ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

VISUAL SITE INSPECTION REPORT – 2021

HOOSIER ENERGY
RURAL ELECTRIC COOPERATIVE, INC.
MEROM GENERATING STATION
AREA 3 RESTRICTED WASTE LANDFILL
MEROM, INDIANA

ATC PROJECT NO. 170LF01152

OCTOBER 21, 2021

PREPARED FOR:

HOOSIER ENERGY RURAL ELECTRIC COOPERATIVE, INC.
MEROM GENERATING STATION
5500 WEST OLD HIGHWAY 54
SULLIVAN, IN 47882
ATTENTION: MR. LON PETTS

October 21, 2021

Mr. Lon Petts
Hoosier Energy Rural Electric Cooperative, Inc.
Merom Generating Station
5500 West Old Highway 54
Sullivan, IN 47882

ATC Group Services LLC

7988 Centerpoint Dr.
Suite 100
Indianapolis, IN 46256

Phone **+1 317 849 4990**
Fax +1 317 849 4278

www.atcgroupservices.com

Re: Visual Site Inspection Report – 2021
Merom Generating Station
Area 3 Type I Restricted Waste Landfill
Sullivan, Indiana
ATC Project No. 170LF01152

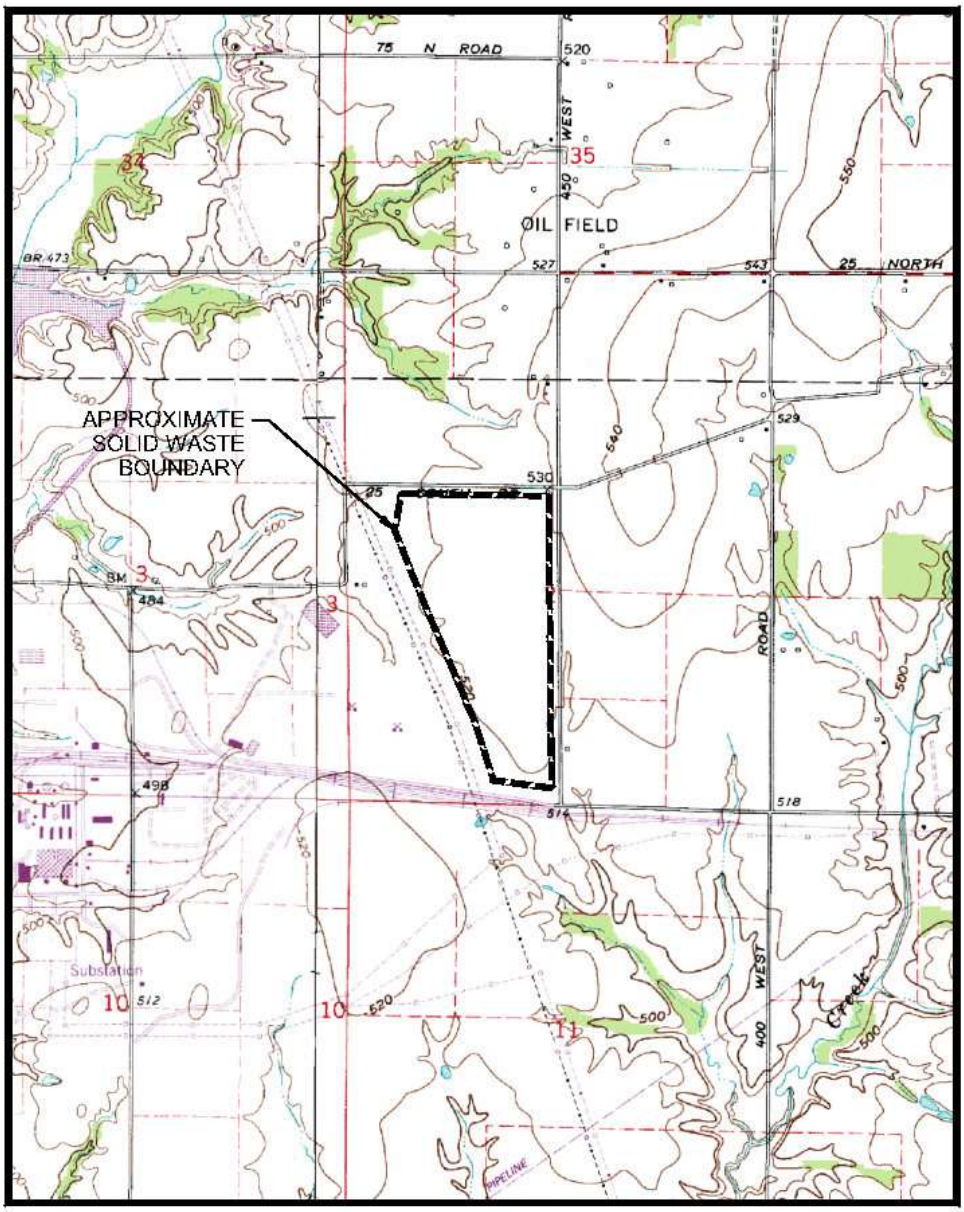
Dear Mr. Petts:

