



OHIO VALLEY ELECTRIC CORPORATION

3932 U. S. Route 23
P. O. Box 468
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WRITER'S DIRECT DIAL NO:
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February 4, 2022

Delivered Electronically

Ms. Laurie Stevenson, Director
Ohio Environmental Protection Agency
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, OH 43216-1049

Dear Ms. Stevenson:

**Re: Ohio Valley Electric Corporation
Kyger Creek Station's 2021 Annual Landfill Inspection**

As required by 40 CFR 257.106(g)(7), the Ohio Valley Electric Corporation (OVEC) is providing notification to the State Director of the Ohio Environmental Protection Agency that a qualified professional engineer has completed the 2021 CCR annual landfill inspection for OVEC's Kyger Creek Station. The inspection report has been placed in the facility's operating record as well as on the company's publicly accessible internet site, which can be viewed 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". The signature is written in a cursive, slightly slanted style.

Tim Fulk
Engineer II

TLF:klr



2021 CCR Rule Inspection
Kyger Creek Landfill



Kyger Creek Generating Station
Cheshire, Ohio
Gallia County

February 2, 2022

Prepared for:

Ohio Valley Electric Corporation
Piketon, Ohio

Prepared by:

Stantec Consulting Services Inc.
Cincinnati, Ohio

Sign-off Sheet

This document entitled 2021 CCR Rule Inspection Kyger Creek Landfill was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of the Ohio Valley Electric Corporation (OVEC) (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule, and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use that a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by John G. Banton

(signature)

John G. Banton, P.E.

Reviewed by Katie-Grace Fair

(signature)

Katie-Grace Fair, E.I.T.

Reviewed by Jacqueline S. Harmon

(signature)

Jacqueline S. Harmon, P.E.



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2021 CCR RULE INSPECTION KYGER CREEK LANDFILL

Overview

February 2, 2022

1.0 OVERVIEW

Stantec Consulting Services Inc. (Stantec) performed the annual landfill inspection of the existing coal combustion residual (CCR) landfill at the Kyger Creek Generating Station in Cheshire, Ohio on October 27, 2021.

This annual landfill inspection is intended to fulfill the requirements of 40 CFR 257.84(b) for the *Disposal of Coal Combustion Residuals from Electric Utilities* rule (CCR Rule) signed by the U.S. Environmental Protection Agency (EPA) Administrator on December 19, 2014 and published in the Federal Register on April 17, 2015.

The landfill is a residual solid waste facility (270834, RSWL018814) under the regulations of the Gallia County General Health District (GCGHD) – RW3L and the Ohio Environmental Protection Agency (OEPA), Division of Materials and Waste Management (DMWM). Below is a summary of conditions for the day of the inspection:

Date performed:	October 27, 2021
Weather:	Mostly cloudy, slight breeze, 44°F - 53°F
Rainfall over last 72 hours:	October 24, 2021 – trace October 25, 2020 – 0.04 inches October 26, 2020 – 0.47 inches October 27, 2020 – trace

Precipitation data was collected by the National Centers for Environmental Information, NOAA, for Athens, Ohio, approximately 35 miles north of the landfill. Precipitation during the 72-hour period prior to the site visit was 0.51 inch.

Stantec's team that performed the fieldwork included:

- Jacqueline Harmon, P.E., Principal, Project Manager
26 years of experience in geotechnical exploration and civil engineering design.
- Katie-Grace Fair, E.I., Water Resources Engineer in Training
2 years of civil engineering experience

The estimated volume of CCRs contained in the landfill is 4,280,277.9 cubic yards. Inspections are being performed by plant personnel according to the CCR Rule at least once every seven days. Weekly reports performed between January 7 and October 7, 2021 were provided for review. The Gallia County General Health District (GCGHD) performs quarterly inspections in accordance with OEPA guidelines. The reports dated March 2, May 4, July 15, and October 10 were reviewed. No violations were noted at the time of the inspections.

Fieldwork was coordinated with Mr. Paul Hutchins, Kyger Creek Station's Landfill Engineer. Observations were briefly discussed with onsite personnel during and after completion of the field activities.

2021 CCR RULE INSPECTION KYGER CREEK LANDFILL

Description of Kyger Creek Landfill
February 2, 2022

2.0 DESCRIPTION OF KYGER CREEK LANDFILL

The Kyger Creek Generating Station, located in Cheshire, Gallia County, Ohio, is a coal combustion power plant owned and operated by the Ohio Valley Electric Corporation (OVEC). The Kyger Creek Station's five units were commissioned in 1954 and 1955 and have a total generating capacity of 1,086 megawatts (OVEC, 2016).

The CCRs produced by the Kyger Creek Generating Station are placed in the Kyger Creek restricted waste landfill. OVEC received its restricted waste permit and approval from the OEPA to begin construction on the landfill in April 2009. The landfill is a 98-acre Class III residual solid waste landfill, divided into five phases, with a capacity of 20.4 million cubic yards (Applied Geology and Environmental Science, 2015) that includes:

- A composite liner system consisting of an 18-inch recompacted soil liner, 30-mil polyvinyl chloride (PVC) geomembrane in Phases 1, 3, 4, and 5 with a 40-mil linear low-density polyethylene (LLDPE) geomembrane in Phase 2;
- Leachate collection system, including two lined leachate collection ponds;
- Contact and non-contact surface water management systems, including four sedimentation ponds, multiple sediment traps, drainage channels, and chimney drains;
- Groundwater monitoring system; and
- A final closure cap design.

