of the certified liner or leachate collection system. The licensee shall submit the recertification to EGLE's MMD Jackson District Supervisor, for review and approval.
13. The licensee shall conduct hydrogeological monitoring in accordance with the approved hydrogeological monitoring plan, dated February 2020. The sampling analytical results shall be submitted to EGLE's MMD Jackson District office.
14. Modifications to the approved hydrogeological monitoring plan referenced in Item 13 may be approved, in writing, by EGLE's MMD Jackson District Supervisor. Proposed revisions must be submitted in a format specified by EGLE.
15. Leachate may be recirculated if a leachate recirculation plan has been approved, in writing, by EGLE's MMD Jackson District Supervisor.
16. Modifications to approved engineering plans that constitute an upgrading, as defined in R 299.4106a(l) of the Part 115 Rules, may be approved, in writing, by EGLE's MMD Jackson District Supervisor.
17. Requests for alternate daily cover may be approved, in writing, by EGLE's MMD Jackson District Supervisor.
18. Leakage Control Criteria:

This Type III Facility is a monitorable unit and, therefore, does not need to be in compliance with the leakage control criteria of R 299.4422 of the Part 115 Rules.
19. **VARIANCES:** The licensee is granted the following variance(s) from Part 115 and/or the Part 115 Rules: None.
20. **SPECIAL CONDITIONS:** N/A
21. **TERM:** This license shall remain in effect until its expiration date, unless revoked or continued in effect, as provided by, the Administrative Procedures Act, 1969 PA 306, as amended, or unless superseded by the issuance of a subsequent license.

END OF LICENSE

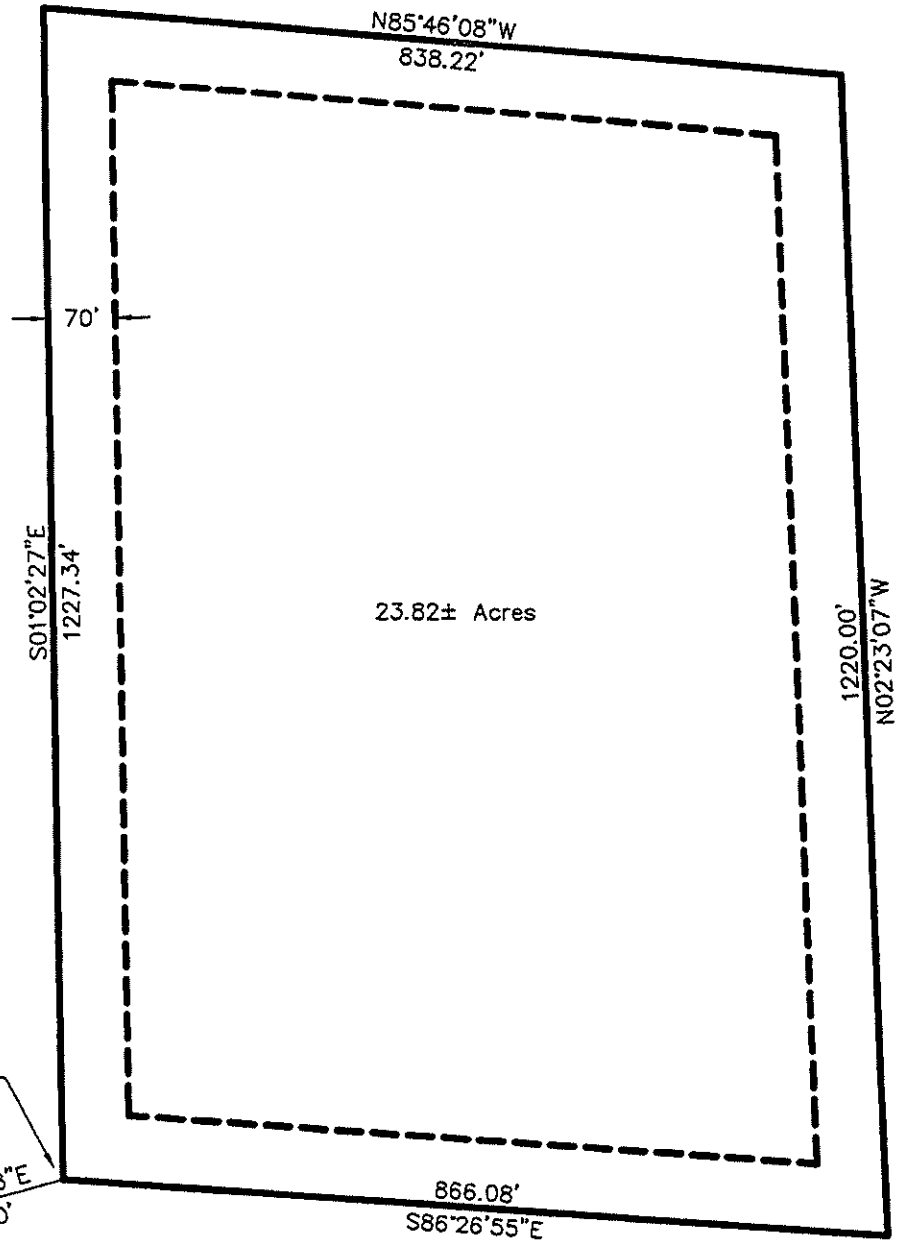
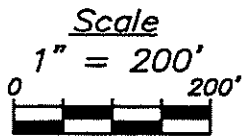
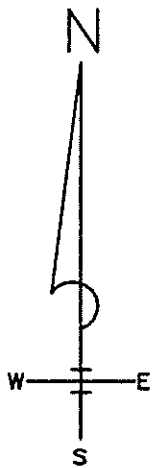
*Whiting Plant - Disposal Areas #1 - #6
(Coal Ash, Type III)
Sec. 14, T8S, R8E
City of Luna Pier, Monroe County, Michigan
Page 1 of 6*



