



INDIANA-KENTUCKY ELECTRIC CORPORATION

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WRITER'S DIRECT DIAL NO:
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January 18, 2021

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Bruno Pigott
Commissioner
Indiana Department of Environmental Management
100 N. Senate Avenue
Mail Code 50-01
Indianapolis, IN 46204-2251

**Re: Indiana-Kentucky Electric Corporation
Clifty Creek Station
Notification of CCR Rule Information Posting
Annual Certified CCR Surface Impoundment Inspection Report**

Dear Mr. Pigott:

As required by 40 CFR 257.106(g), the Indiana-Kentucky Electric Corporation (IKEC) is providing notification to the Commissioner (State Director) of the Indiana Department of Environmental Management that a qualified professional engineer has completed the Annual CCR Surface Impoundment Inspection in accordance with 40 CFR 257.83(b) for IKEC's Clifty Creek Station. The inspection report has been placed in the facility's Operating Record, as well as on the company's publically accessible internet site.

This information can be viewed on IKEC's publicly accessible internet site at:
<http://www.ovec.com/CCRCompliance.php>

If you have any questions, or require any additional information, please call me at (740) 897-7768.

Sincerely,

A handwritten signature in black ink that reads "Tim Fulk".

Tim Fulk
Engineer II

TLF:klr

2020 ANNUAL DAM AND DIKE INSPECTION REPORT

**West Boiler Slag Pond
& Landfill Runoff Collection Pond**

**CLIFTY CREEK PLANT
Indiana-Kentucky Electric Corporation
MADISON, INDIANA**

December 19, 2020

Prepared for: Indiana-Kentucky Electric Corporation
3932 U.S. Route 23
P.O. Box 468
Piketon, Ohio 45661

Prepared by: American Electric Power Service Corporation
1 Riverside Plaza
Columbus, OH 43215



Document ID: GERS-20-041


**2020 Dam & Dike Inspection Report
West Boiler Slag Pond &
Landfill Runoff Collection Pond**

GERS-20-041

REVISION 0

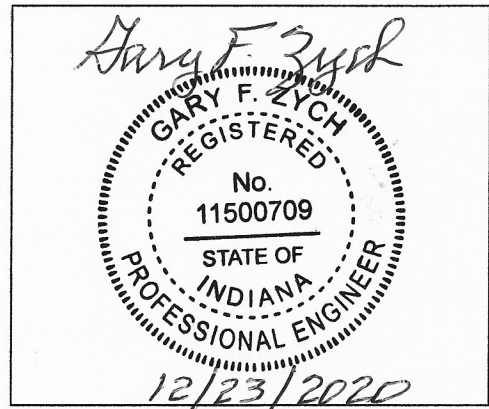
**CLIFTY CREEK PLANT
MADISON, INDIANA**

INSPECTION DATE: December 09, 2020

PREPARED BY:  **DATE** 12-16-2020
Shah S. Baig, P.E.

REVIEWED BY: Brett A. Dreger **DATE** 12/22/2020
Brett A. Dreger, P.E.

APPROVED BY: Gary F. Zych **DATE** 12/23/2020
Gary F. Zych, P.E.
Manager - Geotechnical Engineering



**PROFESSIONAL ENGINEER
SEAL & SIGNATURE**

I certify to the best of my knowledge, information and belief the information contained in this report meets the requirements of 40 CFR § 257.83(b).

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1.0 INTRODUCTION

This report was prepared by AEP- Geotechnical Engineering Services (GES) section, in part, to fulfill requirements of 40 CFR 257.83 and the Indiana Department of Natural Resource (IDNR), Division of Water and to provide Indiana-Kentucky Electric Corporation (IKEC) and Clifty Creek Station with an evaluation of the facility.

American Electric Power Service Corporation's Civil Engineering Division administers the Clifty Creek Station Dam Inspection and Maintenance Program (DIMP). As part of the DIMP, staff from the GES annually conducts dam and dike inspections. This report contains the inspection findings, observations, photographic descriptions, conclusions, and maintenance recommendations. This inspection report addresses the West Boiler Slag Pond (WBSP) (Previously known as West Bottom Ash Pond), and Landfill Runoff Collection Pond (LRCP) (Previously known as Fly Ash Pond) at the Clifty Creek Station. The East Bottom Ash Pond (EBAP) is no longer active for ash storage and waste water treatment. The EBAP was drained, backfilled and closed converted to a surface water collection pond in the 2014. These containment facilities are illustrated on Figure 1 at Appendix A.

Mr. Danny Hunt, Plant Engineer, Clifty Creek Station is responsible for the onsite management and inspection activities related to the ponds. Mr. Dalton Barnes of Clifty Creek Station was present during this inspection. The inspection was performed on December 9, 2020 by Shah Baig, P.E. of AEP Geotechnical Engineering. Weather conditions were sunny, light breeze, with temperatures ranging from the lower 40s (⁰F) in the morning to the upper 50s (⁰F) in the afternoon, with good visibility.

2.0 DESCRIPTIONS OF IMPOUNDMENTS

2.1 WEST BOILER SLAG POND

The WBSP (Figure 1) is located southwest of the station. It is formed by natural grade to the north, east, and west and an embankment dam on the south that runs along the bank of the Ohio River. The WBSP serves as a settling basin for sluiced bottom ash produced at the station and receives stormwater runoff from approximately 510 acres. The WBSP is used for the storage of bottom ash generated from all six generating Units. It consists of a single dike that is approximately 2,000 feet long and is approximately 35 feet high. The crest is at elevation 470.0 feet. The pond contains two primary areas: the eastern portion near the sluice pipes that is actively dredged for the recovery of material, and a western portion with minimal deposition or dredging activities. A vegetation delta separates the two areas acting as a natural filtering zone. The pond discharges to the Ohio River through a principal spillway and permitted Outfall #002 located at the southern edge of the impoundment.

2.2 LANDFILL RUNOFF COLLECTION POND (LRCP)

The LRCP is located at the southern edge of the station. It is bordered by the station's coal combustion residuals (CCR) landfill to the north, natural grade to the east and west, and by an embankment dam to the south that runs along the bank of the Ohio River.