Operation of the landfill began in 2010 with placement of Class III residual waste, including flue-gas-desulfurization (FGD) sludge, chloride purge steam filter cake, fly ash, and boiler slag. The landfill's anticipated lifespan is 20 years.

The CCRs are transported by conveyor to a stacking pad southeast of the landfill and/or trucked to the Kyger Creek Landfill. Based on conversations with site personnel, the ash is placed in the landfill at approximately 30-percent moisture. The ash is placed in roughly one-foot lifts and then compacted. At times, the fly ash is mixed with other material, such as gypsum, with no segregation of the material during placement.

The landfill is divided into five phases with Phase 1 currently receiving CCRs. As previously noted, there are multiple ponds, both temporary and permanent, associated with the landfill. See the 2018 As-Built Map provided in Appendix C, Reference Drawings (OVEC, 2018). The ponds include:

- East Sedimentation Pond – a permanent pond located east of the landfill.
- West Sedimentation Pond – a permanent pond located at the toe of the west slope of Phase 1.
- Leachate Collection Pond – a permanent pond located east of the landfill and adjacent to the East Sedimentation Pond.
- Interim Leachate Collection Pond – temporary pond located within Phase 3 at the east end of Phases 1 and 2.
- Sediment Pond #1 – a temporary pond located to the east of Phase 1. This pond has been capped.
- Sediment Pond #2 – a temporary pond located within the Proposed Clay Borrow area to the south of Phase 1.
- Temporary Contact Pond – a temporary pond located on the southeast end of Phase 2.

2021 CCR RULE INSPECTION KYGER CREEK LANDFILL

Observations
February 2, 2022

The stormwater sedimentation traps were also observed during the site visit.

An Operations and Maintenance Manual discussing the landfill or the ponds was not available for review.

2.1 KYGER CREEK LANDFILL – PHASE 1

The active waste cell is Phase 1, located in the southwestern portion of the landfill footprint. A series of chimney drains lie in the center portion of the phase and outlet on the east end into the Interim Leachate Collection Pond. Temporary soil cover has been placed and vegetated on the exterior slopes of Phase 1 where it is nearing final CCR grades (2018 As-Built Map, Appendix C).

On October 27, 2021 there were no CCR filling operations observed. CCR is being placed within the landfill at a slope of approximately 3H:1V. Signs of instability such as sloughs or slides were not observed on the outer slopes.

2.2 KYGER CREEK LANDFILL – PHASES 2 THROUGH 5

Phases 2, 3, 4, and 5 have yet to be constructed. Phase 2 has been used as a borrow area and is vegetated and inactive. The general phasing plan is included in Appendix C.

3.0 OBSERVATIONS

3.1 KYGER CREEK LANDFILL – ACTIVE PHASE

The following observations were made while walking the perimeter of the active Phase 1 landfill footprint. Appendix A includes a plan of the active landfill with GPS-located points. A list of the points with a brief description is also presented in Appendix A. The photographic log is provided in Appendix B.

- The exterior temporary northern, western, and eastern slopes of Phase 1 are mowed sufficiently for a visual inspection, uniform, and vegetated. There are still several boulders and erosion features along with heavy vegetation in the ditches at the toe of the western exterior temporary slopes that may reduce the effectiveness of the ditches. The road is becoming more eroded. (Photos 1, 2, Appendix B)
- Dense vegetation and small trees block the inlets of five pipe culverts that underlie the access road west of Phase 1. (Point 1, Appendix A; Photo 3, Appendix B)
- The severe erosion feature affecting the access road west of Phase 1 has enlarged. This feature is affecting the outlet area of the 5-pipe culvert. The storm water runoff through the feature likely contributed to slope slippage at the top of the west pond access road. (Point 2, Appendix A; Photos 4 and 5, Appendix B)
- The surface of the landfill northern slopes of Phase 1 are sufficient for a visual inspection, being uniform and vegetated. (Points 6, 7, and 8; Photo 9, Appendix B)

2021 CCR RULE INSPECTION KYGER CREEK LANDFILL

Observations

February 2, 2022

- The northern temporary slope of Phase 1 shows erosion rills near the toe. The zone is vegetated but not mowed. The slopes are approximately 3.5H:1V. The edge of ash is visible at the toe of the northern slope. (Points 6, 7, 8, Appendix A; Photo 10, Appendix B).
- Eastern temporary slope of Phase 1 is mowed sufficiently for visual inspection, being uniform and vegetated. (Photo 11, Appendix B)
- Temporary silt trap at toe of eastern temporary slope of Phase 1. (Points 14, 15, 16, Appendix A; Photos 12 and 13, Appendix B)
- Outslope showing erosion ditch from overflow of temporary silt trap at toe of eastern temporary slope of Phase 1. (Photo 14, Appendix B)
- Seepage on south side of Leachate Collection Pond at toe of slope. (Photo 15, Appendix B)

3.2 WEST SEDIMENTATION POND

The following observations were made during the site visit at the West Sedimentation Pond. Appendix A includes an aerial of the active landfill with GPS-located points. The photographic log is provided in Appendix B. The condition of the area appears unchanged from 2020 to 2021. Slopes appear densely vegetated and stable.

- The access road to the West Sedimentation Pond has been compromised by erosion and slope slippage and is overgrown with vegetation. (Point 3, Appendix A; Photo 6, Appendix B)
- A 3-foot deep scarp has developed in the access road to the West Sedimentation Pond. The road is heavily vegetated, eroded, and impassable. (Point 4, Appendix A; Photo 6, Appendix B)
- A bare spot in the vegetation has developed below the principal spillway and above the riprap (Point 5, Appendix A; Photo 7, Appendix B)
- Access across the West Sedimentation Pond embankment is heavily vegetated and the pond is weed-choked. (Photo 8, Appendix B)
- Vegetation growth to a height of 12 to 48 inches was observed on the western exterior slope of the pond, somewhat obscuring visual observation. The pond is weed-choked around its perimeter. (Photo 8, Appendix B)
- The access road to the pond from the perimeter road continues to erode and is impassable to vehicles. (Photos 5 and 8, Appendix B)

3.3 EAST SEDIMENTATION POND

The following observations were made during the site visit at the East Sedimentation Pond.

2021 CCR RULE INSPECTION KYGER CREEK LANDFILL

Recommendations

February 2, 2022

- As observed in previous reports, several erosion gullies are located along the northwest slope of the pond connecting the East Sedimentation Pond to the paved haul road. These gullies do not appear to have changed and do not appear to affect the operation of the pond.
- Outslopes of the pond appear stable.
- Berm between east sedimentation pond and leachate collection pond is well-vegetated and appears stable.

3.4 LEACHATE COLLECTION POND

The following observations were made during the site visit at the Leachate Collection Pond. Appendix A includes an aerial of the active landfill with GPS-located points. The photographic log is provided in Appendix B.

- The earthen slopes above the concrete slopes appear well vegetated and uniform on all sides of the interior of the embankment at the Leachate Collection Pond.
- Temporary pumps have been removed. Stationary pumps have been installed on the south end.
- Slope and berm on southwest side of leachate collection pond showing seepage below riprap (Points 18 and 19, Appendix A; Photo 15, Appendix B)

4.0 RECOMMENDATIONS

The following recommendations are offered for the Kyger Creek Landfill. The recommendations are not listed in order of priority.

Stability Issues:

- Keep the vegetation along the western edge of Phase 1 above the West Sedimentation Pond mowed to understand potential stability concerns in this area. Characterize and remediate the sloughs as needed.
- Repair erosion on crest and slope of the temporary sediment pond embankment at the base of the east temporary slope of Phase 1. Check inlet structure for blockage and consider adding overflow spillway. Erosion has deepened the ditch carrying overflow from the pond towards the interim leachate collection pond.
- Maintain the vegetation along the interior and exterior slopes of the Interim Leachate Collection Pond. Redress the interior gullies as needed and characterize the slough on the southern side. The scarp on the south side of the embankment of the Interim Leachate Collection Pond appears unchanged from 2020 to 2021 but appears better vegetated. However, the formation of a scarp on the crest may mean the embankment is unstable. A program of exploration and stability analyses leading to stability improvement is recommended.

2021 CCR RULE INSPECTION KYGER CREEK LANDFILL

References

February 2, 2022

- A wet area exists on the road below the scarp of the interim leachate pond. The erosion feature on the road is still present. The eroded area should be repaired to maintain safe access to the pond. The source of water should be diverted.

Operational Issues:

- The access road to the West Sedimentation Pond is impassable to vehicles. Repair road or establish alternative route to provide access for maintenance equipment.
- Several wet or standing water zones were identified during previous field visits. Seepage conditions appeared to be a known issue for the design but should be monitored during operations for future planning purposes.
- An Operations and Maintenance Manual should be developed that includes provisions for the placement of materials within the landfill, the maintenance of the landfill, and the procedures to follow if issues arise during the operation of the landfill.
- Continue to conduct field surveys to measure current topography and compare to design geometry. Regrade surface to conform to design if needed. Areas near final completion grade are recommended to be capped, closed, and vegetated. Further engineering evaluation of slope stability may be warranted, if deformations, steepened slopes, or sloughing indicate potential for significant instabilities.

Maintenance Issues:

- Remove the sediment and vegetation restricting flow through the five HDPE pipes flowing from the Phase 1 western slope to the West Sedimentation Pond. Repair and maintain the stormwater best management practices (BMPs) for the channels flowing to the pipes. Remediate the eroded area at the pipe outlets to protect the access road for Phase 1.
- Maintain the vegetation along the exterior slopes and within the surface drainage channels to facilitate inspections by removing taller weeds and trees as needed.
- Repair erosion gullies, re-establish grass vegetation, and monitor in future inspections.
- A cover grate is recommended for the overflow pipe at the Interim Leachate Collection Pond to minimize debris carried into the pipe.
- Small landslides beside the perimeter road should be monitored and regraded as necessary to maintain the integrity of the road.