JOB #:
DRAWN : REC
DATE : 5-12-00
SCALE : 1" = 2200'
PAGE : 1 of 6



Whiting Plant – Disposal Areas #1 & #2
 Sec. 14, T8S, R8E
 City of Luna Pier, Monroe County, Michigan



P.O.B.

N74°13'38"E
 206.90'

Approximate C/L Intersection of
 Overhead Pipe Rack & Intake Structure
 (C.P. #1 20000,20000)

Legend

- Facility Boundary & Covenant Boundary
- - - Solid Waste Boundary

Coordinate Basis

Assumed North 20,000 & East 20,000
 on Control Point #1 Located on Overhead Pipe Rack
 at Approximate Center of Intake Structure

Revised – 5/30/00 – Changed
 Municipality to Luna Pier

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 CE FILE NAME: 19112001.DWG

JOB # : 2000.2122

DRAWN : SSC

DATE : 5-12-00

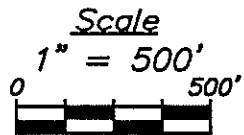
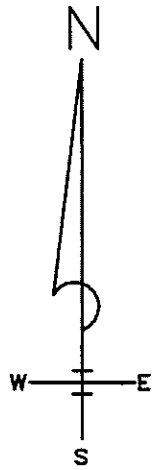
SCALE : 1" = 200'

PAGE : 2 OF 6

Consumers Energy

Whiting Plant – Disposal Areas #3, #4 & #5
Sec. 14, T8S, R8E
City of Luna Pier, Monroe County, Michigan

Approximate C/L Intersection of
 Overhead Pipe Rack & Intake Structure
 (C.P. #1 20000,20000)