The LRCP dam is a cross valley dam located on a no-named tributary to the Ohio River. The dam is approximately 1,025 feet long and has a maximum height of 75 feet. The crest is at elevation 505.0 feet. Currently, the facility functions as the stormwater and leachate collection pond for the CCR landfill, and discharges to the Ohio River through a NPDES-permitted Outfall #001.

Approximately 508 acres of both landfill contact water and stormwater runoff drain to the LRCP. Upon the completion of the CCR landfill, the area draining to the LRCP will be reduced to approximately 443 acres.

3.0 REVIEW OF AVAILABLE INFORMATION (257.83(b)(1)(i))

In addition to the current visual inspection, a review of available information regarding the status and condition of the WBSP and the LRCP including files available in the operating record was conducted. Available information consists of design and construction information, previous structural stability assessments, previous 7 day inspection reports, and previous annual inspection reports was conducted. Based on the findings of the current visual inspection and a review of the available data it is concluded that there were no signs of actual or potential structural weakness or adverse conditions and the facility is performing as intended in the design documents.

4.0 INSPECTION (257.83(b)(1)(ii))

4.1 General

The summary of the visual observations uses terms to describe the general appearance or condition of an observed item, activity or structure. Their meaning is understood as follows:

- | | |
|-----------------------|--|
| Good: | A condition or activity that is generally better or slightly better than what is minimally expected or anticipated from a design or maintenance point of view. |
| Fair or Satisfactory: | A condition or activity that generally meets what is minimally expected or anticipated from a design or maintenance point of view. |
| Poor: | A condition or activity that is generally below what is minimally expected or anticipated from a design or maintenance point of view. |
| Minor: | A reference to an observed item (e.g., erosion, seepage, vegetation, etc.) where the current maintenance condition is below what is normal or desired, but which is not currently causing concern from a structure safety or stability point of view. |
| Significant: | A reference to an observed item (e.g. erosion, seepage, vegetation, etc.) where the current maintenance program has neglected to improve the condition. Usually, conditions that have been previously identified in the previous inspections, but have not yet been corrected. |
| Excessive: | A reference to an observed item (e.g., erosion, seepage, vegetation, etc.) where the current maintenance condition is below or worse than what is normal or desired, and which may have affected the ability of the observer to properly evaluate the structure or particular area being observed or |

which may be a concern from a structure's safety or stability point of view.

In addition, a "deficiency" is some evidence that a dam or dike has developed a condition that could impact the structural integrity of the impoundment. There are four general categories of deficiencies. These four categories are described below:

1. Uncontrolled Seepage

Uncontrolled seepage is seepage that is not behaving as the design engineer has intended. An example of uncontrolled seepage is seepage that comes through or around the embankment and is not collected and safely carried off by a drain. Seepage that is collected by a drain can still be uncontrolled, if it is not safely transported, such as seepage that is not clear. Seepage that is unable to be measured and/or observed is considered uncontrolled seepage.

[Wet or soft areas are not considered uncontrolled seepage, but they can lead to this type of deficiency. These areas should be monitored frequently.]

2. Displacement of the Embankment:

Displacement is a large scale movement of part of the dam. Common signs of displacement are cracks, scraps, bulges, depressions, sinkholes and slides.

3. Blockage of Water Control Appurtenances

Blockage of water Control Appurtenances is the restriction of flow at spillways, decant or pipe spillways, or drains.

4. Erosion:

Erosion is the gradual movement of surface material by water, wind or ice. Erosion is considered a deficiency when it is more than a minor routine maintenance item.

Results of the visual inspection performed on December 09, 2020, are summarized below, with inspection photographs included in Appendices A and B.

4.2 WEST BOILER SLAG POND

4.2.1 CHANGES IN GEOMETRY SINCE LAST INSPECTION (257.83(b)(2)(i))

No modifications have been made to the geometry of the WBSP since the 2019 annual inspection. The geometry of the impoundment has remained essentially unchanged.

4.2.2 INSTRUMENTATION (257.83(b)(2)(ii))

The location and type of instrumentation are shown on Figure 2 in Appendix B. The results of the measurements of various piezometers since November 2015 are shown in Figure 3 at Appendix B. The maximum recorded readings of each instrument since the previous annual inspection is shown in Table 1.

Table 1 - WBSP Maximum recorded instruments reading since the previous annual inspection

INSTRUMENTATION DATA			
West Boiler Slag Pond			
Instrument	Type	Maximum Reading since last annual inspection	Date of Reading
PZ-1 (B-1)	Piezometer (crest)	442.24	2/14/2020
PZ-3 (B-3)	Piezometer (crest)	442.60	2/14/2020
PZ-4 (B-4)	Piezometer (toe)	436.60	4/19/2020
PZ-5 (B-5)	Piezometer (crest)	451.20	3/09/2020

A review of the data contained on the WBSP static water elevation plot showed that all piezometers exhibit consistent water elevations. The maximum readings in the piezometers since the last inspection are slightly higher. PZ-1 is a piezometer located at the crest of the constructed dike (shown as B-1 on location plan) which was found mostly in dry condition previously, but lately yielding readings in the early part of 2019 through middle of 2020. PZ-3 is a piezometer located at the crest of the constructed dike (shown as B-3 on location plan). PZ-4 is a piezometer located along a bench near the downstream toe of the constructed dike (shown as B-4 on location plan). PZ-5 is a piezometer located at the crest of the constructed dike (B-5 on location plan). Occasionally, PZ-5 was not yielding readings and found to be dry. Review of the static water elevation plot indicates that the static water levels for the piezometers generally fluctuate as a result of the water level fluctuations in the pool level (head water) and the river level (tail water), however, it appears that the river water level has more influence on all the piezometer's water levels.

4.2.3 IMPOUNDMENT CHARACTERISTICS (257.83(b)(2)(iii, iv, v))

Below is a summary of the minimum, maximum, and present depth and elevation of the impounded water & CCR since the previous annual inspection; the storage capacity of the impounding structure at the time of the inspection; and the approximate volume of the impounded water and CCR at the time of the inspection.