This report summarizes our 2021 Visual Site Inspection of the Area 3 Type I Restricted Waste Landfill at the Merom Generating Station. This visual inspection was conducted in accordance with guidelines established by the Coal Combustion Residuals (CCR) Rule published by the Environmental Protection Agency on April 17, 2015.

This inspection was limited to a visual examination of readily observable surficial features of the landfill and its appurtenant structures, and a review of available site information. Please note that the inspection did not include any test drilling, testing of materials, precise physical measurements of landfill features, detailed calculations to verify slope stability or other engineering analyses. Although the inspection was conducted by competent personnel in accordance with generally accepted methods for inspecting landfills, it should not be considered a warranty or guaranty of the future performance and/or safety of the landfill.

The Merom Area 3 Type I Restricted Waste (RWS I) Landfill is located in Sullivan County, Indiana in Section 2 of Gill Township and within Township-7-North/Range-10-West about 1.4 miles east of Turtle Creek Reservoir and about 4.2 miles east of the Wabash River as shown on Figure 1.

The landfill inspection was completed on September 21, 2021 by Juan Carrizo and William Paraskevas of ATC Group Services LLC (ATC). The weather conditions during the inspection was approximately 69ºF and rainy. Documentation of inspection items can be found below and on the corresponding Site Plans in Appendix A.



H:\2021\HOOSIER ENERGY\MEROM\170LF01152\170LF01152-VIC.DWG, FIG1

VICINITY MAP

AREA 3 RESTRICTED WASTE LANDFILL
MEROM GENERATING STATION

Project Number: 170LF01152		Dsn. By: BH
Date: 09/30/2021	Scale: 1":2,000'	Ckd. By: JC
ATC		1

Coal Combustion Residuals Rule Landfill Requirements/Observations

This visual inspection addresses a portion of the requirements of the CCR Rule instituted by the Environmental Protection Agency on April 17, 2015. As a result, CCR Landfills must meet the requirements of 40 C.F.R. §257 including annual inspections of the landfill in accordance with 40 C.F.R. §257.84(b). The requirements specified within the CCR Rule and the observations made by Michael Thornbrue and William Paraskevas during the annual inspection are listed below:

40 C.F.R. §257.84

(b) Annual inspections by a qualified professional engineer.

(1) Existing and new CCR landfills and any lateral expansion of a CCR landfill must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include:

(i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., the results of inspections by a qualified person, and results of previous annual inspections); and

The 2021 annual inspection of the Merom Area 3 RWS I Landfill was conducted by the undersigned professional engineer(s) on September 21, 2021. Prior to the inspection, design plans were reviewed by the undersigned.

(ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit.

The inspection conducted on September 21, 2021 did not reveal any immediate signs of failure for the landfill. However, there are areas that require ongoing maintenance.

(2) Inspection report. The qualified professional engineer must prepare a report following each inspection that addresses the following:

(i) Any changes in geometry of the structure since the previous annual inspection;

At this time, Cell 1 and Cell 2, are constructed, with Cell 2 actively receiving CCR waste.

(ii) The approximate volume of CCR at the time of the inspection;

The approximate volume of CCR in the landfill is about 3,791,504 cubic yards.

(iii) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit; and

There were no signs of structural weakness noted within the permitted solid waste boundary at the time of this visual inspection.

(iv) Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.

None noted at the time of this inspection.

Coal Combustion Residuals Landfill Observations/Recommendations

This section provides additional details regarding the landfill inspection completed on September 21, 2021. The observation locations and the landfill system features are shown on Figure 2 in Appendix A.

The landfill system was divided into the following components to help organize the inspection and the reporting:

- Cell 1 and Cell 2; and
- Area 3 Sedimentation Pond.

The following paragraphs include a summary of the observations made during the inspection followed by our recommendations in bold print. Note that no final cover has been placed on Cell 1 or Cell 2, no partial closure has taken place, and a soil cover has been placed on Cell 1 and the east side of Cell 2.