5.0 REFERENCES

American Electric Power Service Corporation (AEPSC) (2019). "2019 Dam and Dike Inspection Report, Bottom Ash Pond Complex, South Fly Ash Pond. Kyger Creek Plant, Ohio Valley Electric Corporation (OVEC), Gallipolis, Ohio." Prepared by Geotechnical Engineering, Columbus, Ohio. October. GERS-19-028.

2021 CCR RULE INSPECTION KYGER CREEK LANDFILL

References

February 2, 2022

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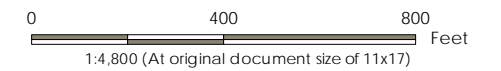
Ohio Valley Electric Corporation (2018). "Kyger Creek Landfill 2018 As-Built Map." Drawing No. KYG-270834-1-R7, Revision date December 31, 2018. NAD83/NAVD88 Ohio South. Kcandfill2018gridphawse1-Model.pdf.

Professional Service Industries, Inc. (PSI) (2010). "Construction Certification Report. Area 1 Part 1, Kyger Creek Plant Landfill, 212 Shaver Road, Cheshire, Ohio 45620." PSI Report 114-80062-1531. November 30. Columbus, Ohio.

**APPENDIX A – PLAN VIEW AND TABLE OF
INSPECTION LOCATIONS**

Legend

- 2021 Inspection Locations
- Erosion gullies on interior crest
- Phases 1/2 separation transition berm
- Seepage zone above concrete apron and through joints
- Phase 1 western slope above West Sedimentation Pond



- Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
 2. Base features - 2015 NAIP
 3. Ortho-imagery does not represent current conditions.



Project Location: Kyger Fossil Plant, Gallia County, OH
 Prepared by ANP on 2022-1-11
 Technical Review by JSH on 2022-1-15
 Independent Review by JGB on 2022-2-2

Client/Project: Ohio Valley Electric Corporation
 Kyger Creek Landfill

Figure No.: 1
 Title: 2021 Annual CCR Landfill Inspection

VA:175531034.mxd, 175531034.mxd, Kyger_Creek_2021_Report_Figures2021.mxd, Revised: 2022-02-02 By: ABoeder



2021 Inspection Data Points				
ID No.	Year	Comment	Latitude	Longitude
1	2021	heavy woody veg at 5-pipe inlet	38.9250088785178	-82.1694436966968
2	2021	erosion gully - 40in W 28 in deep	38.9250083981773	-82.1695157095724
3	2021	west sediment pond - road failed	38.9252815100138	-82.1696296592562
4	2021	secondary scarp 3 ft in wsp road	38.9255175754487	-82.1696761401787
5	2021	bare spot bottom of principal spillway near riprap buttress	38.9263077760352	-82.1703560586692
6	2021	phase 2 north slope measurement top 3.5H:1V	38.9263694100255	-82.1677429280704
7	2021	phase 2 north slope measurement top 3.7H:1V	38.9262079475012	-82.1673152006252
8	2021	phase 2 north slope measurement top 3.5H:1V	38.9261317065214	-82.1669495225984
9	2021	ash edge - phase 2/ phase 1 berm	38.9263216019978	-82.1666774123023
10	2021	ash edge - phase 2/phase 1 berm	38.9262763157211	-82.1664257978632
11	2021	20 ft from outfall structure	38.9253441864176	-82.1623476933192
12	2021	wet area crest interim leachate pond NW corner	38.9253972608154	-82.1629885011508
13	2021	west edge interim leachate pond slope	38.9252030647292	-82.1629563141603
14	2021	toe phase 1 slope seepage	38.924506003053	-82.162941298336
15	2021	Overflow erosion SE phase 1 toe pond	38.9243383134561	-82.1631172643285
16	2021	seepage next to interim leachate pond south edge	38.9244403268719	-82.1628844835701
17	2021	slough - interim leachate pond	38.9248115888023	-82.1622623778511
18	2021	Leachate Pond - west crest wet	38.9254336073637	-82.1584178696759
19	2021	Leachate Pond - west crest wet	38.9251136317049	-82.1581254513507

APPENDIX B – PHOTOGRAPHIC LOG



Photo 1

Photo of perimeter road on west side of landfill near West Sedimentation Pond Road showing vegetated slopes and erosion of road, looking north.



Photo 2

Photo of perimeter road on west side of landfill near West Sedimentation Pond Road showing vegetated slopes and erosion of road, looking south.



Photo 3

Photo of perimeter road and ditch on west side of landfill near West Sedimentation Pond Road showing heavy vegetation in ditch, looking north.



Photo 4

Erosion feature at intersection of perimeter road and West Sedimentation Pond access road exposing pipes.



Photo 5

Slippage of West Sedimentation Pond access road.



Photo 6

Slippage of West Sediment Pond access road along with heavy vegetation.



Photo 7

Bare spot below West Sedimentation Pond spillway.



Photo 8

Access across the West Sedimentation Pond embankment is heavily vegetated and the pond is weed-choked.



Photo 9

The surface of the Phase 1 landfill northern temporary slopes is sufficient for a visual inspection, being uniform and vegetated.

**Photo 10**

The northern temporary slope of Phase 1 shows erosion rills near the toe. The slopes are vegetated but not mowed. The slopes are approximately 3.5H:1V. The edge of ash is visible at the toe of the slope.

**Photo 11**

Eastern temporary slope of Phase 1 is mowed sufficiently for visual inspection, being uniform and vegetated.

**Photo 12**

Temporary silt trap at toe of eastern temporary slope of Phase 1.



Photo 13

Condition of temporary silt trap at toe of Phase 1 temporary eastern slope of landfill.



Photo 14

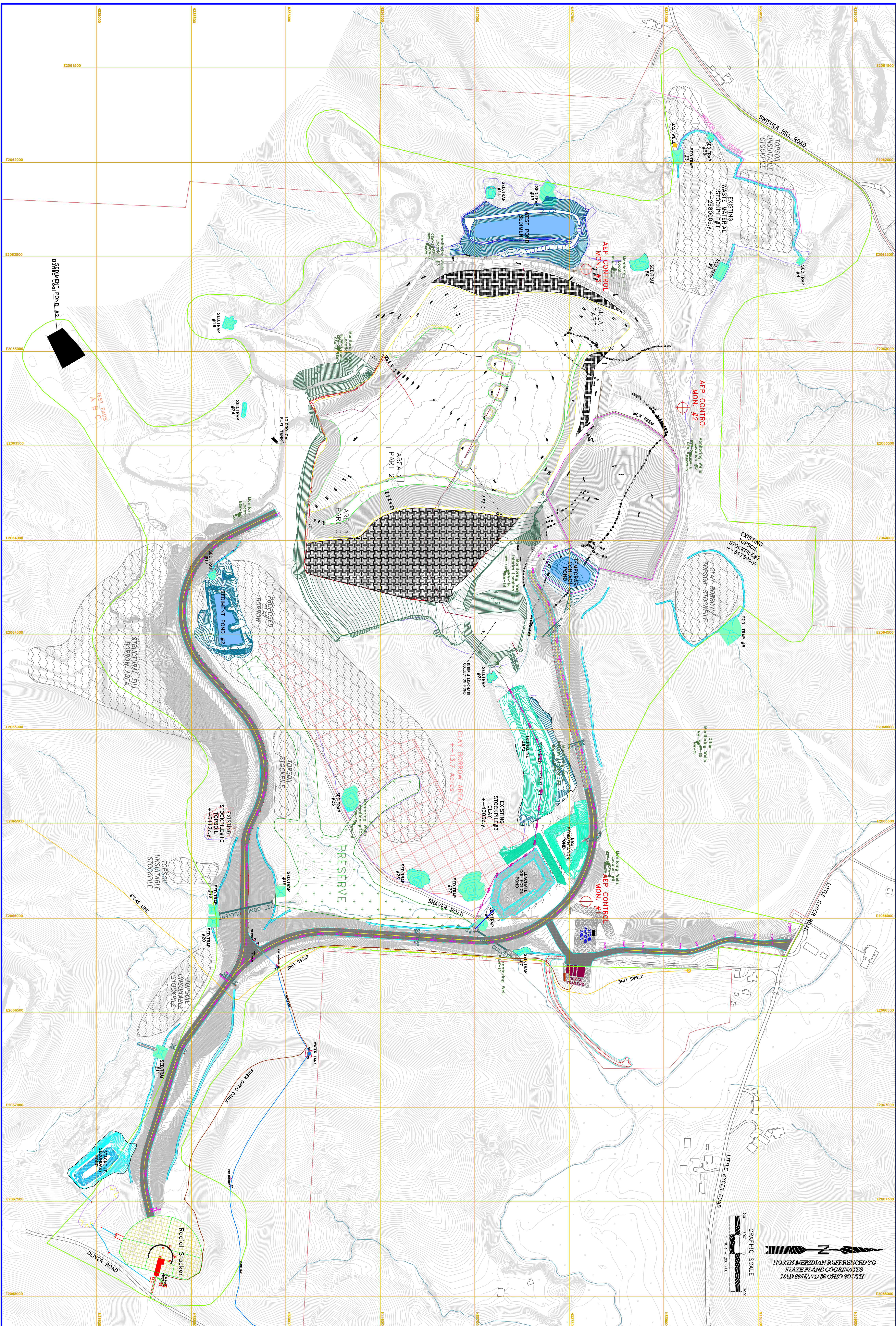
Eroded ditch conveying storm water overflow from silt trap at toe of Phase 1 temporary eastern slope of landfill.



Photo 15

Seepage on south side of Leachate Collection Pond at toe of slope.

APPENDIX C – REFERENCE DRAWINGS



LEGEND

- Denotes O.V.E.C. Boundary Line
- Denotes Permit Limits
- Denotes Super Silt Fence
- Denotes Diversion Ditch
- Denotes Gas Line
- Denotes Water Line
- Denotes Fiberoptic Line
- Denotes 6" M.I. w/ 4" HDPE SDR7
- Denotes 6" M.I. w/ No Pipe
- Denotes Top Drain w/ 4" Schedule 7
- Denotes Collection Trunk 12" HDPE SDR7
- Denotes Culverts
- Denotes Creeks/Drains
- Denotes Women Wire Fence
- Denotes Guardrail 2008
- Denotes Guardrail 2009
- Denotes Waste Limits
- Denotes Sediment Traps
- Denotes Sediment Pond
- Denotes Preserve Area
- Denotes Actual Clay Borrow Area
- Denotes Rip Rop
- Denotes Pavement
- Denotes Gravel
- Denotes Completed Earth Work
- Denotes 2011 Work
- Denotes Temporary Cover
- Denotes Waste
- Denotes Protective Cover
- Denotes Dumpster Areas

NOTE: One area has final or transitional cover.

NOTE: Projected fill for 2013 will be above 2012 fill, and in phase one areas two and three.

NOTE: +- 3936' @ +- 4' depth of

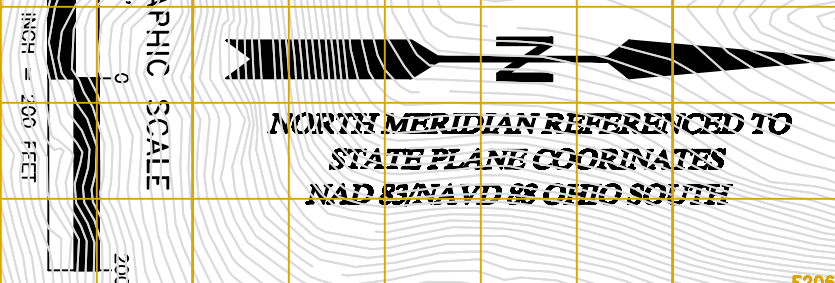
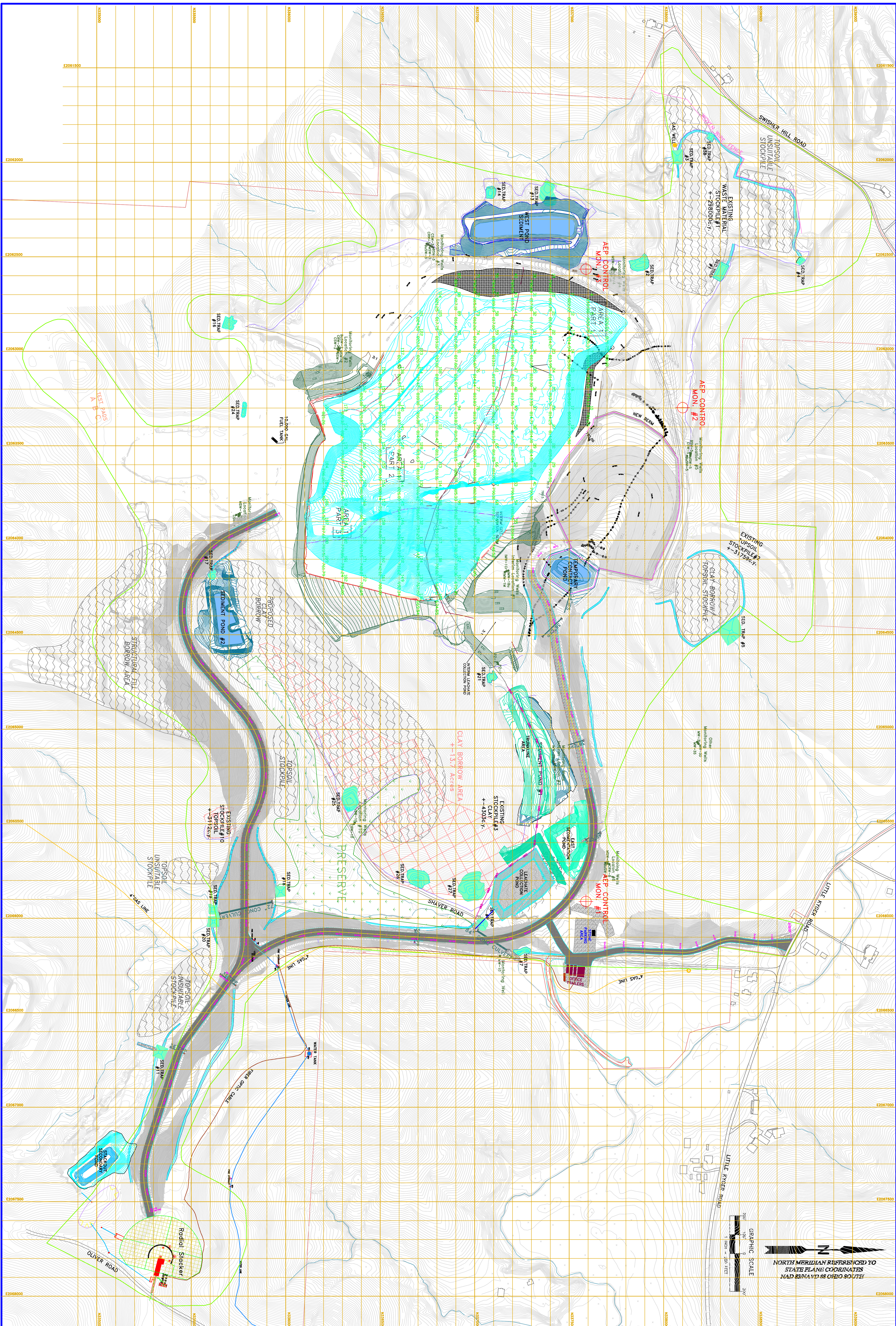
NOTE: +- 9486' of installed guardrail

NOTE: Gas Line is at +- 2.5' depth

OHIO VALLEY ELECTRIC COMPANY
KYGER CREEK LANDFILL

CHS/BRIDGE
 KYGER CREEK LANDFILL
 2017 ASBUILT MAP

CONTRACT NUMBER: 17-0101
DRAWING NUMBER: KTG-2084-1-R7
SCALE: 1"=200'
DESIGN DATE: 31 DECEMBER 2017
DESIGN BY: R. A. Schaeffer and Paul R. Hendrick



LEGEND

- Denotes O.V.E.C. Boundary Line
- Denotes Permit Limits
- Denotes Super Silt Fence
- Denotes Diversion Ditch
- Denotes Gas Line
- Denotes Water Line
- Denotes Fiberoptic Line
- Denotes G.W.I. w/ 4" HDPE SDR7
- Denotes G.W.I. w/ No Pipe
- Denotes Top Drain w/ 4" Schedule 7
- Denotes Collection Trunk 12 HDPE SDR7
- Denotes Culverts
- Denotes Creeks/Drains
- Denotes Women Wire Fence
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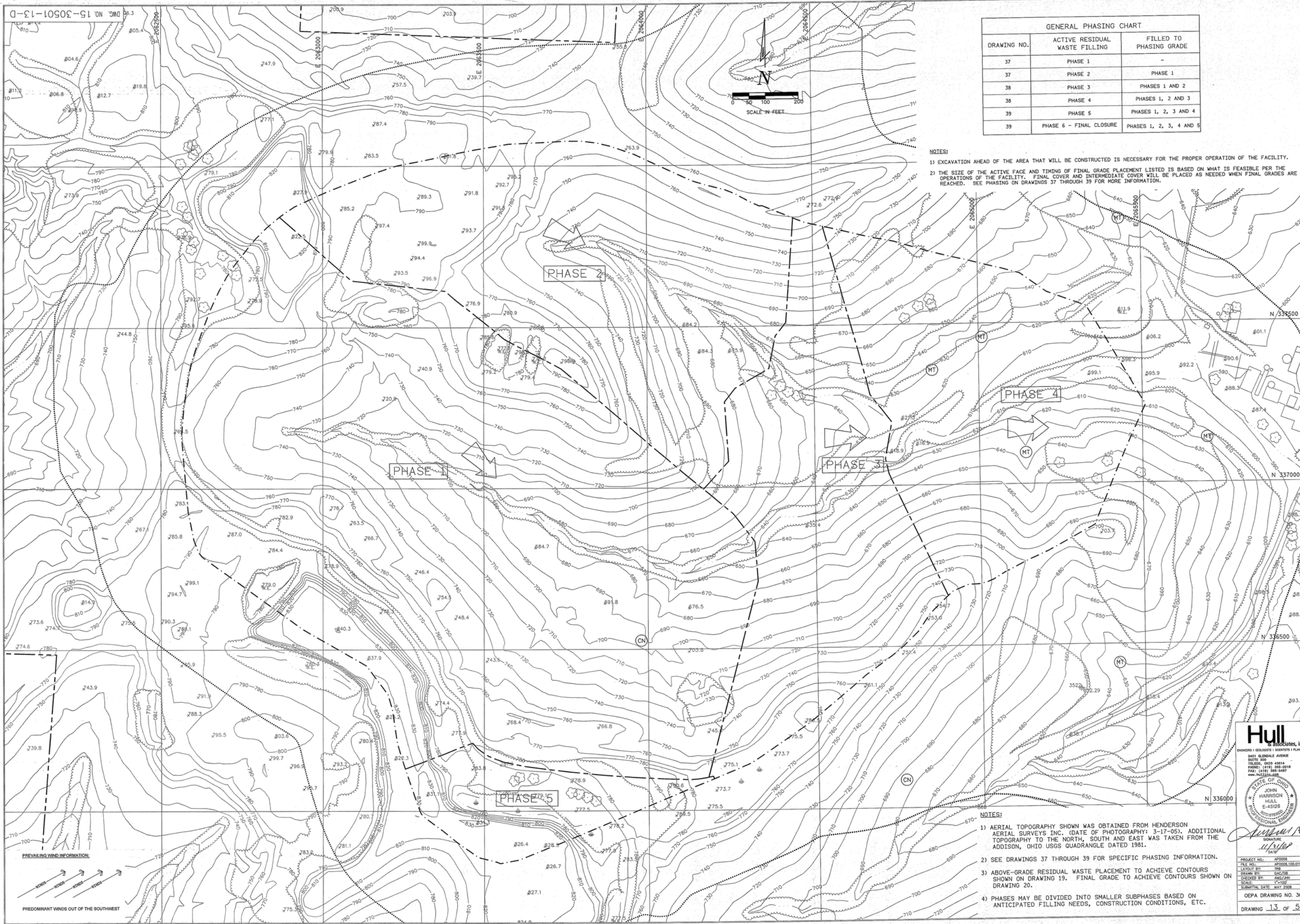
NOTE: +- 9486' of installed guardrail

NOTE: Gas Line is at +- 2.5' depth

OHIO VALLEY ELECTRIC COMPANY
KYGER CREEK LANDFILL

CHS/BRIDGE
 KYGER CREEK LANDFILL
 2018 ASBUILT 8WD MAP

CONTRACT NUMBER: 7-17071
DRAWING NUMBER: KYG-2083-2-R2
DESIGN DATE: 31 DECEMBER 2018
DESIGNER: R. A. Swadlow and Paul R. Henderson



GENERAL PHASING CHART		
DRAWING NO.	ACTIVE RESIDUAL WASTE FILLING	FILLED TO PHASING GRADE
37	PHASE 1	-
37	PHASE 2	PHASE 1
38	PHASE 3	PHASES 1 AND 2
38	PHASE 4	PHASES 1, 2 AND 3
39	PHASE 5	PHASES 1, 2, 3 AND 4
39	PHASE 6 - FINAL CLOSURE	PHASES 1, 2, 3, 4 AND 5

NOTES:
 1) EXCAVATION AHEAD OF THE AREA THAT WILL BE CONSTRUCTED IS NECESSARY FOR THE PROPER OPERATION OF THE FACILITY.
 2) THE SIZE OF THE ACTIVE FACE AND TIMING OF FINAL GRADE PLACEMENT LISTED IS BASED ON WHAT IS FEASIBLE PER THE OPERATIONS OF THE FACILITY. FINAL COVER AND INTERMEDIATE COVER WILL BE PLACED AS NEEDED WHEN FINAL GRADES ARE REACHED. SEE PHASING ON DRAWINGS 37 THROUGH 39 FOR MORE INFORMATION.

LEGEND - EXISTING

- PROPERTY LINE
- 10-FOOT CONTOUR INTERVAL
- 245.6 SPOT ELEVATION
- TREE LINE
- BUILDING
- (MT) MORGANTOWN SANDSTONE SPRING
- (CN) CONNELLSVILLE SANDSTONE SPRING

LEGEND - PROPOSED

- WASTE LIMIT
- FILL PROGRESSION
- PREVAILING WIND DIRECTION
- PHASE DIVISION LINE
- FACILITY BOUNDARY / AREA OF DISTURBANCE

REFERENCE DRAWINGS

DATE	NO.	DESCRIPTION	APP'D.
11/29/08	D	NOD 3 RESPONSE	JHH
11/29/08	C	NOD 2 RESPONSE	JHH
11/29/08	B	NOD 1 RESPONSE	JHH
11/29/08	A	ISSUED FOR PERMIT	JHH

REVISIONS

11/15/08/geo_hydro_site/vendor/hull/15-30501-09

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PROJECT NO. APO008
 FILE NO. APO008.005.0114
 DATE: 11/29/08
 OSPA DRAWING NO. 3G
 DRAWING 13 OF 56

OHIO VALLEY ELECTRIC CORP.
 KYGER CREEK PLANT
 CHESHIRE OHIO
 KYGER CREEK PLANT LANDFILL
 GENERAL PHASING PLAN

DWG. NO. 15-30501-13-D
 SCALE: 1"=100'
 CIVIL ENGINEERING DIVISION

1 RIVERSIDE PLAZA
 COLUMBUS, OH 43215

- NOTES:
- 1) AERIAL TOPOGRAPHY SHOWN WAS OBTAINED FROM HENDERSON AERIAL SURVEYS INC. (DATE OF PHOTOGRAPHY: 3-17-05). ADDITIONAL TOPOGRAPHY TO THE NORTH, SOUTH AND EAST WAS TAKEN FROM THE ADDISON, OHIO USGS QUADRANGLE DATED 1981.
 - 2) SEE DRAWINGS 37 THROUGH 39 FOR SPECIFIC PHASING INFORMATION.
 - 3) ABOVE-GRADE RESIDUAL WASTE PLACEMENT TO ACHIEVE CONTOURS SHOWN ON DRAWING 19. FINAL GRADE TO ACHIEVE CONTOURS SHOWN ON DRAWING 20.
 - 4) PHASES MAY BE DIVIDED INTO SMALLER SUBPHASES BASED ON ANTICIPATED FILLING NEEDS, CONSTRUCTION CONDITIONS, ETC.