Table 2 Summary of Relevant Storage Information WBAP

IMPOUNDMENT CHARACTERISTICS	
West Boiler Slag Pond	
Approximate Minimum depth (Elevation) of impounded water since last annual inspection	11 ft. (444) ft.
Approximate Maximum depth (Elevation) of impounded water since last annual inspection	16 ft. (449) ft.
Approximate Present depth (Elevation) of impounded water since last annual inspection	12.5 ft. (445.5) ft.
Approximate Minimum depth (Elevation) of CCR since last annual inspection	7.5 ft. (433) ft.
Approximate Maximum depth (Elevation) of CCR since last annual inspection (ft.)	7.5 ft. (433) ft.
Approximate Present depth (Elevation) of CCR since last annual inspection	7.5 ft. (433) ft.
Storage Capacity of impounding structure at the time of the inspection	1,950,000 c.y.
Approximate volume of impounded water at the time of the inspection	837,000 c.y.
Approximate volume of CCR at the time of the inspection	782,000 c.y.

4.2.4 VISUAL INSPECTION (257.83(b)(2)(i))

A visual inspection of the WBSP was conducted to identify any signs of distress or malfunction of the impoundment and appurtenant structures. Specific items inspected included all structural elements of the dam such as inboard and outboard slopes, crest, and toe; as well as appurtenances such as the outlet structure at the West Boiler Slag Pond, and pipe discharge structure.

In general, the crest, interior and exterior slopes of the dike appear to be in satisfactory and stable condition. No significant change to the exterior slope was noted from the previous inspection. No significant settlement or misalignment was observed. Wet area at the toe of the south dike, west section was observed during the inspection. No animal burrows were observed during the inspection. Figure 4, illustrating photographs location and photographs are included Appendix B.

1. The northwest section of the dike and upstream slope are shown in Photograph No. 1. This slope consists of a layer of bottom ash. A small area on this slope appeared to have a depression or a large erosion gully that is filled with large size concrete debris (Photograph No. 2). The toe of the interior slope indicated slightly overgrown, dried vegetation.
2. Photograph No. 3 illustrate a typical overview of the north dike crest. The crest appears to be in good and stable condition. Signs of settlement, misalignment and cracking were not observed. The upstream slope of this dike is illustrated in

Photograph No. 4. The upstream is slightly steep, consists of trees and vegetation. The slope appeared to be in fair condition with some remnants of riprap still visible.

3. Photographs No. 5, and 6 illustrate the condition of the east end of pond that is used for settling and temporary storage of bottom ash. This area appeared to be in good condition, the upstream slope is slightly uneven but in fair and stable condition. Ash sluice pipes are located in this area of the pond (Photographs No. 6 and 7). The sluice pipes were in good functional condition and the access deck and support structure to the pipes were in good and stable condition.
4. Photographs No. 8 and 9 illustrates the upstream slope of the northeast section of the dike. The upstream slope indicated minor erosion and some vegetation growth. This area of the pond interior consists substantial stockpiles of bottom ash. Erosion gullies were noticed along this section of the dike (Photographs No. 9 and 10). An area along the slope was spotted filled with dry concrete and concrete debris (Photograph No. 11).
5. A typical condition of the south dike, east crest is illustrated in Photograph No. 12. The crest appeared in good and stable condition without no sign of significant settlement, depression, or misalignment.
6. Photographs No. 13, 14, and 15 shows the general condition of the south dike upstream, downstream, and toe area. The slope appeared in good and stable condition. There were no signs of settlement, misalignment, sloughing or erosion. Wet area at the toe of this section of the dike was noticed with rutting and standing water.
7. The overflow decant structure walkway, railings, metal decking, and visible concrete were found to be in satisfactory, functional condition. Photographs No. 16 and 17 illustrate the access stairs, metal walkway, metal deck, and concrete structure of the overflow decant structure. The Outfall # 002 pipe outflowing water to the Ohio River appeared in good condition without any obstruction to the flow (Photograph No. 18).

Overall, the facility is in satisfactory condition. The impoundment is functioning as intended with no signs of potential structural weakness or conditions which maybe disrupting to the safe operation of the impoundment. Additional pictures taken during the inspection can be made available upon request.

4.2.5 CHANGES THAT EFFECT STABILITY OR OPERATION (257.83(b)(2)(vii))

Based on interviews with plant personnel and field observations there were no changes to the WBSP since the last annual inspection that would affect the stability or operation of the impounding structure.

4.3 LANDFILL RUNOFF COLLECTION POND

4.3.1 CHANGES IN GEOMETRY SINCE LAST INSPECTION (257.83(b)(2)(i))

No modifications have been made to the geometry of the LRCP since the 2019 annual inspection. The geometry of the impoundment has remained essential unchanged.

4.3.2 INSTRUMENTATION (257.83(b)(2)(ii))

The location and type of instrumentation is shown on Figure 5 at Appendix C. The results of the measurements of various piezometers since November 2015 are shown in Figure 6. The maximum recorded readings of each instrument since the previous annual inspection is shown in Table 3 below.

Table 3 - LRCP Maximum recorded instruments reading since the previous annual inspection

INSTRUMENTATION DATA Landfill Runoff Collection Pond			
Instrument	Type	Maximum Reading since last annual inspection	Date of reading
CF-9405	Piezometer	443.39	9/4/2019
CF-9406	Piezometer	445.75	5/13/2020
CF-9407	Piezometer	447.71	7/17/2020
SP-84-1	Piezometer	472.80	2/14/2020
SP-84-2	Piezometer	448.48	4/3/2020
SP-84-4	Piezometer	444.75	2/14/2020
SP-84-5	Piezometer	445.06	2/14/2020
SP-84-6	Piezometer	415.26	3/9/2020
SP-84-7	Piezometer	452.79	2/14/2020
SP-84-8A	Piezometer	445.06	4/3/2020

There are piezometers and monitoring wells installed in and around the LRCP dam. Plan views showing the location of those piezometers and monitoring wells can be found in Appendix C along with plots of the historical static water levels for each location.

A review of the LRCP static water elevation plot indicates that two of the piezometers (SP-84-1 and SP-84-6) located along the crest of the dam historically exhibit consistent water elevations. Piezometer RP-84-6 was dry most of the time and not yielding measureable water. Review of the static water elevation plot indicates that the static water levels for the piezometers and monitoring wells generally fluctuate as a result of some variation in the pond water elevation and seasonal changes in the river water elevations, however, it appear that the river elevations has more influence on all the piezometers readings.

4.3.3 IMPOUNDMENT CHARACTERISTICS (257.83(b)(2)(iii, iv, v))

Below is a summary of the minimum, maximum, and present depth and elevation of the impounded water & CCR since the previous annual inspection; the storage capacity of the impounding

structure at the time of the inspection; and the approximate volume of the impounded water and CCR at the time of the inspection.

Table 4 Summary of Relevant Storage Information LRCF

IMPOUNDMENT CHARACTERISTICS	
Landfill Runoff Collection Pond	
Approximate Minimum depth (Elevation) of impounded water since last annual inspection	9.50 ft. (484.50) ft.
Approximate Maximum depth (Elevation) of impounded water since last annual inspection	13 ft. (488) ft.
Approximate Present depth (Elevation) of impounded water since last annual inspection	11 ft. (486) ft.
Approximate Minimum depth (Elevation) of CCR since last annual inspection	45 ft. (475) ft.
Approximate Maximum depth (Elevation) of CCR since last annual inspection (ft.)	45 ft. (475) ft.
Approximate Present depth (Elevation) of CCR since last annual inspection	45 ft. (475) ft.
Storage Capacity of impounding structure at the time of the inspection	930,000 c.y.
Approximate volume of impounded water at the time of the inspection	553,000 c.y.
Approximate volume of CCR at the time of the inspection	3,150,000 c.y.

4.3.4 VISUAL INSPECTION (257.83(B)(2)(i))

A visual inspection of the LRCF was conducted to identify any signs of distress or malfunction of the impoundment and appurtenant structures. Specific items inspected included all structural elements of the dam such as inboard and outboard slopes, crest, and toe; as well as appurtenances such as the outlet structure at the Landfill Runoff Collection Pond, and pipe discharge structure.

Overall, the crest, interior slope and exterior slope is well vegetated and in stable condition. There were no apparent signs of new sloughing, depressions, areas of wetness, and seeps. Control of surface vegetation was considered satisfactory except along the outlet channel. The spillway outlet and discharge channel appear to have no obstructions, but the flow was minimal at the time of the inspection. Figure 7, illustrating photographs location and photographs are included Appendix C.

1. Photograph No. 19 illustrates an overview of the principal spillway decant structure. The decant structure and the access stairway appeared to be functioning properly and was free of obstructions. The recently added pipe (not shown in this photograph) to allow for treatment of discharged water was in functional condition. Slightly overgrown vegetation was notice along this dike upstream slope.

2. Photographs No. 20 and 21 show an overall view of the downstream slope of the dam. Throughout exterior slope vegetation control was good and there were no signs of sloughing, erosion or instability. In general, the exterior slope appeared to be in satisfactory and stable condition. A wet area encountered at the southwest corner of the slope (Photograph No. 21).
3. Photograph No. 22 is an overview of the principal spillway outlet pipe that flows into a channel and then to Ohio River. The outlet pipe had minimum flow and the channel was unobstructed at the time of the inspection.
4. Photographs No. 23 illustrates typical condition of the crest and upstream slope of the dam. Signs of misalignment and settlement were not observed. Minor surface cracks in the pavement were observed. Those cracks are attributed to the age of the pavement and the results of weathering process. Vegetation control near the water line and the upper slope areas is lacking, however, erosion due to wave action was not observed. Overall the slope was found to be in satisfactory and stable condition

Overall, the facility was in satisfactory functional condition. The impoundment is functioning as intended with no signs of potential structural weakness or conditions which may be disrupting to the safe operation of the impoundment.

4.3.5 CHANGES THAT EFFECT STABILITY OR OPERATION (257.83(b)(2)(vii))

Based on interviews with plant personnel and field observations there were no changes to the Landfill Runoff Collection Pond since the last annual inspection that would affect the stability or operation of the impounding structure.

5.0 SUMMARY OF FINDINGS

5.1 MAINTENANCE ITEMS

The following maintenance items were identified during the visual inspection:

West Boiler Slag Pond

- > The two depressions (Photograph Nos. 2 and 11) identified at the upstream slope which are backfilled with hardened concrete or concrete debris shall be kept well maintained as part of the slope and should be backfilled further for stability.
- > Erosion gullies at the southeast upstream slope shall be repaired by backfilling with compatible material, regraded, and compacted.
- > Overgrown vegetation noticed along the interior slope should be mowed or cut down to minimum height so that it can be maintained on a regular basis.
- > Wet area, appeared to be minor seepage (Photograph No. 14) shall be monitored, reported with the plant inspection, followed by investigation and accordingly mitigated.

- > Piezometer that are consistently dry could be clogged at the screen level. These piezometers should be revive by flushing, recharging to make sure that those are in good working condition.

Landfill Runoff Collection Pond

- > Wet area, appeared to be minor seepage (Photograph No. 21) shall be monitored, reported with that plant inspection, followed by investigation and accordingly mitigated.
- > Piezometer those are consistently dry could be clogged at the screen level. These piezometers should be revive by flushing, recharging to make sure that those are in good working condition.

5.2 ITEMS TO MONITOR

West Boiler Slag Pond

- Wet area should be monitored.

Landfill Runoff Collection Pond

- Wet area should be monitored.

5.3 DEFICIENCIES (257.83(b)(2)(vi))

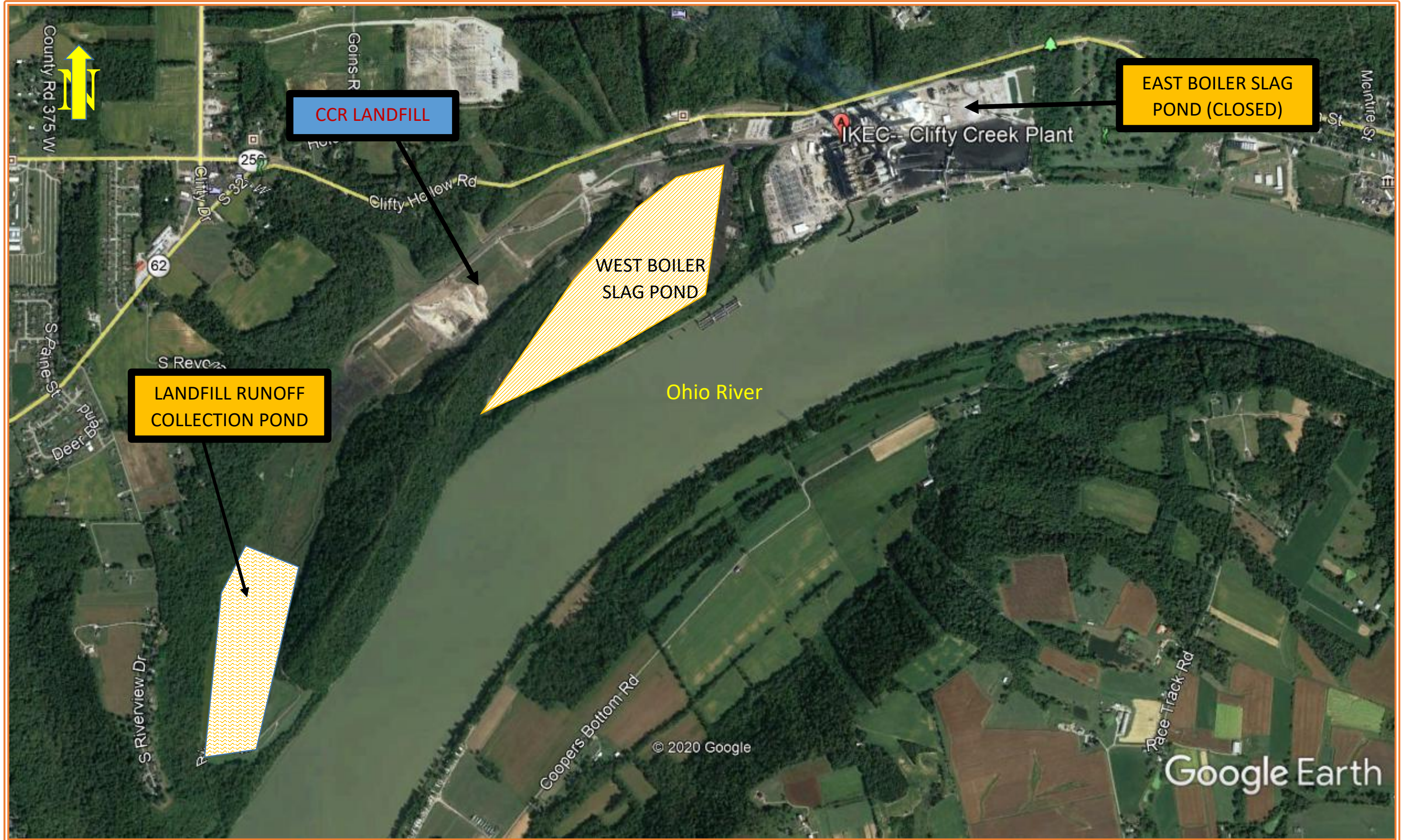
There were no deficiencies or signs of structural weakness or disruptive conditions that were observed at the time of the inspection that would require additional investigation or remedial action. There were no deficiencies noted during any of the periodic 7-day or monthly inspections. If any of these conditions occur before the next annual inspection contact AEP Geotechnical Engineering immediately.

If you have any questions with regard to this report, please contact Shah Baig at 614-716-2241 or Gary Zych at 614-716-2917.

APPENDIX A

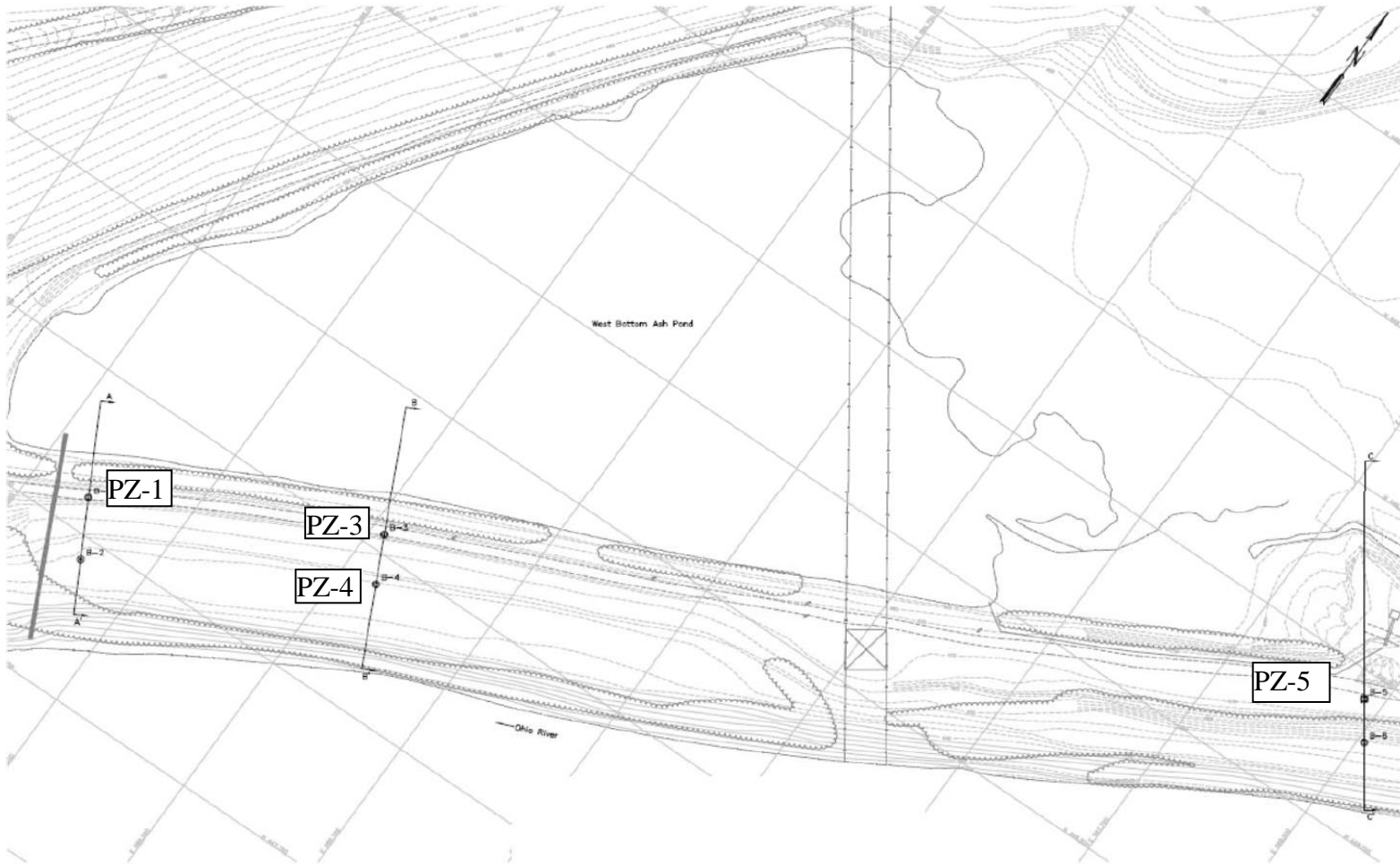
FIGURE 1 – SITE FACILITIES LOCATION MAP

Clifty Creek Station, Madison, Indiana



APPENDIX B

FIGURE 2 - WEST BOILER SLAG POND PIEZOMETERS LOCATION MAP.



LEGEND
● Gill Boring with Undisturbed (Shaky) Tube Samples and/or Standard Penetration Tests

Scale Feet

Scale Feet
GRAPH SCALE

Figure 3 - West Boiler Slag Pond Piezometer Data.

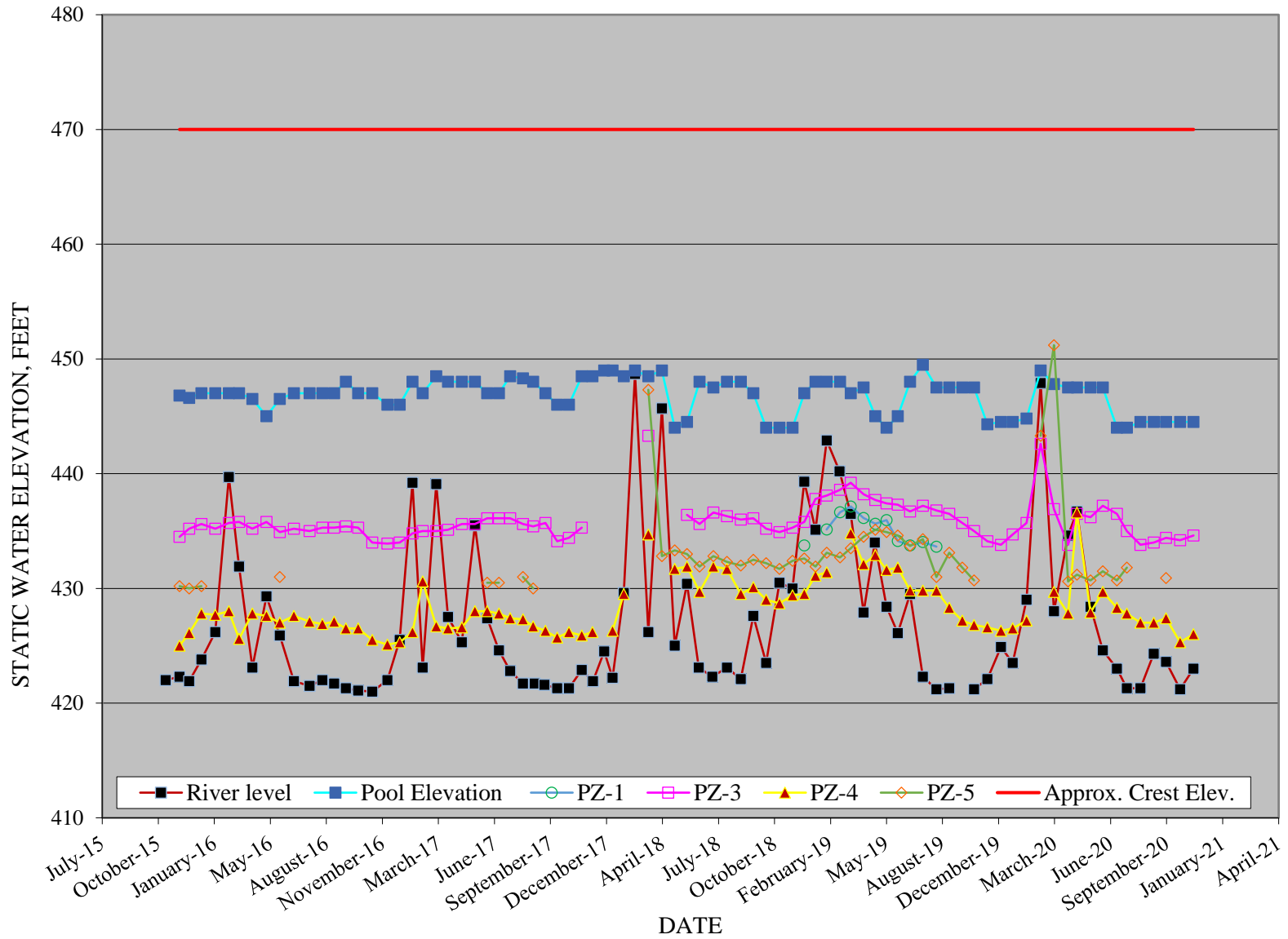





FIGURE 4 – WEST BOILER SLAG POND PHOTOGRAPHS LOCATION MAP

Clifty Creek Station, Madison, Indiana



2020 Annual Dam and Dike Inspection Report
Clifty Creek Station – West Boiler Slag Pond

<p>Photograph No. 1</p> <p>The northwest section of the upstream slope appears in fair condition with scattered vegetation.</p>	
<p>Photograph No. 2</p> <p>A low area with concrete debris at the section of the dike.</p>	
<p>Photograph No. 3</p> <p>This photograph illustrates typical condition of the crest also used as haul road.</p>	

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Clifty Creek Station – West Boiler Slag Pond

Photograph No. 4
The upstream slope of the north dike.



Photograph No. 5
This photograph illustrate northeast area inside the pond used for temporary storage of bottom ash.



Photograph No. 6
This photograph illustrate bottom ash and other discharge pipes.



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Clifty Creek Station – West Boiler Slag Pond

Photograph No. 7

The access wooden deck platform and support to the discharge pipes.



Photograph No. 8

Typical view of the upstream slope (looking north).



Photograph No. 9

This photograph illustrate general condition of the upstream slope of the east dike.



2020 Annual Dam and Dike Inspection Report
Clifty Creek Station – West Boiler Slag Pond

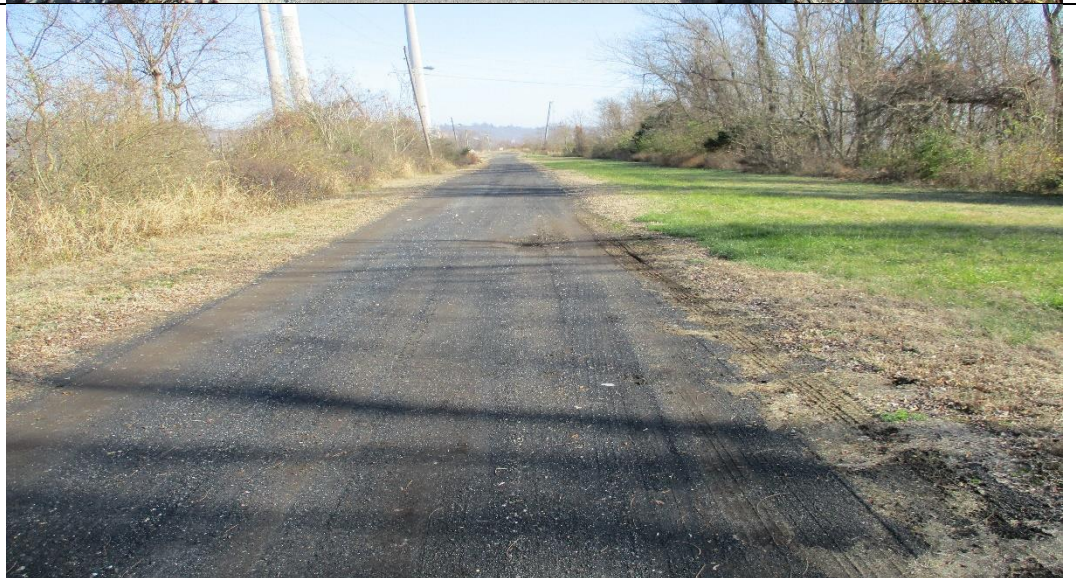
Photograph No. 10
Typical erosion gully.



Photograph No. 11
Concrete debris dumped.



Photograph No. 12
This photograph illustrate crest of the south dike.



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Photograph No. 13
The downstream slope appears good.






Photograph No. 14
Wet area.



Photograph No. 15
Upstream slope of the south dike.



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<p>Photograph No. 16</p> <p>The overflow decant structure, access stair, handrail, and deck appeared in functional condition.</p>	
<p>Photograph No. 17</p> <p>The interior of the overflow decant structure, concrete, and appurtenances were in good functional condition.</p>	
<p>Photograph No. 18</p> <p>The outfall appeared free of obstruction.</p>	

APPENDIX C

FIGURE 5 - LANDFILL RUNOFF COLLECTION POND PIEZOMETERS LOCATION PLAN

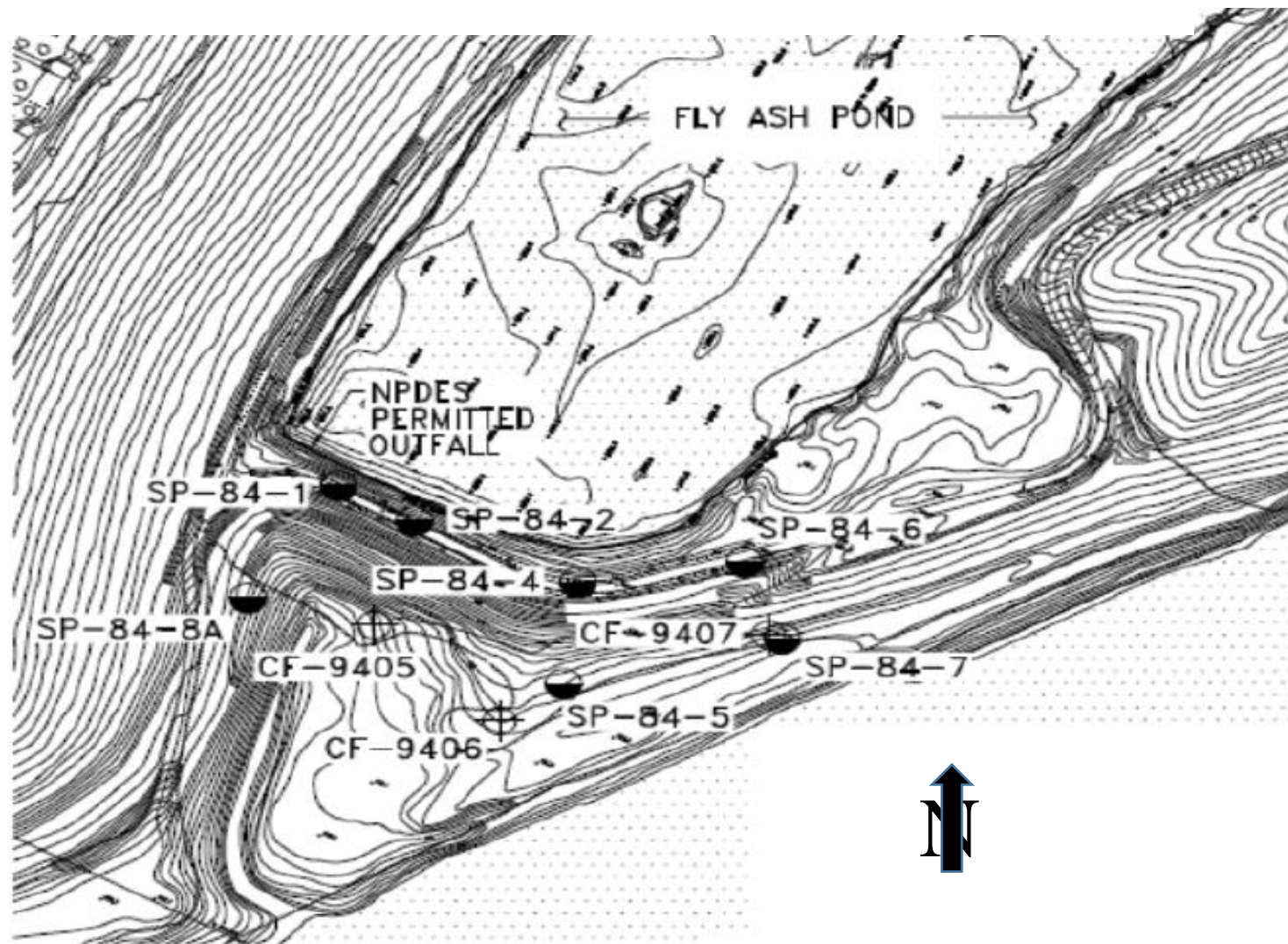


FIGURE 6 - Landfill Runoff Collection Pond Piezometers Data.

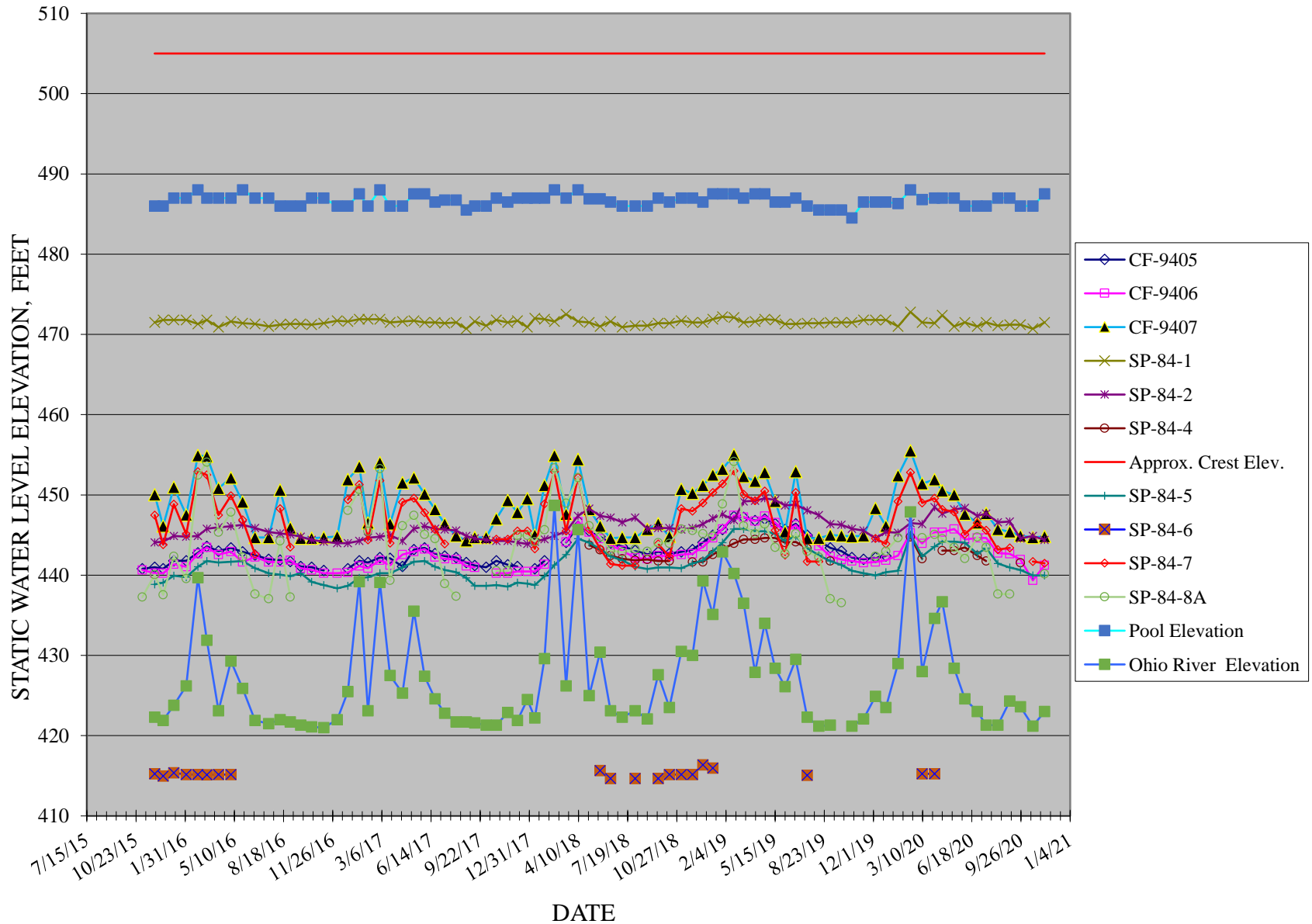


FIGURE 7 - Landfill Runoff Collection Pond Photographs Location Map
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Photograph No. 19
The overflow decant structure visible concrete, railing, metal covers, side support, and stairs, were in operational condition.



Photograph No. 20
This photograph illustrates typical view of the downstream slope (looking east).



Photograph No. 21
Wet area at the downstream slope.



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Photograph No. 22
Outfall pipe.



Photograph No. 23
The crest and upstream slope (looking northeast).