Cell 1 and Cell 2 – Observations/Recommendations

The following list describes the items noted during the visual inspection of this area.

1) The north and east exterior slopes of Cell 1 and the east exterior slope of Cell 2 are generally well graded with established and maintained vegetation as observed at Locations 1, 3 and 4.

   Recommendation: None at this time.

2) At Location 2 near the northeast corner of Cell 2 the inspection noted sparse vegetation on the exterior slope of Cell 2.

   Recommendation: Monitor vegetation growth and reseed as necessary.

3) At Location 5 along perimeter concrete ditch on the west side of Cell 1 the inspection noted minor amount of sediments on the concrete lined ditch, it is still within acceptable levels.

   Recommendation: None at this time.

4) At Locations 6, 7, 8, 9, and 16 on the west side of Cell 1 the inspection noted sparse vegetation on the intermediate cover placed on the exterior slope of Cell 1 that is contributing to rill erosion.

   Recommendation: Fill the erosion rills, and reseed as needed to prevent further erosion.

5) At Locations 10, 11, and 17, on the south side of Cell 1, the inspection noted sparse vegetation on the intermediate cover placed on the exterior slope of Cell 1 that is contributing to rill erosion.

   Recommendation: Fill the erosion rills, and reseed as needed to prevent further erosion.

6) At Locations 12 and 22, on the west sides of Cell 1 and Cell 2 respectively, the inspection noted sparse vegetation on the exterior slope.

   Recommendation: Monitor vegetation growth and reseed as necessary.

7) As indicated at Locations 13 and 14, at the access ramp on the north side of Cell 1, the inspection noted sparse vegetation that is contributing to rill erosion.

   Recommendation: Reseed as necessary to establish vegetation however, it may be difficult in high traffic areas. If vegetation growth does not establish, consider adding a gravel layer to the access ramp to prevent erosion.

8) At Location 15 on the top corner of the southeast side of Cell 1, the inspection noted overgrown vegetation at entrance to downdrain pipe.

   Recommendation: Remove vegetation and place riprap around pipe entrance to facilitate proper drainage.

9) At Locations 18, 19, and 20 on the top section of Cell 1 the inspection noted sparse vegetation on the intermediate cover that is contributing to rill erosion.

   Recommendation: Fill the erosion rills, and reseed as needed to prevent further erosion.

10) At Location 23 along the northwest side of Cell 1, the inspection noted accumulated sediment deposits on the north side of concrete lined pond.

    Recommendation: Remove accumulated sediments.

11) At Locations 24, view of CCR material placement on the southwest side of Cell 2, no issues observed.

    Recommendation: None at this time.

12) At Locations 25 and 26 along the west side of Cell 2, the inspection noted accumulated CCR material on that section of the perimeter concrete ditch.

    Recommendation: Remove accumulated CCR sediments and install sediment control measures at the source to help settle out sediment material within Cell 2 and prevent it from spilling over into the concrete ditch.

13) At Location 27 entrance driveway culvert on the southwest corner of active Cell 2, the inspection noted there is sediment accumulation on the upstream of the pipe. The pipe is functioning properly as the sediments do not impeding drainage flows.

    Recommendation: Monitor sediment accumulation at this time.

Area 3 Sedimentation Basin - Observations/Recommendations

The following list describes the items noted during the visual inspection of this area.

1) At Locations 28 and 29 on the east side of the West Sediment Basin the inspection noted that the pond is generally in good condition and maintaining adequate freeboard.

   Recommendation: None at this time.

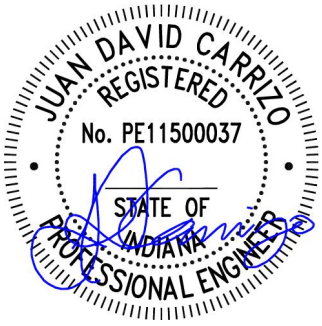
We appreciate the opportunity to assist you with this project. If you have any questions concerning information contained in this report, please do not hesitate to call either of the undersigned at 317.849.4990.