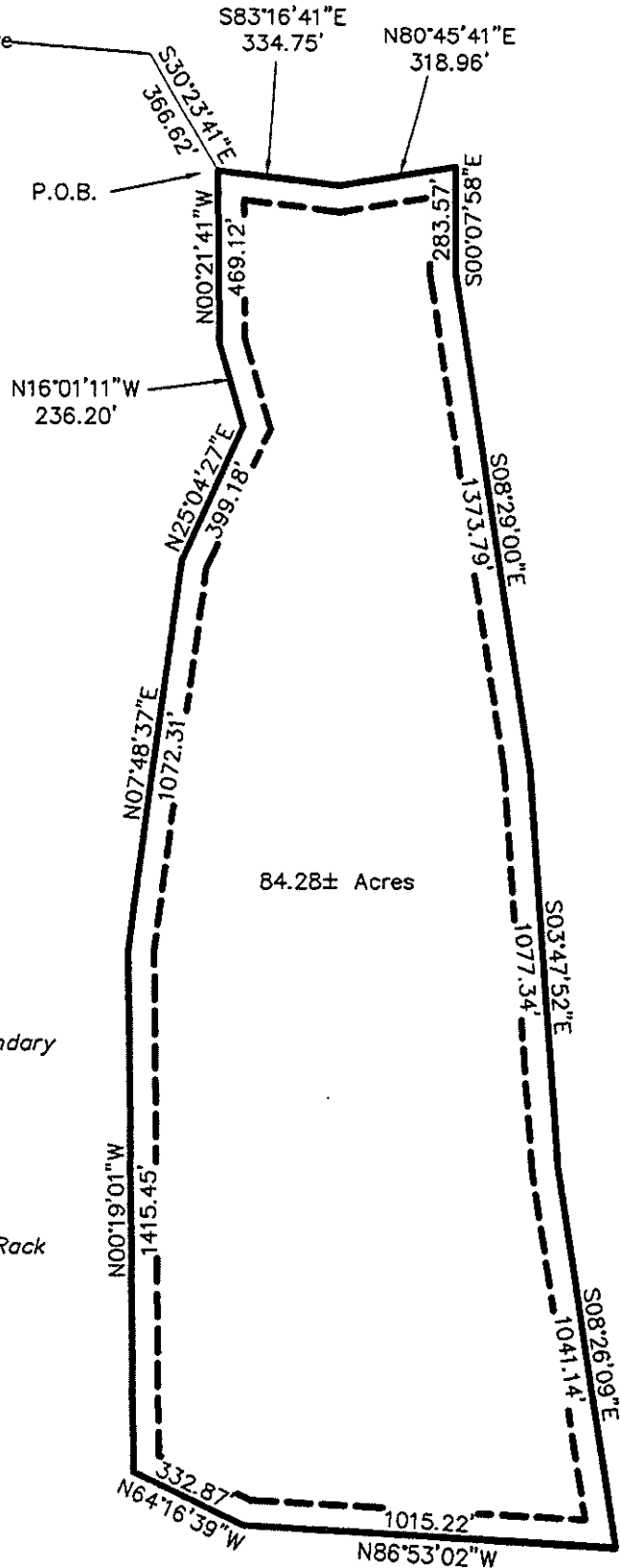


Legend

- Facility Boundary & Covenant Boundary
- Solid Waste Boundary

Coordinate Basis

Assumed North 20,000 & East 20,000
 on Control Point #1 Located on Overhead Pipe Rack
 at Approximate Center of Intake Structure



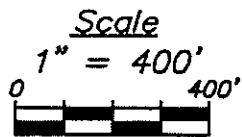
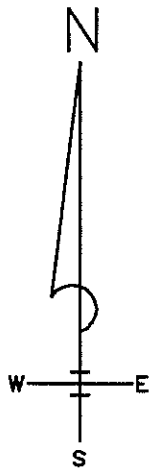
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Revised – 5/30/00 – Changed
 Municipality to Luna Pier

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SCALE : 1" = 500'
PAGE : 3 OF 6

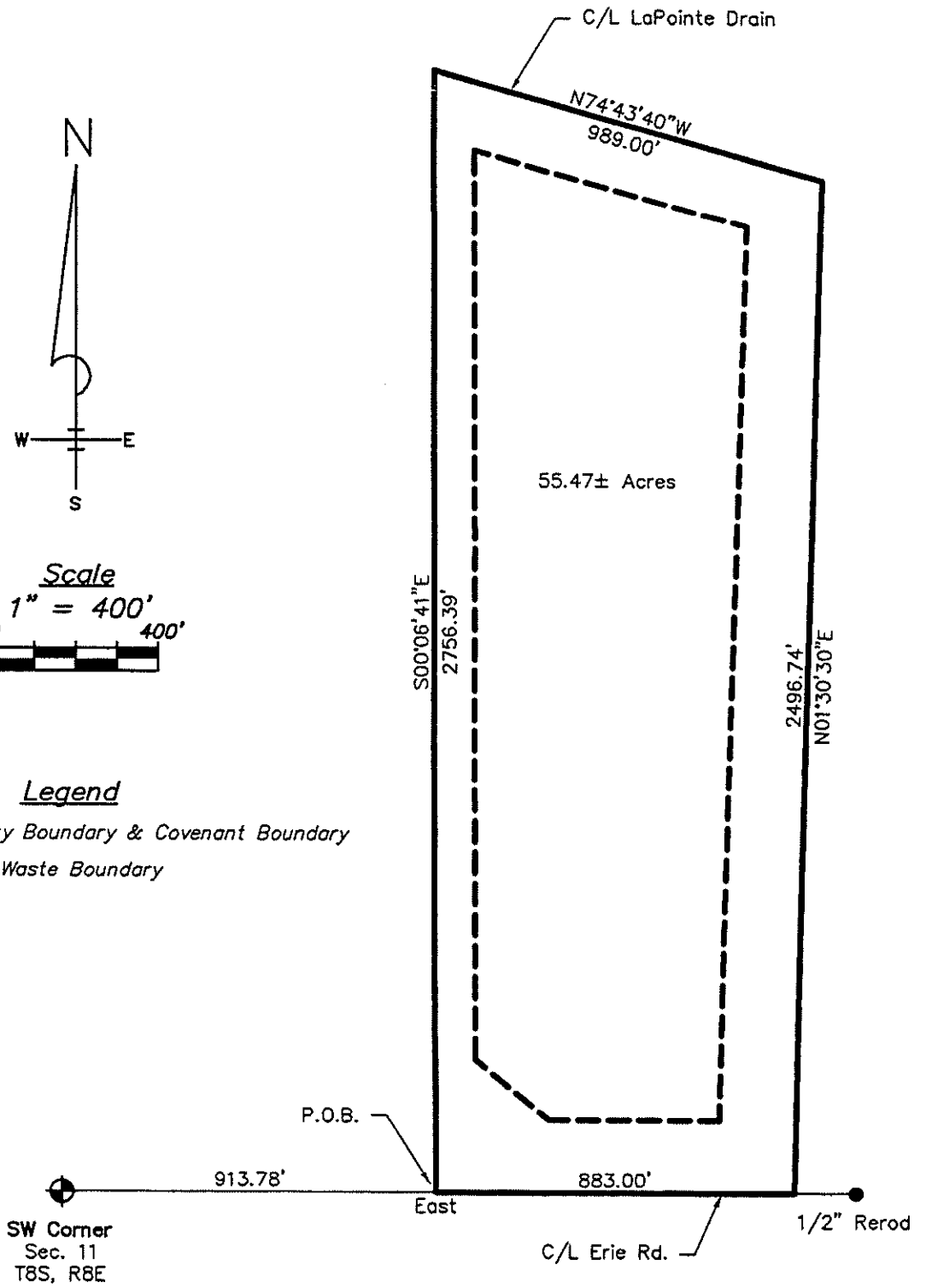


Whiting Plant - Disposal Areas #6
 Sec. 11, T8S, R8E
 City of Luna Pier, Monroe County, Michigan



Legend

- Facility Boundary & Covenant Boundary
- Solid Waste Boundary



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 CE FILE NAME: 1912003.DWG

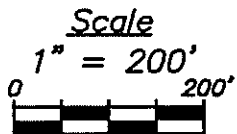
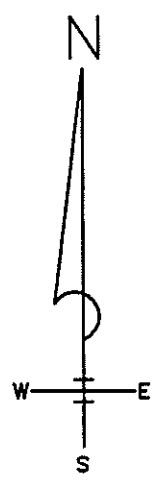
Revised - 5/30/00 - Changed
 Municipality to Luna Pier

JOB # : 2000.2125
DRAWN : SSC
DATE : 5-12-00
SCALE : 1" = 400'
PAGE : 4 OF 6



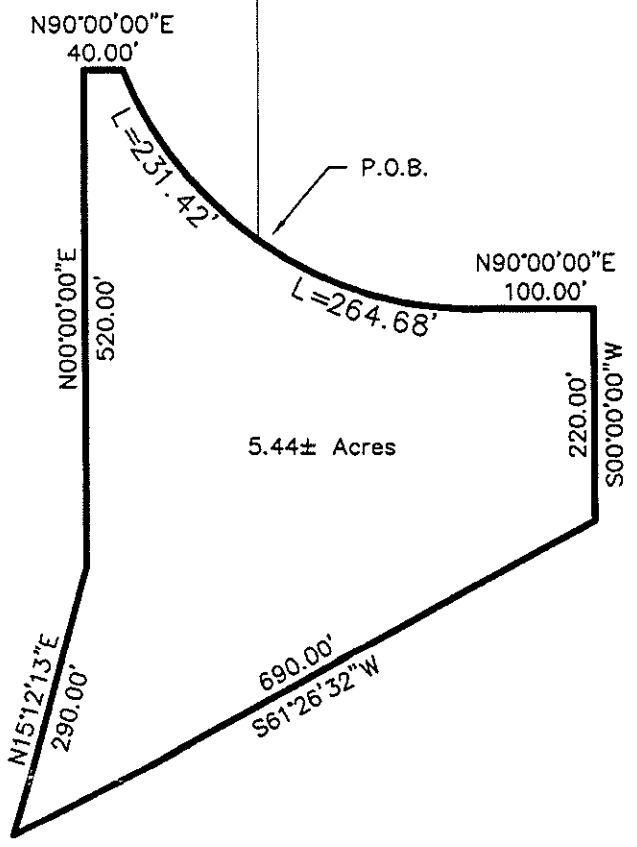
Whiting Plant – Borrow Pit Area #1
 Sec. 14 & 15, T8S, R8E
 City of Luna Pier, Monroe County, Michigan

NW Corner
 Sec. 14
 T8S, R8E



Legend

--- Facility Boundary & Covenant Boundary &
 Solid Waste Boundary



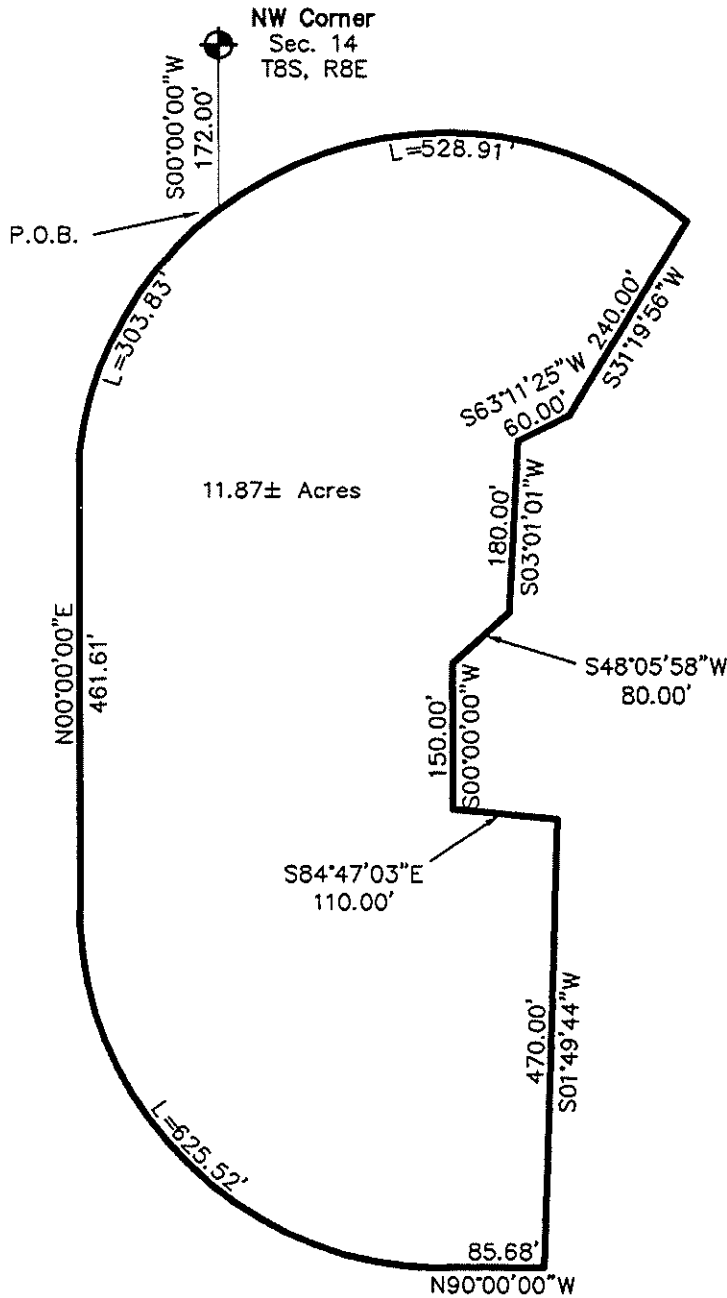
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Revised – 5/30/00 – Changed
 Municipality to Luna Pier

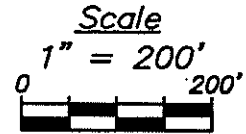
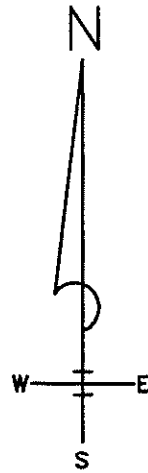
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SCALE :	1" = 200'
PAGE :	5 OF 6



*Whiting Plant – Borrow Pit Area #2
 Sec. 14 & 15, T8S, R8E
 City of Luna Pier, Monroe County, Michigan*



11.87± Acres



Legend

—— Facility Boundary & Covenant Boundary & Solid Waste Boundary

SSC FILE NAME: 2123SK2.DWG
 CE FILE NAME: 19112005.DWG

Revised – 5/30/00 – Changed Municipality to Luna Pier

JOB # : 2000.2123B

DRAWN : SSC

DATE : 5-15-00

SCALE : 1" = 200'

PAGE : 6 OF 6

Consumers Energy