Sincerely,

ATC Group Services LLC

Juan D. Carrizo, P.E.
Senior Project Engineer

William Paraskevas, P.E.
Principal Engineer



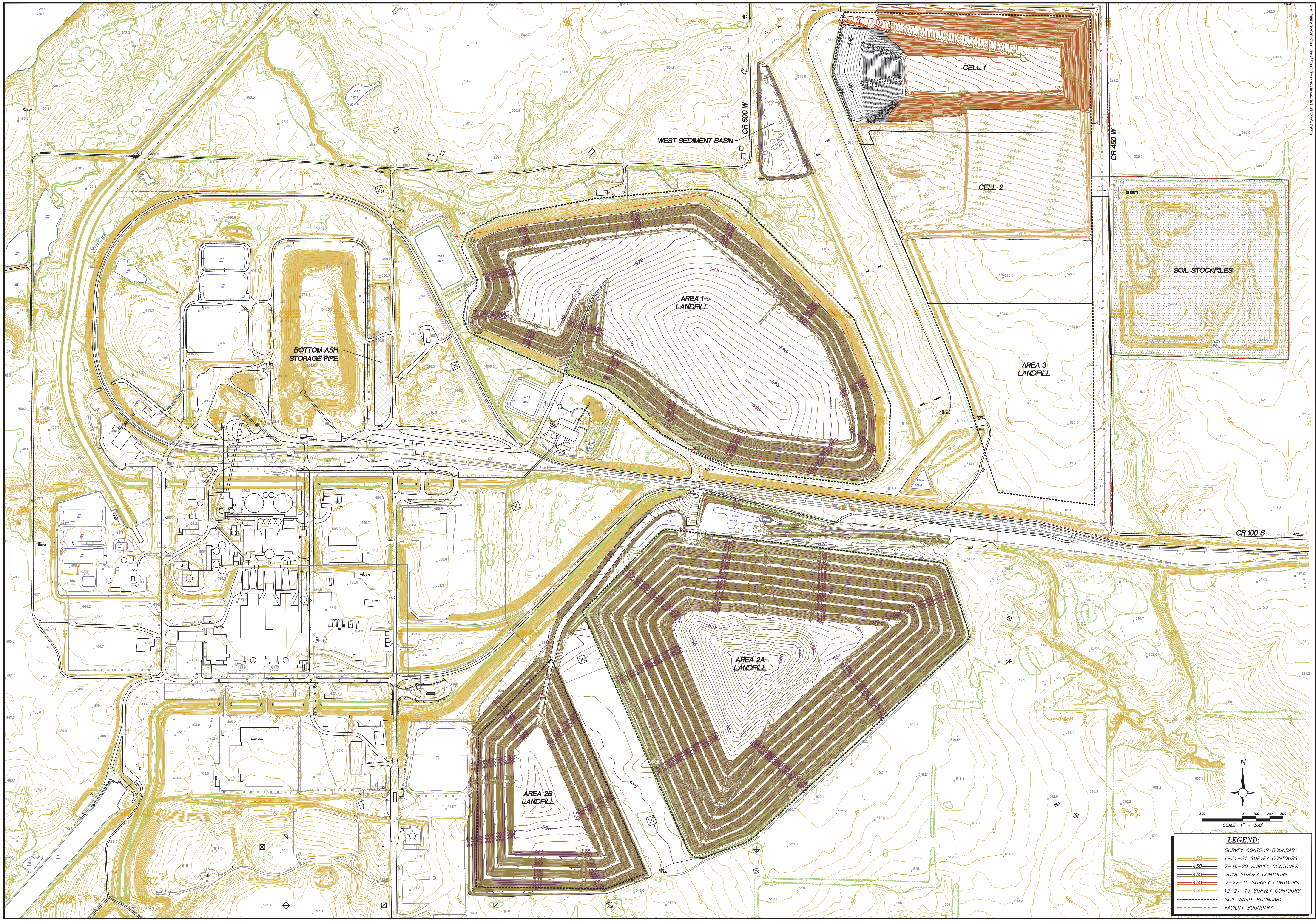
10-21-2021

Copies: (2) Lon Petts – Hoosier Energy
(1) Kyle Eslinger – Hoosier Energy

Appendices

Appendix A: Site Plan

Appendix A: Site Plans



Revision:

Project Number: 170LF00629
Drawing File: SEE LOWER LEFT
Date: 12/2020
Scale: AS SHOWN
App'd By: DS | Ckd. By: MT | Drn. By: BH

Company Name:
HOOSIER ENERGY
MEROM GENERATING STATION
SULLIVAN COUNTY, INDIANA

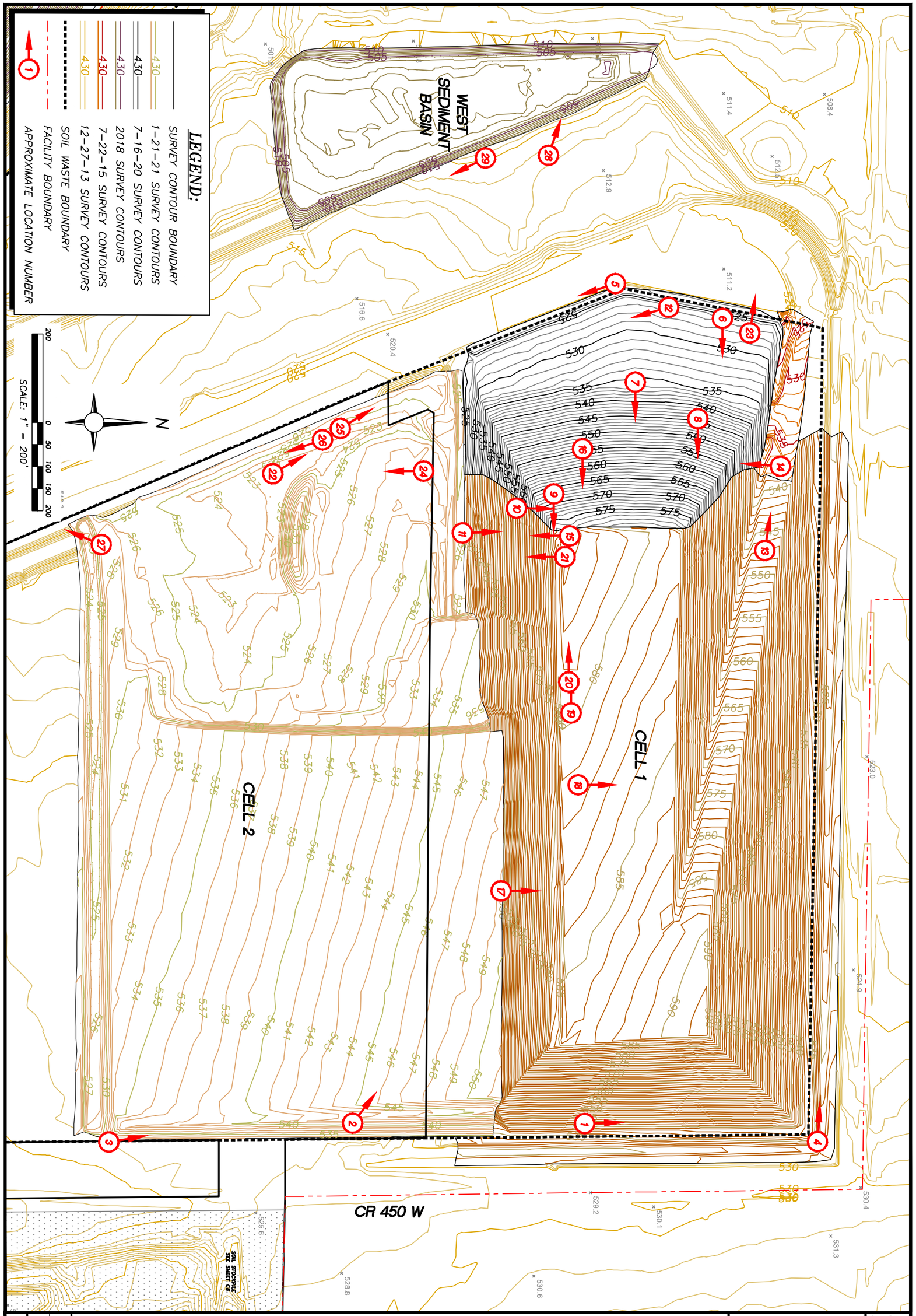
ATC GROUP SERVICES LLC
7988 CENTERPOINT DR.
SUITE 100
INDIANAPOLIS, IN 46256
PHONE +1 317 849 4990
FAX +1 317 849 4278
WWW.ATCGROUPSERVICES.COM

ATC

Drawing Title:
FACILITY SITE PLAN
OVERALL SITE MAP
HOOSIER ENERGY MEROM GENERATING STATION

Sheet:
1

H:\2021\HOOSIER ENERGY\MEROM\170LF01152\170LF01152-PHOTO LOC 10.21.DWG, 11X17L



OBSERVATION LOCATION PLAN

AREA 3 RESTRICTED WASTE LANDFILL
2021 INSPECTION
HOOSIER ENERGY
MEROM GENERATING STATION

Figure: 2	
Scale: AS SHOWN	
Date: 10/2021	
Project Number: 170LF01152	Drn. By: BH
Drawing File: SEE LOWER LEFT	Ckd. By: MT
ATC	App'd By:
	Ckd. Date: