BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	AS 2021-003
PETITION OF MIDWEST	)	
GENERATION, LLC FOR AN	)	
ADJUSTED STANDARD FROM	)	(Adjusted Standard)
845.740(a) AND FINDING OF	)	
INAPPLICABILITY OF PART 845 FOR	)	
THE WAUKEGAN STATION	)	

NOTICE OF FILING

To: See attached Service List

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Pollution Control Board Midwest Generation, LLC's Exhibits Introduced at Hearing on February 13 and 14, 2024, a copy of which is herewith served upon you.

Dated: February 20, 2024

MIDWEST GENERATION, LLC

By: ___/s/Kristen L. Gale __________

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CERTIFICATE OF SERVICE

The undersigned, an attorney, certifies that a true copy of the foregoing Notice of Filing and Midwest Generation, LLC's Exhibits Introduced at Hearing on February 13 and 14, 2024 was electronically filed on February 20, 2024 with the following:

Don Brown, Clerk of the Board
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and that copies were sent via e-mail on February 20, 2024 to the parties on the service list.

Dated: February 20, 2024 /s/Kristen L. Gale _____________

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THE WAUKEGAN STATION	)	

EXHIBITS INTRODUCED AT HEARING

Midwest Generation, L.L.C. ("Midwest Generation" or "MWG"), pursuant to 35 Ill. Adm. Code 101.627, submits the attached MWG exhibits 39 through 44, which were introduced at the hearing on February 13 and 14, 2024.

Pursuant to Section 101.627(c), MWG certifies that each hearing exhibit filed is an accurate reproduction of the corresponding exhibit introduced at the hearing.

Dated: February 20, 2024

MIDWEST GENERATION, LLC

By: ___/s/Kristen L. Gale ___________

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EXHIBIT 39

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 257

[EPA–HQ–OLEM–2020–0107; FRL–7814–02–OLEM]

RIN 2050–AH14

Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; Legacy CCR Surface Impoundments

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: On April 17, 2015, the Environmental Protection Agency (EPA or the Agency) promulgated national minimum criteria for existing and new coal combustion residuals (CCR) landfills and existing and new CCR surface impoundments. On August 21, 2018, the United States Court of Appeals for the District of Columbia Circuit vacated the exemption for inactive surface impoundments at inactive facilities and remanded the issue back to EPA to take further action consistent with the opinion in *Utility Solid Waste Activities Group, et al.* v. *EPA.* The Agency is proposing to establish regulatory requirements for inactive surface impoundments at inactive facilities (legacy CCR surface impoundments). EPA is also proposing to establish groundwater monitoring, corrective action, closure, and post-closure care requirements for all CCR management units (regardless of how or when that CCR was placed) at regulated CCR facilities. EPA is also proposing several technical corrections to the existing regulations, such as correcting certain citations and harmonizing definitions.

DATES:

Comments due: Comments must be received on or before July 17, 2023.

Public Hearing: EPA will hold an in-person public hearing on June 28, 2023 and a virtual public hearing on July 12, 2023. Please refer to the **SUPPLEMENTARY INFORMATION** section for additional information on the public hearing.

ADDRESSES: You may send comments, identified by Docket ID No. EPA–HQ–OLEM–2020–0107, by any of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov/* (our preferred method). Follow the online instructions for submitting comments.
- *Mail:* U.S. Environmental Protection Agency, EPA Docket Center, Office of Land and Emergency Management (OLEM) Docket, Mail Code 28221T, 1200 Pennsylvania Ave. NW, Washington, DC 20460.
- *Hand Delivery or Courier (by scheduled appointment only):* EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue NW, Washington, DC 20004. The Docket Center's hours of operations are 8:30 a.m.–4:30 p.m., Monday–Friday (except Federal Holidays).

Instructions: All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to *https://www.regulations.gov/,* including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the ''Public Participation'' heading of the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: For questions concerning this proposal, contact Michelle Lloyd, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, Environmental Protection Agency, 1200 Pennsylvania Avenue NW, MC: 5304T, Washington, DC 20460; telephone number: (202) 566–0560; email address: *Lloyd.Michelle@epa.gov.* For more information on this rulemaking please visit *https://www.epa.gov/coalash.*

SUPPLEMENTARY INFORMATION:

Table of Contents

List of Acronyms

ACM Assessment of Corrective Measures
ANPRM Advance Notice of Proposed Rulemaking
ASD alternative source demonstration
CAA Clean Air Act
CBI Confidential Business Information
CCR coal combustion residuals
CCRMU coal combustion residuals management unit
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
CFR Code of Federal Regulations
CWA Clean Water Act
EAP Emergency Action Plan
EJ environmental justice
ELG Effluent Limitation Guidelines
EPA Environmental Protection Agency
EPRI Electric Power Research Institute
FR Federal Register
GWMCA groundwater monitoring and corrective action
GWPS groundwater protection standard
HQ hazard quotient
HSWA Hazardous and Solid Waste Amendments
ICR Information Collection Request
LEAF Leaching Environmental Assessment Framework
MCL maximum contaminant level
NAICS North American Industry Classification System
NPDES National Pollution Discharge Elimination System
NPL National Priorities List
NTTAA National Technology Transfer and Advancement Act
OMB Office of Management and Budget
OSHA Occupational Safety and Health Administration
PM particulate matter
PRA Paperwork Reduction Act
PUC Public Utility Commission
QA/QC quality assurance/quality control
RCRA Resource Conservation and Recovery Act
RIA Regulatory Impact Analysis
SSI statistically significant increase
SSL statistically significant level
TDS total dissolved solids
TSCA Toxic Substances Control Act
TSDF Transportation Storage and Disposal Facility
USGS U.S. Geological Survey
USWAG Utility Solid Waste Activities Group
WIIN Water Infrastructure Improvements for the Nation

I. Public Participation

A. Written Comments

Submit your comments, identified by Docket ID No. EPA–HQ–OLEM–2020–0107, at *https://www.regulations.gov* (our preferred method), or the other methods identified in the **ADDRESSES** section. Once submitted, comments cannot be edited or removed from the docket. EPA may publish any comment received to its public docket. Do not submit to EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment.

The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.*

B. Participation in In-Person Public Hearing

EPA will begin pre-registering speakers for the hearing upon publication of this document in the **Federal Register**. To register to speak at the hearing, please use the online registration form available on EPA's CCR website (*https://www.epa.gov/coalash*) or contact the person listed in the FOR FURTHER INFORMATION CONTACT section to register to speak at the hearing. The last day to pre-register to speak at the hearing will be June 26, 2023. On June 27, 2023, EPA will post a general agenda for the hearing on EPA's CCR website (*https://www.epa.gov/coalash*).

EPA will make every effort to follow the schedule as closely as possible on the day of the hearing; however, please plan for the hearings to run either ahead of schedule or behind schedule. Additionally, requests to speak will be taken the day of the hearing at the hearing registration desk. EPA will make every effort to accommodate all speakers who arrive and register, although preferences on speaking times may not be able to be fulfilled.

Each commenter will have five (5) minutes to provide oral testimony. EPA encourages commenters to provide EPA with a copy of their oral testimony electronically by emailing it to the person listed in the FOR FURTHER INFORMATION CONTACT section. EPA also recommends submitting the text of your oral comments as written comments to the rulemaking docket. If EPA is anticipating a high attendance, the time allotment per testimony may be shortened to no shorter than three (3) minutes per person to accommodate all those wishing to provide testimony and who have pre-registered. While EPA will make every effort to accommodate all speakers who do not preregister, opportunities to speak may be limited based upon the number of pre-registered speakers. Therefore, EPA strongly encourages anyone wishing to speak to preregister. Participation in the public hearing does not preclude any entity or individual from submitting a written comment.

EPA may ask clarifying questions during the oral presentations but will not respond to the presentations at that time. Written statements and supporting information submitted during the comment period will be considered with the same weight as oral comments and supporting information presented at the public hearing.

Please note that any updates made to any aspect of the hearing are posted online at EPA's CCR website at *https://www.epa.gov/coalash.* While EPA expects the hearing to go forward as set forth above, please monitor our website or contact the person listed in the FOR FURTHER INFORMATION CONTACT section to determine if there are any updates. EPA does not intend to publish a document in the **Federal Register** announcing updates.

If you require the services of an interpreter or special accommodations such as audio transcription, please pre-register for the hearing with the person listed in the FOR FURTHER INFORMATION CONTACT section and describe your needs by June 14, 2023. EPA may not be able to arrange accommodations without advance notice.

C. Participation in Virtual Public Hearing

EPA will begin pre-registering speakers for the hearing upon publication of this document in the **Federal Register**. To register to speak at the hearing, please use the online registration form available on EPA's CCR website (*https://www.epa.gov/coalash*) or contact the person listed in the FOR FURTHER INFORMATION CONTACT section to register to speak at the virtual hearing. The last day to pre-register to speak at the hearing will be July 10, 2023. On July 11, 2023, EPA will post a general agenda for the hearing on EPA's CCR website at: *https://www.epa.gov/coalash.*

EPA will make every effort to follow the schedule as closely as possible on the day of the hearing; however, please plan for the hearings to run either ahead of schedule or behind schedule. Additionally, requests to speak will be taken the day of the hearing according to the procedures specified on EPA's CCR website (*https://www.epa.gov/coalash*) for this hearing. The Agency will make every effort to accommodate all speakers who arrive and register, although preferences on speaking times may not be able to be fulfilled.

Each commenter will have five (5) minutes to provide oral testimony. EPA encourages commenters to provide the EPA with a copy of their oral testimony electronically (via email) by emailing it to person listed in the FOR FURTHER INFORMATION CONTACT section. If EPA is anticipating a high attendance, the time allotment per testimony may be shortened to no shorter than three (3) minutes per person to accommodate all those who wish to provide testimony and have pre-registered. While EPA will make every effort to accommodate all speakers who do not preregister, opportunities to speak may be limited based upon the number of preregistered speakers. Therefore, EPA strongly encourages anyone wishing to speak to preregister. Participation in the virtual public hearing does not preclude any entity or individual from submitting a written comment.

EPA may ask clarifying questions during the oral presentations but will not respond to the presentations at that time. Written statements and supporting information submitted during the comment period will be considered with the same weight as oral comments and supporting information presented at the public hearing. Verbatim transcripts of the hearings and written statements will be included in the docket for the rulemaking.

Please note that any updates made to any aspect of the hearing is posted online on EPA's CCR website at *https://www.epa.gov/coalash.* While the EPA expects the hearing to go forward as set forth above, please monitor our website or contact the person listed in the FOR FURTHER INFORMATION CONTACT section to determine if there are any updates. EPA does not intend to publish a document in the **Federal Register** announcing updates.

If you require the service of a translator, please pre-register for the hearing and describe your needs by June 28, 2023. If you require special accommodations such as audio transcription or closed captioning, please pre-register for the hearing and describe your needs by June 28, 2023. We may not be able to arrange accommodations without advance notice. Registrants should notify the person listed in the FOR FURTHER INFORMATION CONTACT section and indicate on the registration form any such needs when they pre-register to speak.

II. General Information

A. Does this action apply to me?

This rule applies to and may affect all CCR generated by electric utilities and independent power producers that fall within the North American Industry Classification System (NAICS) code

221112. The reference to NAICS code 221112 is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This discussion lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not described here could also be regulated. To determine whether your entity is regulated by this action, you should carefully examine the applicability criteria found in 40 CFR 257.50 of title 40 of the Code of Federal Regulations. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

B. What action is the Agency taking?

EPA is proposing to amend the regulations governing the disposal of CCR in landfills and surface impoundments, codified in subpart D of part 257 of Title 40 of the Code of Federal Regulations (CFR) (CCR regulations). Specifically, the Agency is proposing to establish regulatory requirements for inactive CCR surface impoundments at inactive utilities (''legacy CCR surface impoundment'' or ''legacy impoundment''). This action is being proposed in response to the August 21, 2018, opinion by the U.S. Court of Appeals for the District of Columbia Circuit in *Utility Solid Waste Activities Group* v. *EPA,* 901 F.3d 414 (D.C. 2018) (''*USWAG* decision'' or ''*USWAG*'') that vacated and remanded the provision exempting legacy impoundments from the CCR regulations. This action includes adding a definition for legacy CCR surface impoundments and other terms relevant to this rulemaking. It also proposes to require that legacy CCR surface impoundments comply with certain existing CCR regulations with tailored compliance deadlines.

While this action is responsive to the D.C. Circuit's order, it is also driven by the record, which clearly demonstrates that regulating legacy CCR surface impoundments will have significant quantified and unquantified public health and environmental benefits. As EPA concluded in 2015, the risks posed by unlined CCR surface impoundments are substantial, and the risks from legacy impoundments are at least as significant. EPA's 2014 Risk Assessment concluded that the cancer risks from unlined surface impoundments ranged from 3×10^{-4} for trivalent arsenic to 4×10^{-5} for pentavalent arsenic. Non-cancer risks from these same units also significantly exceeded EPA's level of concern, with estimated Hazard Quotients (HQ) of two for thallium, three for lithium, four for molybdenum and eight for trivalent arsenic. In addition, as described in Unit IV.B.1 of this preamble, information obtained since 2015 indicates that the risks for legacy CCR surface impoundments are likely to be greater than EPA originally estimated. Finally, based on the demographic composition and environmental conditions of communities within one and three miles of legacy CCR surface impoundments, these proposals will reduce existing disproportionate and adverse effects on economically vulnerable communities, as well as those that currently face environmental burdens. For example, in Illinois the population living within 1 mile of legacy CCR surface impoundment sites is over three times as likely compared to the state average to have less than a high school education (35.66% compared to 10.10%, see RIA exhibit ES.14), and that population already experiences higher than average exposures to particulate matter, ozone, diesel emissions, lifetime air toxics cancer risks, and proximity to traffic, Superfund sites, Risk Management Plan sites, and hazardous waste facilities (see RIA exhibit ES.15). Following on the significant progress EPA has made over many decades to reduce dangerous pollution from coal-fired electric utilities' stack emissions and effluents, this proposed rule will help EPA further ensure that the communities and ecosystems closest to coal facilities are sufficiently protected from harm from groundwater contamination, surface water contamination, fugitive dust, floods and impoundment overflows, and threats to wildlife.

EPA is also proposing to establish requirements to address the risks from currently exempt solid waste management that involves the direct placement of CCR on the land.[1] EPA is proposing to extend a subset of the existing requirements in part 257, subpart D to CCR surface impoundments and landfills that closed prior to the effective date of the 2015 CCR Rule, inactive CCR landfills, and other areas where CCR is managed directly on the land. In this proposal, EPA refers to these as CCR management units, or CCRMU. This proposal would apply to all existing CCR facilities and all inactive facilities with legacy CCR surface impoundments subject to this proposed rule.

Finally, EPA is proposing a number of technical corrections to the existing regulations, such as correcting certain citations and harmonizing definitions.

EPA intends that the provisions of the rule be severable. In the event that any individual provision or part of the rule is invalidated., EPA intends that this would not render the entire rule invalid, and that any individual provisions that can continue to operate will be left in place.

In this proposal, EPA is not reconsidering, proposing to reopen, or otherwise soliciting comment on any other provisions of the existing CCR regulations beyond those specifically identified in this proposal. For the reader's convenience, EPA has provided a background description of existing requirements in several places throughout this preamble. In the absence of a specific request for comment and proposed change to the identified provisions, these descriptions do not reopen any of the described provisions. EPA will not respond to comments submitted on any issues other than those specifically identified in this proposal, and such comments will not be considered part of the rulemaking record.

C. What is the Agency's authority for taking this action?

EPA is publishing this notice under the authority of sections 1008(a), 2002(a), 4004, and 4005(a) and (d) of the Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA) and the Water Infrastructure Improvements for the Nation (WIIN) Act of 2016, 42 U.S.C. 6907(a), 6912(a), 6944, 6945(a) and (d).

RCRA section 1008(a) authorizes EPA to publish ''suggested guidelines for solid waste management.'' 42 U.S.C. 6907(a). RCRA defines solid waste management as ''the systematic administration of activities which provide for the collection, source separation, storage, transportation, transfer, processing, treatment, and disposal of solid waste.'' 42 U.S.C. 6903(28).

Pursuant to section 1008(a)(3), the guidelines are to include the minimum criteria to be used by the states to define the solid waste management practices that constitute the open dumping of solid waste or hazardous waste and are prohibited as ''open dumping'' under section 4005. Only those requirements promulgated under the authority of

[1] Regulated CCR units consist of new and existing landfills and surface impoundments, including any lateral expansion of these units, as well as inactive CCR surface impoundments and legacy CCR surface impoundments.

section 1008(a)(3) are enforceable under section 7002 of RCRA.

RCRA section 4004(a) generally requires EPA to promulgate regulations containing criteria distinguishing ''sanitary landfills,'' which may continue to operate, from ''open dumps,'' which are prohibited. 42 U.S.C. 6944(a); *see id.* 6903(14), (26); 6945(a). The statute directs that, ''at a minimum, the criteria are to ensure that units are classified as sanitary landfills only if there is no reasonable probability of adverse effects on health or the environment from disposal of solid wastes at such facility.'' 42 U.S.C. 6944(a).

RCRA section 4005(a), entitled ''Closing or upgrading of existing open dumps,'' prohibits any solid waste management practices or disposal of solid waste that does not comply with EPA regulations issued under RCRA section 1008(a) and 4004(a). 42 U.S.C. 6945(a). See also 42 U.S.C. 6903(14) (definition of ''open dump''). This prohibition takes effect ''upon promulgation'' of any rules issued under section 1008(a)(3) and is enforceable either through a citizen suit brought pursuant to section 7002, or through an EPA enforcement action brought pursuant to section 4005(d)(4)(A). See 42 U.S.C. 6945(a), (d)(4)(A) (authorizing EPA to use the authority under RCRA section 3008(a) to enforce the open dumping prohibition for CCR). RCRA section 4005 also directs that open dumps (*i.e.,* facilities out of compliance with EPA's criteria), must be ''closed or upgraded.'' *Id.*

RCRA section 4005(d)(3) specifies that the regulations in 40 CFR part 257, subpart D ''(or successor regulations promulgated pursuant to sections 6907(a)(3) and 6944(a) of this title), shall apply to each CCR unit'' unless a permit issued by an approved state or by EPA is in effect. Similarly, section 4005(d)(6) [2] provides that:

> a CCR unit shall be considered to be a sanitary landfill for purposes of this chapter, including subsection (a), only if the coal combustion residuals unit is operating in accordance with [a permit issued by EPA or an approved State] or the applicable criteria for coal combustion residuals units under part 257 of title 40, Code of Federal Regulations (or successor regulations promulgated pursuant to sections 6907(a)(3) and 6944(a) of this title).

1. Regulation of Solid Wastes Under RCRA Subtitle D

Solid wastes that are neither a listed or characteristic hazardous waste are subject to the requirements of RCRA subtitle D. Subtitle D of RCRA establishes a framework for federal, state, and local government cooperation in controlling the management of nonhazardous solid waste. The federal role is to establish the overall regulatory direction by providing minimum nationwide standards that will protect human health and the environment. States may, but are not required to, adopt these requirements into their state programs.

Under RCRA section 4005(a), upon promulgation of criteria under section 1008(a)(3), any solid waste management practice or disposal of solid waste that constitutes the ''open dumping'' of solid waste is prohibited. The federal standards apply directly to the facility (are self-implementing) and facilities are directly responsible for ensuring that their operations comply with these requirements.

RCRA section 4005(d) establishes an additional regulatory structure, applicable exclusively to the solid waste management of CCR, that builds on the provisions in sections 1008(a)(3), 4004, and 4005(a), without restricting the scope of EPA's authority under those sections. See, 42 U.S.C. 6945 (d)(7). Under 4005(d), states may seek EPA approval of a state permitting program under which individualized facility permits would ''operate in lieu of [EPA] regulation of coal combustion residuals units in the State.'' 42 U.S.C. 6945(d)(1)(A). EPA is also directed to ''implement a permit program,'' which would operate in absence of an approved state program. 42 U.S.C. 6945(d)(2). However, the statute makes clear that facilities must continue to comply with the federal regulations until a permit issued by either EPA or an approved state is in effect. 42 U.S.C. 6945(d)(3), (6).

RCRA sections 1008(a)(3) and 4004(a) delegate broad authority to EPA to establish regulations governing the management of solid waste. Under section 4004(a) EPA is charged with establishing requirements to ensure that facilities will be classified as sanitary landfills and not an open dump ''only if there is no reasonable probability of adverse effects on health or the environment from the disposal of solid waste'' at the facility. Or in other words, under section 4004(a) EPA is charged with issuing regulations to address all ''reasonable probabilities of adverse effects'' (*i.e.,* all reasonably anticipated risks) to health and the environment from the disposal of solid waste. Section 1008(a)(3) expands EPA's authority to address the risks from any of the listed activities. Specifically, EPA is authorized to establish requirements applicable to ''storage, transportation, transfer, processing, treatment, and disposal of solid waste.'' (42 U.S.C. 6907(a), 6903(28)). Under RCRA, EPA sets these requirements without taking cost into account as a factor. *See USWAG et al.* v. *EPA,* 901 F.3d 414, 448–49 (D.C. Cir. 2018) (citing RCRA Section 4004(a)).

The statute is clear that EPA is authorized to issue regulations to address the current risks from previous solid waste management activities. EPA explained at length the basis for this conclusion as part of the Agency's rationale for regulating inactive impoundments. See, 80 FR 21344–21345. See also *USWAG, et al.* v. *EPA,* 901 F.3d 414 (D.C. Cir. 2018). Among other provisions, the statutory definition of an ''open dump'' conclusively resolves the question. RCRA defines an ''open dump'' as ''any facility or site where solid waste is disposed of . . . .'' 42 U.S.C. 6903(14). As the D.C. Circuit explained,

> Importantly, while the ''is'' retains its active present tense, the ''disposal'' takes the form of a past participle (''disposed''). In this way, the disposal itself can exist (it ''is''), even if the act of disposal took place at some prior time . . . . Properly translated then, an open dump includes any facility (other than a sanitary landfill or hazardous waste disposal facility), where solid waste still ''is deposited,'' ''is dumped,'' ''is spilled,'' ''is leaked,'' or ''is placed,'' regardless of when it might have originally been dropped off. *See* 42 U.S.C. 6903(3), (14). In other words, the waste in inactive impoundments ''is disposed of'' at a site no longer receiving new waste in just the same way that it ''is disposed of'' in at a site that is still operating.

901 F.3d at 440. *See also In re Consolidated Consol. Land Disposal Regulation Litig.,* 938 F.2d 1386, 1389 (D.C. Cir. 1991) (EPA's reading of the term ''disposal'' in RCRA's Subtitle C, 42 U.S.C. 6924, to include ''the continuing presence of waste'' was reasonable); *USWAG,* 901 F.3d at 453–54 (Henderson, J., concurring) (same). By the same logic, these provisions would authorize EPA to regulate closed units that continue to pose risks to health or the environment, for example by requiring the owners and operators of such units to remediate any contamination from these units, or to take action to prevent such contamination.

The 2016 amendments further confirm EPA's authority over these activities. In section 4005, Congress incorporated the 2015 regulations into the statute, and expressly stated that the amendments in 4005(d) were not intended to limit or restrict the authority already provided under sections 1008(a)(3) and 4004(a). See, 42

[2] 42 U.S.C. 6945(d)(6).

U.S.C. 6945(d)(3), (6), (7). EPA also considers that with these amendments, Congress has affirmed the Agency's authority to impose the kind of requirements established in part 257 (*e.g.,* corrective action to remediate groundwater contamination). Moreover, Congress made clear that EPA retains the authority to modify or expand these requirements as necessary to ensure that the standard in section 4004(a) will continue to be met. See, *e.g.,* 42 U.S.C. 6945(d)(1)(A)(i), (3), (6) (referencing ''or successor regulations promulgated pursuant to sections 6907(a)(3) and 6944(a) of this title'').

EPA interprets the standard in section 4004(a) to apply equally to criteria issued under sections 1008(a)(3) and 4004(a); namely that the criteria must ensure that a facility is to be classified as a sanitary landfill, and thus allowed to continue to operate, ''only if there is no reasonable probability of adverse effects on health or the environment'' from either the disposal or other solid waste management practices at the facility. Thus, under the combined authority conferred by sections 1008(a)(3) and 4004(a), a facility is an ''open dump'' if it engages in any activity involving the management of solid waste that does not meet the standard in section 4004(a); or in other words, any activity involved with the management of solid waste that presents a reasonable probability of causing adverse effects on health or the environment. EPA also interprets these provisions to authorize the establishment of criteria that define the manner in which facilities upgrade or close, consistent with the standard in section 4004(a), to ensure there will be no reasonable probability of adverse effects on health or the environment.

D. What are the incremental costs and benefits of this action?

As noted previously, EPA establishes the requirements under RCRA sections 1008(a)(3) and 4004(a) without taking cost into account. *See, USWAG,* 901 F.3d at 448–49. This action is expected to result in costs amounting to between $356 million and $413 million per year when discounting at 3% and 7% respectively.

Of the $413 million per year estimated at a 7% discount rate, $237 million is attributable to the requirements for legacy CCR surface impoundments, which are subject to the D.C. Circuit's order in *USWAG,* $170 million is attributable to the requirements for CCRMU, and $6 million is attributable to requirements for landfills. Of the $356 million per year estimated at a 3% rate, $204 million is attributable to the requirements for legacy CCR surface impoundments, $146 million is attributable to the requirements for CCRMU, and $6 million is attributable to requirements for landfills. The costs of this proposed rule are discussed further in the RIA, and include the costs of unit closure, corrective action, fugitive dust controls, structural integrity inspections, and recordkeeping and reporting. These cost estimates are subject to a number of limitations and uncertainties, and EPA has, for example, made the conservative assumption that all closures will be by removal, which is a simplified but higher-cost compliance option.

This action is expected to result in monetized benefits amounting to between $77 million and $49 million per year when discounting at 3% and 7% respectively, as well as a variety of unquantified benefits of unknown magnitude. Of the $49 million in annualized monetized benefits estimated at a 7% discount rate, $30 million is attributable to the requirements for legacy CCR surface impoundments, $16 million is attributable to the requirements for CCRMU, and $3 million is attributable to requirements for landfills. Of the $77 million in annualized monetized benefits estimated at a 3% discount rate, $47 million is attributable to the requirements for legacy CCR surface impoundments, $25 million is attributable to the requirements for CCRMU, and $5 million is attributable to requirements for landfills. The monetized benefits of this proposed rule are discussed further in the RIA, and includes partial estimates of the benefits from reduced incidents of cancer, avoided intelligence quotient (IQ) losses from mercury and lead exposure and the subsequent reduced need for specialized education, non-market benefits of water quality improvements, and the protection of threatened and endangered species. EPA also monetized the benefits of avoided impoundment failures, including both ''catastrophic'' failures and smaller-volume releases. One example of a severe impoundment failure is the Dan River Steam Station failure which occurred in 2014, when a stormwater drainage pipe under the inactive surface impoundments at the Dan River Steam Station caused the inadvertent release of 39,000 tons of CCR directly into the nearby Dan River. The result high-end estimate of the costs of this impoundment failure is $300 million. EPA requests comment and data on other examples of CCR releases from inactive CCR impoundments.

EPA's benefits estimates are subject to a number of limitations and uncertainties, and many key categories of benefits could not be quantified or monetized. Unquantified benefits may be of equal or greater magnitude than quantified benefits but are difficult to quantify because sufficient data or adequate methodologies are not available. For example, EPA was only able to quantify the subset of human health effects for which established dose-response relationships have been studied and accepted for economic analyses. Consequently, EPA was unable to quantify most of the human health and ecological benefits associated with the proposed rule. Specifically, EPA was only able to quantify the benefits associated with: (1) Reduced incidence of two kinds of skin cancer [3] from exposure to arsenic III and V in drinking water from private wells, and (2) With reduced neurologic and cognitive damages from exposure to lead and mercury from fish consumption. However, arsenic is also correlated with liver, lung, bladder, and kidney cancer,[4] all of which are associated with higher costs and higher rates of mortality than the skin cancers used in the quantified benefits assessments. Similarly, toxins such as thallium, molybdenum, and lithium are commonly present in CCR,[5] and as discussed in Unit IV.B.2 of this preamble, have been detected at statistically significant levels at several utilities, but because EPA lacks the data to create dose-response relationships between ingestion rates and specific health endpoints, EPA could not quantify the associated benefits in the RIA. A broad overview of specific contaminants and their likely health effects can be found in Chapter 4 of the RIA and in Appendix B.

Another unquantified benefit arises from the expected increase in severe weather events due to climate change. Many legacy impoundments and CCRMU are located along rivers or the coast, where they are at risk of leaking waste and possibly failing when severe weather causes the units to flood and overtop. The proposed rule will address this baseline risk by requiring closure

[3] EPA evaluated basal cell carcinoma and squamous cell carcinoma, but was unable to quantify costs associated with Bowen's disease (or carcinoma in situ), another of the most common forms of skin cancer.

[4] U.S. Environmental Protection Agency (2014, December). Human and ecological risk assessment of coal combustion residuals. Regulation Identifier Number: 2050–AE81, citing U.S. EPA. IRIS Chemical Assessment Summary for arsenic, inorganic; CASRN 7440–38–2. Last updated December 3, 2002.

[5] Id.

and corrective action at legacy units and CCRMU. This reduction in risk yields potentially significant benefits, however the data and methodology to quantify the base rate and post-rule rate of unit leakage and failure due to weather related flooding and overtopping are not available. Thus, this benefit category is unquantified.

Finally, another significant source of unquantified benefits comes from the protection and remediation of the groundwater contaminated by a legacy CCR surface impoundment or CCRMU as at many sites this groundwater is a potential future source of drinking water or other uses. This is distinct from the benefits associated with reducing the risks from contaminants migrating into drinking water wells or surface waters, reduced risks that rely on the presence of a receptor. As EPA explained in the preamble to the original 1979 regulations, sources of drinking water are finite, and future users' interests must also be protected. See, 44 FR 53445–53448.

In the United States, groundwater is the source of drinking water for about half the total population; it is about 33% of the water that County and city water departments supply to households and businesses. It provides drinking water for more than 90% of the rural population who do not get their water delivered to them from a county/city water department or private water company.[6] It also provides over 50 billion gallons per day for agricultural needs. The volume of available and useable groundwater is decreasing in many areas of the United States.[7] A significant number of legacy CCR surface impoundments and CCRMU are located in areas that, according to the U.S. Geological Survey (USGS), are experiencing significant groundwater decline and depletion.[8] For example, EPA estimates that 8 potential legacy CCR surface impoundments are located in Iowa, and 20 potential CCRMU are located in Illinois (12) and Minnesota (8); USGS has estimated that these areas experienced 10–25 cubic kilometers of cumulative annual groundwater depletion between 1900 and 2008.[9] Simply stated, the resource is becoming more scarce. Commensurately, the value of groundwater as a resource for agriculture, drinking water, and other purposes is increasing. In the context of such widespread declines in the overall availability of this critical resource, this proposed rule—which will increase the supply of potable water by requiring the remediation of groundwater contaminated by CCRMU and legacy CCR surface impoundments, and by preventing further reductions in the supply of useable groundwater from degradation and contamination from CCRMU or legacy CCR surface impoundments—is expected to provide significant and substantial benefits.

Neighborhoods located near legacy CCR surface impoundments and CCRMU are disproportionately occupied by people already vulnerable to elevated environmental risks. These vulnerable communities face risks of impoundment failure, groundwater contamination, and fugitive air emissions. EPA expects these communities would be afforded substantial protection from the proposed rule. In addition, CCR units, built without liners and other precautionary measures, may depress property values in nearby neighborhoods. Improvements in home values resulting from the proposed rule has the potential to bestow welfare gains to homeowners located near legacy CCR surface impoundments and CCRMU. Although EPA has designed its proposal based on its statutory factors and court precedent and has not relied on this benefit-cost analysis in the selection of its proposed alternative, EPA believes that after considering all unquantified and distributional effects, the public health and welfare gains that will result from the proposed alternative would justify the rule's costs.

Further information on the economic effects of this action can be found in Unit VII of this preamble.

III. Background

A. 2015 CCR Rule

On April 17, 2015, EPA finalized national minimum criteria for the disposal of CCR as solid waste under Subtitle D of RCRA titled, ''Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities'' (80 FR 21302) (2015 CCR Rule). The 2015 CCR Rule, codified in 40 CFR part 257, subpart D, established regulations for existing and new CCR landfills, as well as existing and new CCR surface impoundments (including all lateral expansions of CCR units). The criteria consist of location restrictions, design and operating criteria, groundwater monitoring and corrective action requirements, closure and post-closure care requirements, recordkeeping, notification, and internet posting requirements.

The 2015 CCR Rule also imposed requirements on inactive surface impoundments at active facilities. A CCR surface impoundment is a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and treats, stores, or disposes of CCR. The 2015 CCR Rule defined an ''inactive CCR surface impoundment'' as ''a CCR surface impoundment that no longer receives CCR on or after October 19, 2015, and still contains both CCR and liquids on or after October 19, 2015.'' 40 CFR 257.53. The rule defined ''active facility or active electric utilities or independent power producers'' as ''any facility subject to the requirements of this subpart that is in operation on October 19, 2015. An electric utility or independent power producer is in operation if it is generating electricity that is provided to electric power transmission systems or to electric power distribution systems on or after October 19, 2015. An off-site disposal facility is in operation if it is accepting or managing CCR on or after October 19, 2015.'' 40 CFR 257.53.

The 2015 CCR Rule did not impose any requirements on inactive facilities. EPA explained that this was consistent with past decisions under subtitle C, in which EPA declined to extend permitting obligations to closed and inactive disposal facilities in light of specific language in RCRA sections 3004 and 3005, and the practical difficulties in applying those requirements to inactive facilities (*e.g.,* the difficulty in identifying owners or other responsible parties, and in implementing requirements in the absence of an entity currently engaged in disposal). 80 FR 21344 (April 17, 2015). EPA further raised concerns that the present owner of the land on which an inactive site was located might have no connection (other than present ownership of the land) with the prior disposal activities. *Id.* Consequently, EPA exempted those units at § 257.50(e).

B. 2018 USWAG Decision

The 2015 CCR Rule was challenged by several parties, including coalitions of regulated entities and environmental organizations (''Environmental Petitioners''). Environmental Petitioners raised two challenges that are relevant to this proposal. First, they challenged the provision that allowed existing, unlined surface impoundments to continue to operate until they exceeded

[6] U.S. Department of the Interior, U.S. Geological Survey, *https://www.usgs.gov/special-topics/water-science-school/science/groundwater-decline-and-depletion.*

[7] Id. at *https://www.usgs.gov/special-topics/water-science-school/science/groundwater-decline-and-depletion.*

[8] U.S. Department of the Interior, U.S. Geological Survey, Groundwater Depletion in the United States (1900–2008), available at *https://pubs.usgs.gov/sir/2013/5079/SIR2013-5079.pdf.*

[9] Id. at 12.

the groundwater protection standard. *See* § 257.101(a)(1). They contended that EPA failed to show how continued operation of unlined impoundments met RCRA's baseline requirement that any solid waste disposal site pose, ''no reasonable probability of adverse effects on health or the environment.'' 42 U.S.C. 6944(a). Second, Environmental Petitioners challenged the exemption for inactive surface impoundments at inactive power plants (*i.e.,* ''legacy ponds''). Environmental Petitioners argued that legacy ponds are at risk of unmonitored leaks and catastrophic structural failures.

On August 21, 2018, the U.S. Court of Appeals for the D.C. Circuit upheld most of the 2015 CCR Rule but decided in favor of Environmental Petitioners on these two claims. The Court held that EPA acted ''arbitrarily and capriciously and contrary to RCRA'' in failing to require the closure of unlined surface impoundments [10] and in exempting inactive surface impoundments at inactive power plants from regulation. The Court vacated these provisions and remanded the matter back to the Agency for further action consistent with its opinion. *USWAG et al.* v. *EPA,* 901 F.3d 414 (D.C. Cir. 2018).

In overturning the exemption for legacy ponds, the Court evaluated the evidence in the rulemaking record and reached specific conclusions about the risks that legacy ponds pose. The Court pointed to evidence that legacy ponds are most likely to be unlined and unmonitored and that such units have been shown to be more likely to leak than units at utilities still in operation. 901 F.3d at 432. The Court also determined that legacy ponds:

> . . . pose the same substantial threats to human health and the environment as the riskiest Coal Residuals disposal methods, compounded by diminished preventative and remediation oversight due to the absence of an onsite owner and daily monitoring. *See* 80 FR at 21343 through 21344 (finding that the greatest disposal risks are ''primarily driven by the older existing units, which are generally unlined''). Notably, this very Rule was prompted by a catastrophic legacy pond failure that resulted in a ''massive'' spill of 39,000 tons of coal ash and 27 million gallons of wastewater into North Carolina's Dan River.
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> [T]here is no gainsaying the dangers that unregulated legacy ponds present. The EPA itself acknowledges the vital importance of regulating inactive impoundments at active facilities. That is because, if not properly closed, those impoundments will ''significant[ly]'' threaten ''human health and the environment through catastrophic failure'' for many years to come. 75 FR at 35,177; *see also* 80 FR at 21,344 n. 40.
>
> The risks posed by legacy ponds are at least as substantial as inactive impoundments at active facilities. *See* 80 FR at 21,343–21, 344 (finding ''no [ ] measurabl[e] differen[ce]'' in risk of catastrophic events between active and inactive impoundments). And the threat is very real. Legacy ponds caused multiple human and environmental disasters in the years leading up to the Rule's promulgation. *See* 75 FR at 35,147 (proposed rule discusses multiple serious incidents). For example, a pipe break at a legacy pond at the Widows Creek plant in Alabama caused 6.1 million gallons of toxic slurry to deluge local waterways. *Id.* Another legacy pond in Gambrills, Maryland caused the heavy metal contamination of local drinking water. *Id.* And the preamble to the Rule itself specifically points to the catastrophic spill at the Dan River legacy pond in North Carolina. 80 FR at 21,393–21,394.

Id. at 432–433. Relying on this evidence, the Court concluded there was no logical basis for distinguishing between the inactive impoundments at active facilities that were regulated and the legacy impoundments that were exempt. *Id.* at 434. Consequently, the Court vacated the provision of the 2015 CCR Rule that specifically exempted inactive impoundments at inactive facilities from regulation and remanded the matter back to EPA for further action consistent with its opinion. *See* § 257.50(e). Notwithstanding the vacatur of § 257.50(e), until EPA amends the regulations to effectuate the Court's order, facilities are not legally obliged to take any action to comply with the federal CCR regulations. This is because, as currently drafted, § 257.50 of the federal CCR regulations is not applicable to inactive surface impoundments at inactive facilities.

C. 2020 Advance Notice of Proposed Rulemaking

On October 14, 2020, EPA published an Advance Notice of Proposed Rulemaking (ANPRM) (85 FR 65015). In that action, EPA requested information related to ''legacy'' CCR surface impoundments to inform a future rulemaking. The Agency requested input on its regulatory authority, input on a potential definition of a legacy CCR surface impoundment and specific information on the types of inactive surface impoundments at inactive facilities that might be considered legacy CCR surface impoundments. Specifically, EPA requested information on how many of these units exist, the current status of these units (*e.g.,* capped, dry, closed according to state requirements, still holding water), and the names, locations, and closure dates of former power plants that may have these units. Finally, the Agency took comment on which CCR regulations should apply to legacy CCR surface impoundments and on suggestions for compliance deadlines.

During the 60-day public comment period, the Agency received over 15,000 comments from environmental groups, four states, one tribe, individual utilities, and industry trade associations. The topics raised in comments included a potential definition of a legacy CCR surface impoundment, EPA's regulatory authority, the scope and applicability of the legacy impoundment rule, and regulatory requirements to propose. Moreover, the comments generally agreed that EPA must prescribe timeframes for coming into compliance with the regulations and they recommended timeframes that are shorter than compliance timeframes in the 2015 CCR Rule. The remaining comments received are discussed in subsequent units of this preamble.

As noted, EPA took comment on whether, in light of the Court's opinion in *USWAG,* the Agency could reconsider whether it has the authority to regulate inactive impoundments under RCRA subtitle D. 85 FR 65017–65018 (Oct 14, 2020). The general consensus from commenters on the ANPRM was that, because the Court resolved the question based on the plain meaning of the statute, EPA does not have the discretion to reinterpret its authority. In addition, no commenter identified a factual basis for not regulating legacy CCR surface impoundments that addressed the Court's concern about the risks these units pose. *Id.* at 65018. Consequently, EPA is not revisiting the question of whether it may regulate inactive or legacy CCR surface impoundments.

IV. What is EPA Proposing?

In response to the *USWAG* decision, EPA is proposing to include a provision at § 257.50(e), specifying that inactive surface impoundments at inactive facilities (''legacy CCR surface impoundments'') are subject to 40 CFR part 257, subpart D. EPA is also proposing that owners and operators of legacy CCR surface impoundments comply with all the appropriate requirements applicable to inactive CCR surface impoundments at active facilities. Specifically, EPA is proposing that owners and operators of legacy CCR surface impoundments comply with the following existing requirements in the CCR regulations: structural stability assessments, air criteria, inspections,

[10] The closure of unlined CCR surface impoundments was addressed in a separate regulatory action that was published on August 28, 2020 (85 FR 53516).

groundwater monitoring and corrective action, closure and post-closure care, recordkeeping, and notification and publicly accessible internet site requirements. EPA is further proposing to establish different compliance deadlines for these newly applicable regulatory requirements to ensure the owners and operators of these units have time to come into compliance.

In addition to the revisions EPA is proposing to address the *USWAG* decision, EPA is proposing to establish requirements to address the risks from currently exempt solid waste management that involves the direct placement of CCR on the land.[11] EPA is proposing to extend a subset of the existing requirements in part 257, subpart D to CCR surface impoundments and landfills that closed prior to the effective date of the 2015 CCR Rule, inactive CCR landfills, and other areas where CCR is managed directly on the land. In this proposal, EPA refers to these as CCR management units, or CCRMU. This proposal would apply to all existing CCR facilities and all inactive facilities with legacy CCR surface impoundments subject to this proposed rule.

Lastly, EPA is proposing to make several technical corrections to the CCR regulations. These are (1) to clarify the definitions of ''feasible'' and ''technically feasible''; (2) to correct the CFR reference in the definition of wetlands at § 257.61(a); (3) to correct a reference in the groundwater monitoring scope section; (4) to standardize the references to CCR websites throughout the CCR regulations; and (5) EPA is taking comment on extending the period for document retention and posting.

A. Legacy CCR Surface Impoundment Requirements

The Agency is proposing that the existing requirements of the CCR regulations in 40 CFR part 257, subpart D that apply to inactive CCR impoundments at active facilities would apply to legacy CCR surface impoundments, except for the location restrictions and liner design criteria. EPA is also proposing to establish new requirements to address issues specific to legacy CCR surface impoundments. Finally, EPA is proposing to establish new compliance deadlines for legacy CCR surface impoundments.

[11] Regulated CCR units consist of new and existing landfills and surface impoundments, including any lateral expansion of these units, as well as inactive CCR surface impoundments and legacy CCR surface impoundments.

1. Scope—Definition of Legacy CCR Surface Impoundments

EPA received numerous comments on three options for defining legacy CCR surface impoundments in the ANPRM. The Agency considered those comments, as well as the other information available to EPA in the record and the *USWAG* decision in developing this proposal. Based on EPA's review, the Agency is proposing to define a *legacy CCR surface impoundment* as ''a surface impoundment that is located at a power plant that ceased generating power prior to October 19, 2015, and the surface impoundment contained both CCR and liquids on or after the effective date of the 2015 CCR Rule (*i.e.,* October 19, 2015).'' This Unit of the preamble also responds to comments questioning how EPA intends to interpret ''contains liquids and CCR'' and ''inactive facility.''

a. Legacy CCR Surface Impoundment—Date for Determining Applicability.

As previously explained, the 2015 CCR Rule exempted ''inactive surface impoundments at an inactive facility'' and provided definitions of an ''inactive CCR surface impoundment'' and an ''active facility or active electric utility.'' See 80 FR 21469–21471. Thus, in developing a definition of a *legacy CCR surface impoundment* two separate components need to be addressed: (1) The definition of an ''inactive CCR surface impoundment,'' and (2) The definition of an ''inactive facility or electric utility.'' EPA relied on the existing definitions of an inactive CCR surface impoundment and an active facility or active electric utility, as well as the *USWAG* decision to inform the options provided in the ANPRM. See 80 FR 21469–21471. Specifically, both terms establish applicability based in part on the effective date of the 2015 CCR Rule—a unit is an ''inactive CCR surface impoundment'' if it does not receive CCR on or after October 19, 2015, and still contains both CCR and liquids on October 19, 2015, and an ''active facility or active electric utilities or independent power producers'' is only active if it was in operation on October 19, 2015. 40 CFR 257.53. Thus, the ANPRM sought comment on whether to define a legacy CCR surface impoundment as: A surface impoundment that is located at a power plant that ceased generating power prior to October 19, 2015, and

- Option 1—the surface impoundment contained both CCR and liquids on the effective date of the 2015 CCR Rule (*i.e.,* October 19, 2015); or
- Option 2—the surface impoundment contained both CCR and liquids on the date the Court issued its mandate for the August 21, 2018, court decision (*i.e.,* October 15, 2018); or
- Option 3—the surface impoundment contains both CCR and liquids on the date EPA issues a final rule bringing legacy CCR surface impoundments under the federal regulations.

i. Description of the ANPRM Options

Option 1 was based on October 19, 2015, which is the effective date of the 2015 CCR Rule. Under this approach a CCR surface impoundment at an inactive facility or electric utility that contained both CCR and liquids on October 19, 2015, would be regulated as a legacy CCR surface impoundment. Impoundments that contained both CCR and liquids prior to October 19, 2015, but not after this date, would not be subject to the new requirements under this option (*e.g.,* the facility took actions prior to October 19, 2015, to permanently remove liquids from the unit).

The first option is based on the Court's finding in the *USWAG* decision that there was no basis in the record on which to differentiate between legacy CCR surface impoundments and inactive CCR surface impoundments at active facilities in the 2015 CCR Rule. In the decision, the Court concluded there was no logical basis for distinguishing between inactive impoundments at active facilities that were regulated and inactive impoundments at inactive facilities that were exempt, and therefore vacated the exemption for legacy CCR surface impoundments in § 257.50(e). In the regulations, an inactive CCR surface impoundment at an active facility is defined as a ''CCR surface impoundment that no longer receives CCR on or after October 19, 2015, and still contains both CCR and liquids on or after October 19, 2015.'' Thus, under Option 1 the date the unit contained both CCR and liquids used in the definition of a legacy CCR surface impoundment would be identical to that used for inactive impoundments at active facilities, that is, October 19, 2015.

Option 2 was based on October 15, 2018, which is the date the Court issued the mandate for the *USWAG* decision that vacated and remanded the regulatory provision exempting legacy CCR surface impoundments from the CCR regulations. Under this approach a CCR surface impoundment at an inactive facility or electric utility that contained both CCR and liquids on October 15, 2018, would be regulated as a legacy CCR surface impoundment. Impoundments that contained both CCR and liquids prior to October 15, 2018, but not after this date, would not be subject to the new requirements under this option (*e.g.,* the facility took actions prior to October 15, 2018, to permanently remove liquids from the unit).

Option 3 was based on the effective date of a final rule bringing legacy CCR surface impoundments under the federal CCR regulations. Under this approach a CCR surface impoundment at an inactive facility or electric utility that contained both CCR and liquids on the effective date of the final rule would be regulated as a legacy CCR surface impoundment. Impoundments that contained both CCR and liquids prior to the effective date of the final rule, but not after this date, would not be subject to the new requirements.

Underpinning Option 3 is the concept that it may be difficult for some owners and operators of inactive facilities to determine whether a legacy CCR surface impoundment at its facility previously contained both CCR and liquids at a specific point in the past. For example, under Options 1 and 2, the demarcation date in the definition will be approximately nine and six years in the past, respectively, at the time the final rule is anticipated to be published and effective. Furthermore, the third option could eliminate possible regulatory confusion for legacy CCR surface impoundments that contained liquids and CCR on the demarcation date specified in the definition (*e.g.,* October 19, 2015, under Option 1) but are subsequently closed by the effective date of the final rule. An example of this situation using a cutoff date based on Option 1 would be a legacy CCR surface impoundment that was closed by removal of CCR in 2020. Under Option 3 the legacy CCR surface impoundment in this example would not be subject to the new rulemaking requirements because it did not contain both CCR and liquids on or after the effective date of the legacy CCR surface impoundment final rule.

Of the three options discussed in the ANPRM, EPA believes that Option 1 is arguably the most consistent with the *USWAG* decision and the most protective option. As discussed in the preceding Unit, the Court expressly found that EPA's record for the 2015 CCR Rule demonstrated that legacy ponds ''pose the same substantial threats to human health and the environment as the riskiest Coal Residuals disposal methods, compounded by diminished preventative and remediation oversight due to the absence of an on-site owner and daily monitoring.'' 901 F.3d at 432. Under Option 1 there would be no distinction between legacy CCR surface impoundments and the currently regulated inactive impoundments at active facilities. In addition, the intended effect of a vacatur is to restore the status quo, to what it would have been if the vacated provision had never existed. Here, that means legacy CCR surface impoundments would have been regulated by the 2015 CCR Rule. By choosing to vacate the provision, rather than remanding it back to the Agency, the Court made clear that its intent was for these units to immediately be subject to regulation. The fact that the vacatur did not achieve that does not change the court's intent.

ii. What comments did EPA receive on the options?

Summary of Comments on Option 1. Some commenters stated that inactive surface impoundments at inactive facilities should be treated no differently than active and inactive surface impoundments at active facilities. These commenters therefore supported Option 1 and explained that the regulations should similarly apply to inactive impoundments at inactive facilities containing CCR and liquids on October 19, 2015. Other commenters opposed Option 1 because they considered that it would represent the retroactive application of regulations and, in some cases, the application of fundamentally inapplicable requirements to units that are no longer surface impoundments because they no longer contain CCR and/or liquids. These commenters identified impoundments that have been dewatered, excavated, and closed pursuant to state oversight as an example of impoundments that would not be appropriate candidates for subsequent regulatory requirements because these units are no longer functioning as impoundments based on actions taken by facilities since October 19, 2015.

Other commenters stated that the definition for Option 1 (as well as Options 2 and 3) was too narrow and fails to address the universe of inactive impoundments at inactive facilities that pose a reasonable probability of adverse effects on health or the environment from the disposal of CCR. According to the comments, this is because Option 1 conditions regulation of legacy CCR surface impoundments on arbitrary dates on which the impoundments contained both CCR and liquids. These commenters stated that the definition must include high-risk impoundments (such as impoundments located in floodplains and unstable areas and units with bases inundated by groundwater), regardless of age or condition, because of the likelihood that they are causing or will cause adverse effects to health and the environment, including impoundments located in floodplains and unstable areas and units with bases inundated by groundwater. In addition, the commenters state that the definition of a legacy CCR surface impoundment must include units that were not closed in a manner consistent with the regulations because a unit without a sufficient final cover system will allow precipitation into the unit and will produce leachate.

Summary of Comments on Option 2. No commenters exclusively supported Option 2 over the other two options discussed in the ANPRM. Commenters disfavoring Option 2 did so for the same reasons as summarized for Option 1, largely stating that Option 2 ignores the current status of legacy CCR surface impoundments, inaccurately assesses current risks from these units, and disregards work and actions taken by facilities since August 21, 2018 (*e.g.,* removal of waste from the units, closure of the units). In addition, other commenters stated that Option 2 fails to meet the RCRA protectiveness standard for reasons discussed under Option 1.

Summary of Comments on Option 3. Several commenters supporting Option 3 stated that the definition of legacy CCR surface impoundments should be based on the scope of units identified in the 2018 *USWAG* decision. These commenters explained that the Court was concerned with the risks associated with lack of regulatory oversight over inactive CCR surface impoundments that contain impounded water, and therefore EPA's definition of a legacy CCR surface impoundment should similarly be those impoundments containing CCR and liquids on the effective date of the legacy CCR surface impoundment final rule. Finally, commenters stated that it is both impractical and unnecessary to look backwards to determine the historic regulatory status of a unit (*e.g.,* to determine whether the impoundment contained CCR and liquids at a particular time), or to require impoundments that have already closed to re-close under this rulemaking.

Some commenters said that Option 3 would avoid inclusion of effectively dry impoundments that are similar to inactive CCR landfills, which are not regulated under the 2015 CCR Rule. Another commenter stated that units maintained by its members provide good examples of units that it believed would not be appropriate candidates for new federal CCR regulation as legacy CCR surface impoundments. For instance, the commenter pointed to the units at the Riverbend Steam Station in Mount Holly, North Carolina, which the commenter stated underwent dewatering from 2014 through 2019 as part of the excavation process. In accordance with the facility's NPDES permit, the water was pumped to the on-site wastewater treatment facility for eventual discharge to the adjacent waterbody. Ash removal began in 2015 and was completed in 2019. The two ash basins at the Riverbend Steam Station have been excavated, and the dams for the facility's primary and secondary ash basins have been removed. According to the commenter, groundwater monitoring subject to state regulations and state-approved closure plans is ongoing. Finally, the commenter stated that the site has been regraded and seeded with grass. The commenter also pointed to Scholz Electric Generating Plant in Sneads, Florida, which has a 40-acre unit that was retired in April 2015 and ceased receipt of waste in 2015. According to the commenter, the facility is currently in its third year of closure construction and is subject to a June 2015 court-approved settlement agreement for closure as well as an August 2016 closure plan approved by the Florida Department of Environmental Protection.

The commenter also referenced the ash slurry settling ponds at the active Coronado Generating Station located in Saint Johns, Arizona. According to the commenter, the ponds, which are approximately 87 acres in size, were constructed in the mid-2000s and operated until early 2010 when the facility ceased placement of CCR material in the ponds. When in use, the ponds were utilized for CCR and non-CCR waste disposal, non-recyclable plant wastewater, scrubber sludge, and fly ash, all of which were wet sluiced to the ponds. The commenter stated that closure of the ponds was completed in April 2019 in accordance with all applicable State of Arizona Aquifer Protection Permitting (APP) rules, and all required CCR and APP documentation have been posted to the CCR public website and submitted to the Arizona Department of Environmental Quality (ADEQ). The commenter also stated that the ponds are currently in post-closure care in accordance with ADEQ APP regulations, including groundwater monitoring and reporting that will continue for 30 years from the date of closure. According to the commenter, none of these units are currently functioning as ponds, and therefore regulating these types of units at inactive plants would represent a retroactive application of inapplicable and redundant requirements. The commenter further stated that many utilities are in the process of dewatering and closing additional legacy CCR surface impoundments as part of a comprehensive, fleetwide ash basin closure program.

iii. Response to Comments and Proposed Option

As noted above, the Agency is proposing to define a legacy CCR surface impoundment, in part, as a surface impoundment that contained both CCR and liquids on or after October 19, 2015. Of the three options discussed in the ANPRM, EPA believes that Option 1 is the most consistent with the *USWAG* decision. As discussed in the preceding Unit, the Court expressly found that EPA's record for the 2015 CCR Rule demonstrated that legacy ponds ''pose the same substantial threats to human health and the environment as the riskiest Coal Residuals disposal methods, compounded by diminished preventative and remediation oversight due to the absence of an on-site owner and daily monitoring.'' 901 F.3d at 432. Under Option 1 there would be no distinction between legacy CCR surface impoundments and the currently regulated inactive impoundments at active facilities. In addition, the intended effect of a vacatur is to restore the status quo, to what it would have been if the vacated provision had never existed. Here, that means legacy CCR surface impoundments would have been regulated by the 2015 CCR Rule. By choosing to vacate the provision, rather than remanding it back to the Agency, the Court made clear that its intent was for these units to immediately be subject regulation. The fact that the vacatur did not achieve that does not change the Court's intent.

In addition, EPA is not persuaded by the commenters' objections to this option. EPA disagrees that reliance on the effective date of the 2015 CCR Rule would constitute a retroactive application of law. For a regulation to be retroactive, it must change the prior legal status or consequences of past behavior. See *Landgraf* v. *USI Film Products,* 511 U.S. 244, 269, n.4 (1994) (A rule ''is not made retroactive merely because it draws upon antecedent facts for its operation.''); *Treasure State Resource Industry Ass'n* v. *E.P.A.,* 805 F.3d 300, 305 (D.C. Cir. 2015). By contrast, here EPA is merely proposing to rely on a past fact to support the future application of regulations. And because EPA is proposing to establish future compliance dates, no facility would be subject to penalties solely because one of its legacy CCR surface impoundments was out of compliance with the regulatory requirements prior to the effective date of a rule finalizing this proposal.

EPA also disagrees that the proposed requirements fail to account for the current characteristics of some of these units. The fact that some utilities have begun to close, or even completed closure does not necessarily resolve the risks these units can pose to groundwater. The record shows that significant numbers of CCR surface impoundments were constructed such that the base of the unit intersects with groundwater, and that many ''closed'' impoundments, even those closed in accordance with state permits, continue to impound water below the water table (*i.e.,* contain liquid). The risks associated with such closures can be substantial (see Unit IV.B.1.b of this preamble for more information). Also, as discussed below in further detail, EPA is proposing that units that can demonstrate that they have met the performance standards for closure by removal in § 257.102(c) would be subject to no further requirements.

Finally, EPA recognizes that in some instances it may take some work to determine whether a surface impoundment previously contained both CCR and liquids on or after October 19, 2015. However, owners and operators of inactive power plants will be able to rely on operating records from when the power plant was operational, such as aerial photography, construction or inspection reports, groundwater monitoring data and employee testimonials to determine whether the impoundment contained both CCR and liquids on October 19, 2015.

Nevertheless, EPA also continues to consider, as an alternative, defining a legacy CCR surface impoundment as a CCR surface impoundment that no longer receives CCR but contains both CCR and liquids on or after the effective date of the final rule. This option would be the easiest to implement. Based on the Agency's interpretation of what it means ''to contain liquid'' this option would at most only exclude the 29 units [12] that may have completed clean closure in accordance with the performance standards in § 257.102(c) or have taken steps to remove all free

[12] This information can be found in the document titled ''Potential Legacy CCR Surface Impoundments'' in the docket for this action.

liquids, including groundwater, and address infiltration. and would therefore be equivalent to inactive landfills. While the latter category could still present the risk of contaminating groundwater, it is possible those risks could potentially be addressed by the proposed expansion of groundwater monitoring, corrective action, and closure obligations applicable to CCR management units. EPA therefore requests further comment on this option.

b. Legacy CCR Surface Impoundment—Contains Both Liquid and CCR

In response to EPA's ANPRM, some commenters stated that the phrase ''contain[ing] both CCR and liquids'' is impermissibly vague. These commenters believe that while it is clear that impoundments that currently contain visible, standing water would fit this definition, they are concerned that arguments can be made that the definition does not include those units whose bases are in contact with groundwater or that no longer have standing water at the surface. Other commenters stated that more clarity is required regarding the definition of a legacy CCR surface impoundment. Finally, several commenters argued that EPA should not limit its regulation to units that contain water, but should expand the regulation to apply to all CCR units.

i. What does it mean to contain liquid?

The ANPRM suggested that EPA would only revisit the date on which the determination would be made as to whether the impoundment contains both CCR and liquids. EPA did not indicate that the Agency intended to propose to limit or revise the existing requirement that in order to be considered an inactive CCR surface impoundment, the unit must contain both liquid and CCR. 40 CFR 257.53. However, as noted above, commenters have raised concerns that the existing definition is ambiguous and have raised questions about how these existing regulations apply to a number of factual scenarios. Specifically, commenters questioned whether the term ''liquids'' includes free water, porewater, standing water, and groundwater in CCR units.

The part 257 regulations do not include a definition of the term ''liquids.'' 40 CFR 257.53. Neither does RCRA define the term. *See,* 42 U.S.C. 6903. EPA therefore relies upon dictionary definitions to interpret the regulation. For example, Merriam-Webster defines it as ''a fluid (such as water) that has no independent shape but has a definite volume and does not expand indefinitely and that is only slightly compressible.'' Similarly, liquid (in physics) can be defined as one of the three principal states of matter, intermediate between gas and solid. The most obvious physical properties of a liquid are its retention of volume and its conformity to the shape of its container. Liquid can flow, and when a liquid substance is poured into a container or vessel, it takes the shape of that vessel, and will remain that way if conditions are unchanged (*e.g.,* the substance stays in the liquid state). Furthermore, when a liquid is poured from one vessel to another, it retains its volume (if there is no vaporization or change in temperature) but not its shape. These properties serve as useful criteria for distinguishing the liquid state from the solid and gaseous states.

In the realm of CCR surface impoundments, several types of liquids may be present in a CCR unit. For example, among others, this may include water that was sluiced into the impoundment along with the CCR, which may be found as free water ponded above the CCR or porewater intermingled with the CCR, or surface water and groundwater that has migrated into the impoundment due to the construction of the unit. Based on the regulatory terms, the structure, and context in which the terms are employed, as well as the dictionary definitions of ''liquid,'' above, and the fact that nothing in the regulatory definition limits the source of the liquid, EPA considers free water, porewater, standing water, and groundwater to be liquids under the existing regulation. Moreover, the source of the liquid is not important with respect to its basic and fundamental designation as a liquid. It therefore does not matter whether the liquid in the surface impoundment comes from the rain, waters the facility deliberately places in the unit, floodwaters from an adjacent river, or from groundwater—all are liquids, and once present in the unit, they have the same potential to create leachate (another type of liquid), as well as to contribute to hydraulic head and drive flows driven by hydraulic gradients.

Commenters questioned whether the existing definition of an inactive CCR surface impoundment would cover a surface impoundment where, prior to October 19, 2015, the facility has decanted the surface water, but, because the base of the impoundment intersects with the aquifer, water continues to flow through the impoundment and permeate the waste in the base of the unit. Commenters also questioned whether any of the following would also be covered: (a) Impoundments that contained CCR and liquids in the past but are now closed, (b) Impoundments that contained CCR and liquids in the past but will be in the process of closing by the effective date of the legacy rulemaking, and (c) Impoundments that once contained CCR and liquids but have been fully dewatered and are now maintained so as to not contain liquid.

The critical issue in these questions is whether on or after the relevant date in the regulation these units ''contain'' liquid. ''Contains'' means ''to have *or* hold (someone or something) within'' (*e.g.,* Oxford English Dictionary, Merriam-Webster). Accordingly, an impoundment ''contains'' liquid if there is liquid in the impoundment, even if the impoundment does not prevent the liquid from migrating out of the impoundment. In other words, it ''contains'' water if it *has* water within, even if it does not completely restrain the water within the unit.

A surface impoundment that, on or after October 19, 2015, has only decanted the surface water would normally still contain liquid if waste is saturated with water. To the extent the unit still contains liquids, it would be covered by the existing definition of an inactive impoundment. Under this proposed rule, such units would also be considered legacy CCR surface impoundments when located at inactive facilities. This would apply whether the unit is considered ''closed'' under state law, is in the process of closing, or whether at some subsequent point, the unit is fully dewatered and no longer contains liquid.

To determine whether an impoundment has only been partially dewatered, EPA relies on the dewatering requirement found in the closure performance standard at § 257.102(d)(2)(i) (''Free liquids must be eliminated by removing liquid wastes or solidifying the remaining wastes and waste residues''). Both the definition of an inactive CCR surface impoundment and the closure performance standard are designed to address the same issues (the presence or removal of liquid wastes) and are designed for the same purpose (to ensure the risks from the co-management of CCR and liquid are adequately addressed). Under the closure performance standard, a facility must eliminate both the standing liquid in the surface of the impoundment and the separable porewater in any sediment located in the base of the impoundment. Free liquids are defined at § 257.53 to mean ''liquids that readily separate from the solid portion of a waste under ambient temperature and pressure.'' This definition encompasses both standing liquids in the impoundment as well as porewater in any sediment or CCR. The regulation does not differentiate between the sources of the liquid in the impoundment (*e.g.,* surface water infiltration, sluice water intentionally added, groundwater intrusion). This is further supported by the fact that the performance standard at § 257.102(d)(2)(i) was modeled on the regulations that apply to interim status hazardous waste surface impoundments, which are codified at § 265.228(a)(2)(i). Available guidance on these interim status regulations clarifies that these regulations require both the removal of standing liquids in the impoundment as well as sediment dewatering. See ''Closure of Hazardous Waste Surface Impoundments,'' publication number SW–873, September 1982. See also, Final Decision on Request For Extension of Closure Date Submitted by Gavin Power, LLC, 87 FR 72989 (November 15, 2022).

Accordingly, units that contain both CCR and liquids from any source, including those specifically identified above, after the relevant date would be considered inactive CCR impoundments, consistent with the existing regulations. Although EPA considers that the term ''liquids'' is sufficiently clear that a definition is not necessary, EPA requests comment on whether it would be useful to include a regulatory definition of liquids.

Under the existing regulations, an impoundment that did not contain liquids prior to the effective date of the 2015 CCR Rule, whether because it was closed in accordance with existing state requirements or for other reasons, is not an inactive impoundment. Similarly, a unit that still contains CCR and liquid after the relevant effective date would still be considered an inactive unit even if it was closed in accordance with the requirements in effect at the time (*e.g.,* has a cover). EPA is not proposing to revise this for inactive impoundments, and for consistency, EPA is proposing that the same would hold true for legacy CCR surface impoundments, whatever date EPA ultimately selects for the definition.

However, EPA also received comments in response to the ANPRM stating that available groundwater monitoring data demonstrates that CCR landfills (whether active or inactive) are just as likely to contaminate groundwater as CCR surface impoundments (legacy or otherwise). Accordingly, the commenters argue that EPA should regulate all CCR units, without regard to whether they contain liquid.

EPA is not proposing to expand the definition of a legacy CCR surface impoundment to include units that contain no liquid. Units that contain liquid present different risks than those that do not, and the applicable requirements should differentiate among them accordingly on that basis. While EPA acknowledges that inactive landfills can still present the risk of contaminating groundwater, it is possible those risks could potentially be addressed by this rule's proposed expansion of groundwater monitoring, corrective action, and closure obligations to CCR management units. EPA acknowledges that its current proposal would not regulate every inactive CCR landfill, *e.g.,* it would not address any inactive landfill located at an inactive utility that did not also have an inactive CCR surface impoundment, but it is unclear how many of such units exist, and whether there are any reasons that the risks from these units may differ from those that EPA is proposing to regulate. EPA therefore requests comment on these issues.

i. What does it mean to ''contain'' CCR?

Under the existing regulation, an inactive CCR surface impoundment must contain CCR to be subject to the rule. 40 CFR 257.53. EPA is not proposing to revise that aspect of the term's definition. Consequently, EPA is proposing that a legacy impoundment that has closed by removal in accordance with the performance standards in § 257.102(c) before the relevant date would not be considered an inactive CCR surface impoundment. EPA is proposing that facilities with such a unit would only be required to post documentation that they have met the existing standard for closure by removal in § 257.102(c) on their CCR website. EPA is also proposing, however, that an impoundment at an inactive facility still undergoing closure by removal on the relevant date would be considered a legacy CCR surface impoundment subject to the final rule requirements. Depending on when the impoundment completes closure, some individual requirements may no longer be applicable to the legacy CCR surface impoundment (*i.e.,* when the compliance date in the final rule falls after the date closure is completed for the impoundment); but EPA has no basis for concluding that a legacy CCR surface impoundment that is still in the process of closing poses no risk.

A commenter asserted that EPA's authority under RCRA only extends to those impoundments where solid waste is still being ''disposed of'' at such inactive sites. According to the commenter, EPA's authority ends once the solid waste is removed from the inactive impoundment. The commenter cites the *USWAG* decision to support this interpretation, noting that the Court states that an impoundment regulated under RCRA includes:

> any facility . . . where solid waste still ''is deposited,'' ''is dumped,'' ''is spilled,'' ''is leaked,'' or ''is placed,'' regardless of when it might have originally been dropped off.'' See 42 U.S.C. 6903(3), (14). . . A site where garbage ''is disposed of'' is the place where garbage is dumped and left. The status of the site does not depend on whether or not more garbage is later piled on top. A garbage dump is a garbage dump until the deposited garbage is gone.

The commenter concludes that, following the Court's logic, a legacy CCR surface impoundment is regulated under RCRA because CCR is currently deposited and stored at the site, but it remains an impoundment regulated under RCRA only during the time CCR is actually being stored at the site. According to the commenter, once all the CCR is removed from the impoundment and the impoundment site has achieved clean closure status according to state regulators, no CCR is being disposed as a solid waste at the site and consequently the impoundment is no longer subject to federal CCR regulation under Subtitle D of RCRA. By contrast, another commenter relied on the *USWAG* decision to conclude that EPA must regulate all legacy CCR surface impoundments unless the facility demonstrates that the unit has complied with the requirements in § 257.102(c). According to the commenter, the Court explained that ''the statute creates a binary world: A facility is a permissible sanitary landfill, or it is an impermissible open dump. The EPA regulates both. The timing or continuation of disposal is irrelevant.''

EPA agrees that it no longer has jurisdiction over a former unit that has closed by removal in accordance with § 257.102(c). Once those standards have been met, no CCR ''still 'is deposited,' 'is dumped,' 'is spilled,' 'is leaked,' or 'is placed.''' This is consistent with EPA's proposal to require the owner or operator to document that the unit has closed in accordance with § 257.102(c), but to impose no requirements on such units.

Nevertheless, EPA is unable to accept the suggestion that EPA exempt legacy CCR surface impoundments that have met state requirements for clean closure. The commenter did not provide any information about any of the state requirements they reference, or otherwise provide information that would allow EPA to evaluate how the individual state requirements compare to § 257.102(c). Based on the current record EPA can only support a determination that units that have clean closed since 2015 under a state CCR permit program meet the closure requirements in § 257.102(c) for those facilities operating under a permit issued pursuant to one of the three approved state CCR permit programs (Oklahoma, Georgia, and Texas). Moreover, in RCRA section 4005(d)(1) Congress established specific standards and mandated the process for EPA to determine that state requirements should operate in lieu of the federal. Under those provisions, a state can apply to obtain authorization from EPA to operate its program (either in whole or in part) in lieu of the federal requirement by demonstrating that either of the standards in RCRA section 4005(d)(1)(B) has been met. Relying on that congressionally mandated process, rather than this rulemaking, is the appropriate route to address the commenters' concerns about duplication between federal and state requirements.

EPA acknowledges that since the 2015 CCR Rule and the *USWAG* decision some units have closed or have begun to close in accordance with state permits. The Agency is also aware of units that closed on their own initiative in response to the D.C. Circuit's ruling. In response to the ANPRM, EPA received information that since October 19, 2015, 22 surface impoundments at inactive facilities have closed by removal, and 27 surface impoundments have closed with waste in place, either with oversight from a state agency or on their own initiative in response to the *USWAG* decision. A number of commenters claimed that their units are heavily vegetated or developed and that reopening or other removal/remediation activities may disrupt current use of the land. It may well be that some old units are heavily vegetated. However, no commenter submitted any data or analysis to demonstrate that, over the long term, removal or remediation activities would be more detrimental to health and the environment than either cleaning up the contaminated groundwater or taking measures to prevent the legacy CCR surface impoundment from contaminating groundwater.

Moreover, the fact that some impoundments have become heavily vegetated or redeveloped does not resolve the risks these unlined legacy CCR surface impoundments continue to pose. At a minimum, the record shows that significant numbers of CCR surface impoundments were constructed such that the base of the unit intersects with groundwater, and that many inactive, or even "closed," impoundments continue to impound water below the water table (*i.e.,* contain liquid). The risks associated with such closures can be substantial. See Unit IV.B.1.b of this preamble for more information. Consequently, based on the current record, EPA could not support an exemption for units that still contain both liquid and CCR even if the closure or remediation may disrupt the current use of the land.

c. Inactive Facility

Consistent with *USWAG,* EPA is proposing to regulate all inactive CCR surface impoundments at inactive utilities. To support this decision, EPA is proposing to define an inactive utility (or inactive facility) as one that ceased producing electricity prior to October 19, 2015. This date is the effective date of the 2015 CCR Rule. This is also the same date currently used in the regulation to define "active facility," and that EPA originally used to define the exempted units. Use of this date would mean that the same universe of units that were subject to the original exemption would be regulated. This is consistent with the Court's vacatur, as vacatur is intended to restore the status quo ante, as though the vacated provision never existed.

This definition is important to identify which facilities have legacy CCR surface impoundments and therefore are subject to these proposed regulations. EPA is relying on the existing rulemaking record and provisions in § 257.50(b) to draw conclusions about the production of power such that an inactive facility contains "units that dispose or otherwise engage in solid waste management of CCR generated from the combustion of coal at electric utilities and independent power producers," and from § 257.50(c), which says "electric utilities or independent power producers, regardless of the fuel currently used at the facility to produce electricity." EPA is also relying on the existing definition of "facility" which means "all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, disposing, or otherwise conducting solid waste management of CCR. A facility may consist of several treatment, storage, or disposal operational units (*e.g.,* one or more landfills, surface impoundments, or combinations of them)."

Ownership and the ability to identify those responsible for complying with these regulations is a key consideration for the proposed definition of an inactive facility. EPA analyzed the list of inactive CCR facilities provided in the ANPRM comments and conducted additional research to determine the owner of those facilities. To identify the owners of legacy CCR surface impoundments, EPA conducted a two-tiered research process. First, EPA conducted a general search that included desktop research, with a focus on news articles and trade publications regarding plant closures and ownership transfers, to identify the most recent identified owner of each former plant. Where possible, EPA confirmed the findings with utility websites, which often contain information on retired or converted plants, and often have corporate timelines that identify transfer of properties to other parties. In addition, where possible, when EPA identified an owner, the Agency attempted to confirm that the property or plant was listed on the owner's website. If information could not be confirmed, EPA continued researching until all other entities that could potentially currently own the plant could be ruled out. Second, EPA ran these identified owners through the Dun & Bradstreet Hoover's database to identify the ultimate corporate parent of the identified owner. The 156 legacy CCR surface impoundments on the list are associated with 37 different unique corporate parents. Of the 156, the vast majority, 126, are owned by a set of 23 companies the Agency knows own facilities regulated by the CCR regulations. The remaining 30 units are owned by 14 different companies, with each company generally having just one location/site with legacy CCR surface impoundments (with one exception, that owns two sites). Therefore, it appears that most of the inactive facilities are owned by companies that are already regulated by the CCR regulations. Some of them are owned by a company that is not currently regulated by the CCR regulations, but the company has at least one facility with potential legacy CCR surface impoundments. EPA has not identified any facilities where the owner cannot be determined.

In the ANPRM, EPA solicited comments about innocent owners of inactive facilities, but several commenters said that unlike the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), RCRA does not contain an "innocent owner" concept, and there is therefore no statutory basis for uniformly excluding these owners from any RCRA regulations applicable to legacy CCR surface impoundments. The same commenter said the owner should be the owner at the time of rule promulgation and that owner would be in a position to make decisions and act in response to new regulatory requirements applicable to the legacy CCR surface impoundments. Based on EPA's analysis of inactive facility ownership, EPA has no factual basis to establish an innocent owner provision and therefore is not proposing one.

A commenter suggested that EPA should use the phrase ''permanently ceased generating,'' because plants can exist in various stages of generation, including seasonal mothball status, depending on the market conditions and the needs of the independent system operators. EPA disagrees that this is necessary or appropriate, as any facility that generates power after October 19, 2015, is considered an ''active facility,'' that is covered under the existing regulations. See, 40 CFR 257.53 (defining Active facility). Under § 257.50(c), the regulations apply to ''inactive CCR surface impoundments at active electric utilities or independent power producers, regardless of the fuel currently used at the facility to produce electricity.'' 40 CFR 257.50(c).

The question has been raised whether the phrase ''regardless of the fuel currently used to produce electricity'' in § 257.50(c) indicates that EPA meant to limit the rule to facilities that combust fossil fuels; but the provision does not state or even imply that limitation. The definition of an active facility does not include any limitation related to how the facility generates electricity, including fuel use. Nor does the clause, ''regardless of the fuel currently used to produce electricity'' in § 257.50(c) add a fuel use limitation into that definition, or otherwise create a fuel use limitation in the scope of the rule. The plain language of the clause states the opposite; that coverage applies without regard to the fuel used to produce electricity. Or in other words, without regard to the type of fuel used or indeed whether any fuel is used to produce electricity. Nevertheless, to avoid any further confusion, EPA is proposing to amend the provision to specify that the subpart also applies to inactive CCR surface impoundments at active electric utilities or independent power producers, regardless of how electricity is currently being produced at the facility.

Finally, EPA requested comment as to whether the Agency's regulation of inactive CCR surface impoundments should be limited to only units at former power plants that sold electric power to the grid or whether it should also reach units at former power plants that provided power to a single site or facility. In response, some commenters said that EPA should regulate all inactive impoundments without regard to whether those impoundments are located at power plants that once sold electric power to the grid or supplied it only to a single site or facility. They said it is not the location of the impoundment, but rather the presence of coal ash, that controls. Other commenters said this could also prove to be a thorny factual issue, as, in many cases, the same power plant might have served a single site or facility for some period of time as well as served the grid at other times.

For the same reasons that EPA did not include CCR generated by non-utility boilers in the 2015 CCR Rule, EPA is not proposing to regulate units at former power plants that provided power to a single site or facility. See, 80 FR 21340. EPA lacks critical data about such facilities needed to determine whether and how to regulate such facilities. These facilities are primarily engaged in business activities, such as agriculture, mining, manufacturing, transportation, and education. These industries, and the manufacturing industries in particular, generate other types of wastes that are often mixed or co-managed with the CCR at least at some facilities. As a result, the chemical composition of the co-managed waste is likely to be fundamentally different from the chemical composition of CCR generated by electric utilities or independent power producers. EPA requests comment on the likely chemical composition of other types of wastes generated by these industries that were co-managed with any CCR generated at such facilities. Insufficient information is also available on such facilities to determine whether a regulatory flexibility analysis will be required under the Regulatory Flexibility Act, and to conduct one if it is necessary. EPA therefore requests comment on whether the Agency should continue to pursue this issue by seeking to obtain the information necessary to determine whether regulation of such facilities is warranted.

d. Conclusions Related to Scope of Coverage

After considering all of this information, EPA is proposing to define a legacy CCR surface impoundment as: A surface impoundment that is located at a power plant that ceased generating power prior to October 19, 2015, and the surface impoundment contained both CCR and liquids on or after October 19, 2015. EPA considers this definition to be the most protective of human health and the environment for the reasons provided herein.

Alternatively, EPA solicits comments on defining a ''legacy CCR surface impoundment'' as: A CCR surface impoundment at a power plant that ceased generating power prior to October 19, 2015, and the surface impoundment contains both CCR and liquids on or after the effective date of the legacy CCR surface impoundment final rule.

2. Applicable Requirements for Legacy CCR Surface Impoundments and Compliance Deadlines

This Unit of the preamble first provides a general overview of how EPA determined the applicable requirements and compliance deadlines for legacy CCR surface impoundments. Then, EPA will walk through each of the existing requirements for CCR surface impoundments and explain (1) Why EPA is proposing to apply them (or not) to legacy CCR surface impoundments, and (2) The rationale for the compliance deadline EPA is proposing for each requirement.

a. General Overview

i. Applicable Requirements

Based on the record compiled for the 2015 CCR Rule, EPA concluded that ''there is little difference between the potential risks of an active and inactive surface impoundment; both can leak into groundwater, and both are subject to structural failures that release the wastes into the environment, including catastrophic failures leading to massive releases that threaten both human health and the environment.'' (80 FR 21343). As discussed in Unit III.B of this preamble, the D.C. Circuit concurred, and on that basis, vacated the exemption for legacy CCR surface impoundments. *See, USWAG* at 901 F.3d at 434. EPA received no information in response to the ANPRM that would support a conclusion that legacy CCR surface impoundments present fewer risks than other inactive CCR impoundments. Based on this record and on the specificity of the D.C. Circuit's findings in *USWAG,* EPA considers that it has limited discretion to establish requirements for legacy CCR surface impoundments that are significantly different than those currently applicable to inactive CCR impoundments. Accordingly, EPA is proposing that, in most cases the existing requirements in 40 CFR part 257, subpart D applicable to inactive CCR surface impoundments would apply to legacy CCR surface impoundments. EPA is proposing to make one revision to the existing groundwater monitoring requirements. In addition, EPA is proposing to establish two new requirements specific to legacy CCR surface impoundments: a reporting requirement and a new security requirement to restrict public access to these sites. Finally, EPA is proposing that legacy CCR surface impoundments would not be subject to either the location restrictions at §§ 257.60 through 257.64, or the liner design criteria at § 257.71. EPA is proposing to exclude these requirements because EPA believes they will not be necessary if EPA takes final action on the proposed requirement that all legacy CCR surface impoundments initiate closure no later than 12 months after the effective date of the final rule.

Some commenters on the ANPRM said that all provisions currently required for CCR surface impoundments at active power plants (or those that were operating as of the effective date of the rule), are just as necessary—if not more so—at legacy CCR surface impoundments to ensure satisfaction of the RCRA section 4004(a) protectiveness standard. Other commenters said the only applicable requirements should be groundwater monitoring, closure, post-closure care, and related recordkeeping requirements. Several of these commenters also said that the 2015 CCR rulemaking record is not directly applicable to the universe of units that are located at inactive power plants and still contain CCR and liquids. They said the 2014 CCR Risk Assessment used to develop the 2015 CCR Rule was limited to current disposal practices and did not consider units that had stopped receiving waste or historically disposed of CCR by facilities that no longer operate. According to these commenters, the Agency must first accurately identify the universe of legacy CCR surface impoundments, the specific characteristics of risk for those impoundments, and then analyze whether other authorities are sufficient to address any risk from these legacy CCR surface impoundments.

Finally, some commenters requested that EPA include a mechanism for legacy CCR surface impoundment owner(s) and/or operator(s) to demonstrate that, in such cases, additional CCR requirements would be unnecessary. The commenters stated that this would be similar to the case-by-case determinations established under the Holistic Approach to Closure Parts A and B final rules (85 FR 53516 and 85 FR 72506) that provided a mechanism for the Agency to issue variances for plants that could successfully make the required demonstration.

ii. Compliance Deadlines

EPA is proposing to establish new compliance dates for legacy CCR surface impoundments. The compliance deadlines in the 2015 CCR Rule were generally based on the amount of time determined to be necessary to implement the requirements. To determine what was feasible, EPA accounted for the fact that some of the new requirements involved numerous activities, many of which must occur sequentially (*e.g.,* the groundwater monitoring requirements in §§ 257.90 through 257.95), as well as concerns about shortages of contractor and lab resources resulting from the fact that those numerous facilities would need to come into compliance at the same time. EPA also accounted for other Agency rulemakings that could have affected the owners or operators of CCR units, namely the 2015 Effluent Limitation Guidelines (ELG) and Standards for the Steam Electric Power Generating Point Source Category and the Carbon Pollution Commission Guidelines for Existing Stationary Sources: Electric Utility Generating Units. In establishing the proposed deadlines for legacy CCR surface impoundments, EPA adopted the same approach, and is proposing deadlines based on the amount of time determined to be necessary to implement the requirements. But some of the factors considered in the 2015 rulemaking are not relevant for legacy CCR surface impoundments; for example, there is no longer a need to coordinate with the ELG compliance deadlines. In addition, most facilities are already familiar with these requirements as they have already implemented them for other units at their active sites, so the timeframes need not account for the time that would be needed for a facility to understand the regulations and develop strategies for compliance. Finally, there will be fewer facilities and units that will need to come into compliance, and EPA no longer has concerns about shortages of contractors and lab resources. Consequently, EPA is generally proposing expedited timeframes for legacy CCR surface impoundments to comply with the regulations, based on the shortest average amount of time needed to complete the activities involved in meeting the requirements. Overall, comments submitted in response to the ANPRM acknowledged these differences and most supported the establishment of shorter deadlines than were established in the 2015 CCR Rule.

Note that all deadlines herein are framed by reference to the effective date of the rule and have been proposed based on an effective date that is six months from publication of the final rule. The Agency has included a document in the docket [13] for this rule that summarizes the proposed compliance deadlines. EPA requests comment on the compliance deadlines and the feasibility to meet the proposed compliance timeframes for legacy CCR surface impoundments.

TABLE 1—PROPOSED COMPLIANCE TIMEFRAMES FOR LEGACY CCR SURFACE IMPOUNDMENTS IN MONTHS AFTER EFFECTIVE DATE OF THE FINAL RULE

40 CFR part 257, subpart D requirement	Description of requirement to be completed	Proposed deadline (months after effective date of the final rule)	Notes
Applicability Documentation (§ 257.100).	Applicability Documentation for the legacy CCR surface impoundment.	0	Prerequisite requirements: Establish CCR website. Subsequent requirements: History of construction; Initial structural stability assessment; Initial safety factor assessment.
Design Criteria (§ 257.73)	Install permanent marker	0.	
Site Security (§ 257.100(f)(3)(iii))	Implement site security measures.	0.	

[13] This information can be found in the document titled ''Proposed Compliance Deadlines for Legacy CCR Surface Impoundments and CCR Management Units'' in the docket for this action.

TABLE 1—PROPOSED COMPLIANCE TIMEFRAMES FOR LEGACY CCR SURFACE IMPOUNDMENTS IN MONTHS AFTER EFFECTIVE DATE OF THE FINAL RULE—Continued

40 CFR part 257, subpart D requirement	Description of requirement to be completed	Proposed deadline (months after effective date of the final rule)	Notes
Operating Criteria (§ 257.80)	Prepare fugitive dust control plan.	0	Subsequent requirements: Initial annual fugitive dust report.
Operating Criteria (§ 257,80, 257.82, 257.83).	Initiate weekly inspections of the CCR unit.	0	Subsequent requirements: Initial annual inspection of the CCR unit.
Operating Criteria (§ 257,80, 257.82, 257.83).	Initiate monthly monitoring of CCR unit instrumentation.	0	Subsequent requirements: Initial annual inspection of the CCR unit.
Internet Posting (§ 257.107)	Establish CCR website	0	Subsequent requirements: Applicability report; all recordkeeping.
Design Criteria (§ 257.73)	Compile a history of construction	3	Prerequisite requirements: Applicability report. Subsequent requirements: Hazard potential classification; Emergency Action Plan; Initial hazard classification assessment; Initial structural stability assessment; Initial safety factor assessment; Initial annual inspection; Groundwater monitoring system.
Design Criteria (§ 257.73)	Complete initial hazard potential classification assessment.	3	Prerequisite requirements: Applicability report; History of construction. Subsequent requirements: Emergency Action Plan.
Design Criteria (§ 257.73)	Complete initial structural stability assessment.	3	Prerequisite requirements: Applicability report; History of construction. Subsequent requirements: Emergency Action Plan.
Design Criteria (§ 257.73)	Complete initial safety factor assessment.	3	Prerequisite requirements: Applicability report; History of construction. Subsequent requirements: Emergency Action Plan.
Operating Criteria (§ 257,80, 257.82, 257.83).	Complete the initial annual inspection of the CCR unit.	3	Prerequisite requirements: History of construction; Weekly inspections of the CCR unit; Monthly monitoring of CCR unit instrumentation.
GWMCA (§ 257.91)	Install the groundwater monitoring system.	6	Prerequisite requirements: Applicability report; History of construction. Subsequent requirements: Groundwater sampling and analysis program; Initiate detection and assessment monitoring; Annual GWMCA report; Written closure plan; Initiate closure.
GWMCA (§ 257.93)	Develop the groundwater sampling and analysis program.	6	Prerequisite requirements: Install the groundwater monitoring system. Subsequent requirements: Initiate detection monitoring and assessment monitoring.
GWMCA (§ 257.90(e))	Annual GWMCA report	January 31 of the year following GWM system install.	Prerequisite requirements: Groundwater monitoring system; Groundwater sampling and analysis plan.
Design Criteria (§ 257.73)	Prepare Emergency Action Plan	9	Prerequisite requirements: History of construction; Hazard potential classification; Initial structural stability assessment; Initial safety factor assessment.
Operating Criteria (§ 257.82)	Prepare initial inflow design flood control system plan.	9	Prerequisite requirements: History of construction; Hazard potential classification.
Operating Criteria (§ 257.80)	Prepare initial annual fugitive dust report.	12	Prerequisite requirements: Fugitive dust plan.
Closure (§§ 257.100–257.101)	Prepare written closure plan	12	Subsequent requirements: Initiate closure.
Post-Closure Care (§ 257.104)	Prepare written post-closure care plan.	12	Prerequisite requirements: Written closure plan.
Closure and Post-Closure Care (§ 257.101).	Initiate closure	12	Prerequisite requirements: Written closure plan.
GWMCA (§§ 257.90–257.95)	Initiate the detection monitoring and assessment monitoring. Begin evaluating the groundwater monitoring data for SSI over background levels and SSL over GWPS.	24	Prerequisite requirements: Groundwater monitoring system; Groundwater sampling and analysis plan.

b. New Requirements Specific to Legacy CCR Surface Impoundments

i. Legacy CCR Surface Impoundment Applicability Documentation

EPA is proposing to require the owner and operator of a legacy CCR surface impoundment to prepare an applicability documentation for any legacy CCR surface impoundment at that facility no later than the effective date of the final rule. This requirement would apply to all legacy CCR surface impoundments, including incised impoundments and impoundments that do not meet the height and storage volume cutoffs specified in § 257.73(b). See, proposed regulatory text at § 257.100(f)(1)(i). EPA is proposing that this applicability documentation would include information to identify the unit, delineate the unit boundaries, include a figure of the facility and where the unit is located at the facility, the size of the unit, its proximity to surface water bodies, and the current site conditions. For impoundments that are incised or for those not meeting the height and storage volume thresholds specified in § 257.73(b), the applicability report must document these conditions so that stakeholders can understand what structural integrity requirements will apply to the legacy CCR surface impoundment. EPA is also proposing that the applicability report include the facility address, latitude and longitude, and contact information of the owner and/or operator of the legacy CCR surface impoundment with their phone number and email address. EPA is also proposing that the owner or operator of the legacy CCR surface impoundment notify the Agency of the establishment of the facility's CCR website and the applicability of the rule, using the procedures currently in § 257.107(a) via the ''contact us'' form on EPA's CCR website.

ii. Site Security for Legacy CCR Surface Impoundments

Active facilities generally have guards and fencing to control access to the facility, but inactive CCR facilities may not have such security controls in place at the facility. To minimize that risk, EPA is proposing that owners and operators establish security controls to restrict access to legacy CCR surface impoundments. The proposed security requirements are written in terms of a performance standard, as opposed to a prescriptive set of technical standards, such as specific signage, barriers and fencing, or surveillance techniques. EPA chose this approach because it would allow the owner or operator to identify the most appropriate means for providing site security for the impoundment based on site-specific circumstances.

Some commenters on the ANPRM agreed that such requirements are necessary because legacy CCR impoundments are located at inactive power plants, unlike impoundments at operating power plants, they almost certainly lack the oversight and protection afforded by significant numbers of on-site personnel. Consequently, the integrity of impoundments and berms and the safety of nearby residents depend on robust security measures to ensure that people are not—whether intentionally or unknowingly—entering the site and taking actions (such as ATV driving, dirt biking, or similar activities) that endanger the integrity of the impoundment or expose trespassers to health risks.

The proposed site security performance standard would require the owner or operator to prevent the unknowing entry of people onto the legacy CCR surface impoundment and to minimize the potential for the unauthorized entry of people or livestock onto the impoundment. See proposed regulatory text in § 257.100(f)(3)(iii). The Agency generally modeled the proposed requirements on existing regulations that apply to interim status hazardous waste surface impoundments, which are codified at § 265.14(a). EPA recognizes that some facilities may have facility-wide access controls in place, and in this case, the facility-wide controls would satisfy the proposed requirement to limit public access to the legacy CCR surface impoundment. The Agency is proposing to require the facility to restrict access to the area containing the legacy CCR surface impoundment no later than the effective date of the final rule. See, proposed regulatory text at § 257.100(f)(3)(iii).

iii. Certification of Closure by Removal for Legacy CCR Surface Impoundments

As discussed in Unit IV.A.1.b.ii of this preamble, where a legacy CCR surface impoundment has completed closure of the CCR unit by removal of waste in accordance with the performance standards in § 257.102(c) prior to the effective date of the final rule, EPA is proposing that the owner and operator of an inactive facility post documentation that they have met the existing standard for closure by removal in § 257.102(c) on their CCR website. If such a demonstration cannot be made, the CCR surface impoundment would be regulated as a legacy CCR surface impoundment. EPA is proposing to require that the closure certification be certified by a qualified professional engineer (P.E.). EPA is proposing to require certification by a qualified professional engineer even though the Agency now has authority to enforce the part 257 regulations. This is because the certification is not intended as a substitute for EPA's oversight, but as a supplement to ensure that the regulated community properly understands and implements the regulations. As EPA explained in 2015, the purpose of requiring certification was to ensure that qualified individuals verify that the technical provisions of the rule have been properly applied and met, not to delegate regulatory oversight to the engineer, or to serve as a shield against judicial enforcement. See 80 FR 21335. Consistent with the original 2015 requirements, the performance standards that EPA is proposing to establish are independent requirements and would remain enforceable regardless of whether a P.E. certification has been obtained.

EPA is proposing to require that the certified demonstration be completed and posted on the facility website no later than the effective date of the final rule. See proposed regulatory text at § 257.100(f)(1)(ii). Because the closure of the unit will have been already completed, the information on which to base the demonstration should be readily available. Consequently, EPA believes that requiring completion of this requirement, if applicable, by the effective date of the final rule provides sufficient time for such a task.

c. Location Restrictions and Liner Design Criteria

The CCR regulations require existing CCR surface impoundments that cannot demonstrate compliance with the location restrictions for placement of CCR above the uppermost aquifer, in wetlands, within fault areas, in seismic impact zones, or in unstable areas (specified in §§ 257.60 through 257.64) to cease receipt of waste and retrofit or close. The purpose of these requirements is largely to ensure that units located in particularly problematic areas cease operation. By definition, legacy CCR surface impoundments are not operating, and because it appears that all legacy CCR surface impoundments are unlined and will therefore be required to close, EPA believes that requiring compliance with the location restrictions would be largely redundant. Commenters on the ANPRM largely supported not requiring location restrictions or liner demonstrations on the grounds that location restrictions and operating and design criteria are not relevant to this class of units, as these requirements primarily sought to ensure active units operated safely. Other commenters raised concern that requiring compliance with one or more location restrictions would provide information that would be ''critical'' to designing unit closure and any necessary corrective action. EPA agrees that this information would be useful but believes the same information will be captured by compliance with the history of construction requirement, the closure plan, or in the development of the groundwater monitoring system.

EPA is also proposing that the requirement to document whether the impoundment was constructed with a composite liner or alternative composite liner under § 257.71(a)(1) is not warranted for legacy CCR surface impoundments. The original purpose of this provision was to determine whether the unit was unlined, and consequently subject to closure. However, the available information indicates that legacy CCR surface impoundments were largely constructed well before composite liners systems were typically installed. For this reason, EPA expects legacy CCR surface impoundment to be unlined and, therefore, EPA is proposing to require all legacy CCR surface impoundments to close. As a consequence, EPA believes that requiring facilities to compile the information required by § 257.71(a)(1) would not provide useful information or otherwise be necessary.

d. Design Criteria for Structural Integrity for Legacy CCR Surface Impoundments

To help prevent damages associated with structural failures of CCR surface impoundments, existing surface impoundments must meet specified structural integrity criteria in § 257.73 as part of the design criteria. EPA is proposing that all existing structural integrity requirements be applicable to legacy CCR surface impoundments without revision.

i. Installation of a Permanent Marker for Legacy CCR Surface Impoundments

Consistent with the existing requirements for CCR surface impoundments, EPA is proposing that owners or operators of legacy CCR surface impoundments, except for ''incised CCR surface impoundments'' as defined in § 257.53, comply with § 257.73(a)(1), which requires the placement of a permanent identification marker, at least six feet high on or immediately adjacent to the CCR unit with the name associated with the CCR unit and the name of the owner or operator. See, proposed regulatory text at § 257.100(f)(2)(i).

EPA is proposing that placement of the permanent marker must be completed by the owner or operator of the legacy CCR surface impoundment by the effective date of the final rule. By comparison, installation of a permanent marker was required two months after the effective date of the 2015 CCR Rule. The proposed deadline is expedited for the reasons described in Unit IV.A.2.a.ii of this preamble and accounts for sufficient time for survey work, and review of records in facility deeds or other records.

ii. History of Construction for the Legacy CCR Surface Impoundments

Under the existing regulations, CCR surface impoundments that either have: (1) A height of five feet or more and a storage volume of 20 acre-feet or more; or (2) Have a height of 20 feet or more, must document the design and construction of the CCR surface impoundment. 40 CFR 257.73(b) and (c). *See also* 80 FR 21379–21380, April 17, 2015. EPA is proposing that owners or operators of legacy CCR surface impoundments that meet this size threshold would be required to comply with the existing requirements to compile the construction history of the legacy CCR surface impoundment. See proposed regulatory text in § 257.100(f)(2)(ii).

Some commenters on the ANPRM agreed that the history of construction is critical to an evaluation of the long-term stability of legacy CCR surface impoundments, which must be considered to determine if the closure performance standards for closure in place can be met at the impoundment and whether a given corrective action meets the requirement to select a safe, protective remedy. The history of construction is also critical in the event of any failure of the impoundment: emergency response personnel must have access to that information to determine how to halt further failure, and further release of CCR, as quickly as possible.

For legacy CCR surface impoundments, EPA acknowledges that much of the construction history of the surface impoundment may be unknown or lost to time. The Agency conducted assessments of impoundments across the country starting in 2009 (herein referred to as 2009–2014 Assessment Program). For information about these assessments and how the results impacted the 2015 CCR Rule, *see* 80 FR 21313–21318 (April 17, 2015). The results from the 2009–2014 Assessment Program confirmed that many owners or operators of CCR units did not possess documentation on the construction history or operation of the CCR unit. 80 FR 21380. Information regarding construction materials, expansions or contractions of units, operational history, and history of events was frequently difficult for the owners or operators to obtain. Therefore, consistent with the existing regulations, the owner or operator would only need to provide information on the history of construction to the extent that such information is reasonably and readily available.

To complete the history of construction report, typically, the owner and operator first enlist a contractor to generate the history of construction report. Contracting typically involves the owner and operator issuing a request for proposal, contractors responding to the request, and the owner and operator evaluating the bids and selecting a contractor (estimate 1–2 weeks). Following selection and onboarding of a contractor, a data inventory, compilation, and review of existing documents is completed by the owner and operator and contractor to meet the requirements in § 257.73(c)(1)(i) through (xi) (estimate 4–6 weeks). Examples of documents compiled may include the CCR unit's design drawings and construction documents, such as construction reports, quality assurance, as-built records, and historic boring log reviews (*e.g.,* subsurface investigation used for original CCR unit design, post-construction subsurface investigations, geotechnical studies). Data from external sources may also be needed such as the U.S. Geological Survey (USGS) 7.5-minute or 15-minute topographic quadrangle maps (§ 257.73(c)(1)(ii)) or National Hydrography Datasets (§ 257.73(c)(1)(iv)). The compiled data must then be reviewed, analyzed, and documented in reports (estimate 3–4 weeks). Examples of analyses may include maximum CCR depths, area-capacity curves, spillway capacities, and the maximum pool surface elevation following peak discharge from the inflow design flood. This estimate assumes that no new extensive analyses are needed, and that all necessary information can be derived from existing reports (*e.g.,* hydraulic and hydrologic reports). If new analyses are needed (*e.g.,* maximum CCR depth), they are assumed to be minor with data inputs for performing these analyses existing and readily available such as field surveys (*e.g.,* historic site preparation surveys, post-construction/as-built surveys, periodic surveys, bathymetric surveys). Based on these assumptions, the time required to generate a history of construction report is 8–12 weeks or 2–3 months. Therefore, EPA is proposing to require the history of construction report to be compiled no later than 3 months after the effective date of the final rule.

Expediting this timeframe compared to the 2015 CCR Rule timeframe is important for the reasons described above in Unit IV.A.2.a.ii of this preamble and because several additional requirements depend on the information that would be obtained by compliance with these requirements. For example, available geologic subsurface information from history of construction is typically necessary to determine the number, spacing and location of monitoring wells for the installation of a groundwater monitoring system that meets the criteria of § 257.91. Another example is that § 257.73(c)(1)(xi) requires reporting any record or knowledge of structural instability of the CCR unit; this information is also needed for the initial and periodic structural stability assessments required under § 257.73(d).

iii. Initial Hazard Potential Classification for Legacy CCR Surface Impoundments

Consistent with the existing regulations, EPA is proposing that owners or operators of legacy CCR surface impoundments, except for incised CCR surface impoundments as defined in § 257.53, must complete the initial periodic hazard potential classification assessment required under § 257.73(a)(2). See, proposed regulatory text at § 257.100(f)(2)(iii).

Hazard potential classification assessments require activities that can be summarized as data/documentation review, a site visit, and report generation. As stated above, acquiring a contractor may take 1–2 weeks. The contractor would then perform a site visit and review available hazard documents such as existing state or federal dam hazard potential classification documents or any previous structural stability or safety factor documentation. The contractor then generates a P.E.-certified report stating the hazard classification determination and basis for the findings. The site visit is estimated to take 1 week. The data/documentation review and report generation are expected to take a total of 4–6 weeks. Based on these estimates, the total time needed to conduct the initial hazard potential classification assessment is 6–9 weeks. Accordingly, EPA is proposing the initial hazard potential classification assessment be due no later than 3 months after the effective date of the final rule. The proposed deadline provides sufficient time to complete the activities necessary to satisfy this requirement, while allowing time (3–6 six weeks) for reasonable delays, such as weather delaying a site visit or difficulty obtaining pertinent documentation. This timeframe is expedited from the deadline in the 2015 CCR Rule by 9 months for the reasons described above in Unit IV.A.2.a.ii of this preamble.

iv. Initial Structural Stability Assessment and Initial Safety Factor Assessment for Legacy CCR Surface Impoundments

Under the existing regulations, CCR surface impoundments that meet the size thresholds in § 257.73(b) and (c), must conduct two different types of technical assessments: (1) A structural stability assessment; and (2) A safety factor assessment. *See* 40 CFR 257.73(b), (d), (e), and (f). *See also* 80 FR 21380–21386, April 17, 2015. EPA is proposing that owners or operators of legacy CCR surface impoundments that meet the same thresholds also comply with the requirements to conduct an initial structural stability assessment and an initial safety factor assessment. See, proposed regulatory text at § 257.100(f)(2)(iv).

Some commenters on the ANPRM said structural stability assessments and safety factor assessments must apply to legacy CCR surface impoundments since the risks from such units are likely greater at legacy CCR surface impoundments, given the age of such units; the higher percentage of legacy ponds (as compared to operating ash ponds) that were neither designed by, nor built under the supervision of, a P.E.; and the higher percentage of legacy CCR surface impoundments determined to be in ''poor'' or ''fair'' condition.

The Agency conducted assessments of impoundments across the country starting in 2009 in the 2009–2014 Assessment Program. For information about these assessments and how the results impacted the 2015 CCR Rule, *see* 80 FR 21313–21318 (April 17, 2015). EPA analyzed the results of the 2009–2014 Assessment Program and found that 97 impoundments [14] assessed during the Program are located at inactive CCR facilities. Of those impoundments, EPA found that six impoundments are classified as high hazard potential, and 41 impoundments are classified as significant hazard potential meaning that failure or mis-operation of the dam will probably cause loss of human life or can cause economic or environmental losses. This further supports EPA's conclusion that these requirements are needed for legacy CCR surface impoundments.

Activities required to conduct the initial structural stability assessment include reviewing historic documents, conducting a site investigation (if needed), and generating a P.E.-certified report. Typically, owners or operators hire a contractor who is a certified P.E., which, as detailed above, may take one to two weeks. The contractor would then compile and review historic documents to determine if the design, construction, operation, and maintenance of the CCR unit are consistent with good engineering practices, which may take 2–3 weeks. These documents likely overlap with those already compiled for the history of construction and may include the design drawings, construction reports, quality assurance documentation, as-built records, subsurface investigations, geotechnical studies, and site inspections. Stability of the CCR unit's embankment and foundation may be demonstrated through slope stability analyses. Because slope stability analyses are typically required to satisfy safety factor assessments, no additional time is considered necessary to satisfy the requirements under § 257.73(d). Although site inspections would likely already have occurred by the effective date of the final rule pursuant to § 257.83(a) or § 257.83(b), it may be necessary for the qualified P.E. to perform a site inspection to certify the CCR unit meets the requirements as set forth in § 257.73(d). Therefore, 1 week for the site inspection is factored into the estimated time to complete these assessments. Finally, generating a P.E.-certified report may take 4–6 weeks. The total estimated time to meet this requirement is 8–12 weeks.

Activities required to complete the initial safety factor assessment may include hiring a contractor that is a qualified P.E., which may take 1–2 weeks and conducting slope stability analyses of critical cross sections, as defined in § 257.73(e)(1). For the initial assessment, it is anticipated that no new field work will be required to gather this data and that the input parameters required for the analysis (*e.g.,* soil geotechnical properties, seasonal high-water table) are available in historic documents such as the subsurface investigation used for the original CCR unit design, post-construction subsurface investigations, and/or geotechnical studies. Compilation and

[14] This information can be found in the document titled ''Potential Legacy CCR Surface Impoundment Universe'' in the docket for this action.

review of this data is estimated to take 2–3 weeks, followed by 5–7 weeks for data analysis and reporting. The total estimated time needed to meet requirements for completion of the safety factor assessment is 8–12 weeks.

The activities for the initial structural stability and initial safety factor assessments can be conducted concurrently and based on the estimates above, should take a total of 8–12 weeks (2–3 months). Therefore, as stated above, EPA is proposing both the initial structural stability assessment and the initial safety factors assessments be completed no later than 3 months after the effective date of the final rule. These timeframes are expedited by 15 months from the 2015 CCR Rule deadline. EPA believes the expedited timeframe is important to address the risks posed by legacy CCR surface impoundments, as described in this Unit and in Unit IV.A.2.a.ii of this preamble.

v. Preparation of an Emergency Action Plan for Legacy CCR Surface Impoundments

Section 257.73(a)(3) requires any CCR surface impoundment that is determined by the owner or operator, with the certification by a P.E., to be either a high hazard potential or a significant hazard potential CCR surface impoundment to prepare and maintain a written Emergency Action Plan (EAP). EPA is proposing that the owners or operators of legacy CCR surface impoundments that have been identified as having either a high hazard potential or a significant hazard potential would be required to comply with the same requirements to prepare and maintain an EAP that are currently required under § 257.73. See proposed regulatory text at § 257.100(f)(2)(v).

An EAP is a document that identifies potential emergency conditions at a CCR surface impoundment and specifies actions to be followed to minimize loss of life and property damage. To prepare an EAP, the owner or operator must accurately and comprehensively identify potential failure modes and at-risk developments. *See also* 80 FR 21377–21379, April 17, 2015. Satisfying EAP requirements is primarily a desktop exercise that requires information on site conditions, some analyses, and assessments that are proposed to be completed earlier. Typically, the owner and operator enlist a contractor to generate the EAP, which, as described above may take 1–2 weeks. Once onboard, it is assumed that the contractor would review site-specific documents, assessments, and analyses that were completed earlier and that may have an impact on development of an EAP. These documents and assessments may include the history of construction, initial structural stability assessment, initial safety factor assessment, initial hazard potential classification, hydraulic and hydrologic analyses for inundation maps and potential impact areas, and the first annual inspection. Assuming all analyses discussed in the preceding sections are completed by the proposed deadlines of 3 months after the effective date of the final rule, the review of existing documents and assessments is estimated to take 4–6 weeks. Additional analyses, such as dam breach analyses or inundation evaluations, may be needed to define events or circumstances that may represent a safety emergency. If needed, these analyses may take 3–6 weeks). The contractor would then prepare the EAP including describing procedures to follow in an emergency, gathering emergency responder contact information and defining responsible persons, assigning responsibilities, and detailing notification procedures. This may take 6–8 weeks because the required coordination with community or government entities. Based on these assumptions, the time required to complete an EAP is 3–6 months. Therefore, EPA is proposing a deadline of 9 months after the effective date for this requirement. This timeline is sufficient to review previously prepared documents, complete additional analyses and prepare the EAP while accounting for the 3 months allotted for the prerequisite assessments.

e. Operating Criteria for Legacy CCR Surface Impoundments

The operating criteria in §§ 257.80, 257.82, and 257.84 include air criteria for all CCR units, hydrologic and hydraulic capacity requirements for CCR surface impoundments, and periodic inspection requirements for CCR surface impoundments. These criteria address the potential risks from the day-to-day operations of CCR units and are established to prevent health and environmental impacts from CCR units. CCR surface impoundments are subject to hydrologic and hydraulic capacity requirements to ensure the unit can safely handle flood flows, which will help prevent uncontrolled overtopping of the unit or erosion of the materials used to construct the surface impoundment. The CCR regulations also require periodic inspections of CCR units to identify any appearance of structural weakness or other conditions that are not consistent with recognized and generally accepted good engineering standards. EPA is proposing that legacy CCR surface impoundments comply with these existing requirements without revision.

i. Fugitive Dust Control Plan for Legacy CCR Surface Impoundments

EPA is proposing that owners or operators of legacy CCR surface impoundments must complete a fugitive dust control plan. See, proposed regulatory text at § 257.100(f)(3)(i). The existing regulations require the owner or operator of a CCR unit to adopt measures that will effectively minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from CCR units, roads, and other CCR management and material handling activities. 40 CFR 257.80(b). To meet this requirement, the owner or operator of the CCR unit must prepare and operate in accordance with a fugitive dust control plan. *Id. See also* 80 FR 21386–21388, April 17, 2015. EPA considers that fugitive dust controls are warranted because closure activities can produce significant quantities of dust. For the same reason, most commenters on the ANPRM agreed that legacy CCR surface impoundments should be subject to these requirements.

The primary activities associated with this requirement are hiring a contractor who is a qualified P.E., having the contractor develop a plan based on daily operations at the unit and site conditions, and certification of the plan by a P.E. Little to no field-based activities are required to complete the fugitive dust control plan, so EPA is proposing that the owner or operator comply with the existing requirements by the effective date of the final rule. This timeline is commensurate with the timeline proposed in the 2015 CCR Rule for fugitive dust control plans.

ii. Initial Fugitive Dust Control Report for Legacy CCR Surface Impoundments

EPA is proposing to require the initial annual fugitive dust report to be due 12 months after the effective date of the final rule. See, proposed regulatory text at § 257.100(f)(3)(vi). Consistent with the existing regulations, the report must document all actions taken to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken in the previous year. As this report is primarily a summary of owner or operator activities related to fugitive dust control and does not require a P.E. certification, the report may be completed by the owner or operator without the need for a contractor. Therefore, the deadline of 12 months after effective date of rule is sufficient for this requirement. This deadline is expedited by 2 months from the 2015 CCR Rule deadline for the reasons described above in Unit IV.A.2.a.ii of this preamble. Because EPA is proposing that the fugitive dust control plan would be due on the effective date of the final rule, this would mean that the first annual report would be due one year after the plan is developed. The owner or operator has completed the annual CCR fugitive dust control report when the plan has been placed in the facility's operating record.

iii. Weekly Inspections of the Legacy CCR Surface Impoundment and Monthly Monitoring of the CCR Unit's Instrumentation

EPA is proposing that owners and operators of legacy CCR surface impoundments must initiate the inspection requirements set forth in § 257.83(a) no later than the effective date of the final rule. See, proposed regulatory text at § 257.100(f)(3)(ii). Under § 257.83(a), all CCR surface impoundments must be examined by a qualified person at least once every seven days for any appearance of actual or potential structural weakness or other conditions that are disrupting or that have the potential to disrupt the operation or safety of the CCR unit. The results of the inspection by a qualified person must be recorded in the facility's operating record. Weekly inspections are intended to detect, as early as practicable, signs of distress in a CCR surface impoundment that may result in larger more severe conditions. Inspections are also designed to identify potential issues with hydraulic structures that may affect the structural safety of the unit and impact its hydraulic and hydrologic capacity. Section 257.83(a) also requires the monitoring of all instrumentation supporting the operation of the CCR unit to be conducted by a qualified person no less than once per month. *See also* 80 FR 21394–21395 (April 17, 2015).

EPA recognizes that field work may be necessary prior to initiating weekly inspections, such as hiring a contractor to perform vegetative clearing and establishing inspection routes. If necessary, these activities may take 2–4 weeks. EPA also acknowledges that instrumentation may already be installed as part of dam safety or other programs under state regulations. However, if instrumentation is not currently installed, 4–6 weeks may be needed for the installation of piezometers or other equipment. Based on these estimates, EPA's proposed deadline for the initiation of weekly inspections and monthly monitoring of no later than the effective date of the final rule is sufficient for the completion of these activities. The proposed timeframe is the same as the 2015 CCR Rule deadline.

iv. Initial Annual Inspection for Legacy CCR Surface Impoundments

EPA is proposing that owners and operators of legacy CCR surface impoundments must conduct the initial annual inspection no later than 3 months after the effective date of the final rule. See, proposed regulatory text at § 257.100(f)(3)(iv). Existing CCR surface impoundments exceeding the height and storage volume thresholds in § 257.73(b) and (c), are required to conduct annual inspections of the CCR unit throughout its operating life (§ 257.83(b)). These inspections are focused primarily on the structural stability of the unit and must ensure that the operation and maintenance of the unit is in accordance with recognized and generally accepted good engineering standards. Each inspection must be conducted and certified by a P.E. *See also* 80 FR 21395, April 17, 2015.

Annual inspections include documentation review, a visual inspection of the CCR unit, and a visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the CCR unit's dike. Documentation reviewed as part of the annual inspection include operating records, previous structural stability assessments, and the results of previous weekly, monthly, and annual inspections and can overlap with reviews needed to complete the initial structural stability assessment.

EPA is proposing that owners and operators must prepare the initial inspection report for legacy CCR surface impoundments within the same timeframe—no later than 3 months from the effective date of the final rule—as was required for existing CCR surface impoundments in the 2015 CCR Rule. The Agency believes this timeframe to prepare the initial annual inspection is similarly appropriate for legacy CCR surface impoundments as for existing impoundments. As discussed in the preamble to the 2015 CCR Rule, the 3-month timeframe was based on EPA's experience with its CCR Assessment Program to evaluate the structural stability and safety of existing impoundments throughout the nation. Specifically, EPA found that 3 months would be adequate to complete the tasks supporting an annual inspection, including retaining the services of a P.E., reviewing relevant information in the facility's operating record, conducting the field inspection, and completing the inspection report. *See* 80 FR 21395 (April 17, 2015).

v. Initial Inflow Design Flood Control System Plan for Legacy CCR Surface Impoundments

EPA is proposing that owners and operators of legacy CCR surface impoundments must prepare the inflow design flood control system plan 9 months after the effective date of the final rule. See, proposed regulatory text at § 257.100(f)(3)(v). Owners or operators of all CCR surface impoundments are required to design, construct, operate, and maintain hydraulic and hydrologic capacity to adequately manage flow both into and from a CCR surface impoundment during and after the peak discharge resulting from the inflow design flood, which is based on the Hazard Potential Classification of the CCR surface impoundment (§ 257.82(a)). The regulation also requires the preparation of an initial inflow design flood control system plan (§ 257.82(c)). *See also* 80 FR 21390–21392, April 17, 2015.

The primary activities associated with developing an inflow design flow control system can be summarized as document review, a site visit, hydrologic and hydraulic analyses (as needed), and report generation. Typically, owners and operators hire a P.E.-certified contractor, which, as described above, may take 1–2 weeks. The contractor would then perform a site visit (estimated to take one week) and review available pertinent documentation, such as topographical maps, aerial images, areal hydrological data, the unit's design drawings, the unit's construction reports, as-builts for the unit, previous area-capacity curves, and surface elevation data. EPA anticipates that many of these documents overlap with documents necessary for the history of construction report, hazard potential classification assessment, structural stability assessment, safety factor assessment, and annual inspection requirements, all of which are due no later than 3 months after the effective date of the final rule. Assuming all preceding analyses required by this rule are completed by their deadlines of 3 months after the effective date of the final rule, the review is estimated to take 4–6weeks. Additional analyses, such as site-specific flood modeling and hydrologic and hydraulic (H/H) capacity calculations, may be needed to determine site-specific hydrological conditions or determine if the current H/H capacity is sufficient. These additional analyses are estimated to take

4–6 weeks. Finally, the contractor would generate the P.E.-certified inflow design flood control system plan documenting the design and construction of the flood control system, which may take another 4–6 weeks. Based on these estimates, the total time needed to prepare an initial inflow design control system plan is 14 to 21 weeks. Therefore, EPA is proposing a deadline of 9 months after the effective date of the final rule for this requirement. EPA believes this timeline is sufficient to develop the plan while accounting for the three months allotted for the prerequisite assessments. This is expedited from the deadline in the 2015 CCR Rule by three months for reasons described here in Unit IV.A.2.a.ii of this preamble.

f. Groundwater Monitoring and Corrective Action Criteria for Legacy CCR Surface Impoundments

The existing groundwater monitoring criteria in §§ 257.90 through 257.95 require an owner or operator of a CCR unit to install a system of monitoring wells and specify procedures for sampling these wells. Further, it sets forth methods for analyzing the groundwater data collected to detect hazardous constituents (*e.g.,* toxic metals) and other monitoring parameters (*e.g.,* pH, total dissolved solids) released from the units. 40 CFR 257.93. Once a groundwater monitoring system and groundwater monitoring program have been established for a CCR unit the owner or operator must conduct groundwater monitoring and, if the monitoring demonstrates an exceedance of the groundwater protection standards for identified constituents in Appendix IV of part 257, corrective action is required. These requirements apply throughout the active life and post-closure care period of the CCR unit.

There was widespread agreement among the commenters on the ANPRM that groundwater monitoring requirements would be appropriate for legacy CCR surface impoundments. However, some commenters argued that federal requirements would be duplicative and unnecessary. They suggested that EPA should allow facilities to demonstrate (through EPA review and approval) that the federal groundwater monitoring requirements are not necessary because existing groundwater monitoring systems established under state requirements meet the RCRA subtitle D protectiveness standard. These commenters said that overlapping federal and state groundwater monitoring and corrective action requirements would create regulatory uncertainty, potentially interfering with site-specific plans designed to protect the environment and would ultimately delay work.

EPA is proposing to require legacy CCR surface impoundments to comply with the existing groundwater monitoring and corrective action requirements with one revision, described below, to require sampling and analysis of constituents listed in Appendix IV at the same time as those listed in Appendix III. The existing groundwater monitoring and corrective action requirements are essentially the same requirements that have been applied to both hazardous waste and municipal solid waste disposal units for decades, and with the one exception discussed below, there is nothing about legacy units that makes them distinct enough to warrant separate requirements. EPA disagrees that it would be appropriate as part of this rulemaking to allow facilities to demonstrate (through EPA review and approval) that existing groundwater monitoring systems established under different state requirements could substitute for federal requirements. As EPA has previously explained, in RCRA section 4005(d), Congress established specific standards and mandated the process for EPA to determine that state requirements should operate in lieu of the federal. Under those provisions, a State can apply to obtain authorization from EPA to operate its program (either in whole or in part) in lieu of the federal requirement by demonstrating that either of the standards in RCRA section 4005(d)(1)(B) has been met. Relying on that congressionally mandated process, rather than a separate process created in this rulemaking, is the appropriate route to address the commenters concerns about duplication between federal and state requirements.

i. Design and Installation of the Groundwater Monitoring System for Legacy CCR Surface Impoundments

EPA is proposing that owners and operators of legacy CCR surface impoundments install the groundwater monitoring system as required by § 257.91 no later than six months from the effective date of the final rule. See, proposed regulatory text at § 257.100(f)(4)(i). Existing monitoring wells can be used as a part of that system provided that they meet the federal criteria. Commenters on the ANPRM explained that in some states, the state may require the owner or operator to receive state approval before they can install a groundwater monitoring system. Therefore, the commenters said that one year is inadequate to conduct these activities and two years is a more reasonable timeframe in which to carry out these activities. EPA disagrees that 12 months from the publication date (*i.e.,* 6 months from the effective date) would provide an insufficient amount of time to install groundwater monitoring wells. In the 2015 CCR Rule, EPA allotted 36 months total (from publication) for facilities to both install the wells and complete their baseline sampling. Based on the amount of time most facilities needed to complete or to collect baseline sampling, EPA calculates that facilities were able to install wells within a single year.

To complete the installation of the groundwater monitoring system, the first activity to meet § 257.91(f) may include hiring a contractor that is a qualified P.E. (estimate 1–2 weeks). The next activity may be to develop a workplan that determines the number, location, and depths of monitoring wells, which assumed to be developed based on available historic site characterization information including hydrogeologic setting, engineering design of the CCR unit or other information that may already be compiled in the history of construction requirement (§ 257.73(c)(1)) (estimate 7–9 weeks). Note that any additional site characterization is assumed to occur concurrently with the monitoring well installation. Subsequently, site reconnaissance may be performed along with vegetative clearing and utility locating, and the workplan may be modified to adjust for field conditions as needed (estimate 2 weeks when considering the installation of 10 monitoring wells). The next activity is to drill to depth, install and develop the 10 monitoring wells. The time to drill to depth can vary widely based on the drilling technique, subsurface lithology, site-specific conditions, weather, and other factors. It is estimated that a 100 foot well can be drilled to depth in 5 days at the rate of 20 feet/day. For 10 monitoring wells, the time to drill to depth is assumed to take 10 weeks. The monitoring wells must then be properly installed and constructed in accordance with § 257.91(e) and other requirements. Monitoring well development is assumed to take 3 days per well or 30 days for all 10 wells. The last activity is to develop documentation that records the design, installation, and development of the monitoring wells, subject to P.E. certification and submit monitoring well construction records to the appropriate state and federal agencies (estimate 4–6 weeks). Based on these assumptions, the total time estimated for installation of a groundwater monitoring system is approximately 27–32 weeks, or 7–8.5 months. This deadline includes an additional 3.5-month buffer to adjust for delays in the field, installation of new additional wells, additional site characterization of newly discovered pertinent subsurface features (*e.g.,* faults, karst features) or other modifications to the workplan based on site-specific information gained during the monitoring well installation. Thus, EPA is proposing to require the installation of the groundwater monitoring system no later than 6 months after the effective date of the final rule.

ii. Development of the Groundwater Sampling and Analysis Program for Legacy CCR Surface Impoundments

EPA is proposing to require owners and operators of legacy CCR surface impoundments to comply with the existing groundwater sampling and analysis program requirements for CCR surface impoundments, including the selection of the statistical procedures that will be used for evaluating groundwater monitoring data. 40 CFR 257.93. See, proposed regulatory text at § 257.100(f)(4)(ii).

Recommendations and information on how to comply with many of the requirements for the groundwater sampling and analysis program (*e.g.,* analytical procedures, QA/QC controls, sampling protocol) can be found in the following EPA guidance documents (*e.g., RCRA Groundwater Monitoring: Draft Technical Guidance,* 1992, EPA/530/R–93/001; *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures,* 1996, EPA/540/S–95/504). To develop the groundwater sampling and analysis program, the first steps would be to hire a contractor (1 to 2 weeks), review the groundwater monitoring system installation and other pertinent records (2 to 4 weeks), and develop the groundwater sampling and analysis program (4 to 6 weeks). Sometimes in complex hydrogeological settings (*e.g.,* groundwater flow reversals surrounding CCR units adjacent to a large river), additional information from synoptic groundwater elevations may be necessary to refine the sampling program (*e.g.,* establish upgradient/downgradient wells) (estimate 2 weeks). Based on these assumptions, the total time estimated to develop a groundwater sampling and analysis program is 9 to 14 weeks. The groundwater sampling and analysis program must include the list of monitoring wells to be sampled (*e.g.,* sampling network). However, the list of monitoring wells to be sampled can only be determined after installation of the groundwater monitoring system which is estimated to take 7 to 8.5 months. If it is assumed that the sampling and analysis program is developed (~2 to 3.5 months) only after the installation of the monitoring network (7.5 to 8 months), the total time needed to meet this requirement is estimated at approximately 9.5 to 11.5 months. Therefore, building in some buffer time to account for any possible delays due to complex hydrogeological settings, EPA is proposing that the sampling and analysis program can be developed no later than 6 months after the effective date of the final rule.

iii. Detection Monitoring Program and Assessment Monitoring Program Combined

To expedite groundwater monitoring and the initiation of corrective measures, EPA is proposing to require sampling and analysis of constituents listed in Appendix IV at the same time as those listed in Appendix III. The combined sampling and analysis of all Appendices III and IV constituents will expedite the initiation of corrective measures, where needed, by at least 6 months.

The existing CCR regulations establish a phased groundwater monitoring program, consisting of a separate detection monitoring program, assessment monitoring program, and corrective action program. Groundwater monitoring begins with detection monitoring by conducting statistical comparisons between (1) the background level of a constituent measured in one or more upgradient wells and (2) the level of that same constituent in a downgradient well. The constituents monitored in detection monitoring are listed in Appendix III and are generally constituents that are designed to provide early evidence of a potential release (*e.g.,* are highly mobile). If the concentration of the constituent in the downgradient well is higher than the background concentration by a statistically significant amount, (*i.e.,* a statistically significant increase (SSI) over background has been detected), this provides evidence of a potential release from the unit.

If an SSI is detected, the owner or operator must proceed to the next step, assessment monitoring. Assessment monitoring requires sampling and analysis for the full list of constituents included in Appendix IV. In assessment monitoring, concentrations of each Appendix IV constituent at downgradient wells are compared to a groundwater protection standard established for each constituent (either a background level or a regulatory limit). Whenever assessment monitoring results indicate a statistically significant level (SSL) exceeding the groundwater protection standard has been detected at a downgradient well for any of the Appendix IV constituents, the facility must start the process for cleaning up the contamination by characterizing the nature and extent of the release and of site conditions that may affect the cleanup, and by initiating an assessment of corrective measures.

EPA is proposing to require that facilities simultaneously initiate sampling and analysis of all Appendix III and IV constituents at legacy CCR surface impoundments to expedite the cleanup of contamination from these abandoned unlined impoundments. EPA is proposing no other revisions to the existing groundwater monitoring requirements in §§ 257.90 through 257.95.

Although in 2015 EPA applied the same groundwater monitoring requirements to both existing and new CCR units, the phased approach to groundwater monitoring is best suited to situations where there is little likelihood of pre-existing contamination, such as for new units. A phased approach provides for a graduated response over time to the problem of groundwater contamination as the evidence of such contamination increases. This allows for proper consideration of the transport characteristics of CCR constituents in groundwater, while protecting human health and the environment. In contrast, at sites where the unit has potentially been leaking for a long period of time, these advantages are outweighed by the need to protect human health and environment by quickly detecting the constituents of concern in Appendix IV to expedite any necessary corrective action. See, *USWAG* 901 F.3d at 427–30. Moreover, there is good reason to believe that many legacy CCR surface impoundments are contaminating groundwater, given the large number of presently regulated CCR surface impoundments that have been found to be leaking.

iv. Detection Monitoring Program and Assessment Monitoring Program—Deadline for Collection and Analyses of Eight Independent Samples for Legacy CCR Surface Impoundments

EPA is proposing that no later than 24 months after the effective date of the final rule, owners or operators of legacy CCR surface impoundments initiate the detection monitoring program by completing sampling and analysis of a minimum of eight independent samples for each background and downgradient well, as required by § 257.94(b). See proposed regulatory text at § 257.100(f)(4)(iii). Within 90 days after that, they must identify any SSIs over background levels for the constituents listed in Appendix III, as required by § 257.94. To expedite the time to initiate any required corrective action, EPA is also proposing that by this same deadline they initiate the assessment monitoring program by establishing groundwater protection standards and beginning the evaluation of the groundwater monitoring data for an SSL over groundwater protection standards for the constituents listed in Appendix IV as required by § 257.95. Then, if an SSL over a groundwater protection standard (GWPS) for any of the constituents listed in Appendix IV is found, the owner or operator of the legacy CCR surface impoundment must perform any required corrective action in accordance with §§ 257.96 through 257.98.

Several commenters on the ANPRM stated that it would be appropriate to have a fully operational groundwater monitoring systems in place and begin detection monitoring two years from the rule's effective date and then to follow the same groundwater monitoring requirements as units subject to the 2015 CCR Rule. These commenters said that as important as it is to begin detecting and addressing releases to groundwater, it is equally important that these complex systems be designed and installed correctly. According to the commenters, the design and installation of a groundwater monitoring system generally entails a number of activities, many of which must occur sequentially, including determining the uppermost aquifer, deciding whether to install a single or multiunit monitoring system, collecting and evaluating hydrogeological information that can be used to model the site, characterizing the site geology, characterizing the groundwater flow beneath the site, determining the flow direction and hydraulic gradient, establishing horizontal and vertical flow direction, determining hydraulic conductivity, determining groundwater flow rate, determining the monitoring wells' placement, selecting the drilling method, designing the monitoring wells, developing sampling and analysis procedures, choosing a statistical method for evaluating the data, and beginning detection monitoring.

v. Initial Groundwater Monitoring and Corrective Action Report for Legacy CCR Surface Impoundments

EPA is proposing to apply the existing requirements in § 257.90(e) to legacy CCR surface impoundments and that owners and operators of legacy CCR surface impoundments comply no later than January 31 of the year following the calendar year a groundwater monitoring system has been established (and annually thereafter). See proposed regulatory text at § 257.100(f)(4)(iv). This requires the preparation of an annual groundwater monitoring and corrective action report. The report must contain specific information identified in the regulations, including but not limited to maps; aerial images or diagrams showing the CCR unit and all upgradient (background) and downgradient wells; identification of any monitoring wells installed or decommissioned in the previous year; monitoring data collected under §§ 257.90 through 257.98, and a narrative discussion of any transition between monitoring programs (*i.e.,* detection and assessment monitoring). Since EPA is proposing to expedite the baseline monitoring initiation of detection monitoring, and initiation of assessment monitoring, the requirement to prepare and post the first annual groundwater monitoring and corrective action report should also be expedited. This will allow the public to review the groundwater monitoring results.

g. Closure and Post-Closure Care Criteria for Legacy CCR Surface Impoundments

The existing closure and post-closure care criteria in §§ 257.101 through 257.104 establish specific performance standards relating to the closure and the subsequent monitoring and maintenance of CCR units. These criteria are essential to ensuring the long-term safety of closing CCR units. A brief overview of the existing requirements is presented in Unit IV.A.2.f.i of this preamble.

The regulations currently provide two options for closing a CCR unit: closure by removal and closure with waste in place. See § 257.102(a). Each option establishes specific performance standards that must be met in their entirety. See § 257.102(c) and (d). If the performance standards for each option can both be met, the regulations allow a facility to select either of the options. However, a facility must meet all of the performance standards for the closure option it has selected, and if it cannot meet all of the performance standards for one option, then it must select the other option and meet all of the performance standards for that option. See § 257.102(a).

The existing CCR regulations also include timeframes to initiate and complete closure activities, as well as criteria under which owners or operators may obtain time extensions due to circumstances beyond the facility's control. See §§ 257.101 through 257.102. Finally, owners and operators are required to prepare closure and post-closure care plans describing these activities. See §§ 257.102(b), 257.104(d). EPA is proposing to make the existing regulations applicable to legacy CCR surface impoundments as discussed specifically below.

First, based on the data gathered since 2015 from the currently regulated CCR unit universe, the Agency considers it highly unlikely that any legacy CCR surface impoundment has a composite liner that meets the requirements of § 257.71. EPA analyzed the list of inactive CCR facilities provided in the ANPRM comments and knows that almost all these facilities were opened prior to 1990 (one facility opened in 1996) before composite liner systems were typically installed. Unless legacy CCR surface impoundments are very different than impoundments at active facilities, EPA expects units of this age to be unlined as defined by § 257.71. Consistent with the *USWAG* decision and the existing regulations in § 257.101(a) mandating that all unlined (including clay-lined) impoundments must close, EPA is proposing to explicitly require that all legacy CCR surface impoundments initiate closure within 12 months of the effective date of final rule, rather than simply relying on the existing provision in § 257.101(a). See, proposed regulatory text at § 257.101(e). Legacy CCR surface impoundments pose unacceptable risks because they continue to impound liquid, even if closure has been initiated or a cover system has been installed.

Second, EPA is proposing to explicitly state that the alternative closure demonstration provisions in § 257.103(f) would not be applicable to legacy CCR surface impoundments. As a legacy CCR surface impoundment, by definition, is an inactive impoundment at an inactive facility, EPA does not believe that any facility will need to continue to use the unit. Because a continued need to use the disposal unit is a critical component of the alternative closure demonstrations, it appears that no legacy CCR surface impoundment could qualify under the existing provisions. Accordingly, EPA does not believe these provisions are relevant to legacy CCR surface impoundments.

i. ANPRM Comments Regarding Closure

Commenters on the ANPRM generally agreed that closure requirements are appropriate for legacy CCR surface impoundments. However, they disagreed on the precise requirements that would be appropriate. Some commenters said a legacy CCR surface impoundment that has been closed in place must be required to re-close if not closed in a manner that meets or exceeds the 2015 CCR Rule's provisions for closure in place. They also said that EPA must not exempt legacy CCR surface impoundments from closure requirements unless the impoundment was closed in full compliance with either the closure mandate for removal set out at § 257.102(c), or the closure performance standards, drainage and stabilization directives, and cover system requirements set out at § 257.102(d).

Other commenters on the ANPRM agreed that closure and post-closure requirements would be appropriate for legacy CCR surface impoundments but stated that the requirements should account for distinctive elements of some legacy CCR surface impoundments. According to these commenters, over decades, some legacy CCR surface impoundments have become ecosystems that support protected species or feature wetlands. These commenters raised concern that closure activities could compromise these ecosystems or species whereas leaving the environment undisturbed is preferable. These commenters stated that if EPA requires closure of these units, owners should not be required to obtain necessary approvals or mitigate impacts to aquatic resources or protected species under other laws. One commenter on the ANPRM said EPA should not require legacy CCR surface impoundments completing closure by removal to meet the groundwater performance standards.

Some commenters said EPA should rely on RCRA section 1006(b) to include a provision in any final rule addressing legacy CCR surface impoundments that any closure plan for a legacy CCR surface impoundment approved by a state or federal agency prior to the effective date of any new regulations would be considered compliant with the new regulations. According to these commenters, many units are or will be in the process of closing impoundments pursuant to consent orders, agreements, and/or state regulatory programs, and forcing units that are in active closure or that have completed closure to comply with a new set of requirements risks undoing the careful planning that has already occurred with state or federal agencies. These commenters further stated that ''such redundant and retroactive regulation also risks delaying the closure process and requiring closure work to be redone.'' According to these commenters, confirming that units implementing closure plans approved by a state or federal agency would be deemed compliant with the final legacy CCR surface impoundment regulations (or that the underlying units are otherwise exempt from the final regulations) would avoid duplicative, retroactive regulation of such units, and would allow the regulated community and impacted states to rely on the closure plans already in place, and would prevent any delay in completion of closure activities that could be attributed to uncertainty of the application of requirements for the final rule.

Although several commenters alleged that the closure of legacy CCR surface impoundments would itself present greater risks than leaving the disposal unit in its existing state, no commenter presented any data or analysis to support their claims. EPA also lacks a factual basis to exempt legacy CCR surface impoundments in the process of completing closure by removal from the requirement to meet the groundwater performance standards. In the absence of any record to support a conclusion that these suggestions meet the statutory standard in RCRA section 4004(a), EPA cannot adopt them. EPA invites comments from those with concrete data or analysis, if any, about any specific legacy CCR surface impoundments as it relates to these questions.

EPA also disagrees that it would be appropriate to establish an exemption for facilities that are currently in the process of closing under state requirements. The commenters provided no factual record of the various state information regarding particular state requirements, but merely generically reference the existence of state requirements. This is insufficient information for the Agency to evaluate how the state requirements compared to the federal requirements. Such a factual record would be necessary to support any kind of exemption or other action pursuant to RCRA section 1006(b). More to the point, as discussed previously, the appropriate mechanism to address concerns about potentially duplicative state and federal requirements is through Congressionally-mandated process in RCRA section 4005(d), under which a state seeks approval to operate its permit program in lieu of the federal program, rather than this rulemaking.

ii. Preparation of a Written Closure Plan for Legacy CCR Surface Impoundments

EPA is proposing that owners and operators of legacy CCR surface impoundments comply with the existing requirements of § 257.102(b) requiring the preparation of a written closure plan. See proposed regulatory text at § 257.100(f)(5)(i). The closure plan describes the steps necessary to close a CCR unit at any point during the active life of the unit based on recognized and generally accepted good engineering practices. 40 CFR 257.102(b)(1). The plan must set out whether the closure of the CCR unit will be accomplished by leaving CCR in place or through closure by removal and include a written narrative describing how the unit will be closed in accordance with the section, or in other words, how the closure will meet all the performance standards in the regulations. 40 CFR 257.102(b)(1)(i). If the CCR is left in place, the closure plan must include a description of the final cover system and how the final cover system will achieve the regulatory performance standards. If the base of the impoundment intersects with groundwater, the closure plan would need to discuss the engineering measures taken to ensure that the groundwater had been removed from the unit prior to the start of installing the final cover system, as required by § 257.102(d)(2)(i). The closure plan would also need to describe how the facility plans to meet the requirements in § 257.102(d)(1) to ''control, minimize or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters.'' This could include for example, the installation of engineering controls that would address the post-closure infiltration of liquids into the waste from all directions, as well as any post-closure releases to the groundwater from the sides and bottom of the unit. The written closure plan must also provide a schedule for completing all activities necessary to satisfy the closure criteria of the rule. *See also* 80 FR 21410–21425, April 17, 2015.

Some commenters said EPA should provide phased and reasonable compliance deadlines for the development of closure plans prior to initiation of any groundwater monitoring or closure work. Other commenters acknowledged the Agency provided 18 months from promulgation of the 2015 CCR Rule for plants to develop their closure and post-closure plans and that the amount of time was partly dictated by the Agency's commitment to harmonizing the 2015 CCR Rule with the ELG Rule. Commenters shared that consideration of new ELG requirements would not be an issue for legacy CCR surface impoundments; therefore, a shorter planning horizon is reasonable for legacy CCR surface impoundments such as 6 months from the effective date of a legacy CCR surface impoundment rule. The commenters further said that planning is only the first step while unit closure itself can take years depending on factors such as the size and type of unit. Legacy CCR surface impoundments would likely require similar closure timeframes, and possibly additional time if site-specific accommodations are required such as the presence of a listed or endangered species. Some commenters agreed that the closure timeframe provided in the 2015 CCR Rule may be reasonable for legacy CCR surface impoundments. Other commenters said six months should be the bare minimum for owners to develop any closure and post-closure care plans for legacy CCR surface impoundments as closure activities cannot begin until the closure plan is in place.

When preparing the closure plan, the owner or operator would first need to hire a contractor to complete the report (1–2 weeks). Next, it is assumed that the contractor will need to review site-specific documents, assessments, and analyses that were completed earlier to meet requirements for other parts of the rule that may impact the closure plan. Examples of existing documents and assessments reviewed may include history of construction, initial structural stability assessment, initial safety factor assessment, initial hazard potential classification, hydraulic and hydrologic analyses for inundation maps and potential impact area, annual inspections, groundwater monitoring system, and groundwater sampling and analysis reports. Assuming all preceding analyses are completed by their deadlines of 6 months after the effective date of the final rule, the next step is to review existing documents and assessments (estimate 4–6 weeks). The next step is to prepare the written closure plan with the requirements in § 257.102(b) through (j). Since the listed activities are primarily desktop-related and depend on predecessor requirements, EPA is proposing a deadline of 12 months after the effective date of the rule to complete the closure plan. EPA is expediting this deadline for the reasons described above in Unit IV.A.2.a.ii of this preamble.

iii. Preparation of a Written Post-Closure Care Plan for Legacy CCR Surface Impoundments

EPA is proposing that owners and operators of legacy CCR surface impoundments would be required to comply with the existing requirement in § 257.104(d) regarding the preparation of a written post-closure. See, proposed regulatory text at § 257.100(f)(5)(ii). Section 257.104(d) requires that an owner or operator of a CCR unit prepare a written post-closure plan. The content of the plan includes among other things, a description of the monitoring and maintenance activities required for the unit and the frequency that these activities will be performed.

When developing the post-closure care plan, EPA assumes the contents of the P.E.-certified plan are stated in the rule § 257.104(d)(1)(i) through (iii) and can be summarized as planned monitoring and maintenance activities, contact information during post-closure care period and planned uses of the property. The steps to prepare the post-closure care plan are assumed to be the same as the closure plan, with different analysis needed for the post-closure care period. Since the listed activities are primarily desktop-related and depend on a number of predecessor requirements, described in Unit IV.A.2.g.i of this preamble, related to the closure plan, EPA is proposing to require the post-closure care plan no later than 12 months after the effective date of the final rule. EPA is expediting this deadline for the reasons described above in Unit IV.A.2.a.ii of this preamble.

iv. Initiation of Closure for Legacy CCR Surface Impoundments

As discussed above, the current record indicates that legacy CCR surface impoundments are largely, if not entirely, unlined, and therefore, EPA is proposing that they be subject to the existing requirement to initiate closure that are applicable to other unlined CCR surface impoundments. See 40 CFR 257.101. Specifically, EPA is proposing that owners and operators of legacy CCR surface impoundments initiate closure no later than 12 months after the effective date of the final rule. See proposed regulatory text at § 257.101(e)(1). This is 30 months sooner than the earliest date under the 2015 CCR Rule that owners or operators of CCR units were required to initiate closure and is expedited for the reasons described above in Unit IV.A.2.a.ii of this preamble. EPA considered requiring initiation of closure sooner but believes that 12 months is the minimum amount of time necessary to collect the information needed to determine whether to close the unit in place or close by removal. Such information would include the identification and delineation of the legacy CCR surface impoundment, the structural stability of the unit, the hydrogeology of the site, and other site characteristics of the site, and whether any of the uppermost aquifer has been contaminated, as well as any other relevant engineering information needed to design the closure. Because many of the legacy CCR surface impoundments have not been monitored for some time, this information may not be currently available. However, most of this information can be obtained through compliance with the groundwater monitoring and corrective action requirements that EPA is proposing to establish, as discussed above. Twelve months will provide sufficient time to complete the steps necessary to obtain this information. Once the owner and/or operator has the necessary information, they can develop a closure plan and initiate closure.

One commenter said there should be no mechanism to extend the time to initiate closure. EPA agrees and, consistent with the existing requirements for inactive unlined impoundments in § 257.101(a), the Agency is not proposing to establish a mechanism to extend the deadline to initiate closure.

Finally, as an alternative to requiring the closure of a legacy CCR surface impoundment, the Agency solicits comment on whether the regulations should provide owners and operators the option to retrofit a legacy CCR surface impoundment in accordance with the retrofit requirements in § 257.102(k).

v. Deadline To Complete Closure for Legacy CCR Surface Impoundments

The existing CCR regulations currently require (at § 257.102(f)) an owner or operator of existing and new CCR surface impoundments generally to complete closure activities within five years from initiating closure. The regulations also establish the conditions for extending this deadline, as necessary, including documentation requirements. EPA is proposing that owners and operators of legacy CCR surface impoundment comply with the existing closure completion timeframes in § 257.102(f). Most commenters agreed that units should be provided the same amount of time to complete closure as in the existing provisions.

vi. Post-Closure Care for Legacy CCR Surface Impoundments

The existing post-closure care criteria require the monitoring and maintenance of units that have closed in place for at least 30 years after closure has been completed. 40 CFR 257.104. During this post-closure period, the facility would be required to continue groundwater monitoring and corrective action, where necessary. EPA is proposing to apply these existing requirements to legacy CCR surface impoundments without revision. These criteria are essential to ensuring the long-term safety of legacy CCR surface impoundments.

h. Recordkeeping, Notification, and Internet Posting Criteria for Legacy CCR Surface Impoundments

The 2015 CCR Rule required at §§ 257.105 through 257.107 for owner or operators of CCR units to record certain information in the facility's operating record. In addition, owners and operators are required to provide notification to states and/or appropriate Tribal authorities when the owner or operator places information in the operating record, as well as to maintain a CCR website for this information. Commenters on the ANPRM agreed that recordkeeping, notification and website reporting requirements are appropriate for legacy CCR surface impoundments.

EPA is proposing that owners and operators of legacy CCR surface impoundments be subject to the existing recordkeeping, notification and website reporting requirements in the CCR regulations. The CCR regulations require the owner or operator of a CCR unit(s) to maintain files of all required information (*e.g.,* demonstrations, plans, notifications, and reports) that supports implementation and compliance with the rule. Each file must be maintained in the operating record for a period of at least five years following submittal of the file into the operating record. Submittal into the operating record is required at the time the documentation becomes available or by the specific compliance deadline. Section 257.105 contains a comprehensive listing of each recordkeeping requirement.

Owners or operators are also required to notify State Directors and/or the appropriate Tribal authority when specific documents have been placed in the operating record and on the owner's or operator's CCR website. In most instances, these reports must be certified by a P.E. and may, in certain instances, be accompanied by additional information or data supporting the notification. Notification requirements can be found at § 257.106, and are required for location criteria, design criteria, operating criteria, groundwater monitoring, corrective action, closure, and post-closure care.

Commenters on the ANPRM agreed that owners or operators of CCR facilities should be required to establish a publicly accessible website where facilities are required to post relevant information demonstrating compliance with all applicable requirements. They agreed the website should not be hosted by the state or EPA. They also said the website should be required to be activated by the effective date of the final rule.

EPA is proposing that owners and operators of legacy CCR surface impoundments are also required to establish and maintain a website titled, ''CCR Rule Compliance Data and Information.'' Unless provided otherwise in the rule, information posted to the publicly accessible internet site must be available for a period no less than 5 years from the initial posting date for each submission. Posting of information must be completed no later than 30 days from the submittal of the information to the operating record. EPA is proposing that owners and operators of legacy CCR surface impoundments have 30 days from the effective date of the final rule to post applicable information on their CCR website.

B. CCR Management Unit Requirements

EPA is proposing to establish requirements to address the risks from currently exempt solid waste management of CCR that involves the direct placement of CCR on the land. Information obtained since 2015 demonstrates that these exempt solid waste management practices are currently contaminating groundwater at many sites, and at others, have the potential to pose risks commensurate with the risks associated with currently regulated activities. The specific solid waste management activities at issue are: CCR disposal in surface impoundments and landfills that closed prior to the effective date of the 2015 CCR Rule, disposal in inactive CCR landfills, and any solid waste management that involves the placement or receipt of CCR directly on the land.

As discussed in more detail below, EPA estimates that these solid waste management practices could pose lifetime cancer risks from arsenic as high as 2×10^{-5} to 1×10^{-3} (*i.e.,* 2 to 100 cases of cancer for every 100,000 individuals exposed), depending on the specific management practice. In addition, EPA has identified recent damage cases, described in Unit IV.B.2 of this preamble, indicating that these management practices have contaminated groundwater at currently regulated facilities,[15] through releases of constituents commonly found in CCR, such as arsenic, lithium and molybdenum.

Based on these data, EPA is proposing to establish a new category of units that would be subject to a set of requirements tailored to the characteristics of such units and the risks that they present. These requirements would include the existing criteria in the CCR regulations for groundwater monitoring, corrective action, closure, and post-closure care.

1. Risk Analysis of CCR Management Units

a. Summary of 2014 Risk Record

EPA conducted a national-scale, probabilistic analysis in 2014 titled, Human and Ecological Risk Assessment of Coal Combustion Residuals (2014 Risk Assessment),[16] that characterized potential risks to human and ecological receptors associated with leakage from CCR surface impoundments and landfills in operation at that time. A combination of models was used to predict fate and transport of contaminants through the environment, receptor exposures, and the resulting risks to human and ecological receptors. The specific exposure routes evaluated were: (1) Human inhalation of particulate matter blown from open management units, (2) Human ingestion of crops and livestock raised on nearby fields, (3) Human ingestion of groundwater used as a source of drinking water, (4) Human ingestion of fish caught from freshwater streams, and (5) Ecological contact with and ingestion of surface water and sediment. Site-specific data were used where available, supplemented by regional and national data to fill data gaps, to capture the variability of waste management practices, environmental conditions, and receptor behavior. EPA reported risks for both highly exposed individuals and more moderately exposed individuals. Risks to highly exposed individuals represent a reasonable maximum estimate that members of the general population might be exposed to, which were

[15] Under part 257, subpart D, new and existing CCR landfills and surface impoundments, including any lateral expansions of these units, as well as inactive CCR surface impoundments are currently regulated.

[16] U.S. EPA. 2014. ''Human and Ecological Risk Assessment of Coal Combustion Residuals.'' RIN 2050–AE81. Office of Solid Waste and Emergency Response. Washington, DC. December.

calculated as the 90th percentiles of all probabilistic model results. Risks to moderately exposed individuals represent a more typical estimate that members of the general population might be exposed to, which were calculated as the 50th percentiles of all probabilistic model results.

Under RCRA, EPA typically relies on a risk range to determine the point at which regulation is appropriate. EPA uses as an initial cancer risk ''level of concern'' a calculated risk level of 1×10^{-5} (one in one hundred thousand) or a hazard quotient (HQ) above 1.0 for any noncarcinogenic risks. For example, wastestreams for which the calculated high end individual cancer-risk level is 1×10^{-5} or higher generally are considered candidates for regulation. Wastestreams whose risks are calculated to be 1×10^{-4} (one in ten thousand) or higher generally will be considered to pose a substantial present or potential hazard to human health and the environment and generally will be regulated. Wastestreams for which these risks are calculated to be 1×10^{-6} (one in one million) or lower, and lower than 1.0 HQ or environmental risk quotients for any noncarcinogens, generally will be considered not to pose a substantial present or potential hazard to human health and the environment and generally will not be regulated. See 80 FR 21449; 59 FR 66075–66077, December 22, 1994.

EPA first evaluated national-scale risks, as documented in the 2014 Risk Assessment, which provide a snapshot in time of potential risks across the country. This was accomplished by weighting risks from individual management practices in proportion to the anticipated prevalence of those practices. National-scale risks provide important context as to whether risks are a systemic issue that warrant national regulations or are limited in scope and better addressed through more targeted actions. The Agency's evaluation found that the management practices that EPA believed were generally in current use at surface impoundments and landfills were likely to pose risks to human health through groundwater exposure within the range that EPA typically considers warranting regulation. For highly exposed individuals, the cancer risks from arsenic due to the operation of surface impoundments were as high as 2×10^{-4} and noncancer risks from both lithium and molybdenum were as high as an HQ of 2, while the cancer risks associated with the operation of landfills were estimated to be as high as 5×10^{-6} from the ingestion of arsenic-contaminated drinking water. In contrast, all risks for moderately exposed individuals fell below EPA's risk range. This was largely attributed to the fact that many facilities are located next to major water bodies and so contaminant plumes were frequently intercepted by these water bodies before they could reach private wells.

EPA next evaluated the risks associated with individual management practices at surface impoundments and landfills. This was accomplished by filtering the national-scale model runs to focus only on those that included the practice of interest and using the filtered set of runs to calculate risks associated with that specific practice. These individual risks provide important context about the range of contaminants and practices that could pose risk at individual sites. The Agency's evaluation identified two specific management practices that could lead to risks higher than those identified in the national risk estimates.

The first practice EPA evaluated was the disposal of CCR in unlined and clay-lined units. Management in unlined surface impoundments resulted in cancer risks for arsenic up to 3×10^{-4}, as well as noncancer risks for lithium up to an HQ of 3, molybdenum up to an HQ of 4, and thallium up to an HQ of 2. Management in unlined landfills resulted in cancer risks for arsenic up to 2×10^{-5}. The larger increase in arsenic risks identified for unlined landfills above those for national-scale landfills (2×10^{-5} vs. 5×10^{-6}) compared to unlined and national-scale impoundments (3×10^{-4} vs. 2×10^{-4}) is because a larger proportion of landfills nationwide were initially modeled as having a liner. Since promulgation of the 2015 CCR Rule, it has become clear that more landfills are unlined than originally estimated. Thus, it is anticipated that national-scale risks for landfills would actually be closer to those for unlined units (2×10^{-5}), rather than the lower estimates reported in the 2014 Risk Assessment.

Although clay-lined units tended to have lower risks than unlined units, they still had potential to result in risks within the range that EPA considers for regulation under RCRA. Management in clay-lined impoundments with a liner thickness of three feet resulted in cancer risks for arsenic of up to 7×10^{-6} and noncancer risks for lithium up to an HQ of 2, while management in similarly lined landfills resulted in cancer risks for arsenic up to the 1×10^{-5}. The larger increase in arsenic risks for unlined impoundments above those for clay-lined impoundments (1×10^{-5} vs. 7×10^{-6}) compared to unlined and clay-lined landfills (2×10^{-5} vs. 1×10^{-5}) is because the layer of low conductivity clay counteracts the hydraulic head in impoundments that would otherwise freely drive greater volumes of leachate into the subsurface.[17] In contrast, leachate generation in both types of landfills is limited far more by the rate of precipitation. As a result, EPA further considered how reducing the modeled clay liner thickness of impoundments to the minimum allowable standard of two feet would affect arsenic risk and found it would increase to as high as 2×10^{-5}.

The second practice evaluated was the management of wastes with an extreme pH. In particular, empirical porewater data revealed that co-management of CCR with other wastes in surface impoundments had the potential to result in a highly acidic pH, cancer risks for arsenic up to 1×10^{-3}, and noncancer risks for cobalt and mercury up to an HQ of 13 and 5, respectively. Laboratory leaching test data also indicated that highly acidic and basic CCR wastes have the potential to leach similarly high arsenic concentrations, up to an order of magnitude higher than under more neutral conditions. Only a small number of previous landfill model runs considered acidic conditions based on the information available about conditions in active units; identified risks for these units were driven by more basic conditions. Thus, to the extent that at conditions at either extreme of the pH scale are more prevalent than previously estimated, it is likely that overall risks from disposal in both surface impoundments and landfills would be even higher than modeled.

EPA acknowledged in the 2014 Risk Assessment that there were some additional management practices that may result in higher risk at individual sites, but that could not be quantitatively modeled with the data available at the time. One specific example provided was of CCR disposal below the water table. EPA was unable to quantitatively model the associated risks as there was little data on how common this practice was or the extent to which it could affect groundwater chemistry. Because EPA could not quantitatively model these management practices (and because the Agency had no information to indicate that it was a current, widespread management practice), EPA noted only that, based on its review of damage cases, the damage from the placement of CCR in sand and

[17] The somewhat higher risks identified for clay-lined landfills compared to similarly lined impoundments are likely related to site-specific conditions, such as where in the country these units are located.

gravel pits was almost always associated with CCR being placed in contact with water, which indicated that the placement of CCR in contact with water can lead to higher risks than from dry disposal. 80 FR 21352, April 17, 2015. EPA further explained that ''in this situation, the sorption that occurs in the unsaturated zone of the risk assessment model does not occur in the field. This and other site-specific risk factors could lead to additional contamination beyond what was modeled nationwide.'' 2014 Risk Assessment at pages 5–48. As a consequence, EPA specifically included sand and gravel pits that received CCR in the definition of CCR landfills covered by the regulations. 80 FR 21354.

EPA believes the groundwater data that have since been collected from monitoring systems installed around surface impoundments and landfills generally validates the findings of the 2014 Risk Assessment. For example, one limited analysis from 2019 of the groundwater data collected as part of the required facility monitoring programs found arsenic, molybdenum, and lithium are the constituents most likely to be found at concentrations above GWPS in compliance wells.[18] These data broadly confirm that these three constituents, which were identified as the primary risk drivers by national-scale modeling, are among those found most frequently at elevated levels in site groundwater monitoring wells.

b. Risks From Historical Disposal Units

The 2014 Risk Assessment could not directly model risks associated with disposal units that had previously closed or become inactive, as there was little to no information available about the numbers, locations, and characteristics of these historical units. However, based on information obtained since 2015, EPA now expects that risks posed by the management of CCR in inactive or closed landfills and closed surface impoundments at electric utilities could pose risks to nearby receptors that are, at a minimum, similar to the levels and kinds of risks posed by the currently regulated universe of CCR landfills and surface impoundments.

The unregulated units contain similar types of ash and are located on the same facilities, often in close proximity to and sometimes underneath the currently regulated units. Therefore, the risks associated with historical impoundments and landfills are expected to be similar to those modeled for the currently regulated units. Even if the historical impoundments have subsequently been at least partially dewatered or have undergone some kind of closure, the current absence of impounded water does not negate the releases that occurred during operation of the unit. In addition, if precipitation can continue to freely migrate into the unit, (*e.g.,* because it lacks an effective cover system), any leachate generated as a result would be a potential ongoing source of contamination, particularly where the unit is already leaking or in contact with groundwater. In general, it is expected that these historical units have been present for longer than the currently operating units at the same sites and so would have had more time to leak. As a result, previous and ongoing releases from these historical units could potentially be greater and have migrated further from the unit than releases from the currently regulated universe of units. Furthermore, as described below, there are a number of additional reasons to believe that the potential magnitude of releases from historical disposal is even greater than EPA modeled in 2014 for the currently regulated units.

First, many facilities have historically disposed of CCR in landfills and surface impoundments that lack adequate liner systems. Based on surveys conducted by EPA between 2009 and 2010 (hereafter ''EPA surveys''), EPA estimated in the 2014 Risk Assessment that 33% of landfills and 17% of impoundments had composite liners.[19] It has since become clear that even fewer units are lined. EPA's review of liner demonstration documents posted on facilities' CCR websites found that only 8% of landfills and 6% of impoundments in operation attest to having a standard or alternative composite liner. It is unlikely that historical units were lined at higher rates, particularly those constructed prior to the promulgation of minimum standards for disposal in RCRA subtitle D landfills in 1991. See, 40 CFR part 257, subpart A and part 258. Most of the coal-fired utilities in the United States were constructed before 1990.[20] Therefore, the risks associated with historical disposal units are likely to be at least as high as 2×10^{-5} based on the estimates of the risks associated with the management of CCR in unlined landfills in the 2014 Risk Assessment. This risk estimate for historical landfills would be almost an order of magnitude higher than the national-scale risks associated with the management of CCR in landfills modeled in the 2014 Risk Assessment. This risk estimate would also be twice the level of risk that EPA typically considers for regulation and is the same level of risk as those associated with the clay-lined CCR surface impoundments that the D.C. Circuit required to close.

Second, some facilities conduct coal preparation activities prior to combustion. These activities may include coal handling by conveyor systems, coal washing for removing mineral matter, and coal ''sizing'' to reduce the average particle size of coal. The wastes generated from coal preparation activities are collectively referred to as ''coal refuse.'' Some facilities have been known to dispose of coal refuse together with CCR. Such co-disposal can have a pronounced effect on the leaching behavior of CCR because of the potential for the refuse to make the overall waste pH far more acidic. Available Leaching Environmental Assessment Framework (LEAF) leaching data considered in the 2014 Risk Assessment show that multiple Appendix IV constituents are most soluble at an acidic pH and thus able to leak at higher rates. As a result, EPA found modeled risks were often highest when CCR was disposed with coal refuse. For example, the modeled cancer risks for the co-disposal of ash and coal refuse (pH 1.7–8.2) in surface impoundments ranged between 1×10^{-3} for trivalent arsenic to 4×10^{-4} for pentavalent arsenic. Non-cancer risks were similarly high, ranging between and an HQ of 13 for cobalt and HQ of 14 for pentavalent arsenic to 26 for trivalent arsenic, based on the ingestion of contaminated drinking water.

The practice has declined over time. A survey conducted by Electric Power Research Institute (EPRI) in 1995 showed 34 percent of unlined landfills and 68 percent of unlined surface impoundments actively managed CCR with coal refuse.[21] In contrast, EPA surveys indicated that, by 2014 this management practice had declined to around 5% of all operating units. EPA's 2014 national-scale modeling was based on the 5% reported in the EPA surveys, and as a consequence, this practice had minimal influence on the overall

[18] Environmental Integrity Project. 2019. ''Coal's Poisonous Legacy: Groundwater Contaminated by Coal Ash Across the U.S.''

[19] U.S. EPA. 2014. ''Human and Ecological Risk Assessment of Coal Combustion Residuals.'' RIN 2050–AE81. Office of Solid Waste and Emergency Response. Washington, DC. December.

[20] United Stated Energy Information Administration. 2017. ''Most Coal Plants in the United States were Built Before 1990.'' Accessed online at: *https://www.eia.gov/todayinenergy/detail.php?id=30812*.

[21] EPRI. 1997. ''Coal Combustion By-Products and Low-Volume Wastes Comanagement Survey.'' Palo Alto, CA. June.

nationwide risk estimates in the 2014 Risk Assessment. However, it is clear from the EPRI data that management of CCR with coal refuse used to be far more common. Therefore, the risks associated with historical disposal units, such as closed units or inactive landfills, are likely to be higher than the national-scale risks reported in the 2014 Risk Assessment.

Finally, it is known that facilities have disposed of CCR in units that either have been constructed beneath the water table or have since become inundated with groundwater. EPA's review of the location restriction demonstrations posted on facilities' CCR websites found that approximately 31% of operating impoundments have waste below the water table; similar data are not available for landfills. EPA previously identified disposal below the water table as a management practice that could result in higher risks than those modeled in the 2014 Risk Assessment. Since promulgation of the 2015 CCR Rule, it has become apparent that the practice of disposing of CCR below the water table is more common than previously understood. Given that most historical landfills and impoundments are located on the same sites as the currently operating units, and are therefore located in the same hydrogeologic environments, there is good reason to believe that such units at some of these sites were constructed in contact with the water table or have since become inundated with groundwater.

The greater prevalence of this management practice has significant implications for the risks associated with CCRMU. First, a CCR landfill saturated with water during operation, either continuously or intermittently, would have behaved more like an operating CCR surface impoundment, even though such a unit would not have the hydraulic head from ponded water present in an operating impoundment. The hydraulic head from the ponded water in an operating impoundment unit allows for continual leaching of contaminants from the CCR and drives the resulting leachate into underlying soils and potentially into the underlying aquifer. However, where any part of the unit is actually constructed below the water table, the conditions caused by the continuous saturation of the CCR by the groundwater flowing in and out of the unit allow the contaminants in the unit to continuously leach directly into the nearby ground and surface waters, even without any downward pressure from hydraulic head pushing leachate out of the unit. Second, for the same reasons, closed units and inactive landfills that continue to be saturated by groundwater will continue to present these same risks, even though no additional CCR will have been added to the unit.

Further there are several ways in which disposal below the water table can result in higher risks than EPA originally estimated in 2014. One of these is that it has the potential to alter groundwater chemistry in ways that increase either the solubility or mobility of CCR contaminants. This is due to the residual, unburnt organic matter in CCR serving as a carbon source (*i.e.,* substrate, electron donor) for bacteria in the soil. Bacteria preferentially use any dissolved oxygen (O_2) for oxidation of organic matter (*i.e.,* electron transfer from the organic matter to oxygen) because this yields the greatest energy returns for the bacteria. With a sufficient source of biodegradable organic matter, bacterial consumption of oxygen can outpace replenishment of dissolved oxygen that occurs through diffusion from the atmosphere and infiltration of precipitation. Depletion of oxygen is more likely to occur in saturated soils because the constant presence of water allows biological activity to proceed unimpeded by periods of drying, the relatively slow flow rate of groundwater does not transport dissolved oxygen from the upgradient side of the unit fast enough to outpace consumption across the footprint of the unit, and sustained saturation of the soil limits oxygen exchange with the atmosphere. In the absence of oxygen, bacteria will instead use nitrate, manganese, iron, sulfate, and other compounds for reduction of organic matter (*i.e.,* electron transfer to organic matter from other compounds). Such reducing conditions will not affect all constituents equally, serving to mobilize some and immobilize others. However, reducing conditions can mobilize arsenic, the primary source of risks identified in the 2014 Risk Assessment, in two primary ways. First, the transformation of iron, sulfur, and other minerals in the ash and soil can free arsenic that was either complexed with or sorbed onto these minerals. Second, reducing conditions can change the dominant oxidation state of arsenic (*i.e.,* how many electrons the atom has gained or lost in its present state), resulting in a more mobile form that is not retained as well on the soil surface.

Research conducted since the 2014 Risk Assessment has better documented the potential effects of disposal below the water table on leakage from CCR units. Studies published in 2022 examined, among other things, the degree to which environmental conditions can differ within the same closed impoundment, both above and below the water table.[22] [23] Specifically, arsenic concentrations measured in the water intermingled with CCR collected from beneath the water table were as high as 4,100 µg/L due to the presence of reducing conditions and a near neutral pH of 8. That concentration is substantially higher than 20 µg/L, measured from the same ash with LEAF Method 1313 at a similar pH, or 780 µg/L, which is the 90th percentile of all impoundment porewater measurements previously compiled by EPA. Altogether this indicates that the 2014 Risk Assessment, which relied on data from these two sources, may have underestimated the potential magnitude of leakage from CCR units under reducing conditions. Data collected using LEAF methods, like all standardized leaching tests, tend to reflect oxidizing conditions due to contact between the sample and the atmosphere during sample collection and laboratory analysis. It has since been recognized that further analysis of leachate data with geochemical speciation models may be warranted when field conditions diverge from those present in the laboratory setting (*e.g.,* reducing conditions).[24] Data from the Agency's empirical porewater dataset may reflect reducing conditions to some degree because the ash in these units remains saturated. Yet, there are reasons to believe that reducing conditions would not be as common or extreme in operating impoundments. Operating impoundments are open to the air, frequently have new water sluiced into them, and may be periodically dredged. These conditions introduce oxygen into the impoundment far faster and more frequently than a closed and capped impoundment. For all these reasons, it is likely that long-term disposal of CCR below the groundwater table, whether in a closed or partially dewatered impoundment, a closed or inactive landfill, or other method of management, can pose risks

[22] Wang, X., A.C. Garrabrants, Z. Chen, H.A. van der Sloot, K.G. Brown, Q. Qiu, R.C. Delapp, B. Hensel, and D.S. Kosson. 2022. ''The Influence of Redox Conditions on Aqueous-Solid Partitioning of Arsenic and Selenium in a Closed Coal Ash Impoundment.'' Journal of Hazardous Materials. 428:128255.

[23] Wang, X, H.A. van der Sloot, K.G. Brown, A.C. Garrabrants, Z. Chen, B. Hensel, and D.S. Kosson. 2022. ''Application and Uncertainty of a Geochemical Speciation Model for Predicting Oxyanion Leaching from Coal Fly Ash under Different Controlling Mechanisms.'' Journal of Hazardous Materials. 438:129518.

[24] U.S. EPA. 2019. ''Leaching Environmental Assessment Framework (LEAF) How-To Guide: Understanding the LEAF Approach and How and When to Use It.'' Office of Land and Emergency Management. Washington, DC. May.

similar to or even greater than previously modeled for operating surface impoundments.

Based on the various lines of evidence outlined above and confirmed by the damage cases discussed in the next Unit of the preamble, historical disposal practices for CCR diverge from current practices in several material ways. Each of these practices individually have the potential to result in risks even higher than those previously modeled for the currently operating universe of CCR units, and a combination of these practices could push risks even higher.

2. Damage Cases

EPA has a long history of considering damage cases in its regulatory decisions under RCRA. RCRA specifically directs EPA, when making a Regulatory Determination for CCR, to consider ''documented cases in which danger to human health and the environment from surface run-off or leachate has been proved,'' demonstrating that such information is to carry great weight in decisions of whether and how to regulate such wastes. 42 U.S.C. 6982(n)(4). See also 42 U.S.C. 6982(n)(3). In addition, damage cases are among the criteria EPA must consider under its regulations for determining whether to list a waste as a ''hazardous waste.'' See 40 CFR 261.11(a)(3)(ix). EPA also relied on damage cases to develop the specific requirements for CCR in part 257, subpart D. See, 80 FR 21452–21459.

Damage cases generally provide direct evidence of both the extent and nature of the potential risks to human health and the environment that have resulted from actual waste management practice. For example, in the 2015 CCR Rule, EPA relied on damage cases to identify actual management practices that resulted in harm above and beyond that already identified through modeling. Based on the damage cases, EPA identified several additional constituents (antimony, barium, beryllium, chromium, selenium, and lead) that were added to the Appendix IV list for groundwater monitoring. For CCRMU, EPA is relying on the damage cases to further support the results of the modeling discussed in the preceding Unit of this preamble and to better understand the characteristics of the sites and units, as well as the management practices, in order to develop appropriate requirements.

a. Data Sources Reviewed

In response to the ANPRM, EPA received comments that contained information stating that groundwater contamination was occurring at many sites from federally unregulated units such as inactive landfills, closed landfills, and fill. Additionally, EPA received comments, reports, and data from states, nongovernmental organizations, citizen groups, and other stakeholders, regarding groundwater contamination from currently unregulated CCR sources. EPA also reviewed comments received on the ANPRM. One commenter, Earthjustice et al., said:

> EPA only regulates CCR landfills that were active after October 2015, which leaves hundreds of coal ash landfills [to] escape all closure, source control, and remediation requirements. Commenters now know that these coal ash landfills are currently causing serious groundwater contamination. The analysis of the Ashtracker [25] data presented in these comments shows that the vast majority of CCR landfills threaten human health and the environment. Data indicate that distinctions based on landfill type or the date that the unit ceased operation are effectively meaningless from a risk perspective. Unless EPA addresses the threats posed by inactive landfills, the CCR Rule will continue to fall short of the RCRA protectiveness standard. Serious and ongoing harm caused by coal ash will never be resolved, until EPA applies its regulatory oversight to these toxic open dumps.

Earthjustice et al., also provided a list of 47 potential inactive landfills [26] identified in EPA Information Request Responses from Electric Utilities,[27] EPA Human and Ecological Risk Assessment of Coal Combustion Residuals (Dec. 2014),[28] and U.S. Energy Information Administration (EIA) Monthly Electric Generator Inventory (''EIA 860M'').[29]

EPA reviewed these data and found the information used to support the 2015 CCR Rule included EIA data that estimated which power plants disposed of CCR either wet (in CCR surface impoundments) or dry (in CCR landfills) to estimate the number of CCR units on-site. These 2014 estimates of CCR units were not always verified at the time, nor did the data contain actual unit names or exact numbers of units on-site, nor were the commenters data unit specific with unit names or other identifying features. However, since 2016,[30] the Agency has been reviewing the documents posted on facilities' CCR websites for compliance with CCR regulations. Specifically, EPA has reviewed groundwater monitoring reports, assessment of corrective measures reports, corrective measures progress reports, remedy selection reports, history of construction reports, closure plans and reports, and fugitive dust control plans for facilities with CCR websites from 2018, 2019, 2020, and 2021. Through the review of information posted by facilities on CCR websites and implementation of the 2015 CCR Rule, EPA has better estimates of the different types of units at regulated facilities. Some of the differences between the 2014 Risk Assessment data, 2014 Regulatory Impact Analysis (RIA), and the current known universe of regulated facilities are due to differences in reporting between cells versus units, general assumptions about the number of wet/dry units at a facility, changes in unit names over time due to different waste management practices, and inclusion of storage impoundments that were later determined to not contain CCR and therefore were not CCR surface impoundments.

Through review of groundwater monitoring and corrective action reports, EPA found many instances where the owners or operators of CCR facilities claimed that the detection of an SSI or SSL in concentrations of Appendix III or IV constituents in groundwater came from a CCRMU rather than the monitored regulated CCR unit. Whenever a facility determines that there is an SSI over background levels for one or more of the constituents in Appendix III at a monitoring well at the downgradient waste boundary, the regulations allow the facility an opportunity to complete an alternative source demonstration (ASD) showing that a source other than the unit (*i.e.,* an alternative source) was the cause of the SSI. Section 257.94(e)(2). The regulations provide a similar opportunity whenever assessment monitoring results indicate that an SSL exceeding the GWPS has been detected at a downgradient well for any of the Appendix IV constituents. 40 CFR 257.95(g)(3). If a successful ASD for an SSL is not completed within 90 days, corrective action must be initiated.

[25] Ashtracker provides public access to industry-reported data from state and company records about groundwater contamination at coal ash dumps. It can be accessed at *https://www.ashtracker.org.*

[26] EPA–HQ–OLEM–2020–0107–0073.

[27] Database Results (Excel) 04–12–12 at *https://archive.epa.gov/epawaste/nonhaz/industrial/special/fossil/web/html/index-3.html* and Summary Table for Impoundment Reports (.xls)—July 31, 2014, at *https://archive.epa.gov/epawaste/nonhaz/industrial/special/fossil/web/html/index-4.html.* Available at EPA–HQ–OLEM–2020–0107–0003.

[28] U.S. EPA. 2014. ''Human and Ecological Risk Assessment of Coal Combustion Residuals.'' RIN 2050–AE81. Office of Solid Waste and Emergency Response. Washington, DC. December. Docket ID No. EPA–HQ–RCRA–2009–0640–11993.

[29] *https://www.eia.gov/electricity/data/eia860m/.*

[30] In December 2016, the Water Infrastructure Improvements for the Nation (WIIN) Act gave EPA enforcement authority under RCRA sections 3007 and 3008 for the CCR regulations. See RCRA section 4005(d).

Specifically, EPA found in reviewing groundwater monitoring and corrective action reports that 42 ASDs or assessments of corrective measures (ACMs) concluded that a federally unregulated CCR source was responsible for the SSI or SSL. In Unit IV.B.2.b and c of this preamble are several examples (*i.e.,* damage cases) where owners or operators of CCR facilities claimed that an SSI or SSL is attributable to a CCR source rather than the federally regulated CCR unit.

In addition to reviewing the groundwater monitoring and corrective action reports, EPA also reviewed the history of construction reports, closure plans and reports, and fugitive dust control plans for facilities with CCR websites from 2018, 2019, 2020, and 2021. These documents contained either site maps, which identified currently regulated units, and in some cases, inactive or closed units at the facility, or narrative discussions of the site history, which included identification of where CCR were previously disposed or managed at the facility. Through this review, EPA found 65 references to CCR that are managed or disposed outside federally regulated CCR units; however, EPA was not able to find additional information about these units including whether groundwater monitoring has been conducted.

Given the available data about CCR facilities, the Agency reviewed the records for evidence of inactive landfills at active CCR facilities and inactive CCR facilities. EPA reviewed the available data and found clear, written documentation of about 34 inactive or closed CCR landfills at 22 CCR facilities. In addition, EPA evaluated those verified inactive or closed CCR landfills and found evidence from ASD reviews that eight landfills were identified as contaminating groundwater. Some of the landfills are adjacent to a federally regulated CCR unit and some are below federally regulated CCR units but are not considered part of the regulated unit. This is the available information that the Agency has regarding inactive CCR landfills and EPA has no information to suggest a different situation regarding inactive CCR landfills.

After reviewing all of this information, EPA identified a total of 134 areas at 82 active facilities [31] where CCR is being managed, but which remain exempt under existing federal CCR regulations. These areas include inactive CCR landfills, closed CCR landfills, closed CCR surface impoundments, and other solid waste management areas of CCR. Through further investigation, EPA found 42 federally unregulated units with documentation that the units are potentially contaminating groundwater. Of those, EPA found evidence that eight were associated with closed CCR landfills, one related to an inactive CCR landfill, 22 pertained to closed CCR surface impoundments, three involved CCR disposed below the regulated CCR unit, and eight related to CCR disposed or managed in other solid waste management areas. A subset of examples of these 42 federally unregulated units are briefly summarized below; first for facilities that attributed an SSL associated with a federally regulated landfill or impoundment to the federally unregulated unit and second where SSIs are attributed to a federally unregulated unit. Although some of these units are being regulated or addressed by states, it does not negate the need to expand the federal CCR regulations to address contamination and potential risks from CCRMU across the nation.

b. Examples of CCRMU With Identified SSLs

Under the existing CCR regulations, when a facility determines there is an SSL for one or more Appendix IV constituents and completes a successful ASD showing that a source other than the regulated unit is the cause of the SSL(s), the facility is not required to initiate corrective action for that particular constituent. Through ASD reviews, EPA identified several areas at active facilities where CCR was managed outside of a regulated unit and was identified as a source of one or more Appendix IV SSL(s). The following facilities are examples of situations in which potential CCRMU have been identified as the source of an SSL and demonstrate the need to expand the federal CCR regulations as EPA is proposing in this preamble.

James H Campbell Power Plant, West Olive, Michigan

The JH Campbell Power Plant, owned and operated by Consumers Energy Company, is located within a mile of Lake Michigan. The facility has five regulated CCR units, including three CCR surface impoundments (Pond A, Bottom Ash Ponds 1–2, and Bottom Ash Pond 3) and two CCR landfills. The ''wet ash ponds area'' is approximately 267 acres and is bounded by perimeter dikes with a system of internal dikes separating the individual ash ponds. In addition to the five regulated CCR units, there are at least seven other unregulated, unlined ''closed'' impoundments [32] that ceased placement of waste prior to October 19, 2015, do not have an engineered cap nor vegetative cap, and have a closure plan that was approved by the State. Based on the groundwater monitoring report reviews, there were SSIs over background at many wells at all units and some had an SSL for arsenic and selenium. At Pond A, which closed with waste in place in 2019, there are SSIs for boron and sulfate, and SSLs were identified for arsenic (13 μg/L [MCL of 10 μg/L]) and selenium [33] (143 μg/L [MCL of 50 μg/L]) for which an assessment of corrective measures was completed, and the selected remedy is source removal and final cover as the primary corrective action. In the 2021 Annual Groundwater Monitoring and Corrective Action Report posted in January 2022, Consumers Energy concluded there was an ASD for Pond A and said, ''Increases in Appendix III constituents (*e.g.,* boron) and direct exceedances of the selenium GWPS in JHC–MW–15011, JHC–MW–15010, JHC–MW–15009, and JHC–MW–15008R that have not yet resulted in a statistically significant exceedance suggest a detectable influence from the immediately adjacent, upgradient, closed, pre-existing CCR units on-site. The closed, preexisting units are not regulated under the RCRA CCR Rule, but remedial action is being taken under Consent Agreement WMRPD No. 115–01–2018. A [remedial action plan] for these units was submitted to [Michigan's Department of Environment, Great Lakes, and Energy] on September 30, 2021.'' During the 2021 groundwater monitoring period for Bottom Ash Ponds 1–2, which closed by removal in 2018, SSIs were identified for boron, calcium, chloride, pH, sulfate, and total dissolved solids (TDS); also, one SSL was identified for arsenic (38 μg/L [MCL of 10 μg/L]).[34] An assessment of corrective measures has been completed for the CCR unit and the primary selected remedy is source removal and final cover. Consumers Energy also said in the 2022 semiannual

[31] This information can be found in the document titled ''Potential CCR Management Units'' in the docket for this action.

[32] These ''closed'' impoundments (Pond B, Pond C, Pond D, Pond F, Pond G (G1 and G2), Pond H, and Pond K) are listed in a figure on page 12 of the 2021 Annual Groundwater Monitoring and Corrective Action Report, JH Campbell Power Plant Pond A, January 2022, Prepared for Consumer's Energy.

[33] JH Campbell Semiannual Progress Report—Selection of Remedy, Ponds 1–2 North and 1–2 South, and Pond A, July 30, 2022. Pages 3–4.

[34] Annual Groundwater Monitoring and Corrective Action Report, JH Campbell Power Plant Ponds 1–2 North and 1–2 South, January 2022, Prepared for Consumers Energy. Page 23.

progress report that the facility is reevaluating the groundwater ''monitoring system for [Bottom Ash] Ponds 1–2 to more accurately account for the influence from the closed, pre-existing units.''

New Castle Generating Station, Pennsylvania

GenOn Power Midwest LP (GenOn) operates the New Castle Generating Station located in West Pittsburg, Pennsylvania. The New Castle Generating Station has two CCR units subject to the regulations—an impoundment (North Bottom Ash Pond) and a landfill (New Castle Plant Ash Landfill). Each of these CCR units has relevance to this proposal due to other unregulated disposal units located adjacent to the regulated CCR units.

The North Bottom Ash Pond was used for the management of bottom ash until 2016 when the facility transitioned from coal to natural gas. After the transition to natural gas, GenOn initiated closure of the North Bottom Ash Pond by removing all waste from the impoundment. Closure of the impoundment was certified in 2019.[35] Groundwater monitoring associated with the impoundment while the unit was operating detected arsenic at SSL above the GWPS in all downgradient monitoring wells.[36] In accordance with the procedures in the regulations for CCR units in 40 CFR 257.94(e)(2), GenOn determined that an alternative source was responsible for these SSLs of arsenic. Specifically, the ASD found that a 120-acre unlined CCR surface impoundment located immediately adjacent to the North Bottom Ash Pond was responsible for the arsenic concentrations in the downgradient monitoring wells.[37] According to the 2019 Annual Report prepared by GenOn, there were SSLs for arsenic (0.087 mg/L [MCL of 10 µg/L]) in the downgradient monitoring wells.[38] Consequently, because the SSLs of arsenic were attributed to another source (*i.e.,* a former unlined CCR surface impoundment), GenOn concluded it was not required to remediate the arsenic contamination under the federal CCR regulations.

GenOn also determined that there were SSIs above background levels for multiple analytes at the New Castle Plant Ash Landfill (Ash Landfill), which is the other regulated CCR unit at the New Castle Generating Station. In its most recent annual groundwater monitoring report in 2022, GenOn reported SSIs for boron, calcium, fluoride, sulfate, and total dissolved solids.[39] GenOn determined that an alternative source was responsible for these analyte increases, specifically pointing to an ''underlying historic ash impoundment and other closed stages of the landfill.''[40] Prior to development of the 60-acre Ash Landfill, CCR was disposed in an impoundment from approximately 1939 to 1978.[41] After the impoundment was dewatered in 1978, dry CCR was disposed in this area in several stages of CCR placement up until the time Ash Landfill began operation. Since 2018, GenOn has attributed SSIs for boron, calcium, fluoride, sulfate, and TDS to this historic disposal of CCR.

Huntington Power Plant, Utah

The Huntington Power Plant in Huntington, Utah is owned and operated by PacifiCorp and has one regulated unit, the Huntington CCR Landfill. While conducting the required groundwater monitoring for the Huntington CCR Landfill, there were SSLs for chromium, cobalt, lithium, molybdenum, selenium, fluoride, and arsenic, so the owner and operator conducted assessment of corrective measures. There is also a former combustion waste landfill called the Old Landfill, which is located northwest of the regulated Huntington CCR Landfill. The ACM report[42] assumes the SSLs are the result of groundwater interactions with both the Huntington CCR Landfill and the Old Landfill. Both landfills have stormwater run-on from the area surrounding the landfill. This run-on is routed around the landfills via diversion ditches and run-off from the landfills itself is collected and retained in a sediment basin north of the Huntington CCR Landfill. The facility is implementing a remedy to address releases only from the regulated CCR Huntington Landfill, but the remedy selection report[43] does not appear to address releases from the Old Landfill.

J.B. Sims, Grand Haven, Michigan

The J.B. Sims Generating Station, owned and operated by Grand Haven Board of Light and Power, is located on Harbor Island, north of Grand Haven, Michigan. Harbor Island is bound to the north, east, and west by the Grand River and to the south by the South Channel, tributaries of Lake Michigan. The facility has two federally regulated CCR units (Unit 1 & 2 and Unit 3), both of which are inactive, unlined surface impoundments. Unit 1 & 2 is approximately 1.2 acres and includes areas where, prior to October 19, 2015, CCR was placed in unlined impoundments and used as fill in low-lying areas of adjacent wetlands. Unit 3 is approximately 0.5 acres and was built on top of historically placed CCR. The boundary of Unit 1 & 2 was updated in an agreement with EPA and the State in January 2021,[44] to include an area that received CCR prior to 1978. Therefore, the groundwater monitoring network and closure plan are currently being updated to reflect the new boundary and better address contamination from historical CCR across the units.[45] Additionally, in March 2022, the State issued an enforcement notice[46] to J.B. Sims citing inadequate groundwater monitoring and failure to address all areas where CCR were managed (*e.g.,* stored, placed) prior to disposal during the unit's operation. As such, the facility is considering expanding Unit 3's groundwater monitoring network. The units are often partially flooded, and groundwater elevations and flow direction are influenced by precipitation and water levels in the Grand River and the South Channel.

Based on groundwater monitoring report reviews, both units have had SSIs and SSLs since groundwater monitoring was initiated in 2017. During 2021, both Unit 1 & 2 and Unit 3 had SSIs for all Appendix III constituents and SSLs for arsenic (98 µg/L [MCL is 10 µg/L]), chromium (270 µg/l [MCL is 100 µg/L]), cobalt (22 µg/l [GWPS is 6 µg/L], fluoride (13 mg/L [MCL is 4 mg/L]), and

[35] CCR Compliance, Closure Certification Report, Closure by Removal, New Castle North Bottom Ash Pond. June 2019.

[36] *Id.* At 5.

[37] *Id.*

[38] CCR Compliance, Groundwater Monitoring and Corrective Action Annual Report, New Castle North Ash Pond and Ash Landfill. January 2020.

[39] CCR Compliance, Groundwater Monitoring and Corrective Action Annual Report, New Castle Ash Landfill. December 2022.

[40] *Id.* At 3.

[41] New Castle Plant Ash Landfill—Annual CCR Unit Inspection Report. January 16, 2018.

[42] Corrective Measures Assessment CCR Landfill—Huntington Power Plant Huntington, Utah. May 2019.

[43] Remedy Selection Report CCR Landfill—Huntington Power Plant, Huntington, Utah. August 2020.

[44] The meeting between Grand Haven Board of Light and Power, the state, and EPA during which the new boundaries for Unit 1 & 2 were agreed to is discussed on page 3 (PDF page 10) of the 2021 Annual Groundwater Monitoring & Corrective Action Report by Golder Associates. January 28, 2022.

[45] Letter to Grand Haven Board of Light and Power-Update To The October 14, 2019 J.B. Sims Generating Station Inactive Units ½ Impoundment And Unit 3 Closure Plan—Interim Conditions For Closure. October 22, 2021.

[46] The State of Michigan, Department of Environment, Great Lakes, and Energy (EGLE) issued an enforcement notice via email March 22, 2022, to Grand Haven Board of Light and Power, J.B. Sims.

lithium (2800 µg/L [site-specific GWPS is 59 µg/L]).[47] In December 2020, J.B. Sims submitted an ASD for Unit 3's 2019 SSLs for chromium, cobalt, fluoride, lead, and lithium, pointing to the historic fill across the island as the source of the SSLs.[48 49] Furthermore, the Fourth Quarterly 2021 Monitoring Report suggested the continued SSIs and SSLs at Unit 3 were due to historical CCR fill beneath the unit, historical fill outside of Unit 1 & 2, and waste historically placed across the site.[50] However, until the groundwater monitoring networks are finalized, the extent of groundwater contamination and the source of all contamination cannot be determined. The assessment of corrective measures for both units began in February 2019 and is ongoing, pending finalization of the groundwater monitoring networks. Based on groundwater monitoring reports, EPA has found that due to the fluctuations in groundwater elevations in response to precipitation and nearby surface water levels, portions of the facility, including Unit 1 & 2, can be inundated or partially in contact with groundwater.

c. Examples of CCRMU With Identified SSIs

Under the existing CCR regulations, when a facility determines there is an SSI for one or more Appendix III constituents and completes a successful ASD showing that a source other than the regulated unit is the cause of the SSI(s), the facility is not required to initiate assessment monitoring for that particular constituent. 40 CFR 257.94(e). Through ASD reviews, EPA identified several areas at active facilities where CCR was managed outside of a regulated unit and was identified as a source of one or more Appendix III SSI(s). As such, any groundwater contamination from these potential CCRMU have not been investigated under the existing federal CCR regulations. The following facilities are examples of situations in which potential CCRMU have been identified as the source of an SSI and demonstrate the need to expand the federal CCR regulations as EPA is proposing in this preamble.

Reid Gardner Generating Station, Moapa Valley, Nevada

Reid Gardner Generating Station, owned and operated by NV Energy, is located adjacent to the Muddy River and the Moapa Band of Paiutes reservation, approximately 45 miles northeast of Las Vegas. Reid Gardner has seven regulated CCR units: four unlined inactive surface impoundments (Pond 4B–1, Pond 4B–2, Pond 4B–3, and Pond E–1), two active unlined surface impoundments (Pond M–5 and Pond M–7), and one partially lined landfill (Mesa Landfill). The inactive surface impoundments covered 47 acres and were closed by removal in 2017.[51] The inactive surface impoundments were constructed in 2003 (Pond E–1) and 2006 (Pond 4B–1, Pond 4B–2, and Pond 4B–3) to replace four of the eleven historical unlined evaporation ponds located at the facility that made up the evaporation pond complex (Pond 4A, Pond 4B–1, Pond 4B–2, Pond 4B–3, Pond 4C–1, Pond 4C–2, Pond D, Pond E–1, Pond E–2, Pond F, and Pond G).[52] The evaporation pond complex was built within the Muddy River floodplain and used from approximately 1974 until approximately 2002 to evaporate CCR and other process wastewaters from the facility. The two active surface impoundments (Ponds M–5 and M–7) were constructed in 2010 approximately 0.75 miles south of the historical evaporation ponds and cover 28 acres. Mesa Landfill was constructed and operational prior to the 2015 CCR Rule and has a surface area of roughly 252 acres.

Based on groundwater monitoring report reviews, the inactive surface impoundments had no Appendix III SSIs above their established background concentrations during the detection monitoring event in 2019.[53 54 55 56 57 58] However, the inactive surface impoundments did have Appendix IV constituent concentrations above the standard GWPS, including arsenic (2.52 mg/L [MCL is 0.01 mg/L]), cadmium (0.0072 mg/L [MCL is 0.005 mg/L]), cobalt (242 µg/L [standard GWPS is 6 µg/L]), fluoride (35.4 mg/L [MCL is 4.0 mg/L]), lithium (27,300 µg/L [standard GWPS is 40 µg/L]), molybdenum (6,390 µg/L [standard GWPS is 100 µg/L]), selenium (0.204 mg/L [MCL is 0.05 mg/L]), thallium (0.026 mg/L [MCL is 0.002 mg/L]), and radium 226 & 228 combined (8.02 pCi/L [MCL is 5 pCi/L]). Ponds M–5 and M–7 and the Mesa Landfill have had SSIs for fluoride every year of detection monitoring for which ASDs have been performed pointing to natural variation in groundwater quality.[59 60 61 62 63 64] ASDs were also performed for SSIs at Mesa Landfill for pH (2019 and 2021) and turbidity (2020 and 2021) that attributed the SSIs to natural variation in groundwater quality. Therefore, since ASDs have been performed for all SSIs and the

[47] SSL concentrations can be found in Appendix B (PDF page 512) of the 2021 Groundwater Monitoring & Corrective Action Report prepared by Golder Associates on behalf of Grand Haven.

[48] 2020 Alternate Source Demonstration J.B. Sims Generating Station—Unit 3 Impoundments Submitted to: Grand Haven Board of Light and Power Submitted by Golder Associates Inc. December 28, 2020.

[49] Technical Memorandum to Michigan Department of Environment, Great Lakes, and Energy-Unit 3 Impoundments Alternate Source Demonstration Response Grand Haven Board Of Light And Power—JB Sims Power Generating Station. February 12, 2020.

[50] Memorandum to Michigan Department of Environment, Great Lakes, and Energy- Fourth Quarter 2021 Monitoring Report, Former JB Sims Generating Station, Unit 3 A&B Impoundments—Response to Comments. March 8, 2022.

[51] Reid Gardner Generating Station Inactive Coal Combustion Residual Surface Impoundments Ponds 4B–1, 4B–2, 4B–3, and E–1 Closure Certification, April 2019.

[52] Construction History, Pond E1, Reid Gardner Generating Station. April 11, 2018.

[53] Reid Gardner Generating Station Inactive CCR Surface Impoundment E–1. Coal Combustion Residual 209 Annual Groundwater Monitoring and Corrective Action Report. July 31, 2019.

[54] Reid Gardner Generating Station Inactive CCR Surface Impoundments 4B–1, 4B–2, and 4B–3. Coal Combustion Residual 2019 Annual Groundwater Monitoring and Corrective Action Report. Revision 1. May 14, 2020.

[55] Reid Gardner Generating Station Mesa Impoundments M5 and M7 Coal Combustion Residual 2019 Annual Groundwater Monitoring and Corrective Action Report and Alternate Source Demonstration. January 31, 2020.

[56] Reid Gardner Generating Station Mesa Impoundments M5 and M7 Coal Combustion Residual 2020 Annual Groundwater Monitoring and Corrective Action Report and Alternate Source Demonstration. January 29, 2021.

[57] Reid Gardner Generating Station Mesa Impoundments M5 and M7 Coal Combustion Residual 2021 Annual Groundwater Monitoring and Corrective Action Report and Alternate Source Demonstration. January 28, 2022.

[58] Alternate Source Demonstration and Addendum to the Coal Combustion Residual 2017 Annual Groundwater Monitoring and Corrective Action Report Reid Gardner Generating Station Mesa CCR Surface Impoundments (Ponds M5 and M7). Prepared for NV Energy. April 13, 2018.

[59] Reid Gardner Generating Station Mesa Landfill Coal Combustion Residual 2018 Annual Groundwater Monitoring and Corrective Action Report and Alternate Source Demonstration. January 31, 2019.

[60] Reid Gardner Generating Station Mesa Impoundments M5 and M7 Coal Combustion Residual 2018 Annual Groundwater Monitoring and Corrective Action Report and Alternate Source Demonstration. January 31, 2019.

[61] Reid Gardner Generating Station Mesa Landfill Coal Combustion Residual 2019 Annual Groundwater Monitoring and Corrective Action Report and Alternate Source Demonstration. January 31, 2020.

[62] Reid Gardner Generating Station Mesa Landfill Coal Combustion Residual 2020 Annual Groundwater Monitoring and Corrective Action Report and Alternate Source Demonstration. January 31, 2021.

[63] Reid Gardner Generating Station Mesa Landfill Coal Combustion Residual 2021 Annual Groundwater Monitoring and Corrective Action Report and Alternate Source Demonstration. January 28, 2022.

[64] Alternate Source Demonstration and Addendum to the Coal Combustion Residual 2017 Annual Groundwater Monitoring and Corrective Action Report Reid Gardner Generating Station Mesa Landfill. Prepared for NV Energy. April 13, 2018.

active units, Reid Gardner has not moved from detection monitoring to assessment monitoring. The facility also claims the historical, co-located evaporation ponds are the source of groundwater contamination in the area and not the CCR-regulated units. Specifically, in the closure certification for the inactive surface impoundments, the facility points to documentation as far back as the 1980s that describe seepage from Pond D, the historical Pond E–1 and E–2, Pond F, and Pond G and leakage at an estimated rate of 50 acre-feet/year from Ponds 4C–1 and 4C–2 and historical Ponds 4B–1, 4B–2, and 4B–3.

Cooper Station, Somerset, Kentucky

Cooper Station is owned and operated by East Kentucky Power Cooperative (EKPC) and is located in Somerset, Kentucky. There is one CCR landfill on-site, and the disposal area covers 96.32 acres in a total State-permitted area of 315.25 acres. Before construction of the landfill, CCR was managed in an unlined surface impoundment below the current landfill location. The facility conducted an ASD in 2018 for boron, calcium, sulfate, and TDS.[65] Previous analyses indicate that karst regions under the historic impoundment may have facilitated the release of some contamination. ASD results indicate the regulated CCR landfill is not the source of the release since it is lined but did not definitively state if the facility determined the unregulated unlined surface impoundment beneath the landfill as the alternative source. As such, the facility determined that the current CCR landfill remains in detection monitoring.

Seminole Electric Cooperative, Florida

Seminole Electric Cooperative (Seminole) operates the Seminole Generating Station located in Palatka, Florida. For CCR that is not beneficially used, CCR is disposed at the facility in a landfill (Increment One Landfill), which is subject to the CCR regulations. This CCR landfill is a double-lined landfill with a leachate collection system and, because part of the Increment One Landfill overlaps with the side-slope of a former, federally unregulated landfill, the liner system also includes a high-density polyethylene geomembrane where the two units interface.[66] Seminole determined there were SSIs above background levels for multiple analytes in one or more monitoring wells at the downgradient waste boundary in 2018, including SSIs for boron, calcium, chloride, sulfate, and TDS. Seminole determined that one or more alternative sources were responsible for these analyte increases. These sources include former test cells (*i.e.,* areas where CCR was placed in the 1980s for purposes of construction evaluations that are now located beneath the Increment One Landfill), a former CCR landfill adjacent to the Increment One Landfill, and several process water ponds next to the Increment One Landfill.[67] Since 2018, Seminole has attributed SSIs for these analytes to these alternative sources and therefore, has not moved from detection monitoring to assessment monitoring.

R.M. Schahfer Generating Station, Indiana

The R.M. Schahfer Generating Station, owned and operated by Northern Indiana Public Service Company, LLC (NIPSCO), has several CCR units subject to the regulations, including several CCR impoundments and a CCR landfill consisting of multiple cells or phases of operation (''Landfill''). The Landfill is of particular relevance to this proposal because includes three cells subject to federal CCR regulations (Phases V through VII) and four landfill cells that are not (Phases I through IV). In the course of conducting the required groundwater monitoring for the regulated cells of the Landfill, in January 2018, NIPSCO determined that there were SSIs above background levels for all seven analytes in Appendix III at one or more monitoring wells at the downgradient waste boundary of the regulated CCR units. This included SSIs for boron, calcium, chloride, fluoride, pH, sulfate, and TDS.[68] Through procedures laid out in the regulations for regulated CCR units in 40 CFR 257.94(e)(2), NIPSCO determined that these groundwater SSI impacts were not due to a release from the regulated CCR landfill cells, but instead were attributable to another source. Specifically, NIPSCO has concluded that ''a release from the non-regulated, unlined portions of the landfill, Phases 1 and II, is the source of the identified SSIs.'' [69] Subsequent groundwater monitoring of the regulated Landfill cells since 2018 continues to identify SSIs and NIPSCO continues to attribute those impacts to releases from the unregulated Phase I and II cells.[70]

Landfill Phase I is a 20-acre unlined cell that received CCR (flue gas desulfurization materials and fly ash) between 1984 and 1991 and subsequently closed with a final cover system in 1999. Phase II of the Landfill is an unlined 42-acre cell where flue gas desulfurization materials and fly ash were disposed between 1991 to 1998. The Phase II cell was closed with a final cover system in 1998. CCR landfills such as the Phase I and II cells are not regulated by the existing regulations because the cells have not received CCR on or after October 19, 2015. As a result, NIPSCO has not been required under the existing federal CCR regulations to investigate further and remediate as necessary groundwater impacts from the unlined Phase I and II cells.

Waukegan Generating Station, Illinois

An example of CCR used as fill on-site is Midwest Generation's Waukegan Generating Station in Waukegan, Illinois. There are two CCR surface impoundments named the East Ash Pond and West Ash Pond, which were used interchangeably during the facility's operational history and have a multi-unit groundwater monitoring system. The East Ash Pond has a surface area of 9.8 acres with a storage capacity of 184,000 cubic yards. The West Ash Pond has a surface area of 10 acres with a storage capacity of 223,000 cubic yards. According to the 2018 Annual Groundwater Monitoring and Corrective Action Report, there was detection of SSIs over background for Appendix III constituents, including pH and sulfate.[71] An ASD was completed that claimed other potential historic sources were the cause of the SSIs. In the 2019 Annual Groundwater Monitoring and Corrective Action Report, an ASD for Appendix III constituents identified calcium and TDS with the same claim that other potential historic sources were the cause of the SSIs.[72] The ASDs discuss that the downgradient

[65] Annual CCR Groundwater Monitoring & Corrective Action Report, Cooper Landfill, January 31, 2019. The ASD is discussed in Appendix C of the report.

[66] Seminole Generating Station Increment One Landfill Annual Groundwater Monitoring and Corrective Action Report. January 31, 2019.

[67] *Id.* at 20.

[68] 2018 Annual Groundwater Monitoring and Corrective Action Report—Landfill Phase V and Phase VI, NIPSCO R.M. Schahfer Generating Station. January 31, 2019.

[69] Northern Indiana Public Service Company, R.M. Schahfer Generating Station, Wheatfield, Indiana, Schahfer Landfill Phase V and Phase VI, Alternative Source Demonstration. April 13, 2018. Begins on PDF page 20 of the 2018 Annual Groundwater Monitoring and Corrective Action Report—Landfill Phase V and Phase VI. April 13, 2018.

[70] 2021 Annual Groundwater Monitoring and Corrective Action Report, Landfill Phase V, Phase VI, and Phase VII, NIPSCO LLC R.M. Schahfer Generating Station. January 31, 2022.

[71] 2018 Waukegan Generating Station Annual GWMCA Report, Appendix B, PDF pg. 100. January 2019.

[72] 2019 Waukegan Generating Station Annual GWMCA Report, Appendix B, PDF pg. 100. January 2020.

monitoring wells were installed within the berms for the surface impoundments that consisted of a ''mixture of fill and beneficially reused coal combustion by-product''.[73 74] The 2018 ASD also notes that a upgradient well, MW–05 which is not a part of the CCR groundwater monitoring network, has substantially higher sulfate and boron concentrations than the downgradient wells suggesting an upgradient source. Furthermore, the 2019 ASD mentions that the fluctuating TDS concentrations at downgradient well MW–16 are correlated to fluctuations in TDS at MW–05 further suggesting an upgradient source. While these ASDs suggest that the sources may be CCR within the berms and a upgradient source they do not analyze these potential sources to verify the claims. EPA did verify that the boring logs for groundwater monitoring wells MW–01 through MW–05 and MW–16 show they were installed within 11 to 20 feet of CCR in the berms surrounding the surface impoundments.[75] In addition, construction drawings in the history of construction show ''existing fill'' or CCR was used in the construction of the surface impoundment access ramps and underneath the surface impoundments liners.[76] The facility continued to use the ASDs for SSIs in 2020 and 2021, therefore, the surface impoundments remain in detection monitoring.

White Bluff Steam Electric Station, Arkansas

The White Bluff Steam Electric Station in Redfield, Arkansas is owned or operated by Entergy and has three CCR units: two CCR surface impoundments (A Recycle Pond/South Pond and B Recycle Pond/North Pond); and one CCR landfill (Existing CCR Landfill Cells 1–4). CCR previously was disposed in a 20-acre ravine,[77] which was closed and covered in accordance with the original facility State-issued permit. The active landfill was then built on top of, and adjacent to, the unlined, closed landfill. In 2018, the facility conducted intrawell monitoring of the groundwater at the facility and SSIs for pH, calcium, TDS, and boron were detected. An ASD was completed and determined that the sources of the SSIs were: (1) Releases from portions of the Coal Ash Disposal Landfill (CADL) closed before the effective date of the CCR Rule (October 19, 2015); (2) Surface water that has come into contact with on-site CCR and has migrated into the subsurface; and/or (3) Natural variation in groundwater quality. Therefore, the landfill remains in detection monitoring.

3. Summary of CCR Management Unit Proposal

After considering all of the above data and information, EPA is proposing to establish a new category of regulated units that would be subject to a set of requirements tailored to the characteristics of such units and the risks that they present. EPA is proposing that this new category of units, called ''CCR management units'' or CCRMU, would consist of CCR surface impoundments and landfills that have closed prior to the effective date of the 2015 CCR Rule, inactive CCR landfills, and any area at a facility where solid waste management involving the past or present placement or receipt of CCR directly on the land has or is occurring.

Further, EPA is proposing to require facilities to conduct a facility evaluation to identify and delineate any CCRMU present at the facility and document the findings in a report. In addition, EPA is proposing to require the facility to ensure that all identified CCRMU comply with the existing requirements in part 257 for groundwater monitoring, corrective action, closure, and post-closure care requirements. These requirements are intended to address the risks posed by any existing releases of CCR or CCR constituents to the groundwater, regardless of when the CCR was placed in the units and prevent future releases. Consistent with the existing CCR regulations, owners and operators of CCRMU would also be required to record compliance with these requirements in the facility's operating record, notify the state of certain actions taken and decisions made, and maintain a publicly accessible website on the internet of compliance information. The other existing requirements in part 257 are not necessary for CCRMU. For example, since CCRMU do not contain sufficient liquids to create a hydraulic head or to otherwise cause the conditions that might lead to a structural failure, the structural stability requirements are unnecessary. Furthermore, EPA is proposing that CCRMU, like legacy CCR surface impoundments, must close, and for the same reasons that EPA described with respect to legacy CCR surface impoundments, the location restrictions and liner design criteria are also unnecessary. This proposal would apply to all CCRMU at active CCR facilities and at inactive facilities with one or more legacy CCR surface impoundments, regardless of how or when the CCR was placed in the CCRMU. All of these proposals are discussed in more detail in this Unit of the preamble.

Note that all deadlines herein are framed by reference to the effective date of the rule and have been proposed based on an effective date that is 6 months from publication of the final rule. The Agency has included a document in the docket for this rule that summarizes the proposed compliance deadlines.[78] EPA requests comment on the compliance deadlines and the feasibility to meet the proposed compliance timeframes for CCRMU.

TABLE 2—PROPOSED COMPLIANCE TIMEFRAMES FOR CCRMU IN MONTHS AFTER EFFECTIVE DATE OF THE FINAL RULE

Proposed compliance timeframes for CCRMU			
40 CFR Part 257, Subpart D requirement	Description of requirement to be completed	Proposed deadline (months after effective date of the final rule)	Notes
Internet Posting (§ 257.107)	Establish CCR website	0	Subsequent requirements: Facility Evaluation Report; all recordkeeping.
Facility Evaluation (§ 257.75)	Initiate the facility evaluation.	0	Subsequent requirements: Facility Evaluation Report.
Facility Evaluation Report (§ 257.75).	Complete the Facility Evaluation Report.	3	Prerequisite requirements: Facility Evaluation, Establish CCR website.

[73] 2020 Waukegan Generating Station Annual GWMCA Report. January 2021.

[74] 2021 Waukegan Generating Station Annual GWMCA Report. January 2022.

[75] Waukegan boring well logs.

[76] October 2016, Waukegan Generating Station History of Construction.

[77] Entergy Arkansas, LLC White Bluff Steam Electric Station Landfill Cells 1–4 2021 Annual Groundwater Monitoring and Corrective Action Report. January 31, 2022.

[78] Docket item is titled Proposed Compliance Deadlines for Legacy CCR Surface Impoundments and CCR Management Units.

TABLE 2—PROPOSED COMPLIANCE TIMEFRAMES FOR CCRMU IN MONTHS AFTER EFFECTIVE DATE OF THE FINAL RULE—Continued

Proposed compliance timeframes for CCRMU			
40 CFR Part 257, Subpart D requirement	Description of requirement to be completed	Proposed deadline (months after effective date of the final rule)	Notes
GWMCA (§ 257.91)	Install the groundwater monitoring system.	6	Prerequisite requirements: Facility Evaluation Report. Subsequent requirements: Groundwater sampling and analysis program; Initiate detection and assessment monitoring; Annual GWMCA report.
GWMCA (§ 257.93)	Develop the groundwater sampling and analysis program.	6	Prerequisite requirements: Install groundwater monitoring system. Subsequent requirements: Initiate detection monitoring and assessment monitoring; Annual GWMCA report.
GWMCA (§ 257.90(e))	Annual GWMCA report	January 31 of the year following GWM system install.	Prerequisite requirements: Install groundwater monitoring system; Groundwater sampling and analysis plan.
Closure (§ 257.102)	Prepare written closure plan.	12	Subsequent requirements: Initiate closure.
Post-Closure Care (§ 257.104).	Prepare written post-closure care plan.	12	Prerequisite requirements: Written closure plan.
Closure and Post-Closure Care (§ 257.101).	Initiate closure	12	Prerequisite requirements: Written closure plan.
GWMCA (§§ 257.90–257.95)	Initiate the detection monitoring and assessment monitoring. Begin evaluating the groundwater monitoring data for SSI over background levels and SSL over GWPS.	24	Prerequisite requirements: Install groundwater monitoring system; Groundwater sampling and analysis plan.

4. Applicability and Definitions Related to CCR Management Units

EPA is proposing to amend § 257.50 by adding a new paragraph (j) to specify that subpart D applies to CCRMU. EPA is also proposing to add a new definition and revise 11 existing definitions in § 257.53 to implement the proposed criteria for CCRMU.

a. Definition of CCR Management Unit

EPA is proposing to define a *CCR management unit* to capture the solid waste management practices that have been demonstrated in the risk assessment and the damage cases to have the potential to contaminate groundwater. EPA is proposing to define a CCRMU as any area of land on which any non-containerized accumulations of CCR are received, placed, or otherwise managed, that is not a CCR unit. This definition is based on the current definitions of a CCR pile—which is currently regulated as a CCR landfill—and of a CCR surface impoundment, which both rely on the concept of ''accumulations of CCR.'' See, 40 CFR 257.53.

EPA is proposing that CCRMU would include historical solid waste management units such as CCR landfills and surface impoundments that closed under then-existing law prior to the effective date of the 2015 CCR Rule, as well as inactive CCR landfills (including abandoned piles). It would also include any other areas where the solid waste management of CCR on the ground has occurred, such as structural fill sites, CCR placed below currently regulated CCR units, evaporation ponds, or secondary or tertiary finishing ponds that have not been properly cleaned up, and haul roads made of CCR if the use does not meet the definition of beneficial use. All of these examples involve the direct placement of CCR on the land, in sufficient quantities to raise concern about releases of hazardous constituents, and—in most, if not all cases—with no measures in place to effectively limit the contact between the CCR and liquids, and subsequent generation and release of any leachate.

EPA recognizes that this is a broad definition, but the Agency does not intend that the placement of any amount of CCR would necessarily constitute a CCRMU. Accordingly, EPA is proposing that the following would not be considered CCRMU: consistent with the current regulations, closed or inactive process water ponds, cooling water ponds, wastewater treatment ponds, and storm water holding ponds or aeration ponds. These units are not designed to hold an accumulation of CCR, and in fact, do not generally contain a significant amount of CCR. See, 80 FR 21357. In addition, consistent with the existing regulations, neither an area or unit at which exclusively non-CCR waste is managed, nor any containerized CCR, such as a silo, would be considered CCRMU. See, Id. at 21356. Neither of these units present conditions that give rise to the risks modeled in EPA's assessment or identified in the damage cases.

For similar reasons, the Agency is proposing that any CCR used in roadbed and associated embankments would not be considered CCRMU. As EPA explained in the 2015 rule the methods of application are sufficiently different from CCR landfills that EPA cannot extrapolate from the available risk information to determine whether these activities present similar risks. Roadways are subject to engineering specifications that generally specify CCR to be placed in a thin layer (*e.g.,* six to 12 inches) under a road. The placement under the surface of the road limits the degree to which rainwater can influence the leaching of the CCR. There are also significant differences between the manner in which roadways and landfills can potentially impact groundwater. These include the nature of mixing in the media, the leaching patterns, and how input infiltration rates are generated. First, CCR landfills are typically a homogenously mixed system, and as a result, there are no spatial variations of the chemical and physical properties of the media (for example, bulk density, hydraulic conductivity and contaminant concentration). By contrast, roadways are generally constructed of several layers with different material properties (heterogeneity). This difference affects the hydraulic conductivity of a mass of CCR in a landfill, as compared to CCR placed in an embankment. Any potential leaching will tend to spread over the length of the embankment, as opposed to the leaching in a downward motion that would occur in a homogenously filled landfill. Finally, EPA is concerned that groundwater monitoring of a road may not be practicable. However, even though EPA considers that the available information does not demonstrate that use in roadbed present sufficient risk to warrant the suite of requirements applicable to CCRMU, that calculus changes in the event the CCR in roadbed is contaminating groundwater. Accordingly, EPA is proposing that if a facility subsequently determines that the CCR in onsite roadbed is contributing to contamination to the aquifer, the facility would be required to address the contamination. For example, if during an on-going corrective action, a facility identifies the roadbed as an additional source of contamination, it would be required to address that contamination as part of the ongoing remediation of the aquifer. In addition, the measures EPA is proposing to require facilities to take would not be expected to identify truly de minimis quantities of CCR. As discussed in greater detail in the next section, EPA is proposing that facilities would only be required to identify accumulations if there are records to confirm the existence of CCRMU or visual evidence of CCR placement on the ground.

As a complement to this definition, EPA is proposing to define the term *inactive CCR landfill* to mean an area of land or an excavation that contains CCR but that no longer receives CCR on or after the effective date of this final rule and that is not a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine or a cave. For purposes of this subpart, this term also includes sand and gravel pits that received CCR, and abandoned CCR piles.

b. Revision to Definition of CCR Unit

EPA is proposing to modify the definition of *CCR unit* by stating that *CCR management units* are not covered by the definition of a *CCR unit.* See proposed regulatory text at § 257.53. Under the existing regulations, CCR units are defined as CCR landfills and CCR surface impoundments, as well as any lateral expansion of a CCR landfill or CCR surface impoundment. In addition, the term *CCR unit* already covers inactive CCR surface impoundments at active facilities because these units are CCR surface impoundments. Similarly, because a *legacy CCR surface impoundment* is a CCR surface impoundment, these units are a *CCR unit* under the regulations.

As currently structured, many regulations specify that they apply collectively to the owners and operators of ''*CCR units,*'' rather than listing out each individual type of unit. As discussed elsewhere in this preamble, EPA is proposing to extend only a subset of the existing requirements in part 257, subpart D to CCRMU, consisting of requirements for groundwater monitoring, corrective action, closure, post-closure care, and reporting and recordkeeping. However, EPA is not proposing to apply the part 257 location restrictions, liner design criteria, structural integrity criteria for impoundments, and operating criteria to CCRMU. In order to implement this approach with the fewest revisions to the existing regulations, EPA is proposing to exclude CCRMU from the definition of *CCR unit* and propose specific modifications to those provisions that EPA intends would apply to CCRMU. To state another way, CCRMU would not be subject to provisions only applicable to *CCR units.*

c. Revisions to the Definitions of Owner and Operator

EPA is proposing revisions to the existing definitions of *Owner* and *Operator.* The existing definition of *Owner* is the ''person(s) who owns a CCR unit or part of a CCR unit.'' First, EPA is proposing to revise the definition to incorporate the concept of CCRMU into the existing definition because CCRMU are excluded from the definition of a CCR unit as discussed in the preceding Unit of the preamble. This would be accomplished by adding ''or CCR management unit'' to the existing definition. See proposed regulatory text at § 257.53. Second, the Agency is proposing to revise the definition of *Owner* to include the owner(s) of the entire facility, which would be achieved by adding ''or a facility, whether in whole or in part'' to the definition. EPA is not proposing to revise the definition of a ''facility,'' which under the existing regulations means ''all contiguous land, and structures, other appurtenances, and improvements on land, used for treating, storing, disposing, or otherwise conducting solid waste management of CCR. A facility may consist of several treatment, storage, or disposal operational units (*e.g.,* one or more landfills, surface impoundments, or combinations of them).'' 40 CFR 257.53.

EPA is proposing this revision in part to account for the more complicated ownership arrangements that exist at some utilities. EPA has found that there may be multiple owners at the same facility; for example, one entity may hold title to a single impoundment, while another entity may own the remaining disposal units at the site. Moreover, ownership can change over time, as individual units or portions of the facility are parceled off. This proposal would also more accurately reflect the nature of the obligations EPA is proposing to establish for CCRMU. For example, as discussed below, EPA is proposing to require an investigation of the entire disposal facility to identify CCRMU. At many sites, this would involve areas other than those encompassed by the definition of a CCR unit, extending to all areas where disposal or other solid waste management may be occurring. Moreover, relying exclusively on the ''owner'' of the CCRMU may be ambiguous in this context, as at some sites the owner may not yet be aware that a CCRMU is present (*e.g.,* because it results from the historic placement or accumulation of CCR). EPA recognizes that this proposal would apply to currently regulated facilities, but it is not clear that this revision would actually amend the entities that currently are liable. EPA expects that most (if not all) utilities currently operate as though the regulation already required the owner operator of the facility to take actions; for example, under the existing regulations owners and operators are required to conduct corrective action even where the plume has migrated beyond the footprint of the regulated unit.

For similar reasons, EPA is proposing to revise the definition of *Operator* to incorporate the concept of CCRMU into the existing definition by adding ''or CCR management unit'' to the existing definition. See proposed regulatory text at § 257.53. In addition, the Agency is proposing revisions to account for the unique characteristics of a CCRMU. In cases where the CCRMU is closed (*i.e.,* not receiving waste or otherwise in operation) or is a historic placement or accumulation of CCR, there will not be an entity that neatly fits the normal concept of an ''operator,'' because there would be no current or ongoing oversight or activity with respect to the continued use of the unit. To avoid any ambiguity, EPA is proposing to revise the definition of ''operator'' to clarify that the term *Operator* includes those person(s) or parties responsible for disposal or otherwise actively engaged in solid waste management of CCR. It also includes those responsible for directing or overseeing groundwater monitoring, closure, or post-closure activities at a CCR unit or CCRMU.

Because multiple entities may potentially be liable, (owners and operators) EPA is providing the following guidance. Consistent with EPA's typical practice, unless otherwise provided in the regulations, as long as one responsible entity (an owner or operator) has complied with the requirements, EPA will consider the obligation satisfied as to all potentially liable parties and will initially rely on owners and operators to determine among themselves how best to ensure compliance with the requirements.

d. Conforming Revisions to Other Existing Definitions

EPA is proposing revisions to eight definitions in § 257.53 to make reference to CCRMU. These definitions currently refer only to CCR units and the proposed changes would add the words ''or CCR management unit'' to the definitions so as to incorporate the concept of CCRMU into the existing definition. The eight definitions for which EPA is proposing this revision are: Active life or in operation, Active portion, Closed, CCR landfill or landfill, Qualified person, Qualified professional engineer, State Director, and Waste boundary. EPA is not proposing to otherwise revise or reopen the substance of the existing definitions as they apply to CCR units. Accordingly, the Agency will not respond to any comments on these definitions as they apply to CCR units.

5. Facility Evaluation for Identifying CCR Management Units

EPA is proposing that owners and operators of active or inactive facilities with one or more CCR unit(s) will need to conduct a facility evaluation. The purpose of the facility evaluation is to confirm whether any CCRMU exist on-site, and, if so, to delineate the lateral and vertical extent of the unit(s). In developing this proposal, EPA relied heavily on the RCRA subtitle C Facility Assessment process for identifying solid waste management units at a hazardous waste facility. In addition, EPA accounted for certain existing requirements in the CCR regulations; for example, under the 2015 CCR Rule, facilities were required to compile a history of construction for their existing impoundments. 40 CFR 257.73(c)(1). Facilities were generally able to obtain all of the information specified in § 257.73(c)(1)(i) through (ix), even for units constructed decades ago. EPA expects that facilities will similarly be able to obtain the information that EPA is proposing would be required in the Facility Evaluation Report (discussed in Unit IV.B.5.b of this preamble).

EPA is proposing a two-step process for a facility evaluation. The first step would consist of a thorough review of available records in combination with a physical facility inspection and any necessary field work, such as soil sampling, to fill any data gaps from the information obtained from the review of available records. See proposed regulatory text at § 257.75(b). The second step of the facility evaluation would be to generate a Facility Evaluation Report to document the findings of the facility evaluation. See proposed regulatory text at § 257.75(c).

a. Facility Evaluation for CCR Management Units

EPA is proposing that during the facility evaluation the owner or operator of a CCR unit at an active facility or inactive facility would need to identify and delineate the extent, laterally and vertically, of any CCRMU at the facility. EPA is proposing a two-step process by which the facility would make those determinations: the first would be conducting a facility evaluation and the second would be the drafting of a Facility Evaluation Report. EPA is proposing that the deadline to initiate the facility evaluation would be no later than the effective date of the final rule in § 257.75(b).

A facility evaluation would begin with a review of all existing records and documents readily and reasonably available to or attainable by the facility, that contain information regarding any past and present CCR management that resulted in the accumulation of CCR on the ground. Consistent with the proposed definition of a CCRMU, in this context EPA considers the terms ''placement'' and ''receipt'' to include situations in which spilled or released CCR has been left on the ground. During this first step, the facility would be required to gather and review information to identify potential locations of CCR placement, and to determine preliminary boundaries and depths of any CCRMU. EPA is also proposing that a facility evaluation would include a physical inspection of the facility. Where necessary, the physical inspection would include field investigation activities, such as conducting exploratory soil borings, geophysical assessments, or any other similar physical investigation confirmation activities to establish the location and boundaries of identified CCRMU, and to affirmatively rule out other areas of potential CCR placement at the facility that were identified during the information review. EPA is further proposing that the scope of the facility evaluation would be the entire facility as the term is currently defined in 40 CFR 257.53 and the evaluation would need to include all of the information specified in the CCRMU Facility Evaluation Report.

As noted, the facility evaluation would begin with a review of all readily and reasonably available information regarding past and present placement of CCR on the ground at the facility. In this first stage, the facility would need to gather all existing information that may be useful to determine any locations at the facility where CCR may have been placed (including spilled) on the ground. EPA expects that in this initial phase, the facility would cast a wide net, and collect all information that could potentially contain useful information to identify the potential locations of CCR placement at the facility. Finally, to complete the information review, the investigatory process would need to be documented, any data gaps identified, and plans for conducting a physical inspection of the site to verify locations, boundaries, and volumes of CCR placement at the facility would need to be formalized. Each step of this process is described in greater detail below.

i. Information Gathering

The first step in the facility evaluation process involves the collection of information that contains any information on whether CCR was either routinely and systematically placed on the ground, or where facility activities otherwise resulted in measurable accumulations of CCR on the ground. The quality and reliability of the information review will depend greatly on the owner's and operator's ability to collect relevant information. Information reviews may provide misleading results when significant sources of information are not considered. EPA is proposing that the information that must be gathered during this step would include any documents that contain information relevant to past facility operations and waste disposal processes. By the conclusion of the facility evaluation, EPA expects that the facility would be able to identify the date, locations, durations, and volumes or estimated quantities of CCR placement.

EPA expects that the amount of available written information and documentation that will be available for review during the document review phase may vary by facility. However, the following documents developed as part of complying with part 257, which are available to facilities, would normally contain information that can be useful in identifying CCRMU: inspection reports; history of construction reports; fugitive dust control plans; annual groundwater monitoring and corrective action reports; ASDs; ACM reports or other corrective action reports; and closure plans and reports. Further, there are other sources of readily available data that frequently contain information relevant to past facility operations and waste disposal processes, such as facility compliance reports produced for non-CCR programs (*e.g.,* Toxic Substances Control Act [TSCA]/Occupational Safety and Health Administration [OSHA]/National Pollutant Discharge Elimination System [NPDES]/Clean Air Act [CAA]/Clean Water Act [CWA]); permits and permit applications, including NPDES, solid waste, dam safety, and air permits; historical and contemporary monitoring and reporting data, and facility operating logs and maps; and site imagery including available historical aerial photographs, site photographs, topographic maps, and/or engineering or construction drawings, including drawings for physical facility improvement projects, such as surface water control, water and power infrastructure and utilities, roads, berms, ponds and/or other physical features at the facility. EPA expects that facilities would search available records to determine whether they contain information relevant to the potential existence and locations of CCRMU.

EPA is further proposing to require that owners and operators gather information by conducting meetings and interviews with current or former facility personnel and any available state and local officials familiar with the facility to the extent that those persons are available and have knowledge about past and/or present facility operations. The goal of the interview process would be to help gather any information relevant to the facility operations and waste disposal processes. EPA's expectation is that a good faith effort be made to identify key individuals that may have direct knowledge of the facility's historic CCR management to fill in data gaps and/or verify existing information. The expectation is qualitative and dependent on the reasonableness with which individuals can be identified and contacted. However, the purpose and process for determining the need for and the extent of employee interviews, or lack thereof, should be documented in the report. It is in the facility's best interest to evaluate historic management of CCR at the facility, identify CCR management units used throughout that duration, and, where gaps exist, try to identify individuals that may have information or direct knowledge regarding CCR management during those times. EPA expects that, when necessary, individuals involved in making decisions regarding CCR management during historic operations and/or implementing those decisions in the field would be able to be identified based on job titles and duties, time and duration of work service, and/or specific expertise using the facility's human resource records. Most government offices keep records of complaints, permits, and/or other correspondence that should be reviewed as part of the site evaluation. Individual officials in these records may be identified, particularly where they were involved with issues where CCR was managed or placed on the ground, or released to the environment through the air, surface water or groundwater.

It is estimated that the compliance cost associated with meeting and/or interviewing in-house personnel would be negligible for current employees, and minimal (less than 8 hours) for former employees since some effort may be involved with trying to locate and contact them. In addition to the cost for owners and operators to review state or local records for the facility during the facility evaluation, it is estimated that the cost associated with contacting any necessary state or local officials or offices would be minimal (less than 8 hours) since it is unlikely they would be the only source of information for CCR management activities at the facility, and their knowledge of any CCR management units may be limited.

ii. Information Evaluation

During this stage, EPA is proposing to require that a P.E. review the documents and information gathered during the initial step of review to draw conclusions regarding the existence of CCRMU at the facility. At the end of this stage, EPA expects the facility to identify: (1) Any areas where the facility can affirmatively conclude based on the available information that one or more CCRMU are present; and (2) Any areas where the available information indicates that CCR may have been either routinely and systematically placed on the ground, or where facility activities otherwise could have resulted in measurable accumulations of CCR on the ground (*i.e.,* areas where the available information indicates that one or more CCRMU may be present).

Each of the information sources discussed above can provide valuable information that can be used to identify the existence and locations of CCRMU. Some specific examples are provided below:

Environmental reports for multimedia inspections contain useful information on site management practices, monitoring data, and unit conditions. These reports can also describe comprehensive monitoring evaluations at the site that can indicate where releases or areas of concern exist. Multimedia permit and permit applications contain large amounts of information on the facility design, waste management practices including how wastes were disposed of, and the physical characteristics of the surrounding area. These documents can contain old topographic maps, facility figures and drawings, wastestream flow diagrams, and unit and process descriptions.

If a groundwater monitoring report for a CCR unit indicates that contaminant levels in groundwater monitoring wells are the result of CCRMU rather than the monitored CCR unit, this would need to be further investigated during the facility evaluation process to fully delineate the locations of areas where CCR was placed on the ground, including the size of the unit and other related unit details.

Similarly, a review of aerial photographs can identify potential CCRMU at the facility at locations that have become overgrown or otherwise hidden over time. When used in conjunction with USGS topographic maps, owners and operators could look for evidence that may be indicative of placement of CCR on the ground. As an example, if aerial photographs and USGS topographic maps indicate the existence of a pond or dam system at the site, this may be enough to warrant further investigation of available documents and may require field investigation depending on the strength of information to determine if the changes were made to allow placement of CCR on the ground.

Finally, one of the primary purposes of the information review is to provide an understanding of the CCR management activities at the facility, allowing for subsequent observations during the physical site inspection to be focused to the greatest extent practical. While information obtained during the review may be insufficient to support affirmative conclusions regarding the existence or non-existence of a CCRMU, based on the information available at most facilities, EPA expects that it will be possible to determine which areas at the facility would need to be inspected, and the type of data that would be needed to draw definitive conclusions. The Agency expects that all of the information gathered in the information review will be relevant to determining the areas to be inspected during the physical (visual) site inspection. Further, the information gathered during the information review would be used to support any necessary field activities.

iii. Physical Site Inspection

EPA is proposing to require that a facility conduct a physical site inspection of the entire facility in all cases. The purpose of the physical site inspection is to visually inspect the entire facility for evidence of CCR placement on the ground, ensure that all CCRMU have been identified, and fill any data gaps identified during the initial information evaluation. To that end, EPA is proposing that the physical site inspection must consist of a visual inspection of the entire facility to look for evidence that CCR is currently being managed on the ground. At a minimum, a facility would be required to visually inspect the site to confirm the information obtained from the information review phase and to identify any anomalies that warrant further investigation, such as an unnatural topographic rise or depression or an area where unspecified liquid waste was applied over several years. In addition, EPA is proposing that the facility would be required to conduct any field work such as soil sampling necessary to determine whether areas that had been identified as a potential CCRMU in fact contain CCR and to obtain the information required for the Facility Evaluation Report.

The complexity of past and current facility operations, combined with the amount of data that was available for review during the information review phase would impact how extensive the facility inspection must be. For example, if facility records are sparse or contain data gaps, the Agency expects that the facility inspection would be more thorough than in situations where detailed records exist. However, even in situations where detailed facility records exist, the facility must still conduct a visual inspection to ensure that all CCRMU have been identified, even if those areas were not identified in the initial document review. In addition, EPA expects that in most cases, a facility will need to conduct some sampling or other fieldwork in order to obtain all the information required for the Facility Evaluation Report. For example, even if the facility had as-built engineering drawings for an old landfill, EPA expects that in some cases the facility may still need to conduct some sampling to establish the lateral and vertical dimensions of the CCRMU. If, after conducting a thorough document review and a visual inspection, the facility has found no evidence of any CCRMU, no further testing or sampling would be required to conclude that there are no CCRMU present at the facility. EPA is not proposing to require facilities to conduct widespread site sampling to prove that no CCRMU exist on-site. All recorded observations and data gathered during the facility evaluation, including any conclusions regarding the status of each CCRMU at the facility, must be assembled and incorporated into a Facility Evaluation Report, which is described in detail below.

b. Facility Evaluation Report for CCR Management Units

After completing the first step of the facility evaluation process, EPA is proposing to require the owners and operators of active or inactive facilities with one or more CCR unit(s) to compile and place in the operating record information pertaining to every CCRMU located at the facility no later than 3 months after the effective date of the final rule at § 257.75(c). The Facility Evaluation Report must be posted to the facility's CCR publicly accessible internet site within 30 days of that date. In developing the list of items to be included in the Facility Evaluation Report, the Agency considered certain requirements from existing regulations for History of Construction reports that must be generated for existing CCR surface impoundments at § 257.73(c)(1) as well as other requirements necessary to provide additional information about each CCRMU at the facility. In addition, the Agency is proposing to require that the Facility Evaluation Report include a certification from a P.E. stating that the Facility Evaluation Report meets the requirements at § 257.75(c). See proposed regulatory text at § 257.75(d). Further, the Agency is proposing to require that the Facility Evaluation Report include a certification to be signed by the owner or operator or an authorized representative similar to the certification that is required at § 257.102(e) and § 257.102(f) for existing units undergoing closure. See proposed regulatory text at § 257.75(e).

EPA is proposing that the Facility Evaluation Report must contain the following: (1) The name and address of the person(s) owning and operating the facility; the unit name associated with any CCR unit and CCRMU at the facility; and the identification number of each CCR unit and CCRMU if any have been assigned by the state; (2) The location of any CCRMU identified on the most recent U.S. Geological Survey (USGS) 7.5-minute or 15-minute topographic quadrangle map, or a topographic map of equivalent scale if a USGS map is not available, with the location of each CCR unit at the facility identified; (3) A statement of the purpose(s) for which each CCRMU at the facility is or was being used; (4) A description of the physical and engineering properties of the foundation and abutment materials on which each CCRMU is constructed; (5) A discussion of any known spills or releases of CCR from each CCRMU and whether or not the spills or releases were reported to state or federal agencies; (6) Any record or knowledge of structural instability of each CCRMU; (7) Any record or knowledge of groundwater contamination associated or potentially associated with each CCRMU; (8) Size of each CCRMU, including the general lateral and vertical dimensions and an estimate of the volume of waste contained within the unit; (9) Dates when each CCRMU first received CCR and when each CCRMU ceased receiving CCR; (10) Specification of all CCR wastes that have been managed in each CCRMU at the facility; (11) A narrative description, including any applicable engineering drawings or reports of any closure activities that have occurred; (12) A narrative that documents the nature and extent of field oversight activities and data reviewed as part of the facility evaluation process, and that lists all data and information that was reviewed indicating the absence or presence of CCRMU at the facility; and (13) Any supporting information used to identify and assess CCRMU at the facility, including but not limited to any construction diagrams, engineering drawings, permit documents, wastestream flow diagrams, aerial photographs, satellite images, historical facility maps, any field or analytical data, groundwater monitoring data or reports, inspection reports, documentation of interviews with current or former facility workers, and other documents or sources of information used to identify and assess CCRMU at the facility.

As stated above, the Agency is proposing that the Facility Evaluation Report include a certification to be signed by a P.E. and the owner or operator or an authorized representative. Owners and operators of active or inactive facilities with one or more CCR unit(s) that do not contain any CCRMU would need to complete and place in the operating record a certified Facility Evaluation Report documenting the steps taken during the facility evaluation to determine the absence of any CCRMU. The Facility Evaluation Report must be placed in the facility operating record (§ 257.105(f)(25)), submitted to the appropriate regulating entity (§ 257.106(f)(24)), and published on the facility's website (§ 257.107(f)(24)).

While these requirements apply to facilities with one or more CCR units, owners and operators are required to compile this information only to the extent available. EPA acknowledges that there may be certain information or data that may be unknown or lost. Therefore, in this proposed rule, EPA is using the phrase ''to the extent available'' and clarifying that the term requires the owner or operator to provide information in the Facility Evaluation Report only to the extent that such information is reasonably and readily available. EPA intends that facilities provide relevant information only if documentation exists. EPA does not expect owners or operators to provide anecdotal or speculative information regarding the presence or absence of CCRMU. However, if data gaps exist, owners or operators subject to this proposed rule may need to collect additional field data to fill the gaps.

As stated previously, most of the activity needed to complete the Facility Evaluation and Facility Evaluation Report consists of reviewing reports and other documentation that already exist as a consequence of complying with other provisions in part 257, such as the history of construction, site or unit inspection reports, aerial imagery, quality assurance reports, groundwater monitoring and corrective action reports, or historic boring log reviews (*e.g.,* subsurface investigations, geotechnical studies). Therefore, EPA estimates the hiring and onboarding of a contractor, data compilation, data review, conducting a site inspection, data analyses, and generation of a P.E.-certified report will take a total of 8 to 12 weeks or 2 to 3 months. See Unit IV.A.2.d. Where new analyses are needed (*e.g.,* sampling to establish the dimension of a CCRMU), they are assumed to be minor with data inputs for performing these analyses existing and readily available and capable of being conducted concurrently with some of the data review and report generation. Therefore, EPA believes the proposed deadline for the completion of the Facility Evaluation Report of no later than 3 months after the effective date of the final rule will be sufficient for the completion of these activities.

6. Applicable Existing CCR Requirements for CCR Management Units and Compliance Deadlines

a. Fugitive Dust Requirements for CCR Management Units

The air criteria in the existing regulations address the pollution caused by windblown dust, by requiring the owners and operators of CCR units to minimize CCR from becoming airborne at the facility. 40 CFR 257.80. These requirements apply to the entire facility, which means that the owner or operator is to minimize CCR fugitive dust originating not only from the CCR unit, but also from roads and other CCR management and material handling activities at the facility. Consequently, under this proposal, CCRMU would already be covered by the fugitive dust requirements in § 257.80 because CCRMU are located at facilities with a CCR unit. EPA is therefore only proposing to make those changes to the fugitive dust requirements in § 257.80 that are necessary to make clear that these requirements also apply to CCRMU. Specifically, EPA is to add ''CCRMU'' to the list of units subject to the requirements under § 257.80 and associated provisions under §§ 257.105 through 257.107. EPA solicits comments on amending § 257.80(b)(6) to include a deadline for facilities to amend the fugitive dust control plan no later than 30 days following a triggering event, such as the closure of a CCRMU or change in facility or CCR unit operations.

b. Groundwater Monitoring and Corrective Action Requirements for CCR Management Units

The existing groundwater monitoring criteria in §§ 257.90 through 257.95 require an owner or operator of a CCR unit to install a system of monitoring wells and specify procedures for sampling these wells. Further, it sets forth methods for analyzing the groundwater data collected to detect hazardous constituents (*e.g.,* toxic metals) and other monitoring parameters in Appendix III or IV (*e.g.,* pH, TDS) released from the units. 40 CFR 257.93. Once a groundwater monitoring system and groundwater monitoring program has been established for a CCR unit the owner or operator must conduct groundwater monitoring and, if the monitoring demonstrates an exceedance of the groundwater protection standards for identified constituents in Appendix IV of part 257, corrective action is required. These requirements apply throughout the active life and post-closure care period of the CCR unit. EPA is proposing that the same groundwater monitoring and corrective action requirements that EPA is proposing to establish for legacy CCR surface impoundments would apply to CCRMU.

The existing groundwater monitoring and corrective action requirements in §§ 257.90 through 257.98 are essentially the same requirements that have been applied to both hazardous waste and municipal solid waste disposal units for decades, and with the exception of the one revision that EPA is proposing for legacy CCR surface impoundments, there is nothing about CCRMU that makes them distinct enough to warrant separate requirements. Each of the individual requirements are discussed in greater detail below.

i. Design and Installation of the Groundwater Monitoring System for CCR Management Units

EPA is proposing that owners and operators of CCRMU install the groundwater monitoring system as required by § 257.91 no later than 6 months from the effective date of the rule. See proposed regulatory text at § 257.90(b)(3)(i). The rationale for this compliance date is described in Unit IV.A.2.f.i of this preamble.

ii. Development of the Groundwater Sampling and Analysis Plan for CCR Management Units

EPA is proposing to require that owners and operators of CCRMU comply with the existing groundwater sampling and analysis program requirements for CCR units, including the selection of the statistical procedures, that will be used for evaluating groundwater monitoring data. 40 CFR 257.93 and 257.91(d)(3). See, proposed regulatory text at § 257.90(b)(3)(ii). EPA is proposing this requirement to be completed no later than 6 months after the effective date of the final rule. The rationale for this compliance date is described in Unit IV.A.2.f.ii of this preamble.

iii. Detection Monitoring Program and Assessment Monitoring Program Combined

EPA is proposing to require that facilities simultaneously initiate sampling and analysis of all Appendix

III and IV constituents at CCRMU to expedite the detection and cleanup of contamination from these abandoned unlined impoundments. This is the only revision to the existing groundwater monitoring requirements in §§ 257.90 through 257.95 that EPA is proposing to make for CCRMU.

As laid out in Unit IV.B.1, there is good reason to believe that CCRMU are currently contaminating groundwater. And as is the case with legacy CCR surface impoundments, at sites where the unit has potentially been leaking for a long time, the need to protect human health and environment by quickly detecting the constituents of concern in Appendix IV warrants expediting any necessary corrective action. See, *USWAG* 901 F.3d at 427–30. The rationale for this proposal is further explained in Unit IV.A.2.f.iii of this preamble.

iv. Collection and Analyses of Eight Independent Samples for CCR Management Units

EPA is proposing that no later than 24 months after the effective date of the final rule, owners or operators of CCRMU initiate the detection monitoring program by completing sampling and analysis of a minimum of eight independent samples for each background and downgradient well, as required by § 257.94(b). See proposed regulatory text at § 257.100(f)(4)(iii). Within 90 days after that, they must identify any SSIs over background levels for the constituents listed in Appendix III of this part, as required by § 257.94. EPA is also proposing that by this same deadline they initiate the assessment monitoring program by establishing groundwater protection standards and beginning the evaluation of the groundwater monitoring data for statistically significant levels over groundwater protection standards for the constituents listed in Appendix IV of this part as required by § 257.95. Then, if a statistically significant level over a groundwater protection standard for any of the constituents listed in Appendix IV of this part is found, the owner or operator of the legacy CCR surface impoundment must perform any required corrective action in accordance with §§ 257.96 through 257.98. The rationales for these deadlines are explained in Unit IV.A.2.f.iv. of this preamble.

v. Preparation of Initial Groundwater Monitoring and Corrective Action Report for CCR Management Units

EPA is proposing to apply the existing requirements in § 257.90(e) for preparation of an annual groundwater monitoring and corrective action report to CCRMU and that owners and operators of CCRMU comply no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR management unit, and annually thereafter. See proposed regulatory text at § 257.90(e)(1). The rationale for the components of this report and the expedited compliance deadline is explained in Unit IV.A.2.f.v of this preamble.

c. Closure and Post-Closure Care Criteria for CCR Management Units

EPA is proposing to apply the existing closure criteria for CCR surface impoundments in §§ 257.101 and 257.102 to CCRMU. EPA is also proposing to require that all CCRMU initiate closure, whether or not they are currently contaminating groundwater. Consistent with the proposal for legacy CCR surface impoundments, EPA is proposing to explicitly state that the alternative closure provisions in § 257.103 would not be applicable to CCRMU. Finally, EPA is proposing to apply the existing post-closure care requirements in § 257.104 to CCRMU. Each of these proposals are discussed in detail below

i. Criteria for Conducting Closure of CCRMU and Requirement To Close

Requiring the closure of CCRMU in accordance with §§ 257.101–257.102 would provide significant risk mitigation. As laid out in Unit IV.B.1 of this preamble, CCRMU at both inactive and active facilities pose significant risks to human health and the environment, at levels that are at least as significant as the risks presented by legacy CCR surface impoundments and the units currently regulated under the 2015 CCR Rule. Additionally, this is consistent with the existing CCR regulations, which require closure of all CCR units that have ceased receiving waste to mitigate the risks such units pose to human health and the environment. *See,* 40 CFR 257.102(e)(1). In particular, risks identified on a national scale are from releases of arsenic, lithium and molybdenum to groundwater. Available toxicological profiles indicate that ingestion of arsenic is linked to increased likelihood of cancer in the skin, liver, bladder and lungs, as well as nausea, vomiting, abnormal heart rhythm, and damage to blood vessels; ingestion of lithium is linked to neurological and psychiatric effects, decreased thyroid function, renal effects, cardiovascular effects, skin eruptions, and gastrointestinal effects; and ingestion of molybdenum is linked to higher levels of uric acid in the blood, gout-like symptoms, and anemia. 80 FR 21451. To date, groundwater monitoring required by the 2015 CCR Rule has revealed that at least 40% of currently regulated surface impoundments and landfills have identified groundwater contamination and require corrective action to mitigate the associated risks. This number is expected to increase as more facilities come into full compliance with the rule. Another 23% of units have identified evidence of leakage and continue to monitor groundwater to ensure that contamination does not occur before the unit can be closed and source controls put in place. In many cases, CCRMU are historical landfills and surface impoundments. Thus, the relevant release pathways, exposure routes, and associated harm that can result are the same. As noted above, the risks associated with these CCRMU are anticipated to be at least as significant as the universe of currently operating units. There is further evidence that the risks may be even higher. This is a result of the fact that: (1) These units have been present onsite for longer and had more time to leak, and (2) Riskier disposal practices, such as co-management with coal refuse, were more common in the past. As the D.C. Circuit explained, RCRA requires EPA to set minimum criteria for sanitary landfills that *prevent* harm, not merely to ensure that contamination is remediated. See, USWAG, 901 F.3d at 430.

Further, EPA does not believe that any facility will need to continue to use a CCRMU. These units, by definition, are not currently receiving CCR; any unit currently receiving CCR is regulated under the existing regulations. Instead CCRMU have been ''closed'' by the facility, presumably in accordance with whatever state requirements were in effect at the time, or have been left inactive on-site. Because a continued need to use the disposal unit is a critical component of the alternative closure demonstrations (at § 257.103(f)), it appears that no CCRMU could qualify under the existing provisions. Accordingly, EPA does not believe these provisions are relevant to CCRMU.

While EPA is proposing that the CCR unit closure requirements would apply, EPA requests comment on other approaches to how a facility might implement the requirement to close at a site where the CCRMU lies beneath an operating unit. EPA also solicits comments on whether EPA should not mandate the closure of CCRMU. However, EPA is concerned that if CCRMU were not required to close, EPA would not adequately address the risks from those units that have waste below the water table. In general, EPA considers that closure is the most certain way to adequately address the source of any releases from these units. Although EPA could rely upon the existing corrective action requirements to achieve source reduction, the Agency is concerned that this will not adequately prevent harm, as the statute requires, because these requirements would only apply upon a determination that the CCRMU has contaminated the aquifer. In addition, the closure requirements in § 257.102 provide a uniform approach that EPA is confident will adequately protect human health and the environment in all situations.

Given the locations of many CCRMU (located in floodplains, or wetlands, or near large surface water bodies), EPA is concerned that the base of these units may intersect with the groundwater beneath the unit. As EPA has previously explained, where the base of a surface impoundment intersects with groundwater, the facility will typically need to include engineering measures specifically to address any continued infiltration of groundwater into the impoundment in order to close with waste in place consistent with § 257.102(d). See, *e.g.,* 87 FR 72989 (Nov 28, 2022), 85 FR 12456, 12464 (March 3, 2020). The same holds true for CCRMU that intersect with groundwater. The existing requirements in § 257.102(d)(1) and (3) apply to all CCR units and EPA is proposing that these provisions would also apply to CCRMU without revision. By contrast, the existing requirements in § 257.102(d)(2), which establish performance standards for drainage and stabilization of the unit, only apply to CCR surface impoundments. These performance standards are critical to ensuring that units that contain liquids are properly and safely closed, and therefore should apply to any unit, including a CCRMU and a CCR landfill, where the CCR remains saturated. Accordingly, EPA is proposing to revise § 257.102(d)(2) so that it applies to all CCR units and CCRMU. EPA provides a background discussion of the existing closure performance standards below. It is important to note that if there is no liquid in the unit, the proposed revision would not require the facility to do anything to meet the performance standards.

The CCR closure requirements applicable to closing with waste in place include general performance standards and specific technical standards that set forth individual engineering requirements related to the drainage and stabilization of the waste and to the final cover system. The general performance standards and the technical standards complement each other, and both must be met at every site.

The specific technical standards related to the drainage of the waste in the impoundment require that, ''free liquids must be eliminated by removing liquid wastes or solidifying the remaining wastes and waste residues.'' 40 CFR 257.102(d)(2)(i). Free liquids are defined as all ''liquids that readily separate from the solid portion of a waste under ambient temperature and pressure,'' regardless of whether the source of the liquids is from sluiced water or groundwater. 40 CFR 257.53. Consequently, the directive applies to both the freestanding liquid in the impoundment and to all separable porewater in the impoundment, whether the porewater was derived from sluiced water, stormwater run-off, or groundwater that migrates into the impoundment. In situations where the waste in the unit is inundated with groundwater, the requirement to eliminate free liquids thus obligates the facility to take engineering measures necessary to ensure that the groundwater, along with the other free liquids, has been permanently removed from the unit prior to installing the final cover system. See, 40 CFR 257.102(d)(2)(i).

In addition to the process-specific technical requirements, all closures must meet the requirements in the general performance standard to ''control, minimize or eliminate, to the maximum extent feasible,'' both post-closure infiltration of liquids into the waste and releases of CCR or leachate out of the unit to the ground or surface waters, and to ''preclude the probability of future impoundment of water, sediment, or slurry.'' 40 CFR 257.102(d)(1)(i), (ii). EPA construes the word ''infiltration'' in this regulation as a general term that refers to the migration or movement of liquid into or through a CCR unit from any direction, including the top, sides, and bottom of the unit. This is consistent with the plain meaning of the term. For example, Merriam-Webster defines infiltration to mean ''to pass into or through (a substance) by filtering or permeating'' or ''to cause (something, such as a liquid) to permeate something by penetrating its pores or interstices.'' Similarly, the Cambridge English Dictionary defines infiltration as ''the process of moving slowly into a substance, place, system, or organization,'' and provides the following example ''It is important to manage moisture infiltration into buildings.'' *https://dictionary.cambridge.org/us/dictionary/english/infiltration* (website visited 10/22/2022). None of these definitions limit the source or direction by which the infiltration occurs.

In situations where the groundwater intersects an unlined CCR unit, water may infiltrate into the unit from the sides and/or bottom of the unit because the base of the unit is below the water table. In this scenario, the CCR in the unit will be in continuous contact with water. This contact between the waste and groundwater provides a potential for waste constituents to be dissolved and to migrate out of (or away from) the closed unit. In such a case, the general performance standard also requires the facility to take measures, such as engineering controls, that will ''control, minimize, or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste'' as well as ''post-closure releases to the groundwater'' from the sides and bottom of the unit. 40 CFR 257.102(d)(1).

Whether any particular unit can meet these performance standards is a fact and site-specific determination that will depend on a number of considerations, such as the hydrogeology of the site, the design and construction of the unit, and the kinds of engineering measures implemented at the unit. Accordingly, the fact that prior to closure the base of a unit intersects with groundwater does not mean that the unit may not ultimately be able to meet the performance standards in § 257.102(d) for closure with waste in place. Depending on the site conditions, a facility may be able to meet these performance standards by demonstrating that a combination of engineering measures and site-specific circumstances will ensure that as a consequence of complying with the closure performance standards, the groundwater will no longer be in contact with the waste in the closed unit. As one example, where groundwater intersects with only a portion of an impoundment, the facility could close that portion of the unit by removing the CCR from that area of the unit but leaving waste in place in other areas. As another example, if the entire unit sits several feet deep within the water table, engineering controls can potentially be implemented to stop the continued flow of groundwater into and out of the waste. See, EPA Office of Solid Waste, Closure of Hazardous Waste Surface Impoundments, SW–873, p 81 (September 1982), Revised Edition.

Concerns have been raised that the existing regulations do not clearly support the above description. For example, some have argued that the term ''infiltration'' only refers to the movement of water into a unit from the surface through a cover system, or that the regulations do not require facilities to eliminate ''free liquids'' derived from groundwater. Although EPA strongly disagrees and considers that the plain text of the regulation already clearly communicates the positions laid out above, the Agency requests comment on whether to revise the existing regulatory text so that it addresses the particular issues that regulated entities have raised. Specifically, as discussed previously EPA is requesting comments on whether to include a regulatory definition of the term ''liquids,'' which could specify that the term includes free water, porewater, standing water, and groundwater. Similarly, EPA requests comment on whether to adopt a regulatory definition of the term ''infiltration,'' consistent with term's plain meaning and the dictionary definitions referenced above.

ii. Preparation of a Written Closure Plan for CCR Management Units

EPA is proposing that owners and operators of CCRMU comply with the existing requirements of § 257.102(b) requiring the preparation of a written closure plan. See proposed regulatory text at § 257.102(b)(2)(iii). EPA is proposing a deadline of 12 months after the effective date of the rule to complete the closure plan. The rationale for the components of this report and for this compliance date is described in Unit IV.A.2.g.ii of this preamble.

iii. Preparation of a Written Post-Closure Care Plan for CCR Management Units

EPA is proposing that owners and operators of CCRMU would be required to comply with the existing requirement in § 257.104(d) regarding the preparation of a written post-closure. See, proposed regulatory text at § 257.104(d)(4)(iii). EPA is proposing to require the post-closure care plan no later than 12 months after the effective date of the final rule. The rationale for the components of this report and for this compliance date is described in Unit IV.A.2.g.iii of this preamble.

iv. Deadline To Initiate Closure for CCR Management Units

EPA is proposing that owners and operators of CCRMU initiate closure no later than 12 months after the effective date of the final rule. See proposed regulatory text at § 257.101(f). EPA's rationale for this timeframe is included in Unit IV.A.2.g.iv and Unit IV.A.2.a.ii of this preamble.

v. Deadline To Complete Closure for CCR Management Units

The existing CCR regulations currently require (at § 257.102(f)) an owner or operator of a CCR surface impoundment generally to complete closure activities within five years from initiating closure. The regulations also establish the conditions for extending this deadline, upon a showing that additional time is necessary.

EPA is proposing to apply the CCR surface impoundment closure timeframes because EPA has concluded that CCRMU closure will closely resemble CCR impoundment closures. First, as discussed in Unit IV.B.2.a, EPA identified a total of 134 areas where CCR is being managed, but which remain exempt under existing federal CCR regulations. Over half of these areas are associated with former, federally unregulated CCR surface impoundments. For those former impoundments that will be closed with waste in place, the owner or operator would need to procure substantial volumes of soil or borrow material to properly achieve the subgrade elevations needed to support the final cover system. For some CCRMU this material acquisition will involve the movement of tens of thousands of truckloads of soil or borrow material. This situation would also apply to certain CCR fill placements as well as to inactive CCR landfills where past waste disposal did not reach the landfill's design capacity (*i.e.,* landfill airspace was not fully utilized). In these situations, EPA believes the timeframes to complete closure for existing CCR surface impoundments are more appropriate (*i.e.,* 5 years) than, for example the 6 months (and limited time extensions) provided for existing CCR landfills.

Second, EPA is finding through implementation of the existing regulations that a significant percentage of facilities are electing to close CCR units by removal of waste. If owners and operators of CCRMU were to similarly choose this approach to closure, a shorter timeframe would only be sufficient for smaller-sized CCRMU since removal operations often require tens of thousands of truckloads to relocate CCR to a suitable location.

Finally, as discussed in Unit IV.B.6, the Agency is concerned that the base of at least some CCRMU may intersect with the groundwater beneath the unit because CCRMU may be located in floodplains or wetlands, or near large surface water bodies. EPA's experience in implementing the regulations is that such closures are generally more complex and take longer to complete. This is because the facility will typically need to incorporate engineering measures into the closure activities to ensure that the groundwater will no longer be in contact with the waste in the unit. EPA thus believes the timeframes to complete closure of CCRMU should be the same as the timeframes provided for existing CCR surface impoundments.

In addition, EPA is proposing to make CCRMU eligible for limited time extensions to complete closure when justified by the owner or operator. EPA recognizes that there can be unforeseen and extraordinary circumstances that warrant additional time to close a CCRMU. For example, these circumstances can include climate of the location. Weather delays, and the need for coordination with and approvals from state regulatory agencies. Accordingly, the rule proposes to adopt the same procedures currently applicable to CCR surface impoundments, which would allow the owner or operator to obtain additional time to complete the closure of a CCRMU, provided the owner or operator can make the prescribed demonstrations. Consistent with the existing requirements for CCR surface impoundments, the amount of additional time that a facility could obtain would vary based on the size (using surface area acreage of the CCR unit as the surrogate of size) of the CCRMU. For CCRMU 40 acres or smaller, the maximum time extension is 2 years. For CCRMU greater than 40 acres, the maximum time extension is five 2-year extensions (10 years), and the owner or operator must substantiate the factual circumstances demonstrating the need for each 2-year extension. See proposed regulatory text at § 257.102(f)(2).

vi. Post-Closure Care for CCR Management Units

The existing post-closure care criteria require the monitoring and maintenance of units that have closed in place for at least 30 years after closure has been completed. 40 CFR 257.104. During this post-closure period, the facility would be required to continue groundwater monitoring and corrective action, where necessary. EPA is proposing to apply these existing requirements to CCRMU without revision. These criteria are essential to ensuring the long-term safety of CCRMU.

d. Recordkeeping, Notification and Internet Posting for CCR Management Units

As discussed in Unit IV.A.2.h of this preamble, the 2015 CCR Rule required at §§ 257.105 through 257.107 for owner or operators of CCR units to record certain information in the facility's operating record. In addition, owners and operators are required to provide notification to states and/or appropriate Tribal authorities when the owner or operator places information in the operating record, as well as to maintain a website for this information. Similar to legacy CCR surface impoundments, EPA is proposing that owners and operators of CCRMU be subject to certain recordkeeping, notification, and website reporting requirements in the CCR regulations. EPA is proposing that the applicable recordkeeping requirements in § 257.105, the notification requirements in § 257.106, and posting on a website requirements at § 257.107 would also apply to CCRMU. EPA is also proposing changes to add CCRMU to § 257.107(a) to require the facility to notify the Agency using the procedures for the establishment of the website no later than the effective date of the final rule.

C. Technical Corrections

Through the implementation of the 2015 CCR Rule, the Agency identified an incorrect CFR reference to the definition of technically feasible, technically infeasible, and wetlands EPA also identified inconsistencies in how publicly accessible internet sites are referenced. Therefore, EPA is proposing to amend the CCR regulations so that the regulations clarify definitions, accurately reference the definition of wetlands, and use consistent language when referring to publicly accessible internet sites. The Agency is also proposing to amend an incorrect reference to § 257.99 in the groundwater monitoring scope section. Finally, EPA is requesting comment on extending the period for document retention and posting.

1. Definitions of ''Technically Feasible'' and ''Technically Infeasible''

EPA is proposing to revise the definition of *technically feasible* to clarify that the terms *technically feasible* and *feasible* have the same meaning in the regulations. The existing regulations define *technically feasible* as ''possible to do in a way that would likely be successful.'' EPA codified this definition in 2020 when amending the alternative closure requirements for landfills and impoundments. 85 FR 53542 (August 28, 2020). As EPA explained, the definition was based on two dictionary definitions of ''feasible'': ''capable of being done or carried out''(Merriam website (*https://www.merriam-webster.com/dictionary/feasible*)) and ''possible to do and likely to be successful'' (Cambridge English Dictionary (*https://dictionary.cambridge.org/us/dictionary/english/feasible*)). Id.

However, some rule provisions use the term *feasible.* It is not the Agency's intent to distinguish between these terms. Therefore, EPA is proposing to add the term *feasible* to the existing definition of *technically feasible* to make clear that both terms have the same meaning in the regulations. This definition revision would be accomplished by adding ''or feasible'' to the existing definition so that the definition would read ''*Technically feasible* or *feasible* means possible to do in a way that would likely be successful.'' See proposed regulatory text at § 257.53.

For similar reasons, EPA is proposing to also revise the definition of *technically infeasible* to clarify that the terms *technically infeasible* and *infeasible* have the same meaning in the regulations. See proposed regulatory text at § 257.53.

2. Wetlands Reference Correction

When the 2015 CCR Rule was finalized in April 2015, § 257.61(a) referenced § 232.2 which contained a definition of wetlands. An EPA and United States Army Corps of Engineers joint final rule published June 29, 2015 (80 FR 37053) amended § 232.2 by removing the definition of wetlands. However, the reference to § 232.2 in § 257.61(a) of the 2015 CCR Rule was not updated. The proposed amendment would correct the CFR reference for the wetlands definition by referring to 40 CFR 230.41(a) (December 24, 1980, 45 FR 85344).

3. Groundwater Monitoring and Corrective Action Applicability

EPA is proposing to correct a typographical error in the initial applicability paragraph of the groundwater monitoring and corrective action regulations. In § 257.90(a), the existing regulations refer to the ''groundwater monitoring and corrective action requirements under §§ 257.90 through 257.99''; however, there are no requirements codified under § 257.99. This was brought to our attention by a state interested in permit program approval. To avoid confusion with the regulations, EPA is proposing to revise the section references in § 257.90(a) to read ''groundwater monitoring and corrective action requirements under §§ 257.90 through 257.98.''

4. Publicly Accessible Internet Site

EPA is proposing to change several provisions using the term ''CCR Web site'' to ''CCR website,'' which is the term used in § 257.107(a). The inconsistent spelling of CCR website was brought to our attention by a state interested in permit program approval. To avoid confusion with the regulations, EPA is proposing to correct such references in §§ 257.100(e)(1)(iii) and 257.107(b) through (j).

5. Document Retention

EPA is taking comment on extending the period for document retention and posting found in §§ 257.105 and 257.107. The existing regulations generally require retention of documents in the operating record for a period of five years (§ 257.105(b)) and posting of documents on the facility publicly accessible CCR website for five years (§ 257.107(c)). The Agency now believes these time periods may be too short and that relevant information should remain publicly accessible for a longer time period. Under the existing requirements, information that is still relevant for CCR units could be removed from operating records and taken off websites well before the relevancy of that information has passed and goals of the record retention and posting requirements have been met. For example, for CCR unit closure plans that were posted in 2016 in accordance with § 257.102(b), the time periods have run, allowing closure plans to be removed from operating records and websites. This is true even if the facility has not initiated closure activity and may not initiate closure activity for many years. This was not consistent with EPA's original intent—either for the closure plan itself or for the posted information more generally—which was that the information should remain posted for as long as the information was relevant to evaluating the facility's compliance with the regulations. See, *e.g.,* 80 FR 21335. The Agency continues to believe that much of the information, including plans, reports, and monitoring results, subject to the time period limits will remain relevant and should remain accessible for a much longer period than the original five years. The Agency is taking comment on how long these time periods should be extended. The Agency is considering a general increase in the retention period (*e.g.,* fifteen years) or, alternatively, tying the retention period to a regulatory milestone for each unit (*e.g.,* completion of closure, post-closure care, or groundwater corrective action) and is seeking comment on which of these approaches, if any, the Agency should adopt. The Agency is considering this extension of retention time for all documents currently subject to the relevant retention time periods as all of these documents could remain relevant longer than the current time periods. Therefore, the goals of information availability and transparency would remain relevant for the CCR program.

V. Effect on State CCR Permit Programs

The proposed revisions to the CCR regulations would both establish standards for new types of units and revise existing requirements for CCR units defined in and subject to the 2015 CCR Rule. For this reason, if EPA takes final action on all the proposed changes, the requirements for approval and retention of a state CCR permit program in accordance with RCRA section 4005(d) will change. How these revisions would affect states depends on whether the state has received approval for the provisions that are ultimately included in any final rule and whether the state is seeking full or partial approval of its permit program.

If EPA has approved a state regulation pursuant to RCRA section 4005(d), that state regulation will continue to operate in lieu of the federal program, even if EPA subsequently revises the federal analog of that regulation. See 42 U.S.C. 6945(d)(1)(A), (3). In essence this means that any federal revisions would not take effect in the approved state until the state revises the program to adopt them. In order to maintain approval, the state must revise such a regulation within three years of any revision to the federal CCR regulation that is more protective. See, 42 U.S.C. 6945(d)(1)(D)(i)(II). Conversely, where EPA has not approved a state requirement, the federal requirements continue to apply directly to the facilities in that state. As a consequence, any revisions to the federal requirements will take effect in states without an approved program because the federal requirements continue to operate.

As discussed in Units IV.A and IV.B of this preamble, EPA is proposing to establish requirements for legacy CCR surface impoundments and CCRMU. Because legacy CCR surface impoundments and CCRMU are new types of federally regulated units, no state is currently approved to issue state CCR permits to such units in lieu of the federal CCR regulations. Thus, any state that wants approval to issue permits to such units will be required to update the state CCR regulations and go through the state CCR permit program approval process set forth in RCRA section 4005(d).

As discussed in Units IV.B.9 and IV.C of this preamble, EPA is also proposing to revise requirements under the existing CCR regulations. The revised requirements will directly apply to affected facilities except to the extent EPA has already approved the state to issue permits for the original requirement. In such a case the state requirement will apply in lieu of the new federal requirement until the state program is revised. EPA considers at least one of these proposals (the proposal to expand § 257.102(d)(2) to landfills that are inundated with groundwater) to be more stringent than the existing regulations.

Accordingly, all states will have to consider whether to update their state CCR regulations and seek approval to issue permits for legacy CCR surface impoundments and CCRMU. In addition, states with approved CCR permit programs will be required to revise their regulations to address any new requirements applicable to CCR units, to the extent those requirements are more stringent than the approved state CCR permit program.[79] Similarly, states that are currently working with the Agency to obtain approval of their state CCR permit program will need to update their state programs to address the new requirements applicable to CCR units if the state wishes to seek full program approval and the new requirements are more stringent.[80]

The process for approving modifications is the same as for the initial program approval: EPA will propose to approve or deny the program modification and hold a public hearing during the comment period. EPA will then issue the final program determination within 180 days of determining that the state's submission is complete.

EPA requests comment on the effect of this proposed rule on state CCR permit programs. EPA specifically requests comment on whether the proposed revisions to the existing requirements that apply to CCR units will be more stringent than the existing state CCR permit requirements, such that the states with approved programs and states currently in the process of seeking approval would need to revise their state CCR permit program to retain or obtain approval, respectively.

[79] Currently the states of Georgia, Oklahoma, and Texas have approval for state CCR permit programs.

[80] Currently, EPA is working with the states of Alabama, Arizona, Florida, Illinois, Indiana, Kansas, Louisiana, Maryland, Michigan, North Carolina, North Dakota, Pennsylvania, Tennessee, Utah, Virginia, West Virginia, Wisconsin, and Wyoming on drafting CCR regulations or a draft CCR permit program.

VI. The Projected Economic Impact of This Action

A. Introduction

EPA estimated the costs and benefits of this action in a Regulatory Impact Analysis (RIA), which is available in the docket for this action.

B. Affected Universe

The universe of facilities and units affected by the proposed rule includes three categories. The first is comprised of facilities with legacy CCR surface impoundments. The RIA identifies 127 legacy CCR surface impoundments located at 59 facilities. The second component of the affected universe is composed of CCRMU. The RIA identifies 134 units at 82 facilities. The final component of the universe is comprised of CCR landfills that are already regulated under the 2015 CCR final rule, but which have waste in contact with groundwater. The RIA identifies 19 units.

C. Baseline Costs

The RIA examines the extent to which baseline practices at legacy CCR surface impoundments and CCRMU address contamination in a manner consistent with the requirements of the proposed rule. To the extent that legacy CCR surface impoundments and CCRMU are already sufficiently addressing contamination, they are assumed to not incur costs or realize benefits under the proposed rule. To estimate the proportion of legacy CCR surface impoundments addressing contamination in the baseline, the RIA examines relevant federal and state programs and determines that about 5.5% of legacy CCR surface impoundments are addressing site contamination. To estimate the proportion of CCRMU addressing contamination, the RIA examines publicly available filings from owners and operators of regulated coal fired power plants. The RIA estimates that about 34% of CCRMU are undergoing sitewide corrective action and closure in a manner sufficient to meet the requirements of the proposed rule.

D. Costs and Benefits of the Proposed Rule

The RIA estimates that the annualized costs of this action will be approximately $413 million per year when discounting at 7%. Of this, $237 million is attributable to the requirements for legacy CCR surface impoundments, which are subject to the D.C. Circuit's order in *USWAG,* $170 million is attributable to the requirements for CCRMU, and $6 million is attributable to requirements for landfills. The RIA estimates that the annualized costs of this action will be approximately $356 million when discounting at 3%. Of this, $204 million is attributable to the requirements for legacy CCR surface impoundments, $146 million is attributable to the requirements for CCRMU, and $6 million is attributable to requirements for landfills. The costs of this proposed rule are discussed further in the RIA and include the costs of unit closure, corrective action, fugitive dust controls, structural integrity inspections, and recordkeeping and reporting.

The RIA estimates that the annualized monetized benefits attributable to this action will be approximately $49 million per year when discounting at 7%. Of this, $30 million is attributable to the requirements for legacy CCR surface impoundments, $16 million is attributable to the requirements for CCRMU, and $3 million is attributable to requirements for landfills. The RIA estimates that the annualized monetized benefits attributable to this action will be approximately $77 million per year when discounting at 3%. Of this, $47 million is attributable to the requirements for legacy CCR surface impoundments, $25 million is attributable to the requirements for CCRMU, and $5 million is attributable to requirements for landfills. The monetized benefits of this proposed rule are discussed further in the RIA, and include reduced incidents of cancer from the consumption of arsenic in drinking water, avoided intelligence quotient (IQ) losses from mercury and lead exposure, non-market benefits of water quality improvements, and the protection of threatened and endangered species. EPA also monetized the benefits of avoided impoundment failures, including both ''catastrophic'' failures and smaller-volume releases. One example of a severe impoundment failure is the Dan River Steam Station failure which occurred in 2014, when a stormwater drainage pipe under the inactive surface impoundments at the Dan River Steam Station caused the inadvertent release of 39,000 tons of CCR directly into the nearby Dan River. The result high-end estimate of the costs of this impoundment failure is $300 million.

The RIA also describes a number of important benefits that cannot currently be quantified of monetized due to data limitations or limitations in current methodologies. These benefits include reducing the baseline risk of unit leakage and failure attributable to climate-change driven severe weather events. Many legacy CCR surface impoundments and CCRMU are situated close to rivers or are located along the coast. These units are vulnerable to inland or coastal flooding, which may occur at an increased frequency due to the effects of climate change. Flooding events may cause these units to overtop or catastrophically collapse, releasing CCR into the environment, exposing nearby communities to toxic contamination and necessitating potentially costly cleanup and remediation. EPA has identified 36 legacy CCR impoundments at medium or high risk from climate change driven flooding, and 27 CCRMU at medium or high risk from climate change driven flooding.

Another set of benefits outside the scope of quantification include reducing the instance of negative human health impacts such as cardiovascular mortality, neurological effects, and cancers (separate from the quantified cancer benefits) brought on by exposure to toxins found in coal ash. Either through leaking impoundment sites or release events, many pollutants from legacy CCR surface impoundments are likely to contaminate nearby water bodies, affecting surface waters, local fish populations, and drinking water reservoirs. Because known transport pathways exist between these release events and human heath endpoints, EPA expects the proposed rule to cause risk reductions for various categories that are not yet quantifiable. Toxins such as thallium, molybdenum, and lithium, while all present in CCR, lack the data to create dose-response relationships between ingestion rates and specific health endpoints, and thus precludes EPA from quantifying associated benefits.

The RIA describes several surface water quality benefits such as the improved health of ecosystems proximate to CCR disposal units, and the avoided costs of treating public drinking water impacted by CCR contamination. EPA expects leakages or releases of effluent from any CCR surface impoundment site to contaminate nearby surface waters and environments. Introduction of arsenic, selenium, and other heavy metals associated with CCR surface impoundment contents are shown to accumulate in sediments of nearby stream and lake beds, posing risks and injury to organisms and consequently ecosystems. Although surface waters are broadly protected from high levels of contaminants under EPA's regulations and Water Quality Criteria (WQC), complex interactions from trace amounts of heavy metals and other toxins known to be released from legacy CCR surface impoundment sites have displayed measurable impact to aquatic animals and ecosystems.[81]

The proposed rule may result in avoided drinking water treatment costs and drinking water quality improvements at public water systems. First, by reducing the risk of CCR leakage events and impoundment failures, the proposed rule will help avoid costs of water quality treatment at public intake sources. Second, by preventing release events the proposed rule has the potential to reduce the incidence of eutrophication in source waters for public drinking supplies. Eutrophication is primarily caused by an overabundance of nitrogen and phosphorus. It causes foul tastes and odors, which require additional treatment, and commensurate expenditure, to remove.

The RIA discusses potential impacts on the market for the beneficial use of CCR as a substitute for virgin materials. Future uses of CCR are unknown. Research on the recovery of rare earth elements and yttrium from coal fly ash is ongoing but currently only at laboratory scale. It is possible that in the future, the availability of additional CCR may reach an equilibrium price that encourages demand, particularly as coal plants retire and the supply of ''new'' CCR falls. However, the quality of CCR in legacy CCR surface impoundments and CCRMU may limit their value. Older, closed impoundments or other CCR storage areas are less likely to have CCR material of a known and reliable composition.

The RIA also discusses potential reductions in fugitive dust emanating from legacy CCR surface impoundments, which will benefit fence line communities by reducing the amount of resuspended ash from legacy CCR surface impoundments that could otherwise lead to respiratory health hazards for communities surrounding a given legacy surface impoundment.

The RIA discusses the benefits of improved property values near closed and remediated sites. Neighborhoods located near hazardous waste sites often experience depressed property values due to health risks posed by contaminant exposure pathways, potential reductions in ecological services, unsightly aesthetics of the

[81] Brandt, Jessica E., et al. ''Beyond selenium: coal combustion residuals lead to multielement enrichment in receiving lake food webs.'' Environmental science & technology 53.8 (2019): 4119–4127.

disposal unit site, and potential stigma associated with proximity to a disposal site. Almost a million households, and over 2.5 million people are located within 3 miles of legacy CCR surface impoundments and CCRMU. Approximately 75,000 households and 200,000 people are located within a mile. Improvements in home values resulting from the proposed rule have the potential to bestow welfare gains to homeowners located near legacy CCR units and CCR management units.

The RIA also discusses the value of reusing land formerly occupied by legacy CCR surface impoundments, and CCRMU. Once legacy CCR surface impoundments and CCRMU are closed by removal, or landfills are properly capped, or corrective action activities are completed, the land is more likely to move into alternative, economically productive purposes. For example, these land reuse projects might include industrial redevelopment or implementation of green energy generation which can utilize the existing electricity grid infrastructure.

Finally, based on the demographic composition and environmental conditions of communities within one and three miles of legacy CCR surface impoundments, these proposals will reduce existing disproportionate and adverse effects on economically vulnerable communities, as well as those that currently face environmental burdens. For example, in Illinois the population living within 1 mile of legacy CCR surface impoundment sites is over three times as likely compared to the state average to have less than a high school education (35.66% compared to 10.10%, see RIA exhibit ES.14), and that population already experiences higher than average exposures to particulate matter, ozone, diesel emissions, lifetime air toxics cancer risks, and proximity to traffic, Superfund sites, Risk Management Plan sites, and hazardous waste facilities (see RIA exhibit ES.15).

The RIA also discusses the interaction of the CCR rules with Air rules governing emissions at power plants. Following on the significant progress EPA has made over many decades to reduce dangerous pollution from coal-fired electric utilities' stack emissions and effluents, this proposed rule will help EPA further ensure that the communities and ecosystems closest to coal facilities are sufficiently protected from harm from groundwater contamination, surface water contamination, fugitive dust, floods and impoundment overflows, and threats to wildlife. The volume and toxicity of CCR at many sites persisted or increased over past decades even as coal-fired units' air and water emissions decreased, and this proposed rule will help EPA fulfill the promise of substantial public health and welfare gains from its full suite of regulations aimed at reducing the harms from coal-combustion pollution.

As noted previously, EPA establishes the requirements under RCRA sections 1008(a)(3) and 4004(a) without taking cost into account. *See, USWAG,* 901 F.3d at 448–49. Although EPA has accordingly designed its proposal based on its statutory factors and court precedent and has not relied on this benefit-cost analysis in the selection of its proposed alternative, EPA believes that after considering all unquantified and distributional effects, the public health and welfare gains that will result from the proposed alternative would justify the rule's costs.

Under section 3(f)(1) of Executive Order 12866, this action is considered a significant action.

VII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at *https://www.epa.gov/laws-regulations/laws-and-executive-orders*.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

Under section 3(f)(1) of Executive Order 12866, this action is a significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review. Any changes made in response to recommendations received as part Executive Order 12866 review have been documented in the docket. EPA prepared an analysis of the potential costs and benefits associated with this action. This analysis, Regulatory Impact Analysis: Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Legacy CCR Surface Impoundments, is available in the docket. and is briefly summarized in section VII.

B. Paperwork Reduction Act (PRA)

The information collection activities in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the PRA. The Information Collection Request (ICR) document that the EPA prepared has been assigned EPA ICR number 2761.01. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here.

The proposed rule requires legacy CCR surface impoundments to comply with the reporting and recordkeeping requirements already in place for regulated CCR units. Many of these requirements are one-time requirements that will occur soon after the promulgation of the rule, while several are ongoing. The proposed rule also requires legacy CCR surface impoundments to submit an applicability report, unique to this universe of units, which will provide stakeholders with essential site characteristic and contact information for the unit.

Respondents/affected entities: Inactive coal fired electric utility plants with inactive CCR surface impoundments (legacy CCR surface impoundments), coal-fired electric utility plants with CCRMU, and coal-fired electric utility plants with landfills already subject to regulation under the 2015 final CCR rule, but which have waste in contact with groundwater.

Respondent's obligation to respond: The recordkeeping, notification, and posting are mandatory as part of the minimum national criteria promulgated under Sections 1008(a), 2002(a), 4004, and 4005(a) and (d) of RCRA.

Estimated number of respondents: 273.

Frequency of response: one-time and annually.

Total estimated burden: 70,700 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: $24.4 million (per year), includes $20.4 million annualized capital or operation & maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

Submit your comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the EPA using the docket identified at the beginning of this rule. The EPA will respond to any ICR-related comments in the final rule. You may also send your ICR-related comments to OMB's Office of Information and Regulatory Affairs using the interface at *www.reginfo.gov/public/do/PRAMain*. One may find this particular information collection by selecting ''Currently under Review—Open for Public Comments'' or by using the search function. OMB must receive comments no later than July 17, 2023.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. The small entities subject to the requirements of this action are owners and operators of coal fired electric utility plants in NAICS code 221112 and firms that own property on which an inactive/retired coal fired power plant is located. The Agency has identified 11 small entities subject to the proposed rule. The Agency estimates that the average annual cost to a small entity that owns CCRMU will be approximately $2.8 million, and the average annual cost to a small entity that owns legacy CCR surface impoundments will be about $2.1 million. EPA makes two assumptions about how small entities will comply with the rule. First, EPA assumes that the units owned by small entities will all require corrective action, and will undergo closure by removal. Second, EPA assumes that small entities will not be able to pass on any compliance costs to ratepayers. These assumptions, in EPA's opinion, constitute a high-end scenario. Eight small entities are estimated to own CCRMU, for an annual cost of approximately $23 million. Three small entities are estimated to own legacy CCR surface impoundments for an annual cost of approximately $6.5 million. In total small entities are estimated to incur approximately $29.5 million in annual costs. The Agency has determined that one small entity may experience an impact above 1% of annual revenues but below 3% of annual revenues, and one small entity may experience an impact greater than 3% of annual revenues. Details of this analysis are presented in the Regulatory Impact Analysis, which can be found in the docket for this action.

D. Unfunded Mandates Reform Act (UMRA)

This action contains a federal mandate under UMRA, 2 U.S.C. 1531–1538, that may result in expenditures of $100 million or more for state, local and tribal governments, in the aggregate, or the private sector in any one year. Accordingly, the EPA has prepared a written statement required under section 202 of UMRA. The statement is included in the docket for this action and briefly summarized here.

The RIA estimates that the proposed rule may affect 127 legacy CCR surface impoundments at 59 facilities, 134 CCRMU at 82 facilities, and 29 landfills already regulated under the 2015 final rule. The proposed rule will extend the existing requirements of the 2015 CCR final rule, found in 40 CFR part 257, subpart D, to these units.

In preparing the 2015 CCR final rule, and consistent with the intergovernmental consultation provisions of section 204 of the UMRA, EPA initiated pre-proposal consultations with governmental entities affected by the rule. In developing the regulatory options for the 2015 CCR Rule, EPA consulted with small governments according to EPA's UMRA interim small government consultation plan developed pursuant to section 203 of UMRA. The details of this consultation can be found in the preamble to the 2015 CCR final rule. Consistent with section 205 of UMRA, EPA identified and considered a reasonable number of regulatory alternatives, and adopted the least-costly approach (*i.e.,* a modified version of the ''D Prime'' least costly approach presented in the 2010 proposed CCR rule). The proposed rule merely extends the provisions of the 2015 final rule to three additional classes of facilities.

This action is not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. The threshold amount established for determining whether regulatory requirements could significantly affect small governments is $100 million annually. The RIA estimates annual average costs of $5 million total for the two local governments identified as owning units subject to the proposed rule. These estimates are well below the $100 million annual threshold established under UMRA. There are no known tribal owner entities of facilities that would incur substantial direct costs under the proposed rule.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. For the ''Final Rule: Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities'' published April 17, 2015 (80 FR 21302), EPA identified three of the 414 coal-fired electric utility plants (in operation as of 2012) as being located on tribal lands. To the extent that these plants contain CCRMU subject to the proposed rule, the impacts to tribes will be limited to document review and walking the site. As these are not substantial direct costs, this action does not impose substantial direct compliance costs or otherwise have a substantial direct effect on one or more Indian tribes, to the best of EPA's knowledge. Neither will it have substantial direct effects on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

This action is subject to E.O. 13045 (62 FR 19885, April 23, 1997) because it is a significant regulatory action under section 3(f)(1) of E.O. 12866, and EPA believes that the environmental health or safety risks addressed by this action may have a disproportionate effect on children. Accordingly, EPA evaluated the environmental health or safety effects of CCR constituents of potential concern on children. The results of this evaluation are contained in the Human and Ecological Risk Assessment of Coal Combustion Wastes available in the docket for this action.

As ordered by E.O. 13045 Section 1–101(a), EPA identified and assessed environmental health risks and safety risks that may disproportionately affect children in the revised risk assessment. Pursuant to U.S. EPA's Guidance on Selecting Age Groups for Monitoring and Assessing Childhood Exposures to Environmental Contaminants, children are divided into seven distinct age cohorts: 1 to <2 yr, 2 to <3 yr, 3 to <6 yr 6 to <11 yr, 11 to <16 yr, 16 to <21 yr, and infants (<1 yr). Using exposure factors for each of these cohorts, EPA calculated cancer and non-cancer risk results in both the screening and probabilistic phases of the assessment. In general, risks to infants tended to be higher than other childhood cohorts, and also higher than risks to adults. However, for drinking water cancer risks, the longer exposures for adults led to the highest risks. Screening risks exceeded EPA's human health criteria for children exposed to contaminated air, soil, and food resulting from fugitive dust emissions and run-off. Similarly, 90th percentile child cancer and non-cancer risks exceeded the human health criteria for the groundwater to drinking water pathway under the full probabilistic analysis (Table 5–17 in the Human and Ecological Risk Assessment of Coal Combustion Wastes). The closure, groundwater monitoring and corrective action required by the rule will reduce risks from currently unregulated legacy CCR surface impoundments, and waste management units. Thus, EPA believes that this rule will be protective of children's health.

In general, because the pollution control requirements under the CCR rule will reduce health and environmental exposure risks at all coal-fired electric utility plants, the CCR rule is not expected to create additional or new risks to children.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use

This action is not a ''significant energy action'' because it is not likely to have a significant adverse effect on the supply, distribution or use of energy. Because the proposed rule addresses management of CCR and pertains solely to inactive CCR units (legacy CCR surface impoundments at inactive facilities and CCR management units at facilities already regulated under the 2015 CCR rule), this proposed rule will have no effect on the production of crude oil, coal, fuel, or natural gas. In addition, the proposed rule will have no direct effect on electricity production, generating capacity, or on foreign imports or exports of energy.

Electricity price effects on the price of energy are only possible because in some cases, utilities may attempt to pass the costs of managing CCR under the proposed rule on to ratepayers in the form of increased electricity rates through Public Utility Commissions (PUCs). As a result, the proposed rule may indirectly affect electricity prices within the energy sector. To estimate what the electricity price effects of this proposed rule may be on a national level, EPA compared the expected costs of this rule to the expected costs and effects resulting from three previously conducted IPM runs for three previous RIAs, the 2015 CCR Rule, the 2015 ELG Rule (which included the costs of the 2015 CCR Rule in its baseline), and the 2019 ELG Rule, which was a deregulatory rule. Extrapolating from these IPM runs, EPA estimates that the effect of the current action on electricity prices will be between 0.042% and 0.125%. Since these effects fall below the 1% threshold, EPA concludes that this rule is not expected to generate significant adverse energy effects. The full energy impacts analysis is available in the Regulatory Impact Analysis that accompanies this action.

I. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking involves technical standards. EPA has decided to use the following technical standards in this rule: (1) RCRA Subpart D, Section 257.70 liner design criteria for new CCR landfills and any lateral expansion of a CCR landfill includes voluntary consensus standards developed by ASTM International and EPA test methods such as SW–846, (2) Section 257.71 liner design criteria for existing CCR surface impoundments includes voluntary consensus standards developed by ASTM International and EPA test methods such as SW–846, (3) Section 257.72 liner design criteria for new CCR surface impoundments and any lateral expansion of a CCR surface impoundment includes voluntary consensus standards developed by ASTM International and EPA test methods such as SW–846, and (4) Section 257.73 structural stability standards for new and existing surface impoundments use the ASTM D 698 and 1557 standards for embankment compaction.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice (EJ) part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on communities with environmental justice concerns.

EPA believes that the human health or environmental conditions that exist prior to this action result in or have the potential to result in disproportionate and adverse human health or environmental effects on communities with environmental justice concerns.

EPA conducted a demographic screening analysis for all legacy CCR surface impoundments and CCRMU to determine the composition of populations living within one and three miles of facilities with these units. Specifically, EPA looked at the percentages of the relevant populations that are identified as minority/people of color, households below the federal poverty level, population with less than high school education (among those 25 years and older), and populations characterized by linguistic isolation. EPA chose to look at radii of one and three miles because they represent the areas most likely to be affected by groundwater contamination from legacy CCR surface impoundments and CCRMU. EPA compared the demographic profile within these radii to national averages to assess the extent to which marginalized groups are disproportionately affected by contamination from legacy CCR surface impoundments and CCRMU in the baseline. EPA found that the following demographic and socioeconomic indicators were more highly represented within one and three miles of sites containing legacy CCR surface impoundments than the U.S. national averages: minority/people of color, Black population, Native American population, Hispanic ethnicity, households below the poverty level, less than high school education, and linguistic isolation. EPA found that the following demographic and socioeconomic indicators were more highly represented within one and three miles of CCRMU: Black population, ''Other'' racial groups, households below the poverty level, and less than high school education. EPA also compared a subset of three population indicators, minority status, less than high school education and linguistic isolation, around legacy CCR surface impoundments and CCRMU against state level population characteristics. In eight of the 25 states (32%) containing legacy CCR surface impoundments affected by the proposed rule, at least one of these three demographic indicators for populations within one mile of the facility was above twice the state average value. In five of the 28 states (18%) containing CCRMU affected by the proposed rule, at least one of the three demographic indicators for populations within one mile of the facility was above twice the state average value.

EPA also examined the cumulative environmental impacts that exist around facilities in the affected universe. EPA looked at the following eight environmental indicators, PM 2.5, O3, Diesel PM, Lifetime Cancer Risk, Traffic Proximity, National Priorities List (NPL) Proximity, Risk Management Plan (RMP) Proximity, and Transportation Storage and Disposal Facility (TSDF) proximity within one mile of facilities in the affected universe. Because environmental indicators are not available at the national level, EPA confined this analysis to states where at least one facility registered twice the state average on any of the eight environmental indicators. Nine states contain such facilities, and in six of them at least half of the environmental indicators within a mile of facilities containing legacy units were higher than state averages. At the state level, therefore, environmental issues seem to cluster, uniquely impacting communities living within a mile of legacy and management units.

Based on the results of these demographic screening analyses, EPA believes that the human health or environmental conditions that exist prior to this action result in or have the potential to result in disproportionate and adverse human health or environmental effects on communities with environmental justice concerns.

EPA believes that this action is likely to reduce existing disproportionate and adverse effects on communities with environmental justice concerns. Neighborhoods located near legacy CCR surface impoundments and CCR management units are disproportionately occupied by communities with environmental justice concerns. These vulnerable communities face risks of impoundment failure, groundwater contamination, and fugitive air emissions. If such failures or contamination occur, nearby residents will face risks to their health, both cancer and noncancer. Other risks include damage to ecosystem services and environmental amenities. These communities are likely to face existing environmental burdens that put them at greater cumulative risk from the environmental impacts associated with proximity to legacy units. EPA believes that the proposed rule is likely to incrementally reduce baseline disproportionate and adverse effects on communities with environmental justice concerns by requiring closure and corrective action at legacy CCR surface impoundments and CCRMU, thereby reducing the risks of exposure to contamination from CCR faced by these populations. The analyses above examining the demographic composition and environmental conditions of communities within one and three miles of legacy CCR surface impoundments and CCRMU highlight the higher potential incidence of EJ issues in more demographically vulnerable communities. They demonstrate that the proposed rule is likely to improve conditions for nearby communities from the baseline, as these communities are more likely than the national average to be more vulnerable to environmental harms due to their demographics and economic vulnerability and are currently facing existing environmental burdens. It is important to note that proximity to traffic could remain a significant EJ issue and in fact be exacerbated by the proposed rule if removal of CCR from plants with legacy units is undertaken using heavy-duty vehicles and routes that run through residential areas. EJ concerns related to traffic will need to be assessed at a site-by-site level in conversation with nearby communities as EPA implements the proposed rule.

The information supporting this Executive Order review is contained in the accompanying Regulatory Impact Analysis, which can be found in the docket for this action.

List of Subjects in 40 CFR Part 257

Environmental protection, Beneficial use, Coal combustion products, Coal combustion residuals, Coal combustion waste, Disposal, Hazardous waste, Landfill, Surface impoundment.

Michael S. Regan,

Administrator.

For the reasons set out in the preamble, EPA proposes to amend 40 CFR part 257 as follows:

PART 257—CRITERIA FOR CLASSIFICATION OF SOLID WASTE DISPOSAL FACILITIES AND PRACTICES

■ 1. The authority citation for part 257 continues to read as follows:

Authority: 42 U.S.C. 6907(a)(3), 6912(a)(1), 6944, 6945(a) and (d); 33 U.S.C. 1345(d) and (e).

■ 2. Amend § 257.1 by revising paragraph (c)(12) to read as follows:

§ 257.1 Scope and purpose.

* * * * *

(c) * * *

(12) Except as otherwise specifically provided in subpart D of this part, the criteria in subpart A of this part do not apply to CCR landfills, CCR surface impoundments, lateral expansions of CCR units, and CCR management units, as those terms are defined in subpart D of this part. Such units are instead subject to subpart D of this part.

Subpart D [AMENDED]

■ 3. Amend subpart D by remove the phrase ''Web site'' and adding in its place the word ''website'' everywhere it appears.

■ 4. Amend § 257.50 by revising paragraph (c), (d), and (e) to read as follows:

§ 257.50 Scope and purpose.

* * * * *

(c) This subpart also applies to inactive CCR surface impoundments at active electric utilities or independent power producers, regardless of how electricity is currently being produced at the facility.

(d) This subpart applies to CCR management units located at active or inactive facilities with a CCR unit.

(e) This subpart applies to electric utilities or independent power producers that have ceased producing electricity prior to October 19, 2015 and that have a legacy CCR surface impoundment.

* * * * *

■ 5. Revise § 257.52 to read as follows:

§ 257.52 Applicability of other regulations.

(a) Compliance with the requirements of this subpart does not affect the need for the owner or operator of a CCR landfill, CCR surface impoundment, lateral expansion of a CCR unit, or CCR management unit to comply with all other applicable federal, state, tribal, or local laws or other requirements.

(b) Any CCR landfill, CCR surface impoundment, lateral expansion of a CCR unit, or CCR management unit continues to be subject to the requirements in §§ 257.3–1, 257.3–2, and 257.3–3.

■ 6. Amend § 257.53 by:

■ a. Revising the definitions of ''Active life or in operation'', ''Active portion'', ''Closed'', and ''CCR landfill or landfill'';

■ b. Adding the definition of ''CCR management unit'' in alphabetical order;

■ c. Revising the definitions of ''CCR unit'';

■ d. Adding the definition of ''Inactive CCR landfill'' in alphabetical order;

■ e. Revising the definition of ''Inactive CCR surface impoundment'';

■ f. Adding the definitions of ''Inactive facility or inactive electric utility or independent power producer'' and ''Legacy CCR surface impoundment'' in alphabetical order; and

■ g. Revising the definitions of ''Operator'', ''Owner'', ''Qualified person'', ''Qualified professional engineer'', ''State Director'', ''Technically feasible or feasible'', ''Technically infeasible or infeasible'', and ''Waste boundary''.

The revisions and additions read as follows:

§ 257.53 Definitions.

* * * * *

Active life or *in operation* means the period of operation beginning with the initial placement of CCR in the CCR unit or CCR management unit and ending at completion of closure activities in accordance with § 257.102.

Active portion means that part of the CCR unit or CCR management unit that has received or is receiving CCR or non-CCR waste and that has not completed closure in accordance with § 257.102.

* * * * *

Closed means placement of CCR in a CCR unit or CCR management unit has ceased, and the owner or operator has completed closure of the CCR unit or CCR management unit in accordance with § 257.102 and has initiated post-closure care in accordance with § 257.104.

* * * * *

CCR landfill or landfill means an area of land or an excavation that receives CCR and which is not a surface impoundment, a CCR management unit, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine, or a cave. For purposes of this subpart, a CCR landfill also includes sand and gravel pits and quarries that receive CCR, CCR piles, and any practice that does not meet the definition of a beneficial use of CCR.

CCR management unit means any area of land on which any non-containerized accumulation of CCR is received, placed, or otherwise managed at any time, that is not a CCR unit. This includes inactive CCR landfills and CCR units that closed prior to October 17, 2015.

* * * * *

CCR unit means any CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit, or a combination of more than one of these units, based on the context of the paragraph(s) in which it is used. This term includes both new and existing units, unless otherwise specified. This term does not include CCR management units.

* * * * *

Inactive CCR landfill means an area of land or an excavation that contains CCR but that no longer receives CCR on or after the effective date of the final rule and that is not a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine, or a cave. For purposes of this subpart, this term also includes sand and gravel pits that received CCR, and abandoned CCR piles.

Inactive CCR surface impoundment means a CCR surface impoundment located at an active facility that no longer receives CCR on or after October 19, 2015, and still contains both CCR and liquids on or after October 19, 2015.

Inactive facility or *inactive electric utility or independent power producer* means any facility with a legacy CCR surface impoundment subject to the requirements of this subpart that ceased operation prior to October 19, 2015. An electric utility or independent power producer is no longer in operation if it has ceased generating electricity provided to electric power transmission systems or to electric power distribution systems before October 19, 2015. An inactive facility does not include an off-site disposal facility that ceased operation prior to October 19, 2015.

* * * * *

Legacy CCR surface impoundment means a CCR surface impoundment that no longer receives CCR but contained both CCR and liquids on or after October 19, 2015, and that is located at an inactive electric utility.

* * * * *

Operator means the person(s) responsible for the overall operation of a CCR unit or CCR management unit. This term includes those person(s) or parties responsible for disposal or otherwise actively engaged in the solid waste management of CCR. It also includes those responsible for directing or overseeing groundwater monitoring, closure or post-closure activities at a CCR unit or CCR management unit.

* * * * *

Owner means the person(s) who owns a CCR unit or CCR management unit or part of a CCR unit or CCR management unit, or a facility, whether in full or in part.

* * * * *

Qualified person means a person or persons trained to recognize specific appearances of structural weakness and other conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit or CCR management unit by visual observation and, if applicable, to monitor instrumentation.

Qualified professional engineer means an individual who is licensed by a state as a Professional Engineer to practice one or more disciplines of engineering and who is qualified by education, technical knowledge and experience to make the specific technical certifications required under this subpart. Professional engineers making these certifications must be currently licensed in the state where the CCR unit(s) or CCR management unit is located.

* * * * *

State Director means the chief administrative officer of the lead state agency responsible for implementing the state program regulating disposal in CCR landfills, CCR surface impoundments, all lateral expansions of a CCR unit, and CCR management units.

* * * * *

Technically feasible or *feasible* means possible to do in a way that would likely be successful.

Technically infeasible or *infeasible* means not possible to do in a way that would likely be successful.

* * * * *

Waste boundary means a vertical surface located at the hydraulically downgradient limit of the CCR unit or CCR management unit. The vertical surface extends down into the uppermost aquifer.

■ 7. Amend § 257.61 by revising the introductory text of paragraph (a) to read as follows:

§ 257.61 Wetlands.

(a) New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located in wetlands, as defined in § 230.41(a) of this chapter, unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that the CCR unit meets the requirements of paragraphs (a)(1) through (5) of this section.

* * * * *

■ 8. Add § 257.75 to subpart D to read as follows:

§ 257.75 Requirements for identifying CCR management units.

(a) *Applicability.* The requirements of this section apply to owners and operators of active or inactive facilities with one or more CCR unit(s).

(b) *Facility evaluation.* Upon the effective date of the final rule, the owner or operator of an active facility or inactive facility with one or more CCR unit(s) must initiate a facility evaluation to identify all CCR management units at the facility. At a minimum, the presence or absence of CCR management units at the facility must be confirmed and documented through a thorough evaluation of available records that contain the information needed to prepare the Facility Evaluation Report required by paragraph (c) of this section. The facility evaluation must include a physical inspection of the facility. Where necessary, the physical inspection must additionally include field investigation activities to fill data gaps, such as conducting exploratory soil borings, geophysical assessments, or any other similar physical investigation activities to establish the location and boundaries of identified CCR management units, and to affirmatively rule out other areas of potential CCR placement at the facility that were identified during the information review. The facility evaluation must identify all CCR management units at the facility regardless of when the CCR management unit came into existence.

(c) *Facility evaluation report.* No later than 3 months after the effective date of the final rule, the owner or operator of an active or inactive facility that contains CCR units regulated under this subpart must prepare a Facility Evaluation Report, which shall contain, to the extent available, the information specified in paragraphs (c)(1) through (13) of this section. The owner or operator has prepared the Facility Evaluation Report when the report has been placed in the facility's operating record as required by § 257.105(f)(25).

(1) The name and address of the person(s) owning and operating the facility; the unit name associated with any CCR unit and CCR management unit at the facility; and the identification number of each CCR unit and CCR management unit if any have been assigned by the state.

(2) The location of any CCR management unit identified on the most recent U.S. Geological Survey (USGS) 7 1–2 minute or 15-minute topographic quadrangle map, or a topographic map of equivalent scale if a USGS map is not available. The location of each CCR unit at the facility must also be identified.

(3) A statement of the purpose(s) for which each CCR management unit at the facility is or was being used.

(4) A description of the physical and engineering properties of the foundation and abutment materials on which each CCR management unit is constructed.

(5) A discussion of any known spills or releases of CCR from each CCR management unit and whether the spills or releases were reported to state or federal agencies.

(6) Any record or knowledge of structural instability of each CCR management unit.

(7) Any record or knowledge of groundwater contamination associated with each CCR management unit.

(8) Size of each CCR management unit, including the general dimensions and an estimate of the volume of waste contained within the unit.

(9) Dates when each CCR management unit first received CCR and when each CCR management unit ceased receiving CCR.

(10) Specification of all CCR wastes that have been managed in each CCR management unit at the facility.

(11) A narrative description, including any applicable engineering drawings or reports of any closure activities that have occurred.

(12) A narrative that documents the nature and extent of field oversight activities and data reviewed as part of the facility evaluation process, and that lists all data and information that was reviewed indicating the absence of CCR management units at the facility.

(13) Any supporting information used to identify and evaluate CCR management units at the facility, including but not limited to any construction diagrams, engineering drawings, permit documents, wastestream flow diagrams, aerial photographs, satellite images, historical facility maps, any field or analytical data, groundwater monitoring data or reports, inspection reports, documentation of interviews with current or former facility workers, and other documents used to identify and assess CCR management units at the facility.

(d) The owner or operator of any facility regulated under this subpart must obtain a certification from a qualified professional engineer stating that the Facility Evaluation Report meets the requirements of paragraph (c) of this section.

(e) The owner or operator of any facility regulated under this subpart must certify the Facility Evaluation Report required by paragraph (c) of this section with the following statement signed by the owner or operator or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(f) The owner or operator of any facility regulated under this subpart that does not contain any CCR management unit must submit a Facility Evaluation Report documenting the steps taken during the facility evaluation to determine the absence of any CCR management unit. The Facility Evaluation Report must include the certifications required under paragraphs (d) and (e) of this section.

(g) The owner or operator of the CCR management unit must comply with the recordkeeping requirements specified in § 257.105(f)(25), the notification requirements specified in § 257.106(f)(24), and the internet requirements specified in § 257.107(f)(24).

■ 9. Amend § 257.80 by revising paragraphs (a), (b) introductory text, (b)(6), the first sentence of (c), and (d) to read as follows:

§ 257.80 Air criteria.

(a) The owner or operator of a CCR landfill, CCR surface impoundment, any lateral expansion of a CCR unit, or CCR management unit must adopt measures that will effectively minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from CCR units, roads, and other CCR management and material handling activities.

(b) *CCR fugitive dust control plan.* The owner or operator of the CCR unit or CCR management unit must prepare and operate in accordance with a CCR fugitive dust control plan as specified in paragraphs (b)(1) through (7) of this section. This requirement applies in addition to, not in place of, any applicable standards under the Occupational Safety and Health Act.

* * * * *

(6) *Amendment of the plan.* The owner or operator subject to the requirements of this section may amend the written CCR fugitive dust control plan at any time provided the revised plan is placed in the facility's operating record as required by § 257.105(g)(1). The owner or operator must amend the written plan whenever there is a change in conditions that would substantially affect the written plan in effect, such as the construction and operation of a new CCR unit.

* * * * *

(c) *Annual CCR fugitive dust control report.* The owner or operator of a CCR unit or a CCR management unit must prepare an annual CCR fugitive dust control report that includes a description of the actions taken by the owner or operator to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken. * * *

(d) The owner or operator of the CCR unit or a CCR management unit must comply with the recordkeeping requirements specified in § 257.105(g), the notification requirements specified in § 257.106(g), and the internet requirements specified in § 257.107(g).

■ 10. Amend § 257.90 by:

■ a. Revising paragraph (a);

■ b. Adding paragraph (b)(3); and

■ c. Revising paragraphs (c), (d), (e) introductory text, (e)(1), (e)(6) introductory text, (e)(6)(i), (ii), (e)(6)(iii)(B), (e)(6)(iv)(B), (C), (D), and (f).

The revisions and addition read as follows:

§ 257.90 Applicability.

(a) *Applicability.* All CCR landfills, CCR surface impoundments, lateral expansions of CCR units, and CCR management units are subject to the groundwater monitoring and corrective action requirements under §§ 257.90 through 257.98, except as provided in paragraph (g) of this section.

(b) * * *

(3) *CCR management units.* The owner or operator of the CCR management unit must be in compliance with the following groundwater monitoring requirements by the dates specified in paragraphs (b)(3)(i) through (iv) of this section:

(i) *Groundwater monitoring system installation.* No later than 6 months after the effective date of the final rule, install the groundwater monitoring system as required by § 257.91.

(ii) *Groundwater monitoring sampling and analysis program.* No later than 6 months after the effective date of the final rule, develop the groundwater sampling and analysis program to include selection of the statistical procedures to be used for evaluating groundwater monitoring data as required by § 257.93.

(iii) *Initiation of detection monitoring and assessment monitoring.* No later than 24 months after the effective date of the final rule, be in compliance with the following groundwater monitoring requirements:

(A) Initiate the detection monitoring program to include obtaining a minimum of eight independent samples for each background and downgradient well, as required by § 257.94(b).

(B) Begin evaluating the groundwater monitoring data for statistically significant increases over background levels for the constituents listed in appendix III of this part, as required by § 257.94.

(C) Begin evaluating the groundwater monitoring data for statistically significant levels over groundwater protection standards for the constituents listed in appendix IV of this part as required by § 257.95.

(c) Once a groundwater monitoring system and groundwater monitoring program has been established at the CCR unit or a CCR management unit as required by this subpart, the owner or operator must conduct groundwater monitoring and, if necessary, corrective action throughout the active life and post-closure care period of the CCR unit or a CCR management unit.

(d) In the event of a release from a CCR unit or a CCR management unit, the owner or operator must immediately take all necessary measures to control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of contaminants into the environment. The owner or operator of the CCR unit or a CCR management unit must comply with all applicable requirements in §§ 257.96, 257.97, and 257.98.

(e) For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For CCR management units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR management unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit or the CCR management unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For the purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1). At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

(1) A map, aerial image, or diagram showing the CCR unit or the CCR management unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit or the CCR management unit;

* * * * *

(6) A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit or the CCR management unit. At a minimum, the summary must specify all of the following:

(i) At the start of the current annual reporting period, whether the CCR unit or the CCR management unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;

(ii) At the end of the current annual reporting period, whether the CCR unit or the CCR management unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;

(iii) * * *

(B) Provide the date when the assessment monitoring program was initiated for the CCR unit or the CCR management unit.

(iv) * * *

(B) Provide the date when the assessment monitoring program was initiated for the CCR unit or the CCR management unit.

(C) Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit or the CCR management unit; and

(D) Provide the date when the assessment of corrective measures was completed for the CCR unit or the CCR management unit.

* * * * *

(f) The owner or operator of the CCR unit or the CCR management unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the internet requirements specified in § 257.107(h).

* * * * *

■ 11. Amend § 257.91 by revising paragraphs (a) introductory text, (a)(1) introductory text, (a)(1)(i), (a)(2), (c)(2), (d), (e)(1), and (g) to read as follows:

§ 257.91 Groundwater monitoring systems.

(a) Performance standard. The owner or operator of a CCR unit or a CCR management unit must install a groundwater monitoring system that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that:

(1) Accurately represent the quality of background groundwater that has not been affected by leakage from a CCR unit or a CCR management unit. A determination of background quality may include sampling of wells that are not hydraulically upgradient of the CCR management area where:

(i) Hydrogeologic conditions do not allow the owner or operator of the CCR unit or the CCR management unit to determine what wells are hydraulically upgradient; or

* * * * *

(2) Accurately represent the quality of groundwater passing the waste boundary of the CCR unit or the CCR management unit. The downgradient monitoring system must be installed at the waste boundary that ensures detection of groundwater contamination in the uppermost aquifer. All potential contaminant pathways must be monitored.

* * * * *

(c) * * *

(2) Additional monitoring wells as necessary to accurately represent the quality of background groundwater that has not been affected by leakage from the CCR unit or the CCR management unit and the quality of groundwater passing the waste boundary of the CCR unit or the CCR management unit.

(d) The owner or operator of multiple CCR units or CCR management units may install a multiunit groundwater monitoring system instead of separate groundwater monitoring systems for each CCR unit or CCR management unit.

(1) The multiunit groundwater monitoring system must be equally as capable of detecting monitored constituents at the waste boundary of the CCR unit or CCR management unit as the individual groundwater monitoring system specified in paragraphs (a) through (c) of this section for each CCR unit or CCR management unit based on the following factors:

(i) Number, spacing, and orientation of each CCR unit or CCR management unit;

(ii) Hydrogeologic setting;

(iii) Site history; and

(iv) Engineering design of the CCR unit or CCR management unit.

(2) [Reserved]

(e) * * *

(1) The owner or operator of the CCR unit or the CCR management unit must document and include in the operating record the design, installation, development, and decommissioning of any monitoring wells, piezometers and other measurement, sampling, and analytical devices. The qualified professional engineer must be given access to this documentation when completing the groundwater monitoring system certification required under paragraph (f) of this section.

* * * * *

(g) The owner or operator of the CCR unit or the CCR management unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the internet requirements specified in § 257.107(h).

■ 12. Amend § 257.93 by revising paragraphs (a) introductory text, (c), (d), (f) introductory text, (f)(6), (g)(1), (h), and (j) to read as follows:

§ 257.93 Groundwater sampling and analysis requirements.

(a) The groundwater monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and downgradient wells required by § 257.91. The owner or operator of the CCR unit or the CCR management unit must develop a sampling and analysis program that includes procedures and techniques for:

* * * * *

(c) Groundwater elevations must be measured in each well immediately prior to purging, each time groundwater is sampled. The owner or operator of the CCR unit or the CCR management unit must determine the rate and direction of groundwater flow each time groundwater is sampled. Groundwater elevations in wells which monitor the same CCR management area must be measured within a period of time short enough to avoid temporal variations in groundwater flow which could preclude accurate determination of groundwater flow rate and direction.

(d) The owner or operator of the CCR unit or the CCR management unit must establish background groundwater quality in a hydraulically upgradient or background well(s) for each of the constituents required in the particular groundwater monitoring program that applies to the CCR unit as determined under § 257.94(a) or § 257.95(a). Background groundwater quality may be established at wells that are not located hydraulically upgradient from the CCR unit or the CCR management unit if it meets the requirements of § 257.91(a)(1).

* * * * *

(f) The owner or operator of the CCR unit or the CCR management unit must select one of the statistical methods specified in paragraphs (f)(1) through (5) of this section to be used in evaluating groundwater monitoring data for each specified constituent. The statistical test chosen shall be conducted separately for each constituent in each monitoring well.

* * * * *

(6) The owner or operator of the CCR unit or the CCR management unit must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority stating that the selected statistical method is appropriate for evaluating the groundwater monitoring data for the CCR management area. The certification must include a narrative description of the statistical method selected to evaluate the groundwater monitoring data.

(g) * * *

(1) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of constituents. Normal distributions of data values shall use parametric methods. Non-normal distributions shall use non-parametric methods. If the distribution of the constituents is shown by the owner or operator of the CCR unit or the CCR management unit to be inappropriate for a normal theory test, then the data must be transformed or a distribution-free (non-parametric) theory test must be used. If the distributions for the constituents differ, more than one statistical method may be needed.

* * * * *

(h) The owner or operator of the CCR unit or the CCR management unit must determine whether or not there is a statistically significant increase over background values for each constituent required in the particular groundwater monitoring program that applies to the CCR unit or the CCR management unit, as determined under § 257.94(a) or § 257.95(a).

* * * * *

(j) The owner or operator of the CCR unit or the CCR management unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the internet requirements specified in § 257.107(h).

■ 13. Amend § 257.94 by revising paragraphs (a), (b) and (f) to read as follows:

§ 257.94 Detection monitoring program.

(a) The owner or operator of a CCR unit or a CCR management unit must conduct detection monitoring at all groundwater monitoring wells consistent with this section. At a minimum, a detection monitoring program must include groundwater monitoring for all constituents listed in appendix III to this part.

(b) Except as provided in paragraph (d) of this section, the monitoring frequency for the constituents listed in appendix III to this part shall be at least semiannual during the active life of the CCR unit or the CCR management unit and the post-closure period. For existing CCR landfills and existing CCR surface impoundments, a minimum of eight independent samples from each background and downgradient well must be collected and analyzed for the constituents listed in appendix III and IV to this part no later than October 17, 2017. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, a minimum of eight independent samples for each background well must be collected and analyzed for the constituents listed in appendices III and IV to this part during the first six months of sampling. For CCR management units, a minimum of eight independent samples from each background and downgradient well must be collected and analyzed for the constituents listed in appendix III and IV to this part no later than 24 months after effective date of the final rule.

* * * * *

(f) The owner or operator of the CCR unit or the CCR management unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the internet requirements specified in § 257.107(h).

■ 14. Amend § 257.95 by revising paragraphs (b), (e), (g) introductory text, (g)(1) introductory text, the first sentence of (g)(3)(ii), paragraphs (g)(4), (h) introductory text, and (i) to read as follows:

§ 257.95 Assessment monitoring program.

* * * * *

(b)(1) Within 90 days of triggering an assessment monitoring program, and annually thereafter:

(i) The owner or operator of the CCR unit must sample and analyze the groundwater for all constituents listed in appendix IV to this part.

(ii) The owner or operator of a CCR management unit must sample and analyze the groundwater for all constituents listed in appendix IV to this part no later than 24 months after effective date of the final rule.

(2) The number of samples collected and analyzed for each well during each sampling event must be consistent with § 257.93(e) and must account for any unique characteristics of the site, but must be at least one sample from each well.

* * * * *

(e) If the concentrations of all constituents listed in appendices III and IV to this part are shown to be at or below background values, using the statistical procedures in § 257.93(g), for two consecutive sampling events, the owner or operator may return to detection monitoring of the CCR unit or the CCR management unit. The owner or operator must prepare a notification stating that detection monitoring is resuming for the CCR unit or the CCR management unit. The owner or operator has completed the notification when the notification is placed in the facility's operating record as required by § 257.105(h)(7).

* * * * *

(g) If one or more constituents in appendix IV to this part are detected at statistically significant levels above the groundwater protection standard established under paragraph (h) of this section in any sampling event, the owner or operator must prepare a notification identifying the constituents in appendix IV to this part that have exceeded the groundwater protection standard. The owner or operator has completed the notification when the notification is placed in the facility's operating record as required by § 257.105(h)(8). The owner or operator of the CCR unit or the CCR management unit also must:

(1) Characterize the nature and extent of the release and any relevant site conditions that may affect the remedy ultimately selected. The characterization must be sufficient to support a complete and accurate assessment of the corrective measures necessary to effectively clean up all releases from the CCR unit or the CCR management unit pursuant to § 257.96. Characterization of the release includes the following minimum measures:

* * * * *

(3) * * *

(ii) Demonstrate that a source other than the CCR unit or the CCR management unit caused the contamination, or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. * * *

(4) If a successful demonstration has not been made at the end of the 90 day period provided by paragraph (g)(3)(ii) of this section, the owner or operator of the CCR unit or the CCR management unit must initiate the assessment of corrective measures requirements under § 257.96.

* * * * *

(h) The owner or operator of the CCR unit or the CCR management unit must establish a groundwater protection standard for each constituent in appendix IV to this part detected in the groundwater. The groundwater protection standard shall be:

* * * * *

(i) The owner or operator of the CCR unit or the CCR management unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the internet requirements specified in § 257.107(h).

■ 15. Amend § 257.96 by revising paragraphs (a), (b), and (f) to read as follows:

§ 257.96 Assessment of corrective measures.

(a) Within 90 days of finding that any constituent listed in Appendix IV to this part has been detected at a statistically significant level exceeding the groundwater protection standard defined under § 257.95(h), or immediately upon detection of a release from a CCR unit or a CCR management unit, the owner or operator must initiate an assessment of corrective measures to prevent further releases, to remediate any releases and to restore affected area to original conditions.

(b) The owner or operator of the CCR unit or the CCR management unit must continue to monitor groundwater in accordance with the assessment monitoring program as specified in § 257.95.

* * * * *

(f) The owner or operator of the CCR unit or the CCR management unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the internet requirements specified in § 257.107(h).

■ 16. Amend § 257.97 by revising paragraphs (c) introductory text, (d) introductory text, and (e) to read as follows:

§ 257.97 Selection of remedy.

* * * * *

(c) In selecting a remedy that meets the standards of paragraph (b) of this section, the owner or operator of the CCR unit or the CCR management unit shall consider the following evaluation factors:

* * * * *

(d) The owner or operator must specify as part of the selected remedy a schedule(s) for implementing and completing remedial activities. Such a schedule must require the completion of remedial activities within a reasonable period of time taking into consideration the factors set forth in paragraphs (d)(1) through (6) of this section. The owner or operator of the CCR unit or the CCR management unit must consider the following factors in determining the schedule of remedial activities:

* * * * *

(e) The owner or operator of the CCR unit or the CCR management unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the internet requirements specified in § 257.107(h).

■ 17. Amend § 257.98 by revising paragraphs (a)(3) introductory text, (b), (c)(1), and (f) to read as follows:

§ 257.98 Implementation of the corrective action program.

(a) * * *

(3) Take any interim measures necessary to reduce the contaminants leaching from the CCR unit or the CCR management unit, and/or potential exposures to human or ecological receptors. Interim measures must, to the greatest extent feasible, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to § 257.97. The following factors must be considered by an owner or operator in determining whether interim measures are necessary:

* * * * *

(b) If an owner or operator of the CCR unit or the CCR management unit, determines, at any time, that compliance with the requirements of § 257.97(b) is not being achieved through the remedy selected, the owner or operator must implement other methods or techniques that could feasibly achieve compliance with the requirements.

(c) * * *

(1) The owner or operator of the CCR unit or the CCR management unit demonstrates compliance with the groundwater protection standards established under § 257.95(h) has been achieved at all points within the plume of contamination that lie beyond the groundwater monitoring well system established under § 257.91.

* * * * *

(f) The owner or operator of the CCR unit or the CCR management unit must comply with the recordkeeping requirements specified in § 257.105(h), the notification requirements specified in § 257.106(h), and the internet requirements specified in § 257.107(h).

■ 18. Amend § 257.100 by revising the section heading and paragraph (a), and adding paragraph (f) to read as follows:

§ 257.100 Inactive CCR surface impoundments and Legacy CCR surface impoundments.

(a) Inactive CCR surface impoundments and legacy CCR surface impoundments are subject to all of the requirements of this subpart applicable to existing CCR surface impoundments.

* * * * *

(f) *Timeframes for legacy CCR surface impoundments*—(1) *Legacy CCR surface impoundment applicability documentation.* (i) Excepted as provided in paragraph (f)(1)(ii) of this section, owners and operators of legacy CCR surface impoundments must prepare documentation for each legacy CCR surface impoundment subject to the requirements of this subpart no later than the date the final rule is effective. At a minimum, the documentation for each legacy CCR surface impoundment must contain:

(A) Information to identify the legacy CCR surface impoundment and delineate the unit boundaries, including a figure of the facility and where the unit is located at the facility.

(B) The name associated with the legacy CCR surface impoundment.

(C) The identification number of the legacy CCR surface impoundment if one has been assigned by the state.

(D) Size of the legacy CCR surface impoundment (in acres).

(E) A description of the current site conditions, including the current use of the inactive facility.

(F) The proximity (in feet, or miles, if appropriate) of the legacy CCR surface impoundment to the closest surface water body.

(G) The name and address of the person(s) owning and operating the legacy CCR surface impoundment with their phone number and email address.

(H) The owner or operator of the legacy CCR surface impoundment must notify the Agency of the establishment of the facility's CCR website and the applicability of the rule, using the procedures in § 257.107(a) via the ''contact us'' form on EPA's CCR website.

(ii) For owners and operators of legacy CCR surface impoundments that completed closure of the CCR unit by removal of waste prior to the effective date of the final rule, no later than the effective date of the final rule, complete a closure certification documenting that all closure requirements in § 257.102(c) have been met.

(2) *Design criteria.* The owner or operator of a legacy CCR surface impoundment must:

(i) Except for legacy CCR surface impoundments that are incised, no later than the date the final rule is effective, place on or immediately adjacent to the CCR unit the permanent identification marker as set forth by § 257.73(a)(1).

(ii) Except for legacy CCR surface impoundments that do not exceed the height and/or storage volume thresholds under § 257.73(b), no later than three months after the date the final rule is effective, compile a history of construction as set forth by § 257.73(c).

(iii) Except for legacy CCR surface impoundments that are incised, no later than three months after the date the final rule is effective, complete the initial hazard potential classification assessment as set forth by § 257.73(a)(2) and (f).

(iv) Except for legacy CCR surface impoundments that do not exceed the height and/or storage volume thresholds under § 257.73(b), no later than three months after the date the final rule is effective, complete the structural stability and safety factor assessments as set forth by § 257.73(d), (e), and (f).

(v) Except for legacy CCR surface impoundments that are incised, no later than nine months after the date the final rule is effective, prepare and maintain an Emergency Action Plan as set forth by § 257.73(a)(3).

(3) *Operating criteria.* The owner or operator of the legacy CCR surface impoundment must:

(i) No later than the date the final rule is effective, prepare the initial CCR fugitive dust control plan as set forth in § 257.80(b).

(ii) No later than the date the final rule is effective, initiate the inspections by a qualified person as set forth by § 257.83(a).

(iii) No later than the date the final rule is effective, prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the legacy CCR surface impoundment.

(iv) No later than three months after the date the final rule is effective, complete the initial annual inspection by a qualified professional engineer as set forth by § 257.83(b).

(v) No later than nine months after the date the final rule is effective, prepare the initial inflow design flood control system plan as set forth in § 257.82(c).

(vi) No later than 12 months after the date the final rule is effective, prepare the initial annual fugitive dust control report as set forth in § 257.80(c).

(4) *Groundwater monitoring and corrective action.* The owner or operator of the legacy CCR surface impoundment must:

(i) No later than six months after the date the final rule is effective, install the groundwater monitoring system as required by § 257.91.

(ii) No later than six months after the date the final rule is effective, develop the groundwater sampling and analysis program, including the selection of the statistical procedures, that will be used for evaluating groundwater monitoring data as required by § 257.93.

(iii) No later than 24 months after the date the final rule is effective, be in compliance with the following groundwater monitoring requirements:

(A) Initiate the detection monitoring program to include obtaining a minimum of eight independent samples for each background and downgradient well, as required by § 257.94(b).

(B) Begin evaluating the groundwater monitoring data for statistically significant increases over background levels for the constituents listed in appendix III of this part, as required by § 257.94.

(C) Begin evaluating the groundwater monitoring data for statistically significant levels over groundwater protection standards for the constituents listed in appendix IV of this part as required by § 257.95.

(iv) No later than January 31 of the year after the groundwater monitoring system is established, prepare the initial groundwater monitoring and corrective action report as set forth in § 257.90(e).

(5) *Closure and post-closure care.* The owner or operator of the legacy CCR surface impoundment must:

(i) No later than 12 months after the date the final rule is effective, prepare an initial written closure plan as set forth in § 257.102(b); and

(ii) No later than 12 months after the date the final rule is effective, prepare an initial written post-closure care plan as set forth in § 257.104(d).

■ 19. Amend § 257.101 by adding paragraphs (e) and (f) to read as follows:

§ 257.101 Closure or retrofit of CCR units and CCR management units.

* * * * *

(e) The owner or operator of a legacy CCR surface impoundment is subject to the requirements of paragraphs (e)(1) and (2) of this section.

(1) No later than 12 months after the date the final rule is effective, an owner or operator of a legacy CCR surface impoundment must initiate the closure of the legacy CCR surface impoundment in accordance with the requirements of § 257.102.

(2) An owner or operator of a legacy CCR surface impoundment that closes in accordance with paragraph (e)(1) of this section must include a statement in the notification required under § 257.102(g) that the legacy CCR surface impoundment is closing under the requirement of paragraph (e)(1) of this section.

(f) The owner or operator of a CCR management unit is subject to the requirements of paragraphs (f)(1) and (2) of this section.

(1) No later than 12 months after the date the final rule is effective, an owner or operator of a CCR management unit must initiate the closure of the CCR management unit in accordance with the requirements of § 257.102.

(2) An owner or operator of a CCR management unit that closes in accordance with paragraph (f)(1) of this section must include a statement in the notification required under § 257.102(g) that the CCR management unit is closing under the requirements of paragraph (f)(1) of this section.

■ 20. Amend § 257.102 by:

■ a. Revising paragraphs (a), (b)(1), and (b)(2)(iii);

■ b. Adding paragraph (b)(2)(iv);

■ c. Revising paragraphs (b)(3)(ii)(A), (b)(3)(iii), (b)(4), (c), (d)(1) introductory text, (d)(1)(iv), (d)(2) introductory text, (d)(3) introductory text, (d)(3)(i)(B), (d)(3)(iii), (e) introductory text, and (f)(1) introductory text;

■ d. Adding paragraph (f)(1)(iii); and

■ e. Revising paragraphs (f)(2)(i) introductory text, (f)(2)(i)(B), and (C);

■ f. Adding paragraphs (f)(2)(ii)(D) and (E); and

■ g. Revising paragraphs (f)(2)(iii), (f)(3), (g), (h), (i)(1), (i)(2)(i), (i)(4), and (j).

The revisions and additions read as follows:

§ 257.102 Criteria for conducting the closure or retrofit of CCR units and closure of CCR management units.

(a) Closure of a CCR landfill, CCR surface impoundment, any lateral expansion of a CCR unit, or a CCR management unit must be completed either by leaving the CCR in place and installing a final cover system or through removal of the CCR and decontamination of the CCR unit or CCR management unit, as described in paragraphs (b) through (j) of this section. Retrofit of a CCR surface impoundment must be completed in accordance with the requirements in paragraph (k) of this section.

(b) * * *

(1) *Content of the plan.* The owner or operator of a CCR unit or a CCR management unit must prepare a written closure plan that describes the steps necessary to close the CCR unit or the CCR management unit at any point during the active life of the CCR unit or CCR management unit consistent with recognized and generally accepted good engineering practices. The written closure plan must include, at a minimum, the information specified in paragraphs (b)(1)(i) through (vi) of this section.

(i) A narrative description of how the CCR unit or CCR management unit will be closed in accordance with this section.

(ii) If closure of the CCR unit or CCR management unit will be accomplished through removal of CCR from the CCR unit or CCR management unit, a description of the procedures to remove the CCR and decontaminate the CCR unit or CCR management unit in accordance with paragraph (c) of this section.

(iii) If closure of the CCR unit or CCR management unit will be accomplished by leaving CCR in place, a description of the final cover system, designed in accordance with paragraph (d) of this section, and the methods and procedures to be used to install the final cover. The closure plan must also discuss how the final cover system will achieve the performance standards specified in paragraph (d) of this section.

(iv) An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit or CCR management unit.

(v) An estimate of the largest area of the CCR unit or CCR management unit ever requiring a final cover as required by paragraph (d) of this section at any time during the CCR unit's active life.

(vi) A schedule for completing all activities necessary to satisfy the closure criteria in this section, including an estimate of the year in which all closure activities for the CCR unit or CCR management unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit or CCR management unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of CCR surface impoundment or CCR management unit closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of CCR unit or CCR management unit closure. When preparing the written closure plan, if the owner or operator of a CCR unit or CCR management unit estimates that the time required to complete closure will exceed the timeframes specified in paragraph (f)(1) of this section, the written closure plan must include the site-specific information, factors and considerations that would support any time extension sought under paragraph (f)(2) of this section.

(2) * * *

(iii) *CCR management units.* No later than 12 months after effective date of the final rule, the owner or operator of the CCR management unit must prepare an initial written closure plan consistent with the requirements specified in paragraph (b)(1) of this section.

(iv) The owner or operator has completed the written closure plan when the plan, including the certification required by paragraph (b)(4) of this section, has been placed in the facility's operating record as required by § 257.105(i)(4).

(3) * * *

(ii) * * *

(A) There is a change in the operation of the CCR unit or CCR management unit that would substantially affect the written closure plan in effect; or

* * * * *

(iii) The owner or operator must amend the closure plan at least 60 days prior to a planned change in the operation of the facility, CCR unit, or CCR management unit or no later than 60 days after an unanticipated event requires the need to revise an existing written closure plan. If a written closure plan is revised after closure activities have commenced for a CCR unit or a CCR management unit, the owner or operator must amend the current closure plan no later than 30 days following the triggering event.

(4) The owner or operator of the CCR unit or the CCR management unit must obtain a written certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority that the initial and any amendment of the written closure plan meets the requirements of this section.

(c) *Closure by removal of CCR.* An owner or operator may elect to close a CCR unit or a CCR management unit by removing and decontaminating all areas affected by releases from the CCR unit or the CCR management unit. CCR removal and decontamination of the CCR unit or CCR management unit are complete when constituent concentrations throughout the CCR unit or the CCR management unit and any areas affected by releases from the CCR unit or CCR management unit have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standard established pursuant to § 257.95(h) for constituents listed in appendix IV to this part.

(d) * * *

(1) *General performance standard.* The owner or operator of a CCR unit or CCR management unit must ensure that, at a minimum, the CCR unit or CCR management unit is closed in a manner that will:

* * * * *

(iv) Minimize the need for further maintenance of the CCR unit or the CCR management unit; and

* * * * *

(2) *Drainage and stabilization of CCR units and CCR management units.* The owner or operator of any CCR unit or CCR management unit must meet the requirements of paragraphs (d)(2)(i) and (ii) of this section prior to installing the final cover system required under paragraph (d)(3) of this section.

* * * * *

(3) *Final cover system.* If a CCR unit or CCR management unit is closed by leaving CCR in place, the owner or operator must install a final cover system that is designed to minimize infiltration and erosion, and at a minimum, meets the requirements of paragraph (d)(3)(i) of this section, or the requirements of the alternative final cover system specified in paragraph (d)(3)(ii) of this section.

(i) * * *

(B) The infiltration of liquids through the closed CCR unit or CCR management unit must be minimized by the use of an infiltration layer that contains a minimum of 18 inches of earthen material.

* * * * *

(iii) The owner or operator of the CCR unit or the CCR management unit must obtain a written certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority that the design of the final cover system meets the requirements of this section.

(e) *Initiation of closure activities.* Except as provided for in paragraph (e)(4) of this section and § 257.103, the owner or operator of a CCR unit must commence closure of the CCR unit no later than the applicable timeframes specified in either paragraph (e)(1) or (2) of this section. CCR management units are subject to the requirements of paragraph (e)(3) of this section.

* * * * *

(f) * * *

(1) Except as provided for in paragraph (f)(2) of this section, the owner or operator must complete closure of the CCR unit or the CCR management unit:

* * * * *

(iii) For CCR management units, within five years of commencing closure activities.

(2) * * *

(i) *Extensions of closure timeframes.* The timeframes for completing closure of a CCR unit or a CCR management unit specified under paragraphs (f)(1) of this section may be extended if the owner or operator can demonstrate that it was not feasible to complete closure of the CCR unit or the CCR management unit within the required timeframes due to factors beyond the facility's control. If the owner or operator is seeking a time extension beyond the time specified in the written closure plan as required by paragraph (b)(1) of this section, the demonstration must include a narrative discussion providing the basis for additional time beyond that specified in the closure plan. The owner or operator must place each completed demonstration, if more than one time extension is sought, in the facility's operating record as required by § 257.105(i)(6) prior to the end of any two-year period. Factors that may support such a demonstration include:

* * * * *

(B) Time required to dewater a surface impoundment or a CCR management unit due to the volume of CCR contained in the CCR unit or the characteristics of the CCR in the unit;

(C) The geology and terrain surrounding the CCR unit or the CCR management unit will affect the amount of material needed to close the CCR unit or the CCR management unit; or

* * * * *

(ii) * * *

(D) CCR management units of 40 acres or smaller may extend the time to complete closure by no longer than two years.

(E) CCR management units larger than 40 acres may extend the timeframe to complete closure of the CCR management unit multiple times, in two-year increments. For each two-year extension sought, the owner or operator must substantiate the factual circumstances demonstrating the need for the extension. No more than a total of five two-year extensions may be obtained for any CCR management unit.

(iii) In order to obtain additional time extension(s) to complete closure of a CCR unit or a CCR management unit beyond the times provided by paragraph (f)(1) of this section, the owner or operator of the CCR unit or the CCR management unit must include with the demonstration required by paragraph (f)(2)(i) of this section the following statement signed by the owner or operator or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(3) Upon completion, the owner or operator of the CCR unit or the CCR management unit must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the

permitting authority verifying that closure has been completed in accordance with the closure plan specified in paragraph (b) of this section and the requirements of this section.

(g) No later than the date the owner or operator initiates closure of a CCR unit or CCR management unit, the owner or operator must prepare a notification of intent to close a CCR unit or CCR management unit. The notification must include the certification by a qualified professional engineer or the approval from the Participating State Director or the approval from EPA where EPA is the permitting authority for the design of the final cover system as required by § 257.102(d)(3)(iii), if applicable. The owner or operator has completed the notification when it has been placed in the facility's operating record as required by § 257.105(i)(7).

(h) Within 30 days of completion of closure of the CCR unit or CCR management unit, the owner or operator must prepare a notification of closure of a CCR unit or CCR management unit. The notification must include the certification by a qualified professional engineer or the approval from the Participating State Director or the approval from EPA where EPA is the permitting authority as required by § 257.102(f)(3). The owner or operator has completed the notification when it has been placed in the facility's operating record as required by § 257.105(i)(8).

(i) * * *

(1) Except as provided by paragraph (i)(4) of this section, following closure of a CCR unit or CCR management unit, the owner or operator must record a notation on the deed to the property, or some other instrument that is normally examined during title search.

(2) * * *

(i) The land has been used as a CCR unit or CCR management unit; and

* * * * *

(4) An owner or operator that closes a CCR unit or CCR management unit in accordance with paragraph (c) of this section is not subject to the requirements of paragraphs (i)(1) through (3) of this section.

(j) The owner or operator of the CCR unit or CCR management unit must comply with the closure recordkeeping requirements specified in § 257.105(i), the closure notification requirements specified in § 257.106(i), and the closure internet requirements specified in § 257.107(i).

* * * * *

■ 21. Amend § 257.104 by revising paragraphs (a), (b) introductory text, (b)(2), (c), (d)(1), (2), (d)(3)(ii)(A), (d)(3)(iii), (d)(4), (e), and (f) to read as follows:

§ 257.104 Post-closure care requirements.

(a) *Applicability.* (1) Except as provided by paragraph (a)(2) of this section, § 257.104 applies to the owners or operators of CCR landfills, CCR surface impoundments, all lateral expansions of CCR units, and CCR management units that are subject to the closure criteria under § 257.102.

(2) An owner or operator of a CCR unit or a CCR management unit that elects to close a CCR unit or a CCR management unit by removing CCR as provided by § 257.102(c) is not subject to the post-closure care criteria under this section.

(b) *Post-closure care maintenance requirements.* Following closure of the CCR unit or the CCR management unit, the owner or operator must conduct post-closure care for the CCR unit or the CCR management unit, which must consist of at least the following:

* * * * *

(2) If the CCR unit or the CCR management unit is subject to the design criteria under § 257.70, maintaining the integrity and effectiveness of the leachate collection and removal system and operating the leachate collection and removal system in accordance with the requirements of § 257.70; and

* * * * *

(c) *Post-closure care period.* (1) Except as provided by paragraph (c)(2) of this section, the owner or operator of the CCR unit or the CCR management unit must conduct post-closure care for 30 years.

(2) If at the end of the post-closure care period the owner or operator of the CCR unit or the CCR management unit is operating under assessment monitoring in accordance with § 257.95, the owner or operator must continue to conduct post-closure care until the owner or operator returns to detection monitoring in accordance with § 257.95.

(d) * * *

(1) *Content of the plan.* The owner or operator of a CCR unit or a CCR management unit must prepare a written post-closure plan that includes, at a minimum, the information specified in paragraphs (d)(1)(i) through (iii) of this section.

(i) A description of the monitoring and maintenance activities required in paragraph (b) of this section for the CCR unit or the CCR management unit, and the frequency at which these activities will be performed;

(ii) The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period; and

(iii) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this subpart. Any other disturbance is allowed if the owner or operator of the CCR unit or the CCR management unit demonstrates that disturbance of the final cover, liner, or other component of the containment system, including any removal of CCR, will not increase the potential threat to human health or the environment. The demonstration must be certified by a qualified professional engineer or approved by the Participating State Director or approved from EPA where EPA is the permitting authority, and notification shall be provided to the State Director that the demonstration has been placed in the operating record and on the owners or operator's publicly accessible internet site.

(2) *Deadline to prepare the initial written post-closure plan*—(i) *Existing CCR landfills and existing CCR surface impoundments.* No later than October 17, 2016, the owner or operator of the CCR unit must prepare an initial written post-closure plan consistent with the requirements specified in paragraph (d)(1) of this section.

(ii) *New CCR landfills, new CCR surface impoundments, and any lateral expansion of a CCR unit.* No later than the date of the initial receipt of CCR in the CCR unit, the owner or operator must prepare an initial written post-closure plan consistent with the requirements specified in paragraph (d)(1) of this section.

(iii) *CCR Management Units.* No later than 12 months after effective date of the final rule, the owner or operator of a CCR management unit must prepare an initial written post-closure care plan as set forth in paragraph (d)(1) of this section.

(iv) The owner or operator has completed the written post-closure plan when the plan, including the certification required by paragraph (d)(4) of this section, has been placed in the facility's operating record as required by § 257.105(i)(4).

(3) * * *

(ii) * * *

(A) There is a change in the operation of the CCR unit or the CCR management unit that would substantially affect the written post-closure plan in effect; or

* * * * *

(iii) The owner or operator must amend the written post-closure plan at least 60 days prior to a planned change in the operation of the facility or CCR unit, or CCR management unit, or no later than 60 days after an unanticipated event requires the need to revise an existing written post-closure plan. If a written post-closure plan is revised after post-closure activities have commenced for a CCR unit or a CCR management unit, the owner or operator must amend the written post-closure plan no later than 30 days following the triggering event.

(4) The owner or operator of the CCR unit or the CCR management unit must obtain a written certification from a qualified professional engineer or an approval from the Participating State Director or an approval from EPA where EPA is the permitting authority that the initial and any amendment of the written post-closure plan meets the requirements of this section.

(e) Notification of completion of post-closure care period. No later than 60 days following the completion of the post-closure care period, the owner or operator of the CCR unit or the CCR management unit must prepare a notification verifying that post-closure care has been completed. The notification must include the certification by a qualified professional engineer or the approval from the Participating State Director or the approval from EPA where EPA is the permitting authority verifying that post-closure care has been completed in accordance with the closure plan specified in paragraph (d) of this section and the requirements of this section. The owner or operator has completed the notification when it has been placed in the facility's operating record as required by § 257.105(i)(13).

(f) The owner or operator of the CCR unit or the CCR management unit must comply with the recordkeeping requirements specified in § 257.105(i), the notification requirements specified in § 257.106(i), and the internet requirements specified in § 257.107(i).

■ 22. Amend § 257.105 by:
■ a. Revising paragraphs (a), (b), (c), (d) and (f) introductory text;
■ b. Adding paragraph (f)(25);
■ c. Revising paragraphs (g) introductory text, (h) introductory text, (i) introductory text, (i)(7), and (8): and
■ d. Adding paragraph (k).

The revisions and additions read as follows:

§ 257.105 Recordkeeping requirements.

(a) *Operating Record.* Each owner or operator of a CCR unit or CCR management unit subject to the requirements of this subpart must maintain files of all information required by this section in a written operating record at their facility.

(b) *Document Retention.* Unless specified otherwise, each file must be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, record, or study.

(c) *Recordkeeping for multiple CCR units or CCR management units.* An owner or operator of more than one CCR unit or CCR management unit subject to the provisions of this subpart may comply with the requirements of this section in one recordkeeping system provided the system identifies each file by the name of each CCR unit. The files may be maintained on microfilm, on a computer, on computer disks, on a storage system accessible by a computer, on magnetic tape disks, or on microfiche.

(d) *State Director and/or appropriate Tribal authority notification.* The owner or operator of a CCR unit or CCR management unit must submit to the State Director and/or appropriate Tribal authority any demonstration or documentation required by this subpart, if requested, when such information is not otherwise available on the owner or operator's publicly accessible internet site.

* * * * *

(f) *Design criteria.* The owner or operator of a CCR unit or CCR management unit subject to this subpart must place the following information, as it becomes available, in the facility's operating record:

* * * * *

(25) The Facility Evaluation Report as required by § 257.75(c).

(g) *Operating criteria.* The owner or operator of a CCR unit or CCR management unit subject to this subpart must place the following information, as it becomes available, in the facility's operating record:

* * * * *

(h) *Groundwater monitoring and corrective action.* The owner or operator of a CCR unit or CCR management unit subject to this subpart must place the following information, as it becomes available, in the facility's operating record:

* * * * *

(i) *Closure and post-closure care.* The owner or operator of a CCR unit or CCR management unit subject to this subpart must place the following information, as it becomes available, in the facility's operating record:

* * * * *

(7) The notification of intent to close a CCR unit or CCR management unit as required by § 257.102(g).

(8) The notification of completion of closure of a CCR unit or CCR management unit as required by § 257.102(h).

* * * * *

(k) *Legacy CCR surface impoundments.* In addition to the information specified in paragraphs (e) through (j) of this section, the owner or operator of a legacy CCR surface impoundment subject to this subpart must place the following information, as it becomes available, in the facility's operating record:

(1) The applicability documentation required by § 257.100(f)(1)(i).

(2) The completion of closure by removal certification as specified under § 257.100(f)(1)(ii).

■ 23. Amend § 257.106 by:
■ a. Revising paragraphs (a), (b), (c), (d), and (f) introductory text;
■ b. Adding paragraph (f)(24);
■ c. Revising paragraphs (g) introductory text, (h) introductory text, (h)(5), (i) introductory text, (i)(7), and (8); and
■ d. Adding paragraph (k).

The revisions and additions read as follows:

§ 257.106 Notification requirements.

(a) *Deadline to submit notification to the relevant State Director and/or appropriate Tribal authority.* The notifications required under paragraphs (e) through (i) of this section must be sent to the relevant State Director and/or appropriate Tribal authority before the close of business on the day the notification is required to be completed. For purposes of this section, *before the close of business* means the notification must be postmarked or sent by electronic mail (email). If a notification deadline falls on a weekend or federal holiday, the notification deadline is automatically extended to the next business day.

(b) *Notifications to Tribal authority.* If any CCR unit or CCR management unit is located in its entirety within Indian Country, the notifications of this section must be sent to the appropriate Tribal authority. If any CCR unit or CCR management unit is located in part within Indian Country, the notifications of this section must be sent both to the appropriate State Director and Tribal authority.

(c) *Combining notifications.* Notifications may be combined as long as the deadline requirement for each notification is met.

(d) *Notification deadline after placement in operating record.* Unless otherwise required in this section, the notifications specified in this section must be sent to the State Director and/or appropriate Tribal authority within 30 days of placing in the operating record the information required by § 257.105.

* * * * *

(f) *Design criteria.* The owner or operator of a CCR unit or CCR management unit subject to this subpart must notify the State Director and/or appropriate Tribal authority when information has been placed in the operating record and on the owner or operator's publicly accessible internet site. The owner or operator must:

* * * * *

(24) Provide notification of the availability of the Facility Evaluation Report as specified by § 257.105(f)(25).

(g) *Operating criteria.* The owner or operator of a CCR unit or CCR management unit subject to this subpart must notify the State Director and/or appropriate Tribal authority when information has been placed in the operating record and on the owner or operator's publicly accessible internet site. The owner or operator must:

* * * * *

(h) *Groundwater monitoring and corrective action.* The owner or operator of a CCR unit or CCR management unit subject to this subpart must notify the State Director and/or appropriate Tribal authority when information has been placed in the operating record and on the owner or operator's publicly accessible internet site. The owner or operator must:

* * * * *

(5) Provide notification that the CCR unit or CCR management unit is returning to a detection monitoring program specified under § 257.105(h)(7).

* * * * *

(i) *Closure and post-closure care.* The owner or operator of a CCR unit or CCR management unit subject to this subpart must notify the State Director and/or appropriate Tribal authority when information has been placed in the operating record and on the owner or operator's publicly accessible internet site. The owner or operator must:

* * * * *

(7) Provide notification of intent to close a CCR unit or CCR management unit specified under § 257.105(i)(7).

(8) Provide notification of completion of closure of a CCR unit or CCR management unit specified under § 257.105(i)(8).

* * * * *

(k) *Legacy CCR surface impoundments.* In addition to the information specified in paragraphs (e) through (j) of this section, the owner or operator of a legacy CCR surface impoundment subject to this subpart must notify the State Director and/or appropriate Tribal authority when information has been placed in the operating record and on the owner or operator's publicly accessible internet site. The owner or operator must:

(1) Provide notification of the availability of the applicability documentation as specified under § 257.105(k)(1).

(2) Provide notification of the availability of the completion of closure by removal certification as specified under § 257.105(k)(2).

■ 24. Amend § 257.107 by:

■ a. In paragraph (a) adding a paragraph heading and revising the first sentence;

■ b. Revising paragraphs (b), (c), (d), and (f) introductory text;

■ c. Adding paragraph (f)(24);

■ d. Revising paragraphs (g) introductory text, (h) introductory text and (h)(5);

■ e. Revising paragraphs (i) introductory text, (i)(7), and (8); and

■ f. Adding paragraph (k).

The revisions and additions read as follows:

§ 257.107 Publicly accessible internet site requirements.

(a) *CCR website requirement.* Each owner or operator of a CCR unit or CCR management unit subject to the requirements of this subpart must maintain a publicly accessible internet site (CCR website) containing the information specified in this section. * * *

(b) *CCR website for multiple units.* An owner or operator of more than one CCR unit or CCR management unit subject to the provisions of this subpart may comply with the requirements of this section by using the same CCR website for multiple CCR units or CCR management units provided the CCR website clearly delineates information by the name or identification number of each unit.

(c) *Document retention on a CCR website.* Unless otherwise required in this section, the information required to be posted to the CCR website must be made available to the public for at least five years following the date on which the information was first posted to the CCR website.

(d) *Website posting deadline after placement in operating record.* Unless otherwise required in this section, the information must be posted to the CCR website within 30 days of placing the pertinent information required by § 257.105 in the operating record.

* * * * *

(f) *Design criteria.* The owner or operator of a CCR unit or CCR management unit subject to this subpart must place the following information on the owner or operator's CCR website:

* * * * *

(24) The Facility Evaluation Report as specified under § 257.105(f)(25).

(g) *Operating criteria.* The owner or operator of a CCR unit or CCR management unit subject to this subpart must place the following information on the owner or operator's CCR website:

* * * * *

(h) *Groundwater monitoring and corrective action.* The owner or operator of a CCR unit or CCR management unit subject to this subpart must place the following information on the owner or operator's CCR website:

* * * * *

(5) The notification that the CCR unit or CCR management unit is returning to a detection monitoring program specified under § 257.105(h)(7).

* * * * *

(i) *Closure and post-closure care.* The owner or operator of a CCR unit or CCR management unit subject to this subpart must place the following information on the owner or operator's CCR website:

* * * * *

(7) The notification of intent to close a CCR unit or CCR management unit specified under § 257.105(i)(7).

(8) The notification of completion of closure of a CCR unit or CCR management unit specified under § 257.105(i)(8).

* * * * *

(k) *Legacy CCR surface impoundments.* In addition to the information specified in paragraphs (e) through (j) of this section, the owner or operator of a legacy CCR surface impoundment subject to this subpart must place the following information on the owner or operator's CCR website:

(1) The applicability documentation as specified under § 257.105(k)(1).

(2) The completion of closure by removal certification as specified under § 257.105(k)(2).

[FR Doc. 2023–10048 Filed 5–17–23; 8:45 am]

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EXHIBIT 40

SR **SUPPORTING & RELATED MATERIAL**

Summary of Potential Universe Comments for Legacy CCRMU NODA, October 2023

Posted by the **Environmental Protection Agency** on Nov 13, 2023

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Document Details

Abstract

To support the Notice of Data Availability (NODA) on legacy coal combustion residuals (CCR) surface impoundments and CCR management units, EPA created this spreadsheet as a tool for commenters. This spreadsheet contains a list of 1) potential legacy CCR surface impoundments (legacy SI); 2) potential CCR management units (CCRMU); and 3) comments about potential legacy CCR surface impoundments or CCR management units received by EPA during the comment period on the proposed rule. The spreadsheet is searchable and should assist commenters in locating comments or data regarding potential CCR units (i.e., legacy SI or CCRMU) in a specific region or state or at a specific facility. The PDF version of this document may be an incomplete rendering of the original MS Excel file. Please open the Excel file to view the document in its entirety

Document Subtype

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Page Count

99

More Details

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
5	IN	A B Brown	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 2	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	A B Brown	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 2	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	A B Brown	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 3	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	A B Brown	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 4	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	CA	A/C Power - Ace Operations	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 3	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	CA	A/C Power - Ace Operations	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 103	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	AES Cayuga	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 4	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	AES Greenidge LLC	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 5	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	AES Greenidge LLC	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 5	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	AES Greenidge LLC	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 6	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	AES Petersburg	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 6	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	PR	AES Puerto Rico	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 7	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	AES Somerset LLC	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 8	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	AES Somerset LLC	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 7	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	AES Somerset LLC	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 8	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	AES Warrior Run Cogeneration Facility	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 9	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	AES Warrior Run Cogeneration Facility	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 2	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Crawford Generating Station	CCRMU	Comment submitted by Little Village Environmental Justice Organization (LVEJO)	EPA-HQ-OLEM-2020-0107-0339	Little Village Environmental Justice Organization (LVEJO)
4	TN	Allen Fossil Plant	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 3	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Allen Fossil Plant	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 11	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Allen Fossil Plant	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 9	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Allen Fossil Plant	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 10	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Allen S King	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 10	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Allen S King	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 3	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Allen S King	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 4	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Allen S King	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 5	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Alma	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 12	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Alma	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 2	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Alma	Legacy SI	Earthjustice Appendix IV, Assessment of Selected Legacy CCR Surface Impoundment, pdf pg 12-16	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Ames Electric Services Power Plant	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 13	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Antelope Valley	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 14	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Antelope Valley	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 11	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Antelope Valley	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 12	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	Albany Steam Power Station (Bethlehem Energy Center)	CCRMU	Comment submitted by Kellin Rowlands	EPA-HQ-OLEM-2020-0107-0183	Kellin Rowlands
9	AZ	Apache Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 15	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	AZ	Apache Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 13	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	AZ	Apache Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 14	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	AZ	Apache Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 15	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	AZ	Apache Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 16	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	AZ	Apache Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 17	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	AZ	Apache Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 18	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	AZ	Apache Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 19	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Arapahoe	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 16	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Arapahoe	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 3	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Arapahoe	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 4	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Arapahoe	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 5	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Arapahoe	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 6	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Arapahoe	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 7	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Arapahoe	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 8	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Arkwright	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 17	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Arkwright	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 9	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Arkwright	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 10	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Arkwright	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 11	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

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4	GA	Arkwright	Legacy SI	Earthjustice Appendix IV, Assessment of Selected Legacy CCR Surface Impoundment, pdf pg 48-52	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Michigan City	CCRMU	Mass Comment Campaign sponsored by Sierra Club (web)	EPA-HQ-OLEM-2020-0107-0284	Sierra Club
7	MO	Asbury	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 18	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Asbury	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 20	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Asbury	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 21	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Asbury	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 22	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Asheville	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 19	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Austin DT	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 20	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Avon Lake	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 21	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Avon Lake	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 6	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Avon Lake	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 7	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Avon Lake	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 8	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	B C Cobb	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 22	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NJ	B L England	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 23	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Bailly	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 24	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Bailly	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 23	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Bailly	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 24	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Bailly	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 25	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Bailly	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 26	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Bailly	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 27	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Baldwin Energy Complex	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 25	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Barry	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 26	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Bay Front	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 27	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Bay Front	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 9	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Bay Front	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 10	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Bay Front	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 11	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Bay Front	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 12	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Belews Creek	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 28	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Belews Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 28	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Belews Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 29	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Belews Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 30	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	Belle River	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 29	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	Belle River	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 31	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	SD	Ben French	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 30	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	SD	Ben French	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 13	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	SD	Ben French	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 14	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Arkwright	Legacy SI	Transcript for Virtual Hearing for Legacy CCR Proposed Rule 7-12-23	EPA-HQ-OLEM-2020-0107-0778	Virtual Public Hearing 7-12-23 Transcript
4	FL	Big Bend	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 31	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Big Bend	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 32	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Big Bend	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 33	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Big Bend	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 34	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Big Bend	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 35	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Big Bend	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 36	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Big Bend	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 37	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Big Bend	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 38	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Big Bend	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 39	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Big Bend	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 40	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Big Brown	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 32	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Big Brown	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 41	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Big Brown	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 42	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Big Brown	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 43	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Big Brown	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 44	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Big Brown	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 45	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Big Brown	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 46	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	Big Cajun 2	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 33	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	Big Cajun 2	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 47	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

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6	LA	Big Cajun 2	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 48	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Big Fork Ranch	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 34	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Big Sandy	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 35	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Big Sandy	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 49	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Big Sandy	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 50	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	SD	Big Stone	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 36	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Black Dog	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 37	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Blue Valley	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 38	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
10	OR	Boardman	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 39	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	UT	Bonanza	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 40	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Bowen	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 41	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Bowen	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 51	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	Brame Energy Center	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 42	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	Brame Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 52	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	Brame Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 53	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	Brandon Shores	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 43	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	Brandywine	CCRMU	Earthjustice Appendix VI, Impact of USEPA's Proposed Regulation of CCR Management Units, pdf pg 7-19	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 44	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 54	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 55	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 56	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 57	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 58	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 59	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 60	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 61	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 62	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 63	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 64	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Brayton Point	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 65	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Breed	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 45	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Breed	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 104	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Bremo Bluff	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 46	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Broadway	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 47	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Buck	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 48	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Bull Run	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 49	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Bull Run	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 66	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Bull Run	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 67	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Bull Run	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 68	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Bull Run	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 69	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Bull Run	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 70	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Bull Run	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 3-5	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Burlington	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 50	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	C D McIntosh Jr	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 51	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	C D McIntosh Jr	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 71	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	C P Crane	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 52	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	C P Crane	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 15	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	C R Huntley Generating Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 53	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	C R Huntley Generating Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 72	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	C R Huntley Generating Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 73	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Tanners Creek	CCRMU	Comment submitted by Tim Maloney	EPA-HQ-OLEM-2020-0107-0345	Tim Maloney
8	CO	Cameo	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 54	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Canadys Steam	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 55	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Cane Run	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 56	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Cape Fear	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 57	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Cape Fear	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 12	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
4	NC	Cape Fear	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 13	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Cape Fear	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 14	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Cape Fear	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 15	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Cape Fear	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 16	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	UT	Carbon	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 58	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Cardinal	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 59	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Cardinal	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 74	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Cardinal	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 75	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Cayuga	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 60	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	Chalk Point LLC	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 76	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	Chalk Point LLC/Brandywine	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 61	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Chamois	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 62	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Charles R Lowman	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 63	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Charles R Lowman	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 77	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Charles R Lowman	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 78	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Cherokee	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 64	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Cherokee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 79	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Cherokee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 80	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Cherokee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 81	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Chesapeake	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 65	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Chesterfield	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 66	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Chesterfield	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 82	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Cheswick Power Plant	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 67	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	AZ	Cholla	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 68	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	AZ	Cholla	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 83	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Tanners Creek	CCRMU	Comment submitted by Tim Maloney	EPA-HQ-OLEM-2020-0107-0345	Tim Maloney
5	MN	Clay Boswell	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 69	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Cliffside	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 70	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Clifty Creek	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 71	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Clinch River	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 72	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Clover	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 73	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Clover	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 84	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Clover	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 85	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Clover	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 86	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Clover	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 87	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Clover	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 88	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Coal Creek	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 74	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Tanners Creek	CCRMU	Comment submitted by Tim Maloney	EPA-HQ-OLEM-2020-0107-0345	Tim Maloney
5	IN	Tanners Creek	CCRMU	Comment submitted by Tim Maloney	EPA-HQ-OLEM-2020-0107-0345	Tim Maloney
2	NY	Bethlehem Energy Site (Albany Steam Station)	Legacy SI	Comment submitted by Tobin and Dempf, LLP	EPA-HQ-OLEM-2020-0107-0301	Tobin and Dempf LLP
7	MO	California Power & Light Co.	Legacy SI	Comment submitted by Labadie Environmental Organization (LEO) et al.	EPA-HQ-OLEM-2020-0107-0290	Washington University in St. Louis, School of Law
7	MO	City of Kirkwood Electric Light Works	Legacy SI	Comment submitted by Labadie Environmental Organization (LEO) et al.	EPA-HQ-OLEM-2020-0107-0290	Washington University in St. Louis, School of Law
5	IL	Coffeen	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 75	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Coffeen	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 89	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Coffeen	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 90	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Coffeen	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 91	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Colbert	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 76	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Colbert	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 92	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Colbert	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 93	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Colbert	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 94	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Colbert	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 95	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Colbert	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 96	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Colbert	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 97	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Colbert	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 98	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
4	AL	Colbert	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 99	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Colbert	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 100	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Colbert	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 5	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Coleto Creek	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 77	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Coleto Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 101	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Coleto Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 102	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Coleto Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 103	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	MT	Colstrip	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 78	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Antelope Valley	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	ND	Coal Creek	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
5	WI	Columbia	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 79	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Columbia_MO	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 80	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Comanche	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 81	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Comanche	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 104	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Comanche	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 105	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Comanche	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 106	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Comanche	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 107	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Conemaugh	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 82	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Conemaugh	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 108	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Conemaugh	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 109	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Conesville	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 83	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Cooper_KY	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 84	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Cope	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 85	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	AZ	Coronado	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 86	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	AZ	Coronado	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 110	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Coyote	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 87	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Coyote	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 111	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Coyote	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 112	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Coyote	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 113	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Coal Creek	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	ND	Coal Creek	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	ND	Coal Creek	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	CO	Craig	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 88	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Craig	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 16	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Craig	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 17	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Craig	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 18	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Crawford	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 89	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Crawford	Legacy SI & CCRMU	Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 1, 7, 10-12, 14	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Coal Creek	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
4	FL	Crist	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 90	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Crist	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 114	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Crist	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 115	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Crist	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 116	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Crist	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 117	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Cross	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 91	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Cross	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 118	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Cross	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 119	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Cross	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 120	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Cross	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 121	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Cross	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 122	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Crystal River	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 92	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Crystal River	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 123	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Cumberland	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 93	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Cumberland	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 124	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Cumberland	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 125	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	D B Wilson	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 94	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	D B Wilson	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 126	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
4	KY	Dale	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 95	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Dale	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 17	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Dale	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 18	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Dale	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 19	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Dallman	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 96	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Dallman	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 127	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Dallman	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 128	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	Dan E Karn	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 97	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Dan River	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 98	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	Danskammer Generating Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 99	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	Danskammer Generating Station	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 19	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Dave Johnston	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 100	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Dave Johnston	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 129	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Dave Johnston	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 130	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Dave Johnston	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 131	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Dave Johnston	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 132	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Dave Johnston	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 133	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Dave Johnston	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 134	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Dean H Mitchell	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 101	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Deerhaven Generating Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 102	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	Dickerson	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 103	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	Dolet Hills	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 104	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	Dolet Hills	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 135	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	Dolet Hills	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 136	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	Dolet Hills	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 137	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	Dolet Hills	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 138	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	Dolet Hills	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 139	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Dolphus Grainger	Legacy SI	Earthjustice Appendix IV, Assessment of Selected Legacy CCR Surface Impoundment, pdf pg 28-32	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Dolphus M Grainger	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 105	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Dolphus M Grainger	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 20	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Dolphus M Grainger	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 21	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Dubuque	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 106	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Dubuque	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 22	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Dubuque	Legacy SI	Earthjustice Appendix IV, Assessment of Selected Legacy CCR Surface Impoundment, pdf pg 17-21	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Duck Creek	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 107	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	Dunkirk Generating Plant	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 108	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	E C Gaston	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 109	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	E D Edwards	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 110	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	E D Edwards	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 140	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	E D Edwards	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 141	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	E W Brown	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 111	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Eagle Valley	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 112	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Earl F Wisdom	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 113	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Earl F Wisdom	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 20	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	East Bend	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 114	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	East Bend	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 142	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	East Bend	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 143	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	Eckert Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 115	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	Eckert Station	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 21	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	Eckert Station	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 22	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Edgewater	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 116	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Edwardsport	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 117	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Edwardsport	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 23	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Edwardsport	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 24	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Elmer Smith	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 118	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
4	KY	Elmer Smith	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 144	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Elmer Smith	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 145	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Elmer Smith	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 146	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Elmer Smith	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 147	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Elrama Power Plant	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 119	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	Erickson Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 120	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	NM	Escalante	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 121	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	F B Culley	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 122	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Fair Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 123	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Fayette Power Project	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 124	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	FirstEnergy Albright	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 125	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	FirstEnergy Armstrong Power Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 126	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	FirstEnergy Armstrong Power Station	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 105	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	FirstEnergy Armstrong Power Station	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 106	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	FirstEnergy Ashtabula	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 127	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	FirstEnergy Bay Shore	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 128	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	FirstEnergy Bay Shore	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 23	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	FirstEnergy Bay Shore	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 24	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	FirstEnergy Bruce Mansfield	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 129	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	FirstEnergy Bruce Mansfield	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 148	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	FirstEnergy Bruce Mansfield	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 149	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	FirstEnergy Bruce Mansfield	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 150	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	FirstEnergy Bruce Mansfield	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 151	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	FirstEnergy Eastlake	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 130	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	FirstEnergy Fort Martin Power Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 131	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	FirstEnergy Fort Martin Power Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 152	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	FirstEnergy Fort Martin Power Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 153	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	FirstEnergy Harrison Power Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 132	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	FirstEnergy Lake Shore	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 133	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	FirstEnergy Mitchell Power Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 134	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	FirstEnergy Pleasants Power Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 135	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	FirstEnergy R E Burger	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 136	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	FirstEnergy R Paul Smith Power Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 137	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	FirstEnergy Rivesville	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 138	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	FirstEnergy W H Sammis	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 139	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	FirstEnergy Willow Island	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 140	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	FirstEnergy Willow Island	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 25	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	FirstEnergy Willow Island	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 26	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Fisk	Legacy SI	Earthjustice Appendix IV, Assessment of Selected Legacy CCR Surface Impoundment, pdf pg 39-42	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Fisk Street	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 141	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Fisk Street	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 27	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Fisk Street	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 28	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Fisk Street	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 29	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	AR	Flint Creek	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 142	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Foster Wheeler Mt Carmel Cogen	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 143	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Foster Wheeler Mt Carmel Cogen	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 25	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	NM	Four Corners	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 144	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Fox Lake Generating Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 145	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Frank E Ratts	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 146	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Frank E Ratts	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 30	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Frank E Ratts	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 31	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Frank E Ratts	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 32	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Frank E Ratts	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 33	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Frank E Ratts	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 34	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Frank E Ratts	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 35	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Frank E Ratts	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 36	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
5	IN	Frank E Ratts	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 37	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	G G Allen	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 147	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	G G Allen	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 154	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Gadsden	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 148	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Gallatin	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 149	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Gallatin	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 5-6	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	General James M Gavin	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 150	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	General James M Gavin	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 155	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	General James M Gavin	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 156	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	General James M Gavin	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 157	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	General Waste Industrial Landfill	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 151	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Genoa	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 152	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Genoa	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 26	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Genoa	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 27	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Genoa	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 28	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Genoa	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 29	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	George Neal North	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 153	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	George Neal North	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 158	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	George Neal North	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 159	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	George Neal North	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 160	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	George Neal North	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 161	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	George Neal North	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 162	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	George Neal South	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 154	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	NE	Gerald Gentleman	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 155	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Ghent	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 156	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Gibbons Creek	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 157	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Gibbons Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 163	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Gibbons Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 164	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Gibson	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 158	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Gibson	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 165	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Gibson	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 166	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Gibson	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 167	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Gibson	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 168	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Glen Lyn	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 159	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Gorgas	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 160	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Gorgas	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 169	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Gorgas	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 170	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Gorgas	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 171	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Grand Tower	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 161	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Grant Town Power Plant	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 162	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 30	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 31	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 32	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 33	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 34	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 35	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 36	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 37	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	GRDA	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 163	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Green River	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 164	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Greene County	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 165	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	H B Robinson	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 166	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	H L Spurlock	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 167	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Halifax County Ash Landfill	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 168	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Hammond	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 169	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Hammond	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 172	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	Harbor Beach	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 170	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
5	IN	Harding Street	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 171	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Harllee Branch	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 172	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Harrington	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 173	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Harrington	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 38	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Harrington	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 39	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Harrington	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 40	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Harrington	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 41	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Hatfields Ferry Power Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 174	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Havana	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 175	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Havana	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 173	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Hawthorn	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 176	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Hawthorn	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 42	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Hawthorn	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 43	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Hawthorn	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 44	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Hayden	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 177	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Hayden	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 174	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
10	AK	Healy	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 178	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Hennepin	CCRMU	Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 7 & 12	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Holcomb	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 179	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Homer City Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 180	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Hoot Lake	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 181	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Hoot Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 175	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Hoot Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 176	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Hoot Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 177	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Hoot Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 178	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Hoot Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 179	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Hoot Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 180	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Hoot Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 181	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Hoot Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 182	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Hopewell Power Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 182	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Hopewell Power Station	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 111	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Hugo	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 183	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Hugo	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 183	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Hugo	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 184	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Hugo	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 185	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Hugo	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 186	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Hunlock Power Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 184	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Hunlock Power Station	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 45	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Hunlock Power Station	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 46	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	UT	Hunter	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 185	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	UT	Huntington	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 186	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Hutsonville	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 187	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Hutsonville	Legacy SI	Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 1-3, 5	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Iatan	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 188	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	AR	Independence	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 189	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	DE	Indian River Generating Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 190	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	UT	Intermountain Generating Facility	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 191	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	UT	Intermountain Generating Facility	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 187	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	UT	Intermountain Generating Facility	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 188	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	UT	Intermountain Generating Facility	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 189	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	J B Sims	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 192	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	J C Weadock	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 193	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	J C Weadock	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 190	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	J C Weadock	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 191	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	J C Weadock	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 192	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	J C Weadock	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 193	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	MT	J E Corette Plant	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 194	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
5	MI	J H Campbell	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 195	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	J M Stuart	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 196	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	J R Whiting	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 197	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	J R Whiting	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 194	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	J R Whiting	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 195	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	J R Whiting	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 196	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	J T Deely	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 198	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	J T Deely	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 197	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	MT	Colstrip Energy LP	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
4	KY	J.K. Smith Power Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 199	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Jack McDonough	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 200	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Jack McDonough	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 198	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	MS	Jack Watson	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 201	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	MS	Jack Watson	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 199	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	James De Young	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 202	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	James De Young	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 200	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	James H Miller Jr	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 203	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	James River Power Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 204	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Jefferies	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 205	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Jeffrey Energy Center	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 206	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Jeffrey Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 201	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Jeffrey Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 202	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Jim Bridger	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 207	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Jim Bridger	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 203	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Jim Bridger	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 204	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	MT	Colstrip Energy LP	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
3	WV	John E Amos	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 208	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	John E Amos	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 205	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	John E Amos	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 206	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	John E Amos	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 207	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	John E Amos	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 208	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	John E Amos	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 209	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	John E Amos	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 210	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	John E Amos	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 211	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	John E Amos	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 212	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	John E Amos	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 213	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	John P Madgett	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 209	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	John P Madgett	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 214	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	John Sevier	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 210	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	John Sevier	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 6	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	John Twitty Energy Center	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 211	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	AR	John W. Turk Power Plant	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 212	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Johnsonville	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 213	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Johnsonville	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 215	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Johnsonville	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 216	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Johnsonville	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 217	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Johnsonville	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 218	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Johnsonville	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 219	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Johnsonville	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 220	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Johnsonville	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 6-7	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Joliet 29	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 214	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Joliet 29	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 221	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Joliet 29	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 222	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Joliet 29	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 223	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Joliet 29	CCRMU	Earthjustice Appendix VI, Impact of USEPA's Proposed Regulation of CCR Management Units, pdf pg 26-32	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
5	IL	Joliet 29	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 1-2 & Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 9-10	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Joliet 9	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 215	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Joppa	CCRMU	Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 7-8, 13-14	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Joppa Steam	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 216	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Kammer	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 217	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Kanawha River	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 218	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Kanawha River	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 47	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Kanawha River	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 48	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Kanawha River	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 49	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Kanawha River	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 50	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Kenneth C Coleman	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 219	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Kenneth C Coleman	Legacy SI	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 51	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Kenneth C Coleman	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 52	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Kenneth C Coleman	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 53	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Keystone	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 220	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Keystone	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 224	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Keystone	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 225	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Keystone	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 226	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Keystone	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 227	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Keystone	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 228	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Keystone	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 229	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Keystone	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 230	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Keystone	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 231	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Keystone	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 232	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Keystone	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 233	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Killen Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 221	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Kincaid Generation LLC	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 222	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Kincaid Generation LLC	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 234	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Kincaid Generation LLC	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 235	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Kincaid Generation LLC	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 236	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Kingston	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 223	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Kingston	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 8-9	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Kraft	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 224	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Kraft	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 38	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Kraft	Legacy SI	Earthjustice Appendix IV, Assessment of Selected Legacy CCR Surface Impoundment, pdf pg 53-58	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	KU Pineville Generating Station	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 225	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Kyger Creek	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 226	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	L V Sutton	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 227	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	La Cygne	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 228	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Labadie	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 229	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Lake Road	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 230	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Lake Road	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 54	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Lake Road	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 55	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Lake Road	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 56	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Lansing	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 231	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Lansing Smith	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 232	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Lansing Smith	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 237	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Lansing Smith	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 238	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Laramie River Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 233	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Lawrence Energy Center	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 234	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Lawrence Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 239	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Lawrence Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 240	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Lawrence Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 241	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Lee	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 235	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Lee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 242	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
4	NC	Lee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 243	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Lee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 244	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Lee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 245	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Leland Olds	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 236	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Leland Olds	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 246	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Leland Olds	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 247	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Leland Olds	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 248	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Leland Olds	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 249	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Coyote	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	MT	Lewis & Clark	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 237	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	MT	Lewis & Clark	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 250	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	MT	Lewis & Clark	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 251	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	MT	Lewis & Clark	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 252	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	MT	Lewis & Clark	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 253	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Coyote	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	ND	Coyote	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
6	TX	Limestone	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 238	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Lincoln Stone Quarry	CCRMU	Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 7-8, 12-13	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NY	Lockwood Ash Disposal Site	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 239	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	NE	Lon Wright	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 240	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Louisa	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 241	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Louisa	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 254	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 242	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 255	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 256	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 257	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 258	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 259	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 260	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 261	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 262	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 263	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 264	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 265	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 266	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 267	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Marion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 268	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Marshall	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 243	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Marshall	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 269	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Marshall	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 270	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Martin Drake	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 244	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Martin Drake	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 57	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Martin Drake	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 58	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Martin Drake	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 59	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Martin Drake	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 60	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Martin Drake	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 61	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Martin Lake	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 245	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Martin Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 271	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Martin Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 272	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Martin Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 273	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Martin Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 274	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Martin Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 275	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Martin Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 276	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Martin Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 277	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Martin Lake	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 278	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Mayo	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 246	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	McIntosh	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 247	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
4	GA	McManus	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 248	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	McMeekin	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 249	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	McMeekin	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 62	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Meramec	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 250	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Meredosia	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 251	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Meredosia	Legacy SI	Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 1, 3-5	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Meredosia	Legacy SI	Earthjustice Appendix IV, Assessment of Selected Legacy CCR Surface Impoundment, pdf pg 22-27	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Merom	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 252	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Merom	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 279	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Merom	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 280	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	NH	Merrimack	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 253	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Miami Fort	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 254	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Miami Fort	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 281	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Miami Fort	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 282	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Miami Fort	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 283	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Miami Fort	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 10-11	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Michigan City	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 255	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	MT	J. E. Corette	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
4	KY	Mill Creek	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 256	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Mill Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 284	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Mill Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 285	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Mill Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 286	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Mill Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 287	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Mill Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 288	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Mill Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 289	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Mill Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 290	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Milton L Kapp	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 257	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Milton L Kapp	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 291	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Milton L Kapp	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 292	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Milton L Kapp	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 293	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Milton R Young	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 258	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Jim Bridger	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	ND	Leland Olds	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	MT	Lewis & Clark	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	MT	Lewis & Clark	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	ND	Milton R Young	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	ND	Milton R Young	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	ND	Milton R Young	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
7	MO	Missouri City	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 259	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Mitchell	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 260	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Mitchell	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 294	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Mitchell	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 295	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Mitchell_GA	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 261	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	NV	Mohave	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 262	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	NV	Mohave	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 107	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	Monroe	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 263	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Monticello	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 264	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Montour	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 11-13	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Montrose	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 265	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Montrose	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 296	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Montrose	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 297	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	Morgantown Generating Plant	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 266	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	Morgantown Generating Plant	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 63	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	MD	Morgantown Generating Plant	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 64	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Mount Tom	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 267	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Mountaineer	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 268	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
3	WV	Mt Storm	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 269	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Mt Storm	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 298	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Muscatine Plant #1	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 270	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Muskingum River	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 271	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Muskogee	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 272	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Muskogee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 299	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Muskogee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 300	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Muskogee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 301	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Muskogee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 302	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Naughton	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 273	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Naughton	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 303	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Milton R Young	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
9	AZ	Navajo	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 274	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Nearman Creek	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 275	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Nearman Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 304	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Nearman Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 305	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Nearman Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 306	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	NE	Nebraska City	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 276	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	NE	Nebraska City	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 307	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	NE	Nebraska City	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 308	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Nelson Dewey	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 277	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	New Castle Plant	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 278	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	New Madrid	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 279	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	New Madrid	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 309	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	New Madrid	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 310	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	New Madrid	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 311	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Newton	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 280	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Niles	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 281	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Niles	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 39	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Niles	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 40	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Niles	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 41	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Niles	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 42	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Niles	Legacy SI	Earthjustice Appendix IV, Assessment of Selected Legacy CCR Surface Impoundment, pdf pg 43-47	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Noblesville	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 282	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	NE	North Omaha	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 283	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	NV	North Valmy	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 284	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Northeastern	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 285	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Northeastern	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 312	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Northside Generating Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 286	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Northside Generating Station	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 65	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	DE	NRG Energy Center Dover	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 287	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	DE	NRG Energy Center Dover	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 66	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Nucla	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 288	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	O H Hutchings	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 289	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oak Grove	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 290	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oak Grove	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 313	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oak Grove	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 314	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oklaunion	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 291	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oklaunion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 315	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oklaunion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 316	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oklaunion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 317	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oklaunion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 318	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oklaunion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 319	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oklaunion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 320	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oklaunion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 321	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oklaunion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 322	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
6	TX	Oklaunion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 323	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Oklaunion	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 324	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Osage	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 292	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Milton R Young	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	ND	Milton R Young	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
7	IA	Ottumwa	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 293	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Ottumwa	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 325	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Paradise	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 294	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Paradise	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 9-10	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Pawnee	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 295	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Pawnee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 326	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Pawnee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 327	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Pawnee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 328	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Pawnee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 329	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Pearl Station	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 296	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Pearl Station	Legacy SI	Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 1, 4-5, 14	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Philip Sporn	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 297	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Picway	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 298	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Pirkey	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 299	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Pirkey	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 330	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Pirkey	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 331	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Pirkey	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 332	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Pirkey	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 333	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Plant Crisp	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 300	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	NE	Platte	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 301	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Pleasant Prairie	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 302	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	AR	Plum Point Energy Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 303	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Polk	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 304	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Polk	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 67	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	CA	Port of Stockton Energy Facility	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 305	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	CA	Port of Stockton Energy Facility	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 108	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Port Washington Generating Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 306	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Port Washington Generating Station	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 68	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Portland	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 307	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Possum Point	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 308	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Potomac River	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 309	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Potomac River	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 109	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Powerton	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 310	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Powerton	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 334	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Powerton	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 335	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Powerton	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 336	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Powerton	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 337	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Powerton	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 338	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Powerton	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 2 & Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 10	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Powerton	CCRMU	Earthjustice Appendix VI, Impact of USEPA's Proposed Regulation of CCR Management Units, pdf pg 33-39	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	PPL Brunner Island	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 311	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	PPL Martins Creek	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 312	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	PPL Martins Creek	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 69	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	PPL Martins Creek	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 70	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	PPL Martins Creek	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 71	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	PPL Martins Creek	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 72	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	PPL Montour	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 313	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	PPL Montour	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 339	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	PPL Montour	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 340	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	PPL Montour	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 341	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
3	PA	PPL Montour	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 342	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Prairie Creek	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 314	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Prairie State Generating Company, LLC	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 315	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	Presque Isle	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 316	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NJ	PSEG Hudson Generating Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 317	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NJ	PSEG Hudson Generating Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 343	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NJ	PSEG Mercer Generating Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 318	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
2	NJ	PSEG Mercer Generating Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 344	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Pulliam	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 319	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Pulliam	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 73	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Pulliam	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 74	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Quindaro	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 320	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Quindaro	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 75	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	R D Green	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 321	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	R D Green	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 345	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	R D Green	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 346	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	R D Green	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 347	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	R D Green	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 348	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	R D Green	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 349	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	R D Green	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 350	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	R D Green	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 351	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	R D Green	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 352	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	MS	R D Morrow	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 322	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	MS	R D Morrow	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 353	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	MS	R D Morrow	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 354	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	MS	R D Morrow	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 355	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 323	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 356	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 357	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 358	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 359	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 360	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 361	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 362	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 363	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 364	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 365	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 366	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 367	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 368	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 369	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R Gallagher	CCRMU	Earthjustice Appendix V, Responses to EPA Proposed Rule on: Hazardous and Solid Waste Mangement System: Disposal of Coal Combustion Ruesiduals Fro Electric Utilities; Legacy CCR Surface Impoundments, pg 7-8	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	R M Heskett	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 324	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	R M Heskett	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 370	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	R M Schahfer	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 325	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	R S Nelson	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 326	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	R S Nelson	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 371	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	LA	R S Nelson	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 372	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Rawhide	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 327	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Rawhide	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 373	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Ray D Nixon	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 328	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	MS	Red Hills Generating Facility	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 329	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	NV	Reid Gardner	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 330	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Richard Gorsuch	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 331	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Richard Gorsuch	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 110	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
5	OH	Richmond Mill, Inc.	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 332	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	River Rouge	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 333	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Riverbend	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 334	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Riverbend	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 43	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Riverbend	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 44	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Riverside	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 335	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Riverside_MN	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 336	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Riverside_MN	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 76	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Riverton	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 337	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Riverton	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 77	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Milton R Young	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
5	WI	Rock River	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 338	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Rock River	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 78	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Rock River	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 79	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Rock River	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 80	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Rock River	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 81	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Rockport	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 339	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	Roxboro	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 340	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Rush Island	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 341	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Rush Island	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 374	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	NM	San Juan	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 342	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	NM	San Juan	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 82	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	San Miguel	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 343	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	San Miguel	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 375	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	San Miguel	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 376	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Sandow No 4	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 344	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Sandow No 4	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 377	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Sandow No 4	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 378	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Sandow No 4	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 379	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Sandow No 4	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 380	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Sandow No 4	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 381	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Sandow No 4	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 382	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Sandy Creek Energy Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 345	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Scherer	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 346	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Scherer	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 383	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	NH	Schiller	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 347	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	NH	Schiller	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 83	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Scholz	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 348	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Seminole Generating Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 349	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Seminole Generating Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 384	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Seminole Generating Station	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 385	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Shawnee	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 350	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Shawnee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 386	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Shawnee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 387	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Shawnee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 388	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Shawnee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 389	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Shawville	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 351	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	NE	Sheldon	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 352	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	NE	Sheldon	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 390	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	NE	Sheldon	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 391	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	NE	Sheldon	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 392	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Sherburne County	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 353	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	Shiras	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 354	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Sibley	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 355	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Sibley	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 393	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Sibley	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 394	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Sikeston Power Station	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 356	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
7	MO	Sioux	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 357	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Sioux	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 395	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Sioux	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 396	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Sixth Street	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 358	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
1	MA	Somerset Station	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 359	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Sooner	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 360	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Sooner	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 84	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Sooner	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 85	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	OK	Sooner	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 86	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	South Oak Creek	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 361	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	South Oak Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 397	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	South Oak Creek	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 398	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	AZ	Springerville	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 362	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	St Clair	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 363	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	St Clair	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 399	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	St Clair	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 400	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	St Clair	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 401	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	St Johns River Power Park	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 364	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	St Johns River Power Park	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 402	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	St Johns River Power Park	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 403	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Stanton	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 365	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Stanton	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 405	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Stanton	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 406	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Stanton	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 407	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Stanton	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 408	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Stanton	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 409	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	Stanton	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 410	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Naughton	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	WY	Osage	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
4	FL	Stanton Energy Center	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 366	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	FL	Stanton Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 404	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	State Line Energy	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 367	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Streeter Station	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 368	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Streeter Station	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 87	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Sunbury Generation LP	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 369	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	UT	Sunnyside Cogen Associates	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 370	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Sutherland	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 371	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Syl Laskin	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 372	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Syl Laskin	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 411	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Syl Laskin	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 412	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Syl Laskin	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 413	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Syl Laskin	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 414	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Syl Laskin	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 415	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Syl Laskin	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 416	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Syl Laskin	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 417	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Syl Laskin	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 418	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Taconite Harbor Energy Center	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 373	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Taconite Harbor Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 419	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Taconite Harbor Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 420	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Taconite Harbor Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 421	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Taconite Harbor Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 422	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MN	Taconite Harbor Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 423	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Tanners Creek	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 374	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Osage	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	ND	RM Heskett	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	ND	Stanton	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
8	ND	Stanton	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
7	KS	Tecumseh Energy Center	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 375	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Tecumseh Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 424	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	KS	Tecumseh Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 425	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Thomas Hill	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 376	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Thomas Hill	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 426	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Thomas Hill	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 427	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Thomas Hill	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 428	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Thomas Hill	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 429	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Thomas Hill	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 430	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Thomas Hill	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 431	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	MO	Thomas Hill	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 432	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Titus	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 377	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Titus	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 45	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Titus	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 46	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Titus	Legacy SI	Earthjustice Appendix IV, Assessment of Selected Legacy CCR Surface Impoundment, pdf pg 59-63	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Tolk	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 378	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Tolk	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 88	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
10	WA	Transalta Centralia Generation	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 379	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	MI	Trenton Channel	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 380	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Trimble County	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 381	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Trimble County	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 433	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Trimble County	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 434	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
9	NV	TS Power Plant	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 382	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Twin Oaks Power One	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 383	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	KY	Tyrone	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 384	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Urquhart	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 385	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Urquhart	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 89	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Urquhart	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 90	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Urquhart	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 91	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Urquhart	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 92	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Valley	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 386	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Valley	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 93	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Valley	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 94	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Valley	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 95	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Valley	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 96	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Valmont	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 387	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Valmont	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 435	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	CO	Valmont	CCRMU	Earthjustice Appendix VI, Impact of USEPA's Proposed Regulation of CCR Management Units, pdf pg 20-25	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Venice	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 388	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Venice	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 97	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Venice	Legacy SI	Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 6	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Vermilion	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 389	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Vermilion	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 47	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Vermilion	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 48	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Vermilion	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 49	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Vermilion	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 50	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Vermilion	Legacy SI	Earthjustice Appendix III, Sheet Legacy Ponds, Row 51	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Vermilion	Legacy SI	Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 1-2	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	MS	Victor J Daniel Jr	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 390	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	MS	Victor J Daniel Jr	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 436	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	MS	Victor J Daniel Jr	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 437	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	MS	Victor J Daniel Jr	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 438	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	MS	Victor J Daniel Jr	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 439	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Virginia City Hybrid Energy Center	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 391	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	W A Parish	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 392	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
6	TX	W A Parish	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 440	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	W A Parish	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 441	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	W A Parish	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 442	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	W A Parish	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 443	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	W A Parish	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 444	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	W A Parish	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 445	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	NC	W H Weatherspoon	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 393	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	W H Zimmer	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 394	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	W H Zimmer	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 446	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	W H Zimmer	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 447	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	W H Zimmer	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 448	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	W S Lee	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 395	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	W S Lee	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 449	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Wabash River	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 396	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Walter C Beckjord	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 397	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Walter C Beckjord	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 450	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Walter C Beckjord	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 451	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	OH	Walter C Beckjord	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 452	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Walter Scott Jr Energy Center	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 398	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Walter Scott Jr Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 453	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	IA	Walter Scott Jr Energy Center	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 454	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Wansley	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 399	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Wansley	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 455	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Wansley	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 456	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Warrick	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 400	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Warrick	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 98	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Wateree	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 401	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	TN	Watts Bar Fossil Plant	Legacy SI	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 402	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Waukegan	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 403	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Waukegan	CCRMU	Earthjustice Appendix VI, Impact of USEPA's Proposed Regulation of CCR Management Units, pdf pg 40-54	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Waukegan	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 2-3 & Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 8-9	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Waukegan	CCRMU	Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 7	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Welsh	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 404	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	TX	Welsh	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 457	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Weston	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 405	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Weston	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 458	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Weston	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 459	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Weston	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 460	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Weston	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 461	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	WI	Weston	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 462	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Wheelabrator Frackville Energy	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 406	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	Wheelabrator Frackville Energy	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 99	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
7	NE	Whelan Energy Center	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 407	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
6	AR	White Bluff	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 408	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Whitewater Valley	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 409	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IN	Whitewater Valley	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 463	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Widows Creek	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 410	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	AL	Widows Creek	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 10	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Will County	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 411	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Will County	CCRMU	Earthjustice Appendix VI, Impact of USEPA's Proposed Regulation of CCR Management Units, pdf pg 47-54	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Will County	CCRMU	Earthjustice Appendix I, Detailed Description of Potential CCR Management Units, pg 3 & Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 9	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
5	IL	Will County	CCRMU	Earthjustice Appendix II, Illinios Coal Ash Disposal Units, pg 7	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Williams	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 412	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
3	WV	Willow Island	Legacy SI	Earthjustice Appendix IV, Assessment of Selected Legacy CCR Surface Impoundment, pdf pg 33-38	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Winyah	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 413	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	SC	Winyah	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 464	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	ND	WJ Neal	Legacy SI	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
5	IL	Wood River	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 414	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	WPS Westwood Generation LLC	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 415	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	PA	WPS Westwood Generation LLC	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 100	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Wyodak	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 416	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Wyodak	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 101	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Wyodak	CCRMU	Earthjustice Appendix III, Sheet Stranded CCRMU, Row 102	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
8	WY	Wyodak	CCRMU	Comment submitted by Western Organization of Resource Councils (WORC) et al.	EPA-HQ-OLEM-2020-0107-0275	Western Organization of Resource Councils
4	GA	Yates	CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 417	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Yates	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 465	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Yates	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 466	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Yates	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 467	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Yates	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 468	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
4	GA	Yates	CCRMU	Earthjustice Appendix III, Sheet CCRMU, Row 469	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	VA	Yorktown	Legacy SI & CCRMU	Earthjustice Appendix III, Sheet Plant-Level Summary, Row 418	EPA-HQ-OLEM-2020-0107-0368	Earthjustice et al.
3	WV	Albright Power Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 2	EPA-HQ-OLEM-2020-0107-0154	N/A
3	WV	Albright Power Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 3	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	Ashtabula	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 4	EPA-HQ-OLEM-2020-0107-0154	N/A
5	WI	Bay Front	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 5	EPA-HQ-OLEM-2020-0107-0154	N/A
5	WI	Bay Front	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 6	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	Bay Shore	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 7	EPA-HQ-OLEM-2020-0107-0154	N/A
8	SD	Ben French	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 8	EPA-HQ-OLEM-2020-0107-0154	N/A
8	CO	Cameo	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 9	EPA-HQ-OLEM-2020-0107-0154	N/A
8	CO	Cameo	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 10	EPA-HQ-OLEM-2020-0107-0154	N/A
4	SC	Canadys Steam	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 11	EPA-HQ-OLEM-2020-0107-0154	N/A
4	SC	Canadys Steam	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 12	EPA-HQ-OLEM-2020-0107-0154	N/A
4	SC	Canadys Steam	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 13	EPA-HQ-OLEM-2020-0107-0154	N/A
8	UT	Carbon Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 14	EPA-HQ-OLEM-2020-0107-0154	N/A
8	UT	Carbon Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 15	EPA-HQ-OLEM-2020-0107-0154	N/A
7	MO	Chamois Power Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 16	EPA-HQ-OLEM-2020-0107-0154	N/A
7	MO	Chamois Power Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 17	EPA-HQ-OLEM-2020-0107-0154	N/A
7	MO	Chamois Power Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 18	EPA-HQ-OLEM-2020-0107-0154	N/A
7	MO	Chamois Power Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 19	EPA-HQ-OLEM-2020-0107-0154	N/A
7	MO	Chamois Power Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 20	EPA-HQ-OLEM-2020-0107-0154	N/A
7	MO	Chamois Power Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 21	EPA-HQ-OLEM-2020-0107-0154	N/A
5	IL	Crawford	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 22	EPA-HQ-OLEM-2020-0107-0154	N/A
5	IN	Dean H Mitchell	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 23	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	Eastlake	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 24	EPA-HQ-OLEM-2020-0107-0154	N/A
3	PA	Elrama Power Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 25	EPA-HQ-OLEM-2020-0107-0154	N/A
3	PA	Elrama Power Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 26	EPA-HQ-OLEM-2020-0107-0154	N/A
3	PA	Elrama Power Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 27	EPA-HQ-OLEM-2020-0107-0154	N/A
7	IA	Fair Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 28	EPA-HQ-OLEM-2020-0107-0154	N/A
7	IA	Fair Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 29	EPA-HQ-OLEM-2020-0107-0154	N/A
3	VA	Glen Lyn Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 30	EPA-HQ-OLEM-2020-0107-0154	N/A
3	VA	Glen Lyn Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 31	EPA-HQ-OLEM-2020-0107-0154	N/A
3	VA	Glen Lyn Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 32	EPA-HQ-OLEM-2020-0107-0154	N/A
5	MI	Harbor Beach Power Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 33	EPA-HQ-OLEM-2020-0107-0154	N/A
4	GA	Harllee Branch	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 34	EPA-HQ-OLEM-2020-0107-0154	N/A
4	GA	Harllee Branch	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 35	EPA-HQ-OLEM-2020-0107-0154	N/A
4	GA	Harllee Branch	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 36	EPA-HQ-OLEM-2020-0107-0154	N/A
4	GA	Harllee Branch	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 37	EPA-HQ-OLEM-2020-0107-0154	N/A
4	GA	Harllee Branch	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 38	EPA-HQ-OLEM-2020-0107-0154	N/A
3	PA	Hunlock Power Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 39	EPA-HQ-OLEM-2020-0107-0154	N/A

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
3	PA	Hunlock Power Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 40	EPA-HQ-OLEM-2020-0107-0154	N/A
5	IL	Hutsonville	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 41	EPA-HQ-OLEM-2020-0107-0154	N/A
8	MT	JE Corette Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 42	EPA-HQ-OLEM-2020-0107-0154	N/A
8	MT	JE Corette Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 43	EPA-HQ-OLEM-2020-0107-0154	N/A
4	SC	Jeffries Generating Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 44	EPA-HQ-OLEM-2020-0107-0154	N/A
3	WV	Kammer	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 45	EPA-HQ-OLEM-2020-0107-0154	N/A
3	WV	Kanawha River Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 46	EPA-HQ-OLEM-2020-0107-0154	N/A
4	KY	Kenneth C Coleman	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 47	EPA-HQ-OLEM-2020-0107-0154	N/A
4	KY	Kenneth C Coleman	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 48	EPA-HQ-OLEM-2020-0107-0154	N/A
4	KY	Kenneth C Coleman	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 49	EPA-HQ-OLEM-2020-0107-0154	N/A
4	KY	KU Green River Generating Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 50	EPA-HQ-OLEM-2020-0107-0154	N/A
4	KY	KU Green River Generating Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 51	EPA-HQ-OLEM-2020-0107-0154	N/A
4	KY	KU Pineville Generating Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 52	EPA-HQ-OLEM-2020-0107-0154	N/A
4	KY	KU Tyrone Generating Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 53	EPA-HQ-OLEM-2020-0107-0154	N/A
4	KY	KU Tyrone Generating Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 54	EPA-HQ-OLEM-2020-0107-0154	N/A
7	MO	Lake Road	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 55	EPA-HQ-OLEM-2020-0107-0154	N/A
7	MO	Lake Road	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 56	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	Lake Shore	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 57	EPA-HQ-OLEM-2020-0107-0154	N/A
5	IL	Meredosia	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 58	EPA-HQ-OLEM-2020-0107-0154	N/A
4	GA	Mitchell	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 59	EPA-HQ-OLEM-2020-0107-0154	N/A
4	GA	Mitchell	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 60	EPA-HQ-OLEM-2020-0107-0154	N/A
4	GA	Mitchell	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 61	EPA-HQ-OLEM-2020-0107-0154	N/A
3	PA	Mitchell Power Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 62	EPA-HQ-OLEM-2020-0107-0154	N/A
3	PA	Mitchell Power Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 63	EPA-HQ-OLEM-2020-0107-0154	N/A
1	MA	Mount Tom	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 64	EPA-HQ-OLEM-2020-0107-0154	N/A
1	MA	Mount Tom	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 65	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	Muskingum River	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 66	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	Muskingum River	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 67	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	Muskingum River	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 68	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	Muskingum River	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 69	EPA-HQ-OLEM-2020-0107-0154	N/A
3	DE	NRG Energy Center Dover	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 70	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	O H Hutchings	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 71	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	O H Hutchings	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 72	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	O H Hutchings	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 73	EPA-HQ-OLEM-2020-0107-0154	N/A
8	WY	Osage	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 74	EPA-HQ-OLEM-2020-0107-0154	N/A
8	WY	Osage	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 75	EPA-HQ-OLEM-2020-0107-0154	N/A
5	IL	Pearl Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 76	EPA-HQ-OLEM-2020-0107-0154	N/A
3	WV	Philip Sporn	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 77	EPA-HQ-OLEM-2020-0107-0154	N/A
3	WV	Philip Sporn	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 78	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	Picway	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 79	EPA-HQ-OLEM-2020-0107-0154	N/A
3	PA	Portland	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 80	EPA-HQ-OLEM-2020-0107-0154	N/A
3	PA	Portland	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 81	EPA-HQ-OLEM-2020-0107-0154	N/A
3	PA	Portland	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 82	EPA-HQ-OLEM-2020-0107-0154	N/A
5	WI	Pulliam	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 83	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	R. E. Burger	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 84	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	R. E. Burger	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 85	EPA-HQ-OLEM-2020-0107-0154	N/A
3	WV	R. Paul Smith Power Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 86	EPA-HQ-OLEM-2020-0107-0154	N/A
3	WV	R. Paul Smith Power Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 87	EPA-HQ-OLEM-2020-0107-0154	N/A
7	IA	Riverside	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 88	EPA-HQ-OLEM-2020-0107-0154	N/A
7	IA	Riverside	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 89	EPA-HQ-OLEM-2020-0107-0154	N/A
5	MN	Riverside	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 90	EPA-HQ-OLEM-2020-0107-0154	N/A
7	KS	Riverton	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 91	EPA-HQ-OLEM-2020-0107-0154	N/A
3	WV	Rivesville Power Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 92	EPA-HQ-OLEM-2020-0107-0154	N/A
3	WV	Rivesville Power Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 93	EPA-HQ-OLEM-2020-0107-0154	N/A
3	WV	Rivesville Power Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 94	EPA-HQ-OLEM-2020-0107-0154	N/A
3	WV	Rivesville Power Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 95	EPA-HQ-OLEM-2020-0107-0154	N/A
5	WI	Rock River	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 96	EPA-HQ-OLEM-2020-0107-0154	N/A

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
5	WI	Rock River	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 97	EPA-HQ-OLEM-2020-0107-0154	N/A
5	WI	Rock River	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 98	EPA-HQ-OLEM-2020-0107-0154	N/A
5	WI	Rock River	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 99	EPA-HQ-OLEM-2020-0107-0154	N/A
4	FL	Scholz	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 100	EPA-HQ-OLEM-2020-0107-0154	N/A
4	FL	Scholz	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 101	EPA-HQ-OLEM-2020-0107-0154	N/A
4	FL	Scholz	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 102	EPA-HQ-OLEM-2020-0107-0154	N/A
3	PA	Shawville	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 103	EPA-HQ-OLEM-2020-0107-0154	N/A
3	PA	Shawville	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 104	EPA-HQ-OLEM-2020-0107-0154	N/A
3	PA	Shawville	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 105	EPA-HQ-OLEM-2020-0107-0154	N/A
7	IA	Sixth Street Generating Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 106	EPA-HQ-OLEM-2020-0107-0154	N/A
7	IA	Sixth Street Generating Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 107	EPA-HQ-OLEM-2020-0107-0154	N/A
7	IA	Sixth Street Generating Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 108	EPA-HQ-OLEM-2020-0107-0154	N/A
7	IA	Sixth Street Generating Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 109	EPA-HQ-OLEM-2020-0107-0154	N/A
1	MA	Somerset Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 110	EPA-HQ-OLEM-2020-0107-0154	N/A
1	MA	Somerset Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 111	EPA-HQ-OLEM-2020-0107-0154	N/A
1	MA	Somerset Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 112	EPA-HQ-OLEM-2020-0107-0154	N/A
1	MA	Somerset Station	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 113	EPA-HQ-OLEM-2020-0107-0154	N/A
5	IN	Stateline Power Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 114	EPA-HQ-OLEM-2020-0107-0154	N/A
5	IN	Tanners Creek	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 115	EPA-HQ-OLEM-2020-0107-0154	N/A
5	IN	Tanners Creek	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 116	EPA-HQ-OLEM-2020-0107-0154	N/A
5	IN	Tanners Creek	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 117	EPA-HQ-OLEM-2020-0107-0154	N/A
5	IN	Tanners Creek	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 118	EPA-HQ-OLEM-2020-0107-0154	N/A
5	IN	Tanners Creek	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 119	EPA-HQ-OLEM-2020-0107-0154	N/A
5	IL	Venice	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 120	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	Walter C Beckjord	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 121	EPA-HQ-OLEM-2020-0107-0154	N/A
5	OH	Walter C Beckjord	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 122	EPA-HQ-OLEM-2020-0107-0154	N/A
4	TN	Watts Bar Fossil Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 123	EPA-HQ-OLEM-2020-0107-0154	N/A
4	TN	Watts Bar Fossil Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 124	EPA-HQ-OLEM-2020-0107-0154	N/A
4	AL	Widows Creek Fossil Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 125	EPA-HQ-OLEM-2020-0107-0154	N/A
4	AL	Widows Creek Fossil Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 126	EPA-HQ-OLEM-2020-0107-0154	N/A
4	AL	Widows Creek Fossil Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 127	EPA-HQ-OLEM-2020-0107-0154	N/A
4	AL	Widows Creek Fossil Plant	Legacy SI	Potential Legacy CCR Surface Impoundment Universe, Row 128	EPA-HQ-OLEM-2020-0107-0154	N/A
4	AL	Widows Creek	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 2	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	AL	Widows Creek	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 3	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	AL	Widows Creek	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 4	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	AL	Widows Creek	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 5	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	AL	Widows Creek	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 6	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	AL	Widows Creek	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 7	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	AL	Widows Creek	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 8	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	AL	Widows Creek	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 9	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
8	CO	Craig	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 10	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
8	CO	Craig	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 11	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
8	CO	Martin Drake	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 12	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
8	CO	Martin Drake	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 13	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
8	CO	Martin Drake	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 14	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
8	CO	Martin Drake	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 15	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	GA	Kraft	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 16	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
7	IA	Dubuque	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 17	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
7	IA	Riverside	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 18	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	IL	Fisk Street	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 19	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	IL	Fisk Street	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 20	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	IL	Fisk Street	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 21	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	IL	Lakeside	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 22	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	IL	Meredosia	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 23	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	IL	Meredosia	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 24	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	IL	Vermilion	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 25	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	IL	Vermilion	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 26	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
5	IN	Dean H Mitchell	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 27	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	IN	Dean H Mitchell	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 28	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	IN	Edwardsport	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 29	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	IN	Warrick	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 30	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	KY	HMP&L Station Two Henderson	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 31	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	KY	HMP&L Station Two Henderson	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 32	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	KY	HMP&L Station Two Henderson	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 33	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	KY	Tyrone	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 34	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
1	MA	Mount Tom	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 35	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
1	MA	Mount Tom	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 36	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
1	MA	Mount Tom	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 37	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	MD	AES Warrior Run Cogeneration Facility	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 38	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	MI	Eckert Station	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 39	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	MI	Harbor Beach Power Plant	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 40	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	MI	Harbor Beach Power Plant	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 41	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	MN	Allen S King	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 42	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	MN	Allen S King	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 43	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
7	MO	Hawthorn	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 44	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
7	MO	Hawthorn	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 45	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
6	NM	San Juan	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 46	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	OH	Avon Lake	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 47	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	OH	Avon Lake	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 48	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	OH	Niles	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 49	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	OH	Niles	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 50	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	OH	Niles	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 51	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	OH	Niles	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 52	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	OH	Walter C Beckjord	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 53	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	OH	Walter C Beckjord	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 54	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
6	OK	Sooner	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 55	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
6	OK	Sooner	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 56	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
6	OK	Sooner	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 57	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	PA	Fayette Energy Facility	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 58	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	PA	Shawville	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 59	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	PA	Titus	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 60	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	PA	Titus	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 61	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	PA	Wheelabrator Frackville Energy	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 62	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	SC	Urquhart	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 63	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	SC	Urquhart	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 64	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
4	SC	Urquhart	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 65	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
6	TX	Harrington	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 66	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
6	TX	Harrington	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 67	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
6	TX	J T Deely	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 68	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
6	TX	J T Deely	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 69	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
6	TX	J T Deely	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 70	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
6	TX	J T Deely	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 71	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
6	TX	J T Deely	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 72	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
6	TX	J T Deely	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 73	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	VA	Hopewell Power Station	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 74	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	WI	Alma	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 75	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	WI	Genoa	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 76	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
5	WI	Genoa	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 77	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	WV	FirstEnergy Willow Island	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 78	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 79	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 80	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 81	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 82	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	WV	Grant Town Power Plant	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 83	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
3	WV	Kanawha River	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 84	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	WV	Kanawha River	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 85	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	WV	Kanawha River	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 86	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	WV	Philip Sporn	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 87	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	WV	Philip Sporn	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 88	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
3	WV	Philip Sporn	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 89	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
8	WY	Wyodak	Legacy SI	Legacy Surface Impoundments Sensitivity Analysis, Row 90	EPA-HQ-OLEM-2020-0107-0160	Earthjustice et al.
10	AK	Healy	CCRMU	Potential CCR Management Unit Universe, Row 2	EPA-HQ-OLEM-2020-0107-0155	N/A
6	AR	Flint Creek	CCRMU	Potential CCR Management Unit Universe, Row 3	EPA-HQ-OLEM-2020-0107-0155	N/A
6	AR	Flint Creek	CCRMU	Potential CCR Management Unit Universe, Row 4	EPA-HQ-OLEM-2020-0107-0155	N/A
5	AR	Independence Steam Electric Station	CCRMU	Potential CCR Management Unit Universe, Row 5	EPA-HQ-OLEM-2020-0107-0155	N/A
6	AR	Independence Steam Electric Station	CCRMU	Potential CCR Management Unit Universe, Row 6	EPA-HQ-OLEM-2020-0107-0155	N/A
6	AR	White Bluff	CCRMU	Potential CCR Management Unit Universe, Row 7	EPA-HQ-OLEM-2020-0107-0155	N/A
6	AR	White Bluff	CCRMU	Potential CCR Management Unit Universe, Row 8	EPA-HQ-OLEM-2020-0107-0155	N/A
6	AR	White Bluff	CCRMU	Potential CCR Management Unit Universe, Row 9	EPA-HQ-OLEM-2020-0107-0155	N/A
8	CO	Arapahoe	CCRMU	Potential CCR Management Unit Universe, Row 10	EPA-HQ-OLEM-2020-0107-0155	N/A
8	CO	Arapahoe	CCRMU	Potential CCR Management Unit Universe, Row 11	EPA-HQ-OLEM-2020-0107-0155	N/A
3	DE	Indian River Generating Station	CCRMU	Potential CCR Management Unit Universe, Row 12	EPA-HQ-OLEM-2020-0107-0155	N/A
7	IA	Burlington	CCRMU	Potential CCR Management Unit Universe, Row 13	EPA-HQ-OLEM-2020-0107-0155	N/A
7	IA	Burlington	CCRMU	Potential CCR Management Unit Universe, Row 14	EPA-HQ-OLEM-2020-0107-0155	N/A
7	IA	Lansing	CCRMU	Potential CCR Management Unit Universe, Row 15	EPA-HQ-OLEM-2020-0107-0155	N/A
7	IA	Prairie Creek	CCRMU	Potential CCR Management Unit Universe, Row 16	EPA-HQ-OLEM-2020-0107-0155	N/A
7	IA	Sutherland	CCRMU	Potential CCR Management Unit Universe, Row 17	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IL	Baldwin Energy Complex	CCRMU	Potential CCR Management Unit Universe, Row 18	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IL	Baldwin Energy Complex	CCRMU	Potential CCR Management Unit Universe, Row 19	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IL	Hennepin Power Station	CCRMU	Potential CCR Management Unit Universe, Row 20	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IL	Joppa	CCRMU	Potential CCR Management Unit Universe, Row 21	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IL	Lincoln Generating Facility	CCRMU	Potential CCR Management Unit Universe, Row 22	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IL	Newton	CCRMU	Potential CCR Management Unit Universe, Row 23	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IL	Newton	CCRMU	Potential CCR Management Unit Universe, Row 24	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IL	Waukegan	CCRMU	Potential CCR Management Unit Universe, Row 25	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IL	Waukegan	CCRMU	Potential CCR Management Unit Universe, Row 26	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IL	Will County	CCRMU	Potential CCR Management Unit Universe, Row 27	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IL	Will County	CCRMU	Potential CCR Management Unit Universe, Row 28	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IL	Wood River	CCRMU	Potential CCR Management Unit Universe, Row 29	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	AES Petersburg	CCRMU	Potential CCR Management Unit Universe, Row 30	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	AES Petersburg	CCRMU	Potential CCR Management Unit Universe, Row 31	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	Breed	CCRMU	Potential CCR Management Unit Universe, Row 32	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	Cayuga (IN)	CCRMU	Potential CCR Management Unit Universe, Row 33	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	Clifty Creek	CCRMU	Potential CCR Management Unit Universe, Row 34	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	Eagle Valley	CCRMU	Potential CCR Management Unit Universe, Row 35	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	Eagle Valley	CCRMU	Potential CCR Management Unit Universe, Row 36	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	Harding Street	CCRMU	Potential CCR Management Unit Universe, Row 37	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	Harding Street	CCRMU	Potential CCR Management Unit Universe, Row 38	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	Harding Street	CCRMU	Potential CCR Management Unit Universe, Row 39	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	Harding Street	CCRMU	Potential CCR Management Unit Universe, Row 40	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	Michigan City	CCRMU	Potential CCR Management Unit Universe, Row 41	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	Noblesville	CCRMU	Potential CCR Management Unit Universe, Row 42	EPA-HQ-OLEM-2020-0107-0155	N/A
4	IN	R M Schahfer	CCRMU	Potential CCR Management Unit Universe, Row 43	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	R M Schahfer	CCRMU	Potential CCR Management Unit Universe, Row 44	EPA-HQ-OLEM-2020-0107-0155	N/A
5	IN	Rockport	CCRMU	Potential CCR Management Unit Universe, Row 45	EPA-HQ-OLEM-2020-0107-0155	N/A
4	KY	Cane Run	CCRMU	Potential CCR Management Unit Universe, Row 46	EPA-HQ-OLEM-2020-0107-0155	N/A
4	KY	Cooper	CCRMU	Potential CCR Management Unit Universe, Row 47	EPA-HQ-OLEM-2020-0107-0155	N/A
4	KY	Dale Station	CCRMU	Potential CCR Management Unit Universe, Row 48	EPA-HQ-OLEM-2020-0107-0155	N/A
4	KY	E W Brown	CCRMU	Potential CCR Management Unit Universe, Row 49	EPA-HQ-OLEM-2020-0107-0155	N/A
4	KY	Paradise	CCRMU	Potential CCR Management Unit Universe, Row 50	EPA-HQ-OLEM-2020-0107-0155	N/A
3	MD	Dickerson	CCRMU	Potential CCR Management Unit Universe, Row 51	EPA-HQ-OLEM-2020-0107-0155	N/A

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
5	MI	Dan E Karn	CCRMU	Potential CCR Management Unit Universe, Row 52	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	Dan E Karn	CCRMU	Potential CCR Management Unit Universe, Row 53	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	Erickson Station	CCRMU	Potential CCR Management Unit Universe, Row 54	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	J B Sims	CCRMU	Potential CCR Management Unit Universe, Row 55	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	J B Sims	CCRMU	Potential CCR Management Unit Universe, Row 56	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	J H Campbell	CCRMU	Potential CCR Management Unit Universe, Row 57	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	J H Campbell	CCRMU	Potential CCR Management Unit Universe, Row 58	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	J H Campbell	CCRMU	Potential CCR Management Unit Universe, Row 59	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	J H Campbell	CCRMU	Potential CCR Management Unit Universe, Row 60	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	J H Campbell	CCRMU	Potential CCR Management Unit Universe, Row 61	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	J H Campbell	CCRMU	Potential CCR Management Unit Universe, Row 62	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	J H Campbell	CCRMU	Potential CCR Management Unit Universe, Row 63	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	Presque Isle	CCRMU	Potential CCR Management Unit Universe, Row 64	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MI	Presque Isle	CCRMU	Potential CCR Management Unit Universe, Row 65	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MN	Austin Northeast	CCRMU	Potential CCR Management Unit Universe, Row 66	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MN	B C Cobb	CCRMU	Potential CCR Management Unit Universe, Row 67	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MN	B C Cobb	CCRMU	Potential CCR Management Unit Universe, Row 68	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MN	Black Dog	CCRMU	Potential CCR Management Unit Universe, Row 69	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MN	Clay Boswell	CCRMU	Potential CCR Management Unit Universe, Row 70	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MN	Sherburne County	CCRMU	Potential CCR Management Unit Universe, Row 71	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MN	Sherburne County	CCRMU	Potential CCR Management Unit Universe, Row 72	EPA-HQ-OLEM-2020-0107-0155	N/A
5	MN	Sherburne County	CCRMU	Potential CCR Management Unit Universe, Row 73	EPA-HQ-OLEM-2020-0107-0155	N/A
7	MO	John Twitty Energy Center	CCRMU	Potential CCR Management Unit Universe, Row 74	EPA-HQ-OLEM-2020-0107-0155	N/A
7	MO	Meramec	CCRMU	Potential CCR Management Unit Universe, Row 75	EPA-HQ-OLEM-2020-0107-0155	N/A
7	MO	Meramec	CCRMU	Potential CCR Management Unit Universe, Row 76	EPA-HQ-OLEM-2020-0107-0155	N/A
7	MO	Meramec	CCRMU	Potential CCR Management Unit Universe, Row 77	EPA-HQ-OLEM-2020-0107-0155	N/A
7	MO	Meramec	CCRMU	Potential CCR Management Unit Universe, Row 78	EPA-HQ-OLEM-2020-0107-0155	N/A
8	MT	Colstrip Energy LP	CCRMU	Potential CCR Management Unit Universe, Row 79	EPA-HQ-OLEM-2020-0107-0155	N/A
8	MT	Colstrip Energy LP	CCRMU	Potential CCR Management Unit Universe, Row 80	EPA-HQ-OLEM-2020-0107-0155	N/A
8	MT	Colstrip Energy LP	CCRMU	Potential CCR Management Unit Universe, Row 81	EPA-HQ-OLEM-2020-0107-0155	N/A
8	MT	Colstrip Energy LP	CCRMU	Potential CCR Management Unit Universe, Row 82	EPA-HQ-OLEM-2020-0107-0155	N/A
8	MT	Colstrip Energy LP	CCRMU	Potential CCR Management Unit Universe, Row 83	EPA-HQ-OLEM-2020-0107-0155	N/A
8	MT	Colstrip Energy LP	CCRMU	Potential CCR Management Unit Universe, Row 84	EPA-HQ-OLEM-2020-0107-0155	N/A
4	NC	Dan River	CCRMU	Potential CCR Management Unit Universe, Row 85	EPA-HQ-OLEM-2020-0107-0155	N/A
8	ND	Coal Creek	CCRMU	Potential CCR Management Unit Universe, Row 86	EPA-HQ-OLEM-2020-0107-0155	N/A
8	ND	Milton R Young	CCRMU	Potential CCR Management Unit Universe, Row 87	EPA-HQ-OLEM-2020-0107-0155	N/A
7	NE	Gerald Gentleman	CCRMU	Potential CCR Management Unit Universe, Row 88	EPA-HQ-OLEM-2020-0107-0155	N/A
7	NE	North Omaha	CCRMU	Potential CCR Management Unit Universe, Row 89	EPA-HQ-OLEM-2020-0107-0155	N/A
7	NE	Platte	CCRMU	Potential CCR Management Unit Universe, Row 90	EPA-HQ-OLEM-2020-0107-0155	N/A
9	NM	Four Corners	CCRMU	Potential CCR Management Unit Universe, Row 91	EPA-HQ-OLEM-2020-0107-0155	N/A
9	NV	Reid Gardner	CCRMU	Potential CCR Management Unit Universe, Row 92	EPA-HQ-OLEM-2020-0107-0155	N/A
2	NY	Cayuga (NY)	CCRMU	Potential CCR Management Unit Universe, Row 93	EPA-HQ-OLEM-2020-0107-0155	N/A
2	NY	Cayuga (NY)	CCRMU	Potential CCR Management Unit Universe, Row 94	EPA-HQ-OLEM-2020-0107-0155	N/A
5	OH	Conesville	CCRMU	Potential CCR Management Unit Universe, Row 95	EPA-HQ-OLEM-2020-0107-0155	N/A
5	OH	Conesville	CCRMU	Potential CCR Management Unit Universe, Row 96	EPA-HQ-OLEM-2020-0107-0155	N/A
5	OH	Gorsuch	CCRMU	Potential CCR Management Unit Universe, Row 97	EPA-HQ-OLEM-2020-0107-0155	N/A
5	OH	J M Stuart	CCRMU	Potential CCR Management Unit Universe, Row 98	EPA-HQ-OLEM-2020-0107-0155	N/A
5	OH	Kyger Creek	CCRMU	Potential CCR Management Unit Universe, Row 99	EPA-HQ-OLEM-2020-0107-0155	N/A
6	OK	GRDA	CCRMU	Potential CCR Management Unit Universe, Row 100	EPA-HQ-OLEM-2020-0107-0155	N/A
3	PA	Brunner Island	CCRMU	Potential CCR Management Unit Universe, Row 101	EPA-HQ-OLEM-2020-0107-0155	N/A
3	PA	Hatfields Ferry Power Station	CCRMU	Potential CCR Management Unit Universe, Row 102	EPA-HQ-OLEM-2020-0107-0155	N/A
3	PA	Homer City Generating Station	CCRMU	Potential CCR Management Unit Universe, Row 103	EPA-HQ-OLEM-2020-0107-0155	N/A
3	PA	Homer City Generating Station	CCRMU	Potential CCR Management Unit Universe, Row 104	EPA-HQ-OLEM-2020-0107-0155	N/A
3	PA	Homer City Generating Station	CCRMU	Potential CCR Management Unit Universe, Row 105	EPA-HQ-OLEM-2020-0107-0155	N/A
3	PA	New Castle Plant	CCRMU	Potential CCR Management Unit Universe, Row 106	EPA-HQ-OLEM-2020-0107-0155	N/A
3	PA	New Castle Plant	CCRMU	Potential CCR Management Unit Universe, Row 107	EPA-HQ-OLEM-2020-0107-0155	N/A
3	PA	Shawville	CCRMU	Potential CCR Management Unit Universe, Row 108	EPA-HQ-OLEM-2020-0107-0155	N/A

Region	State	Plant Name	Legacy SI or CCRMU	Docket Document	Docket ID	Commenter
4	SC	Cope	CCRMU	Potential CCR Management Unit Universe, Row 109	EPA-HQ-OLEM-2020-0107-0155	N/A
4	SC	Cope	CCRMU	Potential CCR Management Unit Universe, Row 110	EPA-HQ-OLEM-2020-0107-0155	N/A
4	SC	Wateree	CCRMU	Potential CCR Management Unit Universe, Row 111	EPA-HQ-OLEM-2020-0107-0155	N/A
4	SC	Williams	CCRMU	Potential CCR Management Unit Universe, Row 112	EPA-HQ-OLEM-2020-0107-0155	N/A
4	TN	Gallatin	CCRMU	Potential CCR Management Unit Universe, Row 113	EPA-HQ-OLEM-2020-0107-0155	N/A
4	TN	John Sevier Coal Fired Fossil Plant	CCRMU	Potential CCR Management Unit Universe, Row 114	EPA-HQ-OLEM-2020-0107-0155	N/A
4	TN	John Sevier Coal Fired Fossil Plant	CCRMU	Potential CCR Management Unit Universe, Row 115	EPA-HQ-OLEM-2020-0107-0155	N/A
4	TN	Kingston	CCRMU	Potential CCR Management Unit Universe, Row 116	EPA-HQ-OLEM-2020-0107-0155	N/A
6	TX	Limestone	CCRMU	Potential CCR Management Unit Universe, Row 117	EPA-HQ-OLEM-2020-0107-0155	N/A
6	TX	Monticello	CCRMU	Potential CCR Management Unit Universe, Row 118	EPA-HQ-OLEM-2020-0107-0155	N/A
6	TX	Monticello	CCRMU	Potential CCR Management Unit Universe, Row 119	EPA-HQ-OLEM-2020-0107-0155	N/A
6	TX	Monticello	CCRMU	Potential CCR Management Unit Universe, Row 120	EPA-HQ-OLEM-2020-0107-0155	N/A
8	UT	Bonanza	CCRMU	Potential CCR Management Unit Universe, Row 121	EPA-HQ-OLEM-2020-0107-0155	N/A
8	UT	Huntington	CCRMU	Potential CCR Management Unit Universe, Row 122	EPA-HQ-OLEM-2020-0107-0155	N/A
8	UT	Huntington	CCRMU	Potential CCR Management Unit Universe, Row 123	EPA-HQ-OLEM-2020-0107-0155	N/A
3	VA	Chesapeake	CCRMU	Potential CCR Management Unit Universe, Row 124	EPA-HQ-OLEM-2020-0107-0155	N/A
3	VA	Chesapeake	CCRMU	Potential CCR Management Unit Universe, Row 125	EPA-HQ-OLEM-2020-0107-0155	N/A
3	VA	Clinch River	CCRMU	Potential CCR Management Unit Universe, Row 126	EPA-HQ-OLEM-2020-0107-0155	N/A
5	WI	Columbia (WI)	CCRMU	Potential CCR Management Unit Universe, Row 127	EPA-HQ-OLEM-2020-0107-0155	N/A
5	WI	Columbia (WI)	CCRMU	Potential CCR Management Unit Universe, Row 128	EPA-HQ-OLEM-2020-0107-0155	N/A
5	WI	Columbia (WI)	CCRMU	Potential CCR Management Unit Universe, Row 129	EPA-HQ-OLEM-2020-0107-0155	N/A
5	WI	Edgewater	CCRMU	Potential CCR Management Unit Universe, Row 130	EPA-HQ-OLEM-2020-0107-0155	N/A
5	WI	Edgewater	CCRMU	Potential CCR Management Unit Universe, Row 131	EPA-HQ-OLEM-2020-0107-0155	N/A
5	WI	Edgewater	CCRMU	Potential CCR Management Unit Universe, Row 132	EPA-HQ-OLEM-2020-0107-0155	N/A
5	WI	Nelson Dewey	CCRMU	Potential CCR Management Unit Universe, Row 133	EPA-HQ-OLEM-2020-0107-0155	N/A
5	WI	Nelson Dewey	CCRMU	Potential CCR Management Unit Universe, Row 134	EPA-HQ-OLEM-2020-0107-0155	N/A
3	WV	FirstEnergy Pleasants Power Station	CCRMU	Potential CCR Management Unit Universe, Row 135	EPA-HQ-OLEM-2020-0107-0155	N/A

EXHIBIT 41

CCR Surface Impoundment Definition

“CCR surface impoundment" means a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.

415 ILCS 5/3.143

"Inactive CCR surface impoundment" means a CCR surface impoundment in which CCR was placed before but not after October 19, 2015 and still contains CCR on or after October 19, 2015.”

35 Ill. Adm. Code 845.120

NOTES:

1. AERIAL IMAGERY SHOWN ON THIS FIGURE IS DATED 2022 AND WAS OBTAINED FROM LAKE COUNTY, ILLINOIS MAPS ONLINE.
2. FOR ORIGINAL SLAG FIELD, SEE FIGURES A-3 AND A-4. FOR DETAILS ON BASIS FOR ORIGINAL SLAG FIELD BOUNDARY, SEE EVALUATION SECTION 4.1.1.

CLASSIFICATION OF GRASSY FIELD

FIGURE A-1
2022 AERIAL PHOTOGRAPH OF
GRASSY FIELD SITE

SCALE IN FEET
0 400 800

NORTH

COUNTY: LAKE
STATE: ILLINOIS

PURPOSE: USE

DATE: 07-21-2023 REV. 0

PREPARED: MK / JC
REVIEWED: TD
APPROVED: TD

PROJECT NO. 12661-104

MWG
Midwest Generation, LLC

Sargent & Lundy
SARGENT & LUNDY
55 EAST MONROE STREET
CHICAGO, ILLINOIS 60603-5780

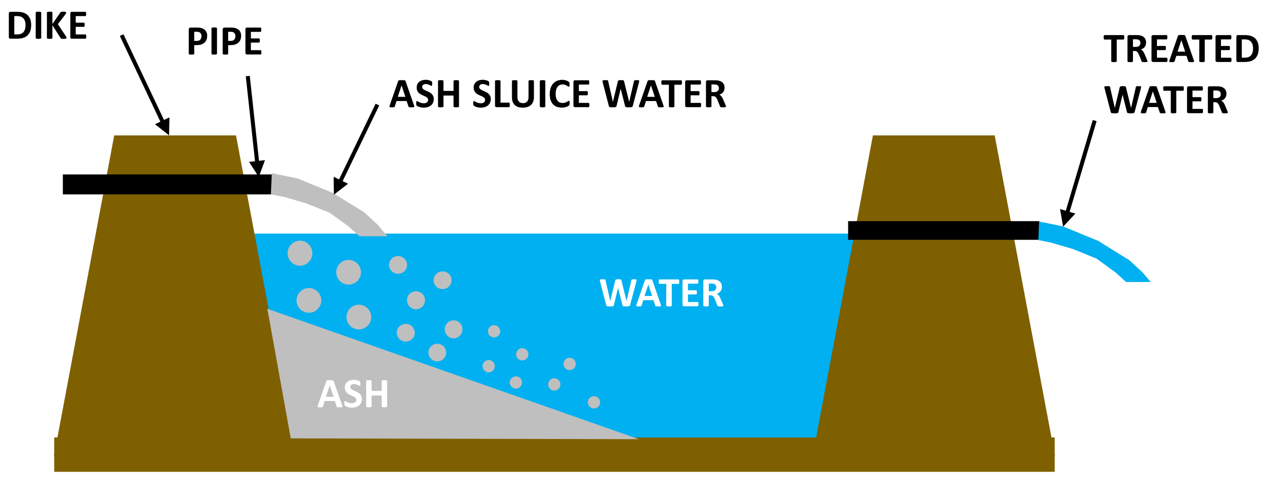
MIDWEST GENERATION, LLC
WAUKEGAN
GENERATING STATION

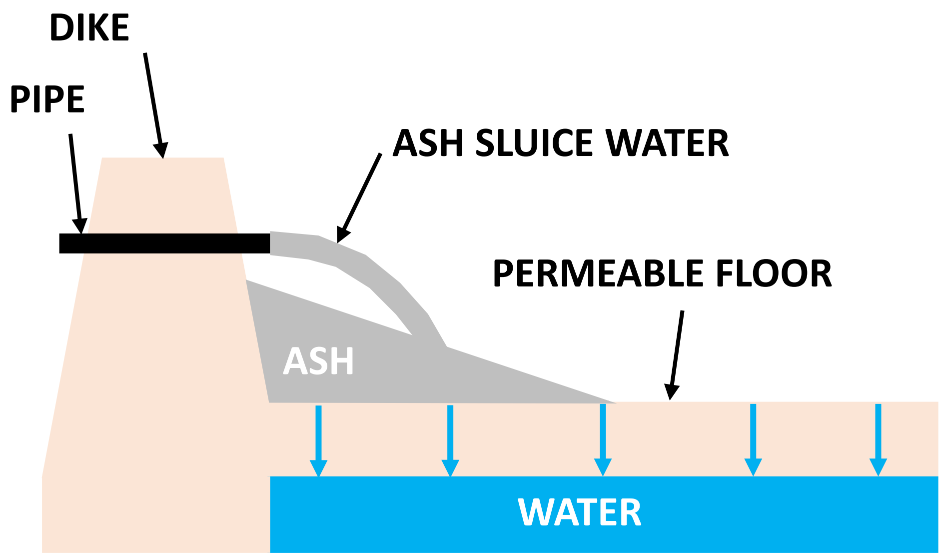
Methodology to Assess the Grassy Field

A. Gather all the documents and information available related to the Grassy Field

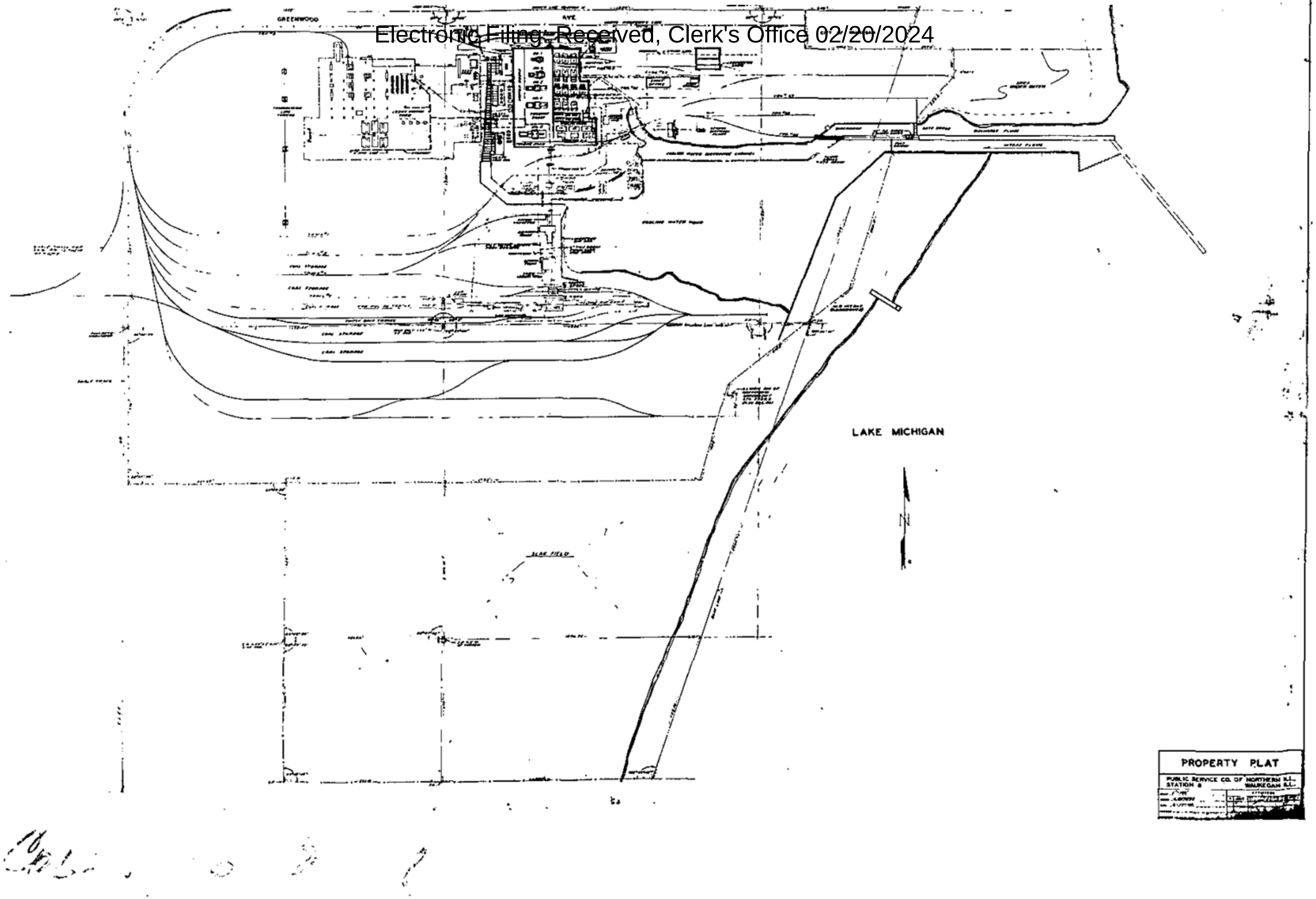
B. Evaluate the History and determine if it fits the three part CCR surface impoundment definition:

    1. A natural topographic depression, man-made excavation, or diked area, which is
    2. designed to hold an accumulation of CCR and liquids, and
    3. Used to treat, store, or dispose of CCR.





SEDIMENTATION ***OR*** **INFILTRATION**


GREENWOOD
AVE
COAL STORAGE
SLAG FIELD
LAKE MICHIGAN
N
PROPERTY PLAT
PUBLIC SERVICE CO. OF NORTHERN ILL.
STATION 8
WAUKEGAN ILL.

NOTES:

1. AERIAL IMAGERY SHOWN ON THIS FIGURE IS DATED 1939 AND WAS OBTAINED FROM LAKE COUNTY ILLINOIS MAPS ONLINE.
2. FENCELINE LOCATION IS APPROXIMATE AND WAS OBTAINED FROM S&L DRAWING M-301 (REV. H, 09-13-1954) IN APPENDIX B.
3. FOR DETAILS ON BASIS FOR ORIGINAL SLAG FIELD BOUNDARY, SEE EVALUATION SECTION 4.1.1.

CLASSIFICATION OF GRASSY FIELD

FIGURE A-2
1939 AERIAL PHOTOGRAPH OF
GRASSY FIELD SITE

SCALE IN FEET

0 400 800

NORTH

COUNTY: LAKE
STATE: ILLINOIS

PURPOSE: USE

DATE: 07-21-2023 REV. 0

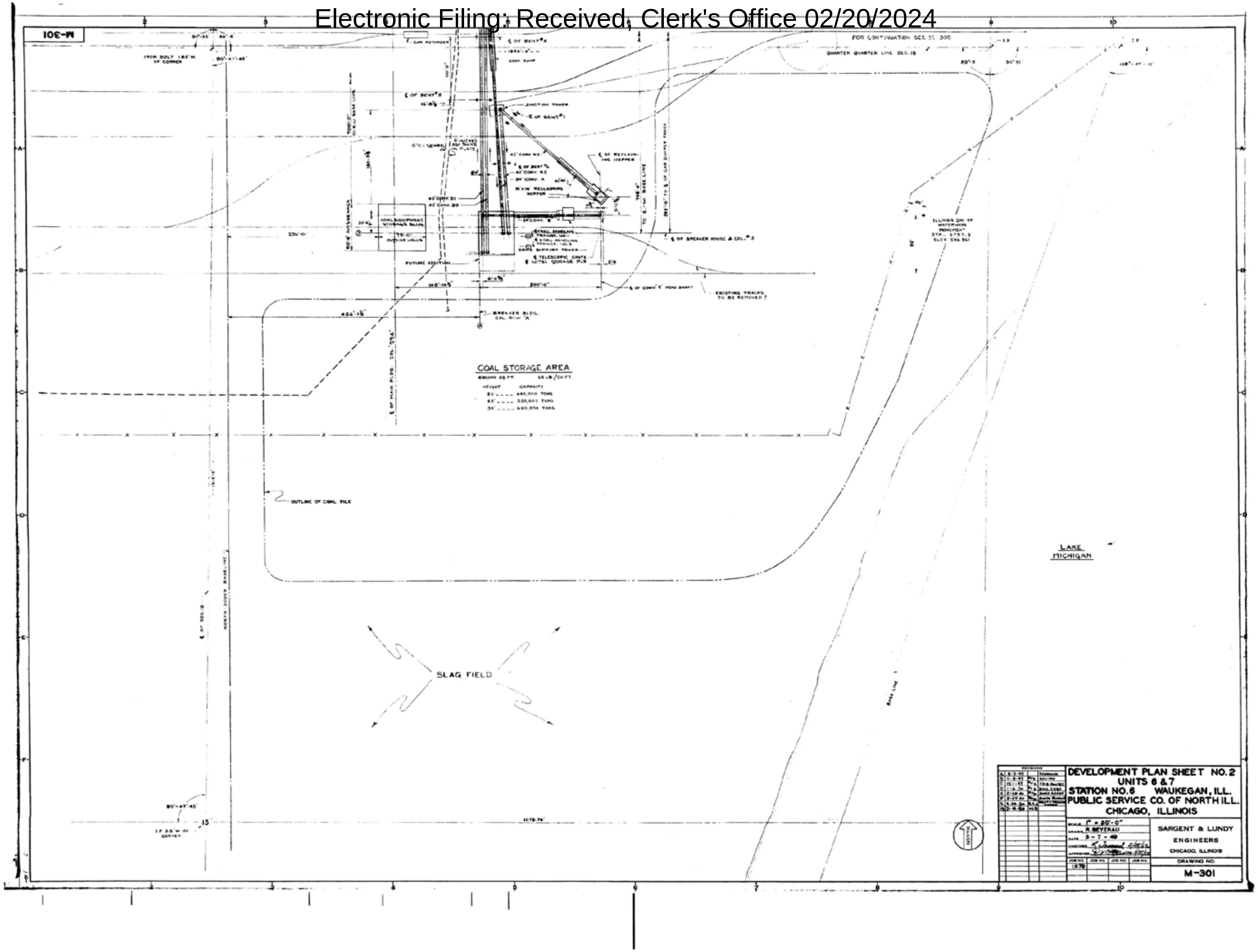
PREPARED: MK / JC
REVIEWED: TD
APPROVED: TD

PROJECT NO. 12661-104

MWG
Midwest Generation, LLC

Sargent & Lundy

MIDWEST GENERATION, LLC
WAUKEGAN
GENERATING STATION


COAL STORAGE AREA
SLAG FIELD
LAKE MICHIGAN
OUTLINE OF COAL PILE
BREAKER BLDG.
EXISTING TRACKS TO BE REMOVED
FUTURE ADDITION
DEVELOPMENT PLAN SHEET NO. 2
UNITS 6 & 7
STATION NO. 6 WAUKEGAN, ILL.
PUBLIC SERVICE CO. OF NORTH ILL.
CHICAGO, ILLINOIS
SCALE 1" = 80'-0"
DRAWN R. BEYERAU
DATE 5 - 7 - 49
JOB NO. 1879
SARGENT & LUNDY
ENGINEERS
CHICAGO, ILLINOIS
DRAWING NO.
M-301

NOTES:

1. AERIAL IMAGERY SHOWN ON THIS FIGURE IS DATED 1946 AND WAS OBTAINED FROM LAKE COUNTY, ILLINOIS MAPS ONLINE.
2. LOCATIONS OF FENCELINE AND ASH SLUICE LINE FROM UNITS 4 AND 5 ARE APPROXIMATE AND WERE OBTAINED FROM S&L DRAWING M-301 (REV. H, 09-13-1954) IN APPENDIX B.
3. FOR DETAILS ON BASIS FOR ORIGINAL SLAG FIELD BOUNDARY, SEE EVALUATION SECTION 4.1.1.

CLASSIFICATION GRASSY FIELD

FIGURE A-3
1946 AERIAL PHOTOGRAPH OF GRASSY FIELD SITE

SCALE IN FEET

0 300 600

NORTH

COUNTY: LAKE
STATE: ILLINOIS

PURPOSE: USE

DATE: 07-21-2023 REV. 0

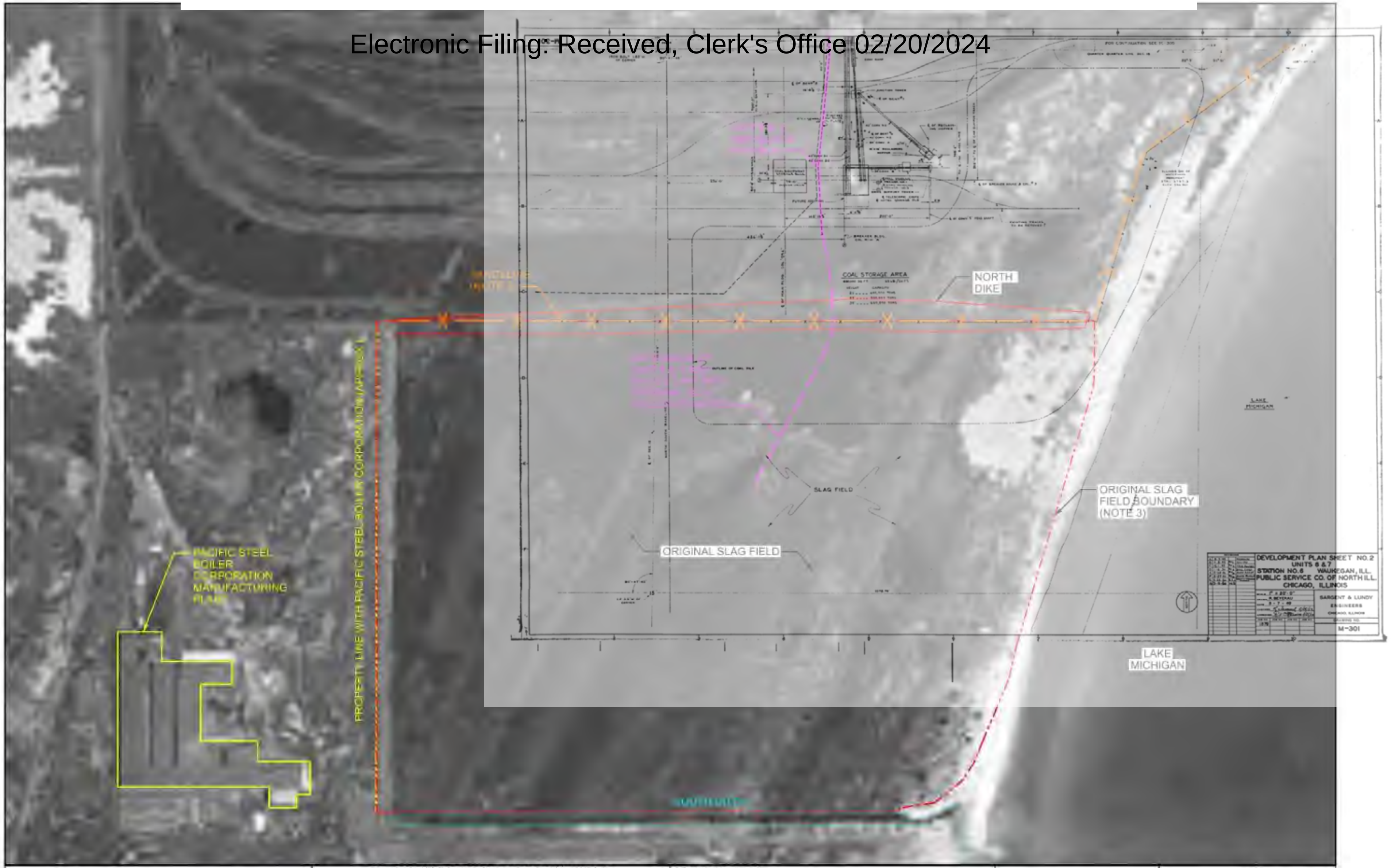
PREPARED: MK / JC
REVIEWED: TD
APPROVED: TD

PROJECT NO. 12661-104

MWG
Midwest Generation, LLC

Sargent & Lundy

MIDWEST GENERATION, LLC
WAUKEGAN
GENERATING STATION



NOTES:

1. AERIAL IMAGERY SHOWN ON THIS FIGURE IS DATED 1946 AND WAS OBTAINED FROM LAKE COUNTY, ILLINOIS MAPS ONLINE.
2. LOCATIONS OF FENCELINE AND ASH SLUICE LINE FROM UNITS 4 AND 5 ARE APPROXIMATE AND WERE OBTAINED FROM S&L DRAWING M-301 (REV. H, 09-13-1954) IN APPENDIX B.
3. FOR DETAILS ON BASIS FOR ORIGINAL SLAG FIELD BOUNDARY, SEE EVALUATION SECTION 4.1.1.

CLASSIFICATION GRASSY FIELD

FIGURE A-3
1946 AERIAL PHOTOGRAPH OF GRASSY FIELD SITE

SCALE IN FEET
0 300 600

NORTH

COUNTY: LAKE
STATE: ILLINOIS

PURPOSE: USE

DATE: 07-21-2023 REV. 0

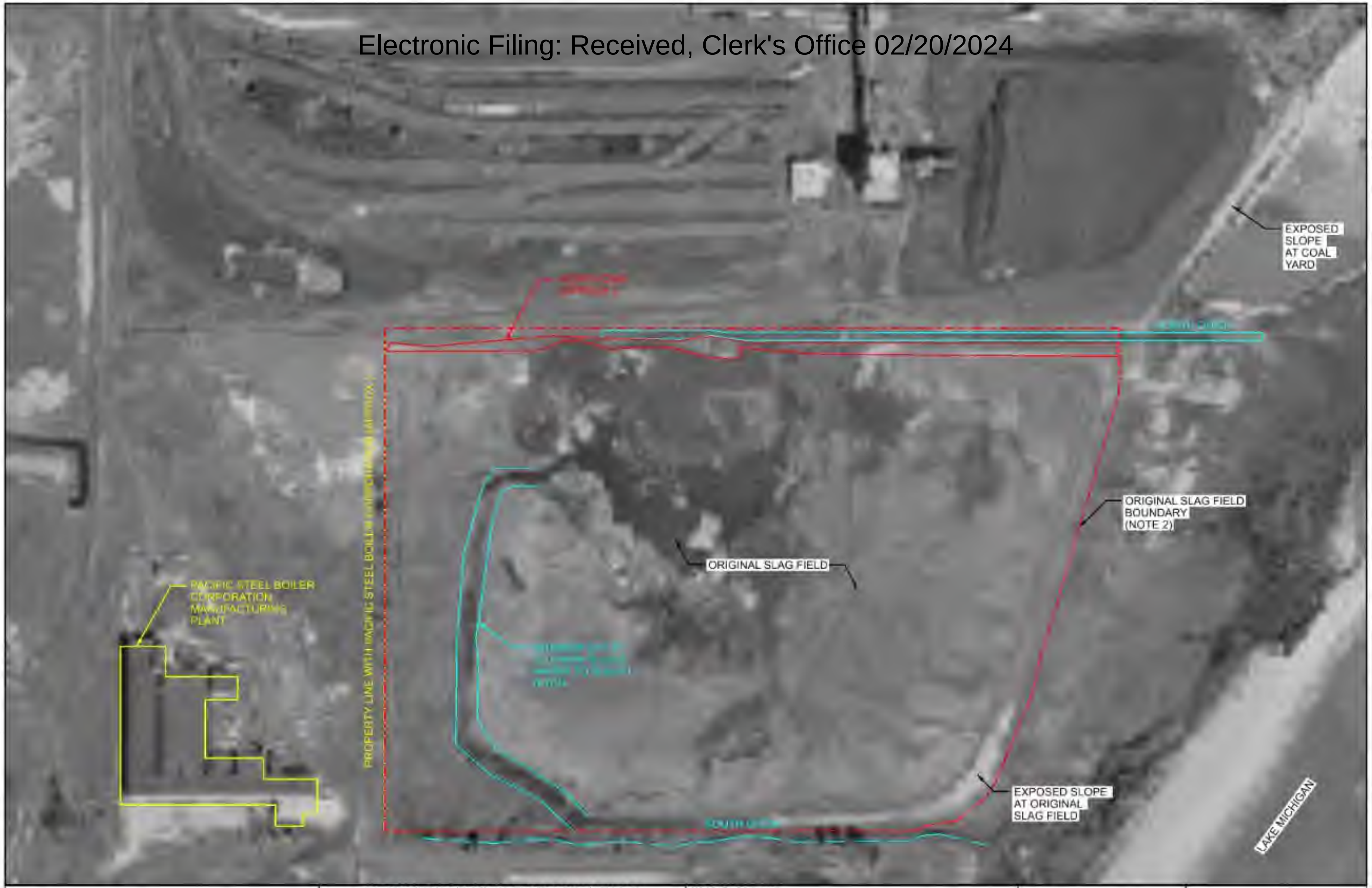
PREPARED: MK / JC
REVIEWED: TD
APPROVED: TD

PROJECT NO. 12661-104

MWG
Midwest Generation, LLC

Sargent & Lundy

MIDWEST GENERATION, LLC
WAUKEGAN
GENERATING STATION



NOTES:
1. AERIAL IMAGERY SHOWN ON THIS FIGURE IS DATED 1961 AND WAS OBTAINED FROM LAKE COUNTY ILLINOIS MAPS ONLINE.
2. FOR DETAILS ON BASIS FOR ORIGINAL SLAG FIELD BOUNDARY, SEE EVALUATION SECTION 4.1.1.

CLASSIFICATION OF GRASSY FIELD

FIGURE A-4
1961 AERIAL PHOTOGRAPH OF
GRASSY FIELD SITE

SCALE IN FEET
0 300 600

NORTH

COUNTY: LAKE
STATE: ILLINOIS

PURPOSE: USE

DATE: 07-21-2023 REV. 0

PREPARED: MK / JC
REVIEWED: TD
APPROVED: TD

PROJECT NO. 12661-104

MWG
Midwest Generation, LLC

Sargent & Lundy

MIDWEST GENERATION, LLC
WAUKEGAN
GENERATING STATION

NOTES:
1. AERIAL IMAGERY SHOWN ON THIS FIGURE IS DATED 1970 AND WAS OBTAINED FROM THE CHICAGO METROPOLITAN AGENCY FOR PLANNING2. FOR DETAILS ON BASIS FOR ORIGINAL SLAG FIELD BOUNDARY, SEE EVALUATION SECTION 4.1.1.

CLASSIFICATION OF GRASSY FIELD

FIGURE A-5
1970 ARIEAL PHOTOGRAPH OF GRASSY FIELD SITE

SCALE IN FEET
0 400 800

NORTH

COUNTY: LAKE
STATE: ILLINOIS

PURPOSE: USE

DATE: 07-21-2023 REV. 0

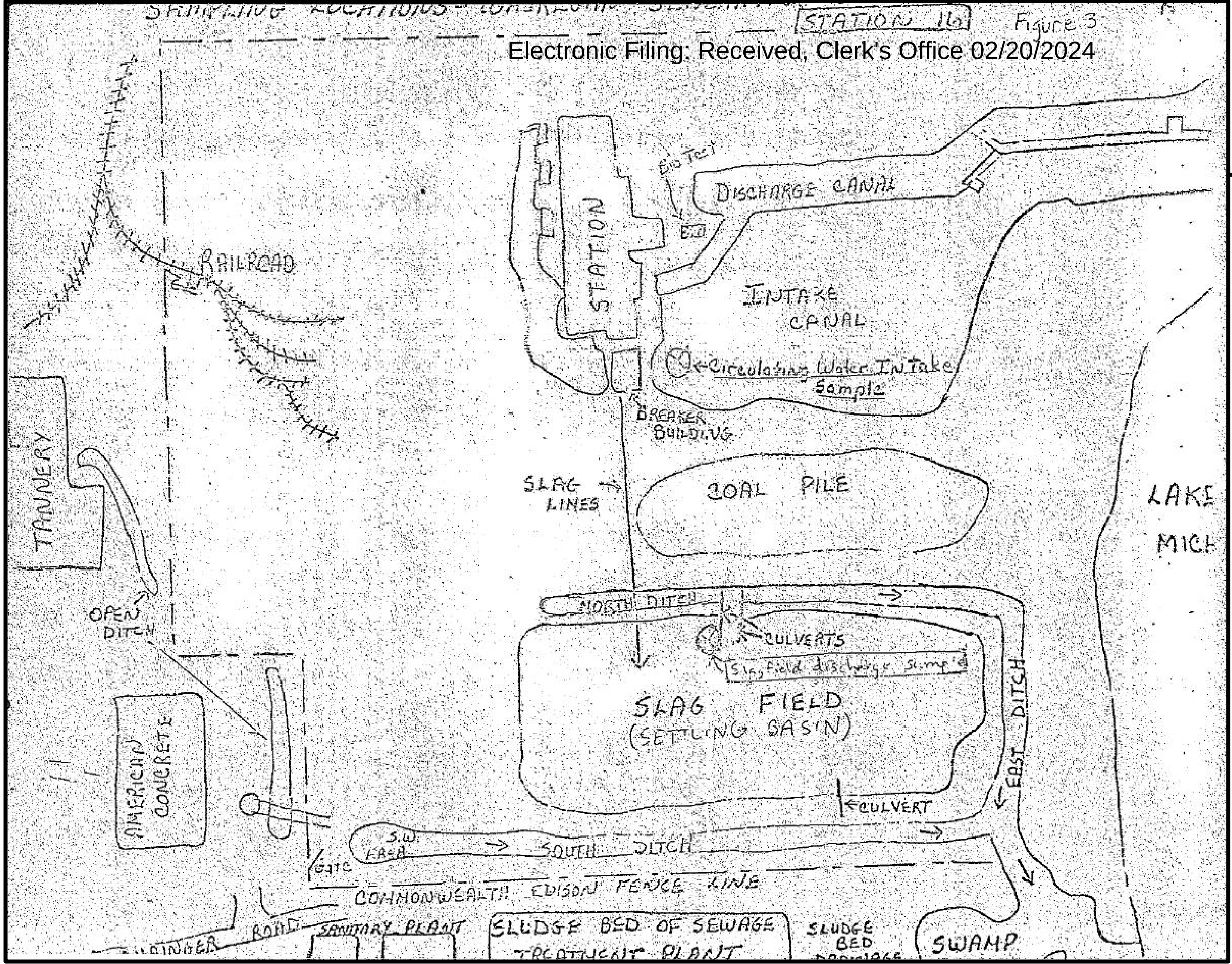
PREPARED: MK / JC
REVIEWED: TD
APPROVED: TD

PROJECT NO. 12661-104

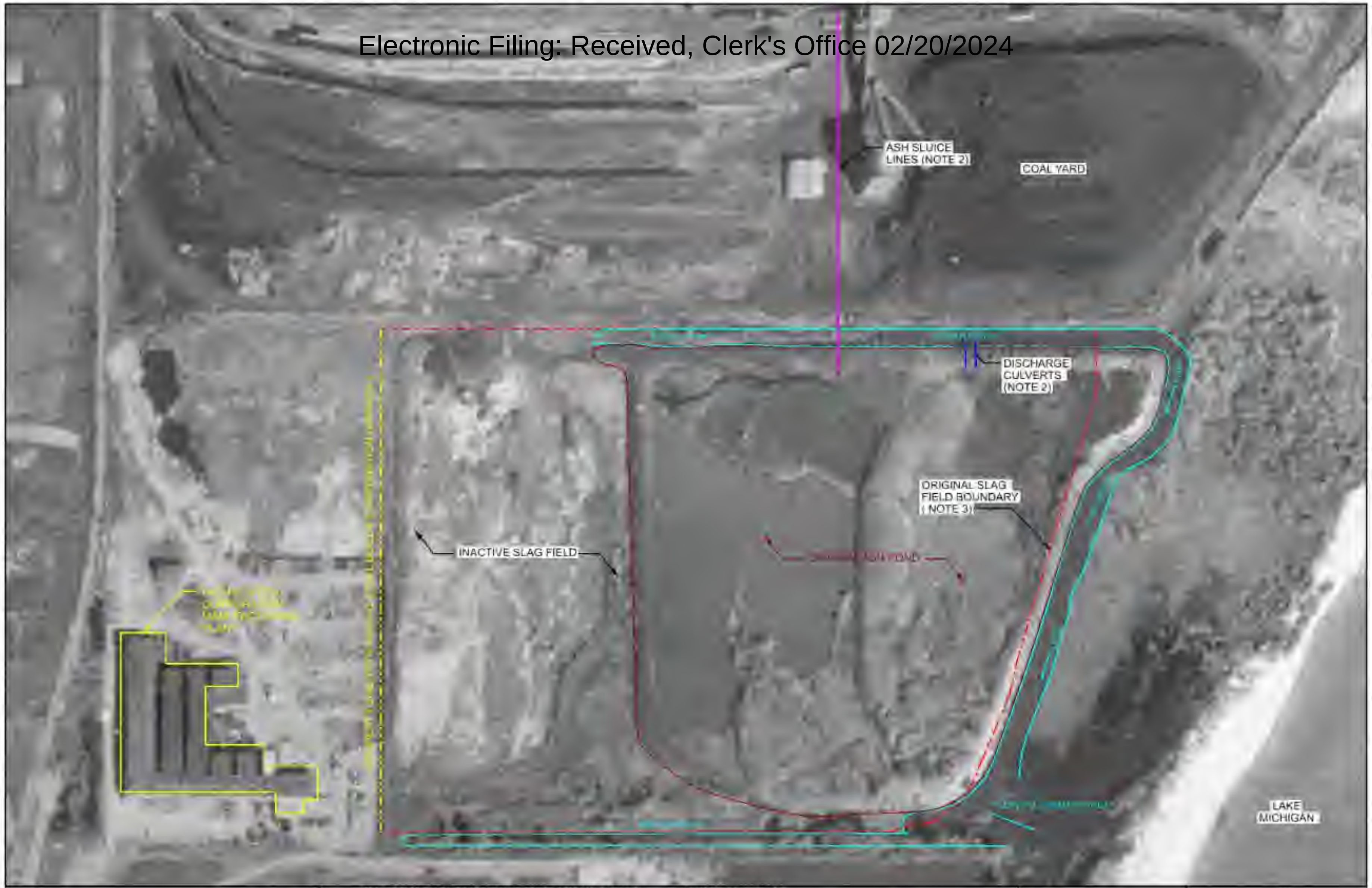
MWG
Midwest Generation, LLC

Sargent & Lundy

MIDWEST GENERATION, LLC
WAUKEGAN
GENERATING STATION



MWG Exhibit 22 at 11
IEPA Exhibit 32 at 17



NOTES:

1. AERIAL IMAGERY SHOWN ON THIS FIGURE IS DATED 1974 AND WAS OBTAINED FROM LAKE COUNTY, ILLINOIS MAPS ONLINE.
2. LOCATIONS OF ASH SLUICE LINES INTO AND DISCHARGE CULVERTS OUT OF ORIGINAL ASH POND ARE APPROXIMATE AND WERE OBTAINED FROM NUS CORPORATION DRAWING 5062-C-5006 IN APPENDIX B.
3. FOR DETAILS ON BASIS FOR ORIGINAL SLAG FIELD BOUNDARY, SEE EVALUATION SECTION 4.1.1.

CLASSIFICATION OF GRASSY FIELD

FIGURE A-6
1974 AERIAL PHOTOGRAPH OF
GRASSY FIELD SITE

SCALE IN FEET
0 300 600

NORTH

COUNTY: LAKE
STATE: ILLINOIS

PURPOSE: USE

DATE: 07-21-2023 REV. 0

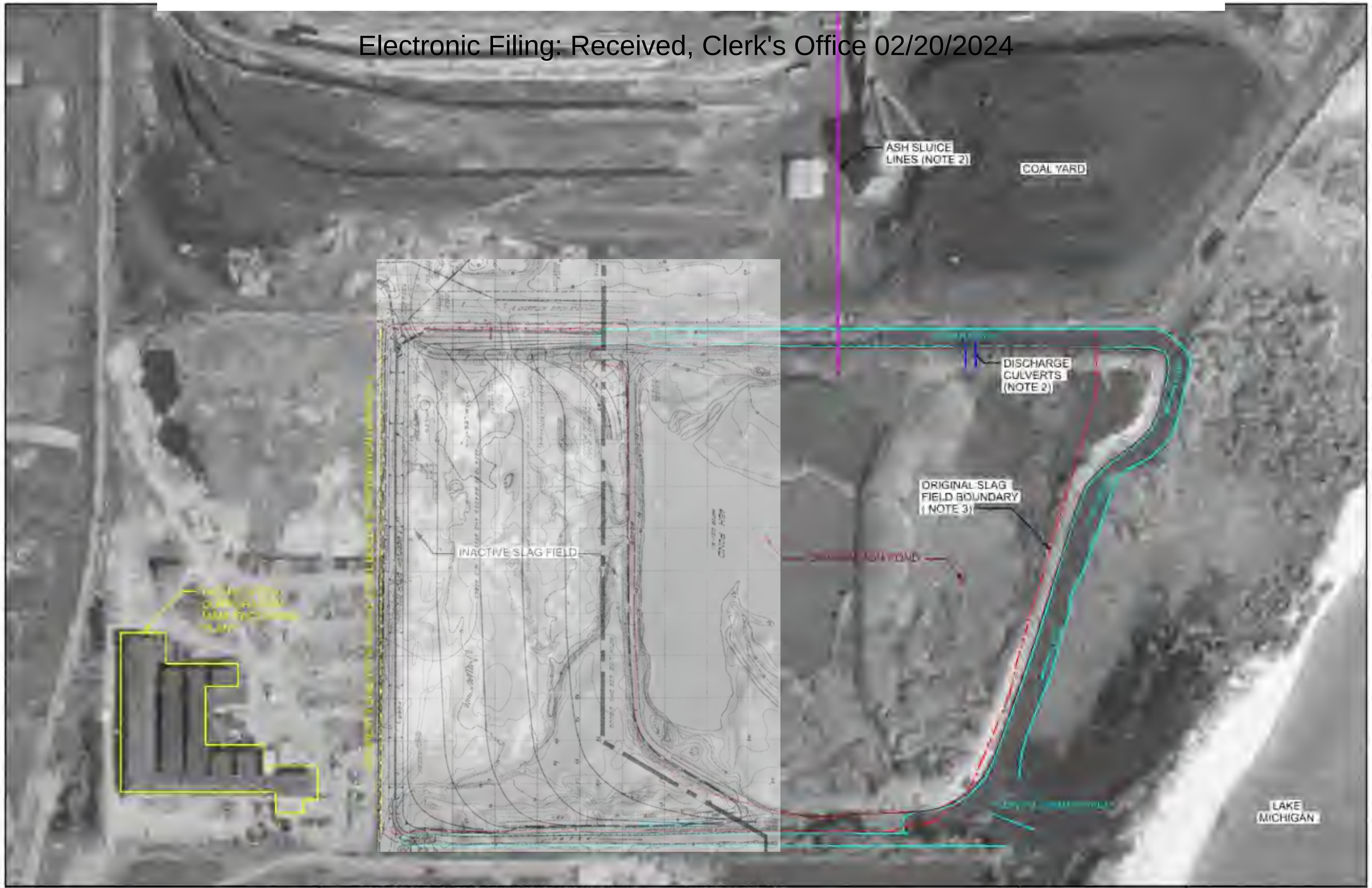
PREPARED: MK / JC
REVIEWED: TD
APPROVED: TD

PROJECT NO. 12661-104

MWG
Midwest Generation, LLC

Sargent & Lundy

MIDWEST GENERATION, LLC
WAUKEGAN
GENERATING STATION



NOTES:

1. AERIAL IMAGERY SHOWN ON THIS FIGURE IS DATED 1974 AND WAS OBTAINED FROM LAKE COUNTY, ILLINOIS MAPS ONLINE.
2. LOCATIONS OF ASH SLUICE LINES INTO AND DISCHARGE CULVERTS OUT OF ORIGINAL ASH POND ARE APPROXIMATE AND WERE OBTAINED FROM NUS CORPORATION DRAWING 5082-C-5006 IN APPENDIX B.
3. FOR DETAILS ON BASIS FOR ORIGINAL SLAG FIELD BOUNDARY, SEE EVALUATION SECTION 4.1.1

CLASSIFICATION OF GRASSY FIELD

FIGURE A-6
1974 AERIAL PHOTOGRAPH OF GRASSY FIELD SITE

SCALE IN FEET
0 300 600
NORTH

COUNTY: LAKE
STATE: ILLINOIS

PURPOSE: USE

DATE: 07-21-2023 REV. 0

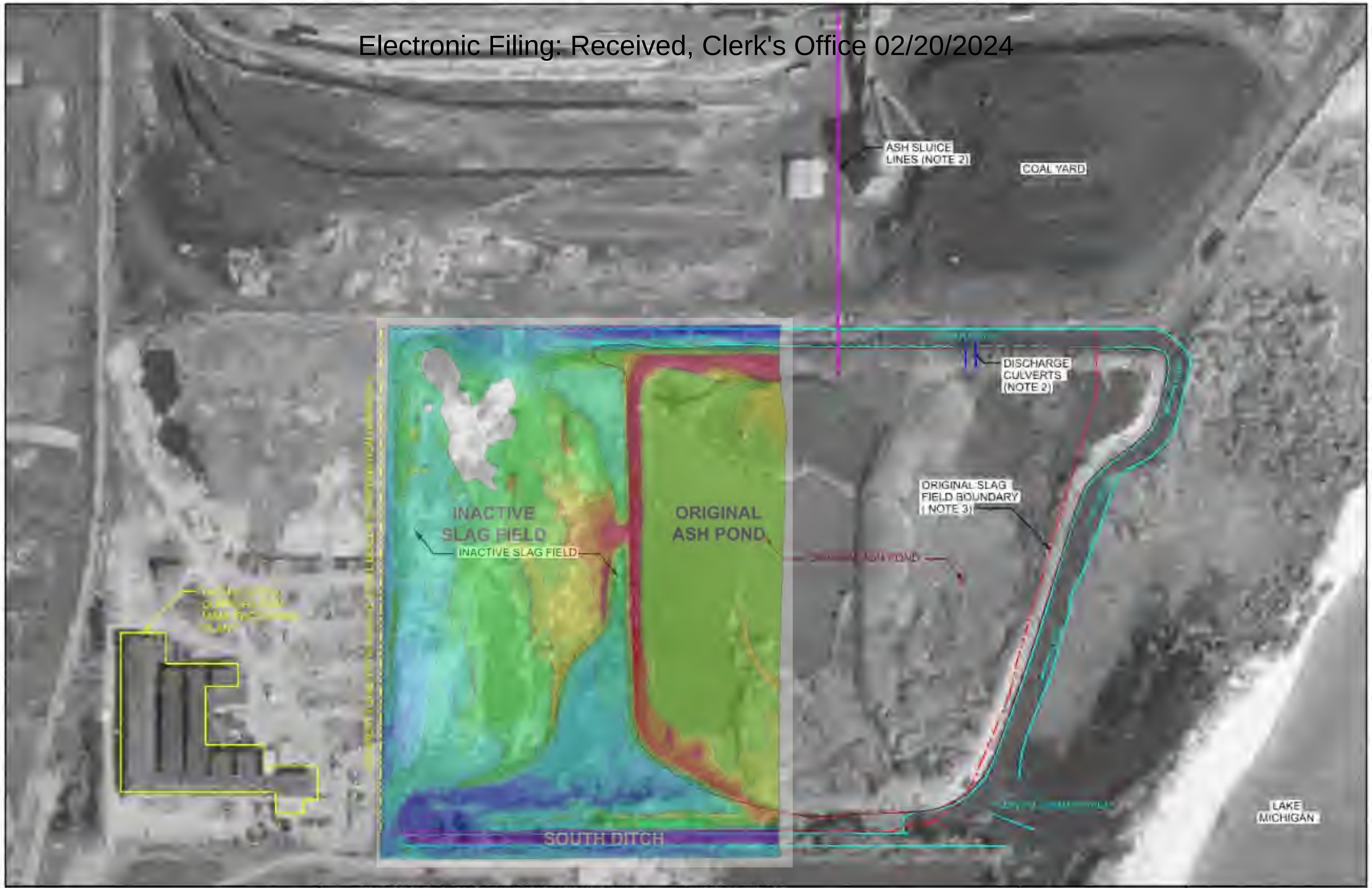
PREPARED: MK / JC
REVIEWED: TD
APPROVED: TD

PROJECT NO. 12661-104

MWG
Midwest Generation, LLC

Sargent & Lundy

MIDWEST GENERATION, LLC
WAUKEGAN
GENERATING STATION



NOTES:

1. AERIAL IMAGERY SHOWN ON THIS FIGURE IS DATED 1974 AND WAS OBTAINED FROM LAKE COUNTY, ILLINOIS MAPS ONLINE.
2. LOCATIONS OF ASH SLUICE LINES INTO AND DISCHARGE CULVERTS OUT OF ORIGINAL ASH POND ARE APPROXIMATE AND WERE OBTAINED FROM NUS CORPORATION DRAWING 5062-C-5006 IN APPENDIX B.
3. FOR DETAILS ON BASIS FOR ORIGINAL SLAG FIELD BOUNDARY, SEE EVALUATION SECTION 4.1.1

CLASSIFICATION OF GRASSY FIELD

FIGURE A-6
1974 AERIAL PHOTOGRAPH OF GRASSY FIELD SITE

SCALE IN FEET
0 300 600
NORTH

COUNTY: LAKE
STATE: ILLINOIS

PURPOSE: USE

DATE: 07-21-2023 REV. 0

PREPARED: MK / JC
REVIEWED: TD
APPROVED: TD

PROJECT NO. 12661-104

MWG
Midwest Generation, LLC

Sargent & Lundy

MIDWEST GENERATION, LLC
WAUKEGAN
GENERATING STATION

Permit Record Documents

Exhibit 33

W0971900500A COM ED-WAUK NON THERMAL DISC [S] 03 1977EB3699 1

3699-77

ENGINEER'S SYSTEM DESCRIPTION SUPPLEMENT

CONSTRUCTION PERMIT APPLICATION
FOR PROPOSED WASTEWATER TREATMENT FACILITIES

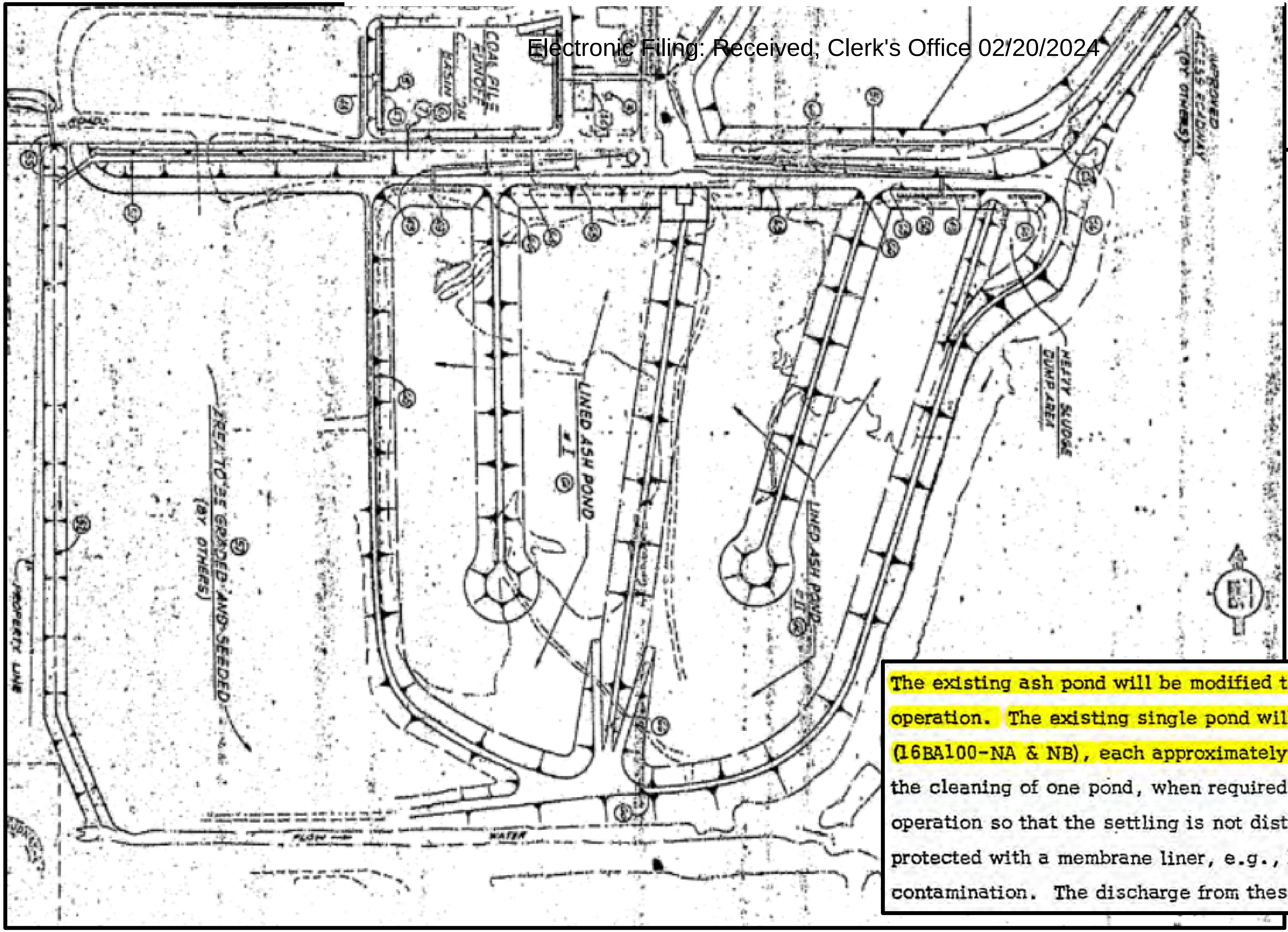
COMMONWEALTH EDISON COMPANY
Waukegan Power Station

RECEIVED
MAR 30 1977
ENVIRONMENTAL PROTECTION AGENCY
STATE OF ILLINOIS

BASIS OF DESIGN

Exhibit 41

W0971900500A COMMONWEALTH ED-WAUKEGAN/AS BUILT 04 1977EB3699 1



IEPA Exhibit 41 at 4

IEPA Exhibit 33 at 23

The existing ash pond will be modified to provide for easier and redundant operation. The existing single pond will be split into two separate ponds (16BA100-NA & NB), each approximately 10 acres. This design allows for the cleaning of one pond, when required, while the other pond remains in operation so that the settling is not disturbed. The ponds will also be protected with a membrane liner, e.g., hypalon, to prevent ground-water contamination. The discharge from these ponds, 10.91×10^6 gallons/day

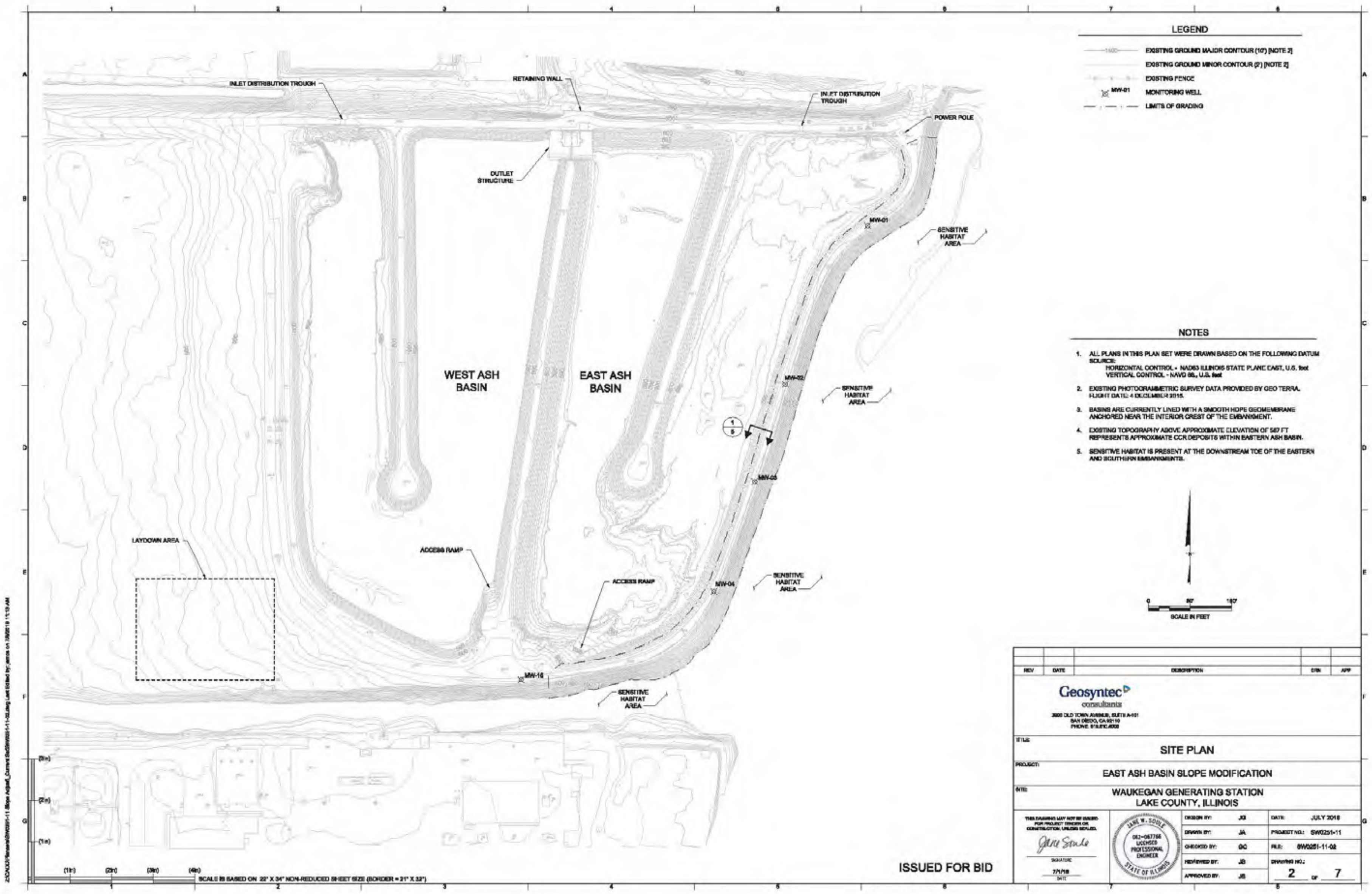

LEGEND
EXISTING GROUND MAJOR CONTOUR (10') [NOTE 2]
EXISTING GROUND MINOR CONTOUR (2') [NOTE 2]
EXISTING FENCE
MONITORING WELL
LIMITS OF GRADING
NOTES
1. ALL PLANS IN THIS PLAN SET WERE DRAWN BASED ON THE FOLLOWING DATUM SOURCE:
HORIZONTAL CONTROL - NAD83 ILLINOIS STATE PLANE EAST, U.S. foot
VERTICAL CONTROL - NAVD 88, U.S. foot
2. EXISTING PHOTOGRAMMETRIC SURVEY DATA PROVIDED BY GEO TERRA. FLIGHT DATE: 4 DECEMBER 2015.
3. BASINS ARE CURRENTLY LINED WITH A SMOOTH HDPE GEOMEMBRANE ANCHORED NEAR THE INTERIOR CREST OF THE EMBANKMENT.
4. EXISTING TOPOGRAPHY ABOVE APPROXIMATE ELEVATION OF 587 FT REPRESENTS APPROXIMATE CCR DEPOSITS WITHIN EASTERN ASH BASIN.
5. SENSITIVE HABITAT IS PRESENT AT THE DOWNSTREAM TOE OF THE EASTERN AND SOUTHERN EMBANKMENTS.
INLET DISTRIBUTION TROUGH
RETAINING WALL
POWER POLE
OUTLET STRUCTURE
WEST ASH BASIN
EAST ASH BASIN
MW-01
MW-02
MW-03
MW-04
MW-16
SENSITIVE HABITAT AREA
LAYDOWN AREA
ACCESS RAMP
SCALE IN FEET
ISSUED FOR BID
SCALE IS BASED ON 22" X 34" NON-REDUCED SHEET SIZE (BORDER = 21" X 32")
Geosyntec consultants
SITE PLAN
EAST ASH BASIN SLOPE MODIFICATION
WAUKEGAN GENERATING STATION
LAKE COUNTY, ILLINOIS
DATE: JULY 2018
PROJECT NO.: SW0251-11
2 OF 7

EXHIBIT 42

Illinois EPA Schedules December Public Hearing for Pond Creek Coal Mine Permit

Published: November 7, 2019 | Facebook Tweet Email

[Click image to enlarge]

Concerned citizens have more time to provide comment to the Illinois Environmental Protection Agency regarding its tentative approval this past July of Pond Creek Mine's request to dump millions of gallons of mine waste water into the Big Muddy River.

The initial public comment period on the mine's proposal, which has been met with considerable resistance, closed Aug. 12 with the IEPA saying a final decision on the proposal would be made following that deadline. However, because of public interest, a forum will be held at 6 p.m. Dec. 18 at 1000 Miners Drive in Marion.

Williamson Energy had previously submitted an application for a permit to allow its Pond Creek Mine operation to pump millions of gallons of high chloride, high sulfate wastewater into the Big Muddy River after diluting it in a system of tanks. The company says the need to do this stems from pumping seep water from mine shafts to ensure the safety of miners, according to public documents.

The application to the IEPA is just one of two that need to be approved for the process to go forward, the second being an approval for the pipeline itself from the Illinois Department of Natural Resources. As for this permit, Rachel Torbert, spokeswoman for the Illinois Department of Natural Resources, said the item is still under review.

Darin LeCrone is the manager of the industrial unit in the division of water pollution control permit section. He will be there during the December meeting, and he said the types of public comments that actually have bearing on the IEPA's decision-making process are about science, not feelings.

Kim Briggs, a media representative for the IEPA, commented that the public input portion of the permitting process is "not a popularity vote."

LeCrone said even if there are scores of people adamantly against a given project, and they voice those concerns at a meeting or through written comments, if the comments aren't rooted in science or law, the IEPA can't deny a proposal. He said they are obligated to permit a company that shows they will comply with the Clean Water Act and other regulations. They can't just deny a request for emotional reasons.

LeCrone said an outright denial of a permit request is not often the result of a comment period or public forum. He said they're less about denying permits, and more about possibly imposing further conditions and restrictions on projects.

When asked what kinds of comments could be helpful if local residents are concerned about the Pond Creek project or other permits, LeCrone reiterated that science or environmental impacts are what the committee is looking for.

Many of the comments during previous hearings regarding the Pond Creek project centered around water quality and flooding. Many asked how the IEPA and others could be so sure that dumping millions of gallons of water with elevated chloride and sulfate levels into a river that routinely floods won't impact the area negatively. LeCrone said these concerns aren't unique to this proposal.

LeCrone said testing water coming directly from the end of the pipeline is what's most important.

"That's how we're determining compliance," **he said.** If the numbers coming out of the pipe meet the regulatory standards, this is what matters, though he said sometimes flooding concerns can move the needle.

Electronic Filing: Received, Clerk's Office 02/20/2024

Source: The Southern Illinoisan

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EXHIBIT 43

DRAFT	Boring Number: A1	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenfield Ave. Waukegan, IL 60187	Boring Location Point #100	Date: 11/25/20 Start 11:30 AM Finish 11:35 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Gray SILT, Slightly Moist, Ash				
				2	Black FINE to MEDIUM SAND, Slightly Moist, Slag				
		48"		3				0.0	
				4					
				5	Tan SILT, Dry, Ash				
				6	Black SILT, Slightly Moist, Ash and Slag				
				7	Gray SILT, Slightly Moist, Ash				
		48"		8				0.0	
				9					
				10	Black FINE to MEDIUM SAND, Slightly Moist, Ash and Slag				
				11					Fill
				12					
		48"		13	Brown/Gray FINE to MEDIUM SAND, Wet			0.0	Native
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ______

▽ Depth After Drilling ______

Auger Depth ______ Rig Geoprobe

Rotary Depth ______ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: A2	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #101	Date: 11/25/20 Start 11:25 AM Finish 11:30 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 6 inch layer Gray SILT, Moist, Ash				
				2					
		36"		3					
				4					
				5	- Wet				
				6					
				7	Black FINE to MEDIUM SAND, Slightly Moist, Slag				
		36"		8					FILL
				9					
				10	Brown/Gray FINE to MEDIUM SAND, Wet				
				11					NATIVE
				12					
		48"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: A3	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #102	Date: 11/25/20 Start 11:20 AM Finish 11:25 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 6 inch layer Gray SILT, Slightly Moist, Ash				
				2	Brown/Black, FINE to MEDIUM SAND, Slightly Moist Gray, SILT, Very Moist, Ash				
		36"		3					
				4					
				5	Brown/Gray/Black, FINE to MEDIUM SAND with SILT, Moist, Ash and Slag				
				6					
				7	Gray SILT, Wet, Ash				
		48"		8					
				9	Black FINE to MEDIUM SAND, Wet				
				10					Fill
				11	--				
				12	Gray/Brown FINE to MEDIUM SAND, Wet				Native
		48"		13					
				14					
				15	--				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: A4	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #103	Date: 11/25/20 Start 11:10 AM Finish 11:15 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 6 inch layer Gray SILT, Slightly Moist, Ash				
				2					
		48"		3					
				4					
				5					
				6	Brown/Black, FINE and MEDIUM SAND with SILT, Slightly Moist, Ash and Slag				
				7	Gray/Black SILT, Wet, Ash				
		48"		8					Fill
				9	------------------------------				
				10	Black SILT, Moist, Peat with Roots and Wood				Native
				11	Gray/Brown, FINE to MEDIUM SAND, Wet				
				12					
		60"		13					
				14					
				15	------------------------------				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ____________

▽ Depth After Drilling ____________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000.00 for each day failure continues, a fine up to $50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

DRAFT	Boring Number: A5	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #104	Date: 11/25/20 Start 11:00 AM Finish 11:05 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 2 inch layer - 1 inch layer Black/Brown, FINE and MEDIUM SAND, Moist				
				2	Gray SILT, Moist, Ash				
		60"		3					
				4					
				5					
				6					
				7	Brown/Black FINE and MEDIUM SAND, Moist, Slag				
		36"		8	Gray/Black SILT, Wet, Ash				
				9	Brown/Gray/Black FINE and MEDIUM SAND with SILT, Moist, Slag and Ash				Fill
				10	Black SILT, Moist, Peat with Roots Gray/Brown FINE and MEDIUM SAND, Wet				
				11					Native
				12					
		48"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data		
▼ Depth While Drilling ______ ▽ Depth After Drilling ______	Auger Depth ______ Rig Geoprobe Rotary Depth ______ Geologist M. Dolan Driller/Co Cabeno Environmental Services Note: Boring backfilled unless otherwise noted	Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: A6	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #105	Date: 11/25/20 Start 10:50 AM Finish 10:55 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 4 inch layer Gray SILT, Slightly Moist, Ash				
				2					
		42"		3	- 1 inch layer Black FINE to MEDIUM SAND, Moist, Slag				
				4					
				5					
				6	Black FINE to MEDIUM SAND, Slightly Moist, Slag				
				7	Black/Gray SILT, Wet, Ash				Fill
		36"		8	--				
				9	Gray/Black FINE to MEDIUM SAND, Wet				Native
				10	- 3 inch layer Black PEAT with WOOD				
				11					
				12					
		60"		13					
				14					
				15	--				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: A7	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #106	Date: 11/25/20 Start 10:40 AM Finish 10:45 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 6 inch layer Gray SILT, Moist, Ash				
				2					
		48"		3	- 1 inch layer Black FINE to MEDIUM SAND, Moist, Slag				
				4					
				5					
				6	- As Above, Wet				Fill
				7	Brown/Gray FINE to MEDIUM Sand, Moist				
		36"		8					Native
				9					
				10	- As above, Wet				
				11					
				12					
		48"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: A8	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #107	Date: 11/25/20 Start 10:30 AM Finish 10:35 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 1 inch layer Gray SILT, Very Moist, Ash				
				2					
		60"		3					
				4					
				5					
				6					Fill
				7	------------------------------				
		48"		8	Black SILTY CLAY, Moist, Peat with Roots and Wood				Native
				9	Brown/Gray FINE to MEDIUM SAND, Very Moist				
				10					
				11					
				12					
		48"		13					
				14					
				15	------------------------------				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: A9	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #108	Date: 11/25/20 Start 10:20 AM Finish 10:25 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 1 inch layer Gray SILT, Very Moist, Ash				
				2					
		36"		3					
				4					
				5					
				6	Black/Gray SAND and CLAY, Very Moist, Ash and Slag				Fill
				7					
		48"		8	Tan/Gray FINE to MEDIUM SAND, Moist				Native
				9					
				10	- As Above, Wet				
				11					
				12					
		48"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: A10	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #109	Date: 11/25/20 Start 10:10 AM Finish 10:15 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 6 inch layer Gray SILT, Slightly Moist, Ash				
				2					
		36"		3					
				4	- As Above, Wet				
				5					
				6					Fill
				7					
		48"		8	Brown/Gray FINE to MEDIUM SAND, Very Moist				Native
				9	- Coarsening Downward				
				10					
				11					
				12					
		48"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ____________

▽ Depth After Drilling ____________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: B1	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #137	Date: 11/24/20 Start 14:55 AM Finish 15:00 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 2 inch layer Gray/Brown SILTY CLAY, Slightly Moist, Slag				
				2	Gray SILTY SAND, Slightly Moist Dark Gray/Tan, SILTY SAND, Slightly Moist, Slag				
		60"		3	Brown SILT, Very Moist, Ash			1.4	
				4					
				5					
				6	- Gray layers of SILT and FINE SAND				
				7	Gray SILT, Slightly Moist, Ash				
		60"		8	Black FINE to MEDIUM SAND, Slightly Moist, Slag			0.3	
				9	- Thin Gray Clayey Silt Layer				
				10					
				11					Fill
				12					
		42"		13	Dark Gray SILT and FINE SAND, Wet, PEAT and Organics			4.9	
				14	Tan/Light Brown FINE to MEDIUM SAND, Wet				Native
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ____________

▽ Depth After Drilling ____________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: B2	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #134	Date: 11/25/20 Start 08:50 AM Finish 08:55 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer Gray SILT, Dry, Ash				
				2					
		48"		3	- As Above, Very Moist				
				4					
				5					
				6					
				7	Black MEDIUM SAND, Moist, Ash				
		48"		8					
				9					
				10					
				11					Fill
				12	----------				
		48"		13	Brown/Gray FINE to MEDIUM SAND, Wet - 1 inch layer of PEAT at top				Native
				14					
				15	----------				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: B3	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #131	Date: 11/25/20 Start 09:00 AM Finish 09:05 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer Gray SILT, Very Moist, Ash				
				2					
		24"		3					
				4					
				5					
				6					
				7					
		48"		8	Black/Brown FINE to MEDIUM SAND, Slightly Moist, Ash and Slag				Fill
				9					
				10	Brown/Gray FINE to MEDIUM SAND, Slightly Moist				Native
				11	- As Above, Wet				
				12					
		48"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data		
▼ Depth While Drilling ________	Auger Depth ________ Rig Geoprobe	Illinois Environmental Protection Agency
▽ Depth After Drilling ________	Rotary Depth ________ Geologist M. Dolan	
	Driller/Co Cabeno Environmental Services	
	Note: Boring backfilled unless otherwise noted	

DRAFT	Boring Number: B4	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #128	Date: 11/25/20 Start 09:10 AM Finish 09:15 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 6 inch layer Brown/Gray SILT, Very Moist, Ash				
				2					
		48"		3					
				4					
				5	Brown/Black FINE to MEDIUM SAND, Moist				
				6	Gray SILT, Very Moist, Ash				
				7	- As Above, Wet				
		48"		8					Fill
				9	----------				
				10	Brown/Gray FINE to MEDIUM SAND, Slightly Moist				Native
				11	- As Above, Wet				
				12					
		36"		13					
				14					
				15	----------				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: B5	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #125	Date: 11/25/20 Start 09:20 AM Finish 09:25 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer Gray SILT, Slightly Moist, Ash				
				2					
		48"		3					
				4					
				5					
				6					
				7	As Above, Wet				
		48"		8	Black FINE to MEDIUM SAND, Ash and Slag				
				9	- 2 inch layer Gray SILT, Wet, Ash				Fill
				10	Brown/Gray FINE to MEDIUM SAND, Slightly Moist				Native
				11	- As Above, Wet				
				12					
		48"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ____________

▽ Depth After Drilling ____________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

DRAFT	Boring Number: B6	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #122	Date: 11/25/20 Start 09:25 AM Finish 09:30 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 6 inch layer Gray SILT, Slightly Moist, Ash				
				2					
		48"		3					
				4					
				5	- As Above, Wet				
				6					
				7	- Thin 1 inch layer Brown/Black FINE to MEDIUM SAND				
		60"		8					
				9					Fill
				10	----------				
				11	Brown/Gray FINE to MEDIUM SAND, Very Moist				Native
				12					
		36"		13					
				14					
				15	----------				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: B7	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #119	Date: 11/25/20 Start 09:35 AM Finish 09:40 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 4 inch layer Gray SILT, Slightly Moist, Ash				
				2					
		48"		3					
				4					
				5	- As Above, Wet				
				6					
				7					
		60"		8					Fill
				9					
				10	Tan/Gray FINE to MEDIUM SAND, Slightly Moist - 1 inch layer Black PEAT - As Above, Wet				Native
				11					
				12					
		36"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data		
▼ Depth While Drilling ________ ▽ Depth After Drilling ________	Auger Depth ________ Rig Geoprobe Rotary Depth ________ Geologist M. Dolan Driller/Co Cabeno Environmental Services Note: Boring backfilled unless otherwise noted	Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: B8	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #116	Date: 11/25/20 Start 09:45 AM Finish 09:50 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 4 inch layer Gray SILT, Slightly Moist, Ash				
				2					
		36"		3					
				4					
				5	- As Above, Wet				
				6					
				7					
		60"		8					
				9	Brown/Black FINE to MEDIUM SAND, Slightly Moist, Slag				Fill
				10					
				11	Gray/Brown FINE to MEDIUM SAND, Wet				Native
				12					
		48"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: B9	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #113	Date: 11/25/20 Start 09:55 AM Finish 10:00 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 4 inch layer Dark Brown/Orange SILTY SAND, Slightly Moist				
				2					
		36"		3					
				4	Gray SILT, Slightly Moist, Ash				
				5	- As Above, Wet				
				6					
				7					
		60"		8					Fill
				9					
				10	Brown/Gray FINE to MEDIUM SAND, Slightly Moist - 1 inch layer Black PEAT on top - As above, Wet				Native
				11					
				12					
		48"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: B10	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #110	Date: 11/25/20 Start 10:05 AM Finish 10:10 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 4 inch layer Gray SILT, Slightly Moist, Ash				
				2					
		48"		3					
				4					
				5	- As Above, Wet				
				6					
				7					
		60"		8	Black FINE to MEDIUM SAND, Slightly Moist, Ash and Slag				Fill
				9	---				
				10	Tan/Brown/Gray FINE to MEDIUM SAND, Slightly Moist				Native
				11	- As above, Wet, Coarsening Downwards				
				12					
		48"		13					
				14					
				15	---				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ____________

▽ Depth After Drilling ____________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: C1	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #138	Date: 11/24/20 Start 14:30 PM Finish 14:35 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL with GRAVEL, Slightly Moist, 4 inch layer				
				2	Dark Brown SILTY SAND, Trace CLAY, Slightly Moist, Ash				
		49"		3	Gray/Dark Gray SILTY CLAY with SAND, Ash and Trace Slag Gray SILT, Wet, Ash			8.8	
				4					
				5					
				6	Black FINE to MEDIUM SAND, Slightly Moist, Slag				
				7					
		40"		8				0.8	Fill
				9	Brown SILTY SAND, Moist				
				10	- As Above, Wet				Native
				11					
				12					
		41"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ____

▽ Depth After Drilling ____

Auger Depth ____ Rig Geoprobe

Rotary Depth ____ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: C2	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #135	Date: 11/24/20 Start 14:15 PM Finish 14:20 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 4 inch layer Gray SILT, Dry, Ash				
				2	- As Above, Wet				
		42"		3				0.0	
				4					
				5					
				6	- Interbedded Red/Brown/Black Medium Sand and Gravel, Slag				
				7	Black FINE to MEDIUM SAND, Slightly Moist, Slag				
		42"		8				0.0	Fill
				9					
				10	Gray FINE to MEDIUM SILTY SAND, Grades to Tan, Slightly Moist				Native
				11	- As Above, Wet				
				12					
		44"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data		
▼ Depth While Drilling ____	Auger Depth ____ Rig Geoprobe	Illinois Environmental Protection Agency
▽ Depth After Drilling ____	Rotary Depth ____ Geologist M. Dolan	
	Driller/Co Cabeno Environmental Services	
	Note: Boring backfilled unless otherwise noted	

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: C3	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #132	Date: 11/24/20 Start 14:05 PM Finish 14:10 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 4 inch layer Dark and Light Gray SILT, Slightly Moist, Ash				
				2					
		42"		3				0.0	
				4					
				5	Red-Brown FINE to MEDIUM SAND, Slightly Moist, Ash				
				6	Black FINE to MEDIUM SAND, Slightly Moist, Slag -Brown Layers at 5-6 ft.				
				7	- 3 inch layer Gray SILT, Ash			22.8	
		30"		8					
				9					
				10				2.1	Fill
				11	Gray/Tan FINE to MEDIUM SAND, Wet				
				12					Native
		48"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: C4	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #129	Date: 11/24/20 Start 13:55 PM Finish 14:00 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer - Gravel				
				2	Gray SILT, Slightly Moist, Ash				
		60"		3				0.0	
				4					
				5					
				6	Brown/Black FINE to MEDIUM SAND, Slag and Ash				
				7	Gray SILT, Wet, Ash			1.2	
		36"		8	Black MEDIUM to COARSE SAND, Slightly Moist, Slag				
				9					
				10				21.6	Fill
				11	---				
				12	Gray/Light Gray/Tan MEDIUM SAND, PEAT and Roots at Top, Slightly Moist				Native
		41"		13					
				14					
				15	---				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: C5	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #126	Date: 11/24/20 Start 13:45 PM Finish 13:50 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer Gray SILT, Slightly Moist, Ash				
				2					
		60"		3				14.3	
				4					
				5					
				6	Brown/Black FINE SAND, Slightly Moist, Slag				
				7	Gray SILT, Wet, Ash			0.9	
		48"		8					
				9	Black and Gray MEDIUM SAND, Slag and Ash				
				10					
				11				1.1	Fill
				12	------------------------------				
		48"		13	Gray SAND and GRAVEL, Some Peat and Glass Pieces				Native
				14	Gray/Brown FINE to MEDIUM SAND, Moist				
				15	------------------------------				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: C6	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #123	Date: 11/24/20 Start 13:35 PM Finish 13:40 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 6 inch layer				
				2					
		38"		3				4.7	
				4					
				5					
				6					
				7	Brown/Black MEDIUM SAND, Slightly Moist, Slag			3.7	
		36"		8	Gray SILT, Wet, Ash				
				9	Black/Gray SILT to MEDIUM SAND, Slag and Ash, Slightly Moist				
				10					
				11				28	Fill
				12	----------				
		30"		13	Brown/Gray FINE to MEDIUM SAND, Slightly Moist				Native
				14					
				15	----------				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ______

▽ Depth After Drilling ______

Auger Depth ______ Rig Geoprobe

Rotary Depth ______ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: C7	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #120	Date: 11/24/20 Start 13:25 PM Finish 13:30 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Brown CLAYEY TOP SOIL, Slightly Moist, 6 inch layer Brown/Gray SILTY SAND and CLAY				
				2	Gray SILT, Slightly Moist, Ash				
		60"		3				0.7	
				4					
				5					
				6					
				7	- As Above, Wet			12.5	
		60"		8	- 3 inch layer Gray/Black FINE SAND, Slightly Moist, Ash				
				9					
				10					
				11				3.1	Fill
				12	Black PEAT with Rootlets, 3 inch layer				
		48"		13	Tan FINE to MEDIUM SAND, Slightly Moist				Native
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: C8	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #117	Date: 11/24/20 Start 13:20 PM Finish 13:25 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist Black/Gray MEDIUM SAND, Slag				
				2	Gray CLAY, Slightly Moist, Ash				
		36"		3	Gray SILT, Slightly Moist, Ash			7.9	
				4					
				5					
				6	Black FINE to MEDIUM SAND, SLAG				
				7	Gray SILT, Wet, Ash			0.0	
		60"		8	Black MEDIUM SAND, Trace CLAY, Moist, Slag and Ash				
				9					
				10					
				11				4.9	Fill
				12	Tan/Gray FINE to MEDIUM SAND, Moist				
		60"		13					Native
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: C9	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #114	Date: 11/24/20 Start 13:10 PM Finish 13:15 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist				
				2	Black/Gray SILTY SANDY CLAY, Slightly Moist, Ash and Slag				
		60"		3				7.9	
				4	Gray SILT, Moist, Ash				
				5					
				6					
				7				17.0	
		60"		8					
				9					
				10	- As Above, Wet				
				11				0.1	
				12					Fill
		60"		13	Black PEAT with Rootlets, 3 inch layer				
				14	Tan/Gray FINE to MEDIUM SAND, Very Moist				Native
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ____

▽ Depth After Drilling ____

Auger Depth ____ Rig Geoprobe

Rotary Depth ____ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: C10	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #111	Date: 11/24/20 Start 12:50 PM Finish 12:55 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist				
				2	Gray SILTY CLAY, Trace SAND Slightly Moist				
		48"		3	Brown/Black MEDIUM SAND, Slightly Moist, Slag			10.3	
				4	Gray SILT, Very Moist, Ash				
				5					
				6					
				7	Black/Gray FINE to MEDIUM SAND, Ash and Slag			2.4	
		36"		8	- Thin layer Gray Silt, Ash				
				9					
				10					
				11				0.2	
				12					Fill
		48"		13	--				
				14	Tan/Gray FINE to MEDIUM SAND, Moist				Native
				15	--				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ____________

▽ Depth After Drilling ____________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000.00 for each day failure continues, a fine up to $50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

DRAFT	Boring Number: D1	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #139	Date: 11/24/20 Start 10:50 AM Finish 10:55 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer Gray/Black FINE to MEDIUM SAND, Slag				
				2	Gray SILTY CLAY, Ash, Moist Black/Gray FINE to MEDIUM SAND, Ash and Slag				
		48"		3				0.0	
				4					
				5					
				6					
				7	Black/Gray SILTY CLAY, Tan Layering, Ash			1.8	
		48"		8					
				9	Tan/Light Brown SILTY SAND, Some Slag and Ash				
				10	Black SANDY SILTY CLAY, Ash and Slag				
				11	Black/Gray SILTY SANDY CLAY, Ash and Slag			0.3	
				12					
		48"		13					
				14					
				15	--				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

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LPC 501 Rev June 2004

DRAFT	Boring Number: D2	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #136	Date: 11/24/20 Start 11:00 AM Finish 11:05 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer Gray/Brown/Black SILTY SANDY CLAY with GRAVEL, Ash				FILL
				2	Brown/Black SILTY CLAY, Ash, Moist				
		30"		3	Black/Brown/Orange FINE to MEDIUM SAND, Ash and Slag			0.0	
				4					
				5					
				6	Brown/Gray SILTY CLAY, Ash				
				7				0.0	
		48"		8					
				9					
				10					
				11	Black/Brown SILTY SAND, Wet, Ash				
				12	Gray SILTY SANDY CLAY, Wet, Ash				
		48"		13					
				14	Black MEDIUM SAND, Wet, Ash and Slag				
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: D3	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #133	Date: 11/24/20 Start 11:20 AM Finish 11:25 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer Gray/Brown SILTY SAND with GRAVEL, Slightly Moist				
				2	Brown/Gray SILTY CLAY, Ash, Moist				
		30"		3	Black/Gray/Green/Orange Layered MEDIUM SAND, Ash			0.0	
				4					
				5	Gray SILT, Moist, Ash				
				6					
				7				0.1	
		60"		8					
				9					
				10					
				11	Black/Brown FINE to MEDIUM SAND, Dry, Ash and Slag				
				12					
		48"		13	Gray SILT, Wet, Ash				
				14	Black MEDIUM SAND, Wet, Ash and Slag				
				15					
				16					Fill
				17					
		48"		18	Brown/Black CLAY and PEAT with Shells and Wood				
				19	Gray MEDIUM SAND, Moist				Native
				20					
				21	END OF BORING AT 20 FEET				
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

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DRAFT	Boring Number: D4	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #130	Date: 11/24/20 Start 11:30 AM Finish 11:35 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer Black/Brown/Red SILTY SANDY CLAY, Trace GRAVEL, Ash				Fill
				2	Tan/Black/Gray SILTY SAND, Ash and Slag				
		36"		3				6.8	
				4					
				5					
				6	Gray SILT, Moist, Ash				
				7				0.7	
		60"		8	- As Above, Wet				
				9					
				10					
				11	Black/Gray/Brown CLAYEY SAND, Moist, Ash and Slag			0.0	
				12					
		60"		13					
				14					
				15	--				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

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DRAFT	Boring Number: D5	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #127	Date: 11/24/20 Start 11:35 AM Finish 11:40 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer Black/Brown SILTY SANDY CLAY with GRAVEL, Slightly Moist				Fill
				2	Red/Brown/Gray MEDIUM SAND, Ash and Slag				
		32"		3				0.0	
				4	Gray SILT, Moist, Ash				
				5					
				6	- As Above, Wet				
				7				0.1	
		60"		8					
				9					
				10					
				11	Black/Gray SILTY SAND, Slightly Moist, Ash and Slag			0.2	
				12					
		48"		13					
				14					
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ____________

▽ Depth After Drilling ____________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: D6	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #124	Date: 11/24/20 Start 11:50 AM Finish 11:55 AM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer Black/Gray SILTY SAND, Orange Layering, Slightly Moist, Ash				
				2	Gray SILT, Slightly Moist, Ash				
		36"		3				0.0	
				4					
				5					
				6	- As Above, Wet				
				7				0.0	
		60"		8					
				9	Black/Gray SILTY SAND, Moist, Ash and Slag				
				10					
				11	Gray SILT, Wet, Ash			0.0	
				12	Black MEDIUM SAND, Slightly Moist, Ash and Slag				Fill
		60"		13	Tan/Gray FINE to MEDIUM SAND, Trace GRAVEL, Moist				
				14					Native
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

DRAFT	Boring Number: D7	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #121	Date: 11/24/20 Start 12:05 PM Finish 12:10 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer Tan CLAY, Slightly Moist				Fill
				2	Tan/Brown/Black MEDIUM SAND, Slightly Moist, Ash and Slag				
		30"		3				0.2	
				4	Gray SILT, Slightly Moist, Ash				
				5					
				6					
				7				0.0	
		60"		8					
				9					
				10	Black/Brown FINE SAND, Slightly Moist. Ash				
				11	Gray SILT, Wet, Ash			0.0	
				12					
		60"		13					
				14	Black/Gray MEDIUM SAND, Slightly Moist, Ash and Slag				
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ____________

▽ Depth After Drilling ____________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

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DRAFT	Boring Number: D8	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #118	Date: 11/24/20 Start 12:10 PM Finish 12:15 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer				Fill
				2	Gray/Black FINE to MEDIUM SAND, Trace GRAVEL, Slightly Moist, Ash and Slag				
		40"		3				0.1	
				4					
				5					
				6	Tan/Orange/Brown, Layered FINE to MEDIUM SAND, Slightly Moist. Ash and Slag				
				7				0.4	
		34"		8					
				9					
				10					
				11	Gray SILT, Wet, Ash			0.6	
				12					
		60"		13					
				14	Black/Gray, Layered MEDIUM SAND and CLAY, Ash and Slag				
				15					
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

DRAFT	Boring Number: D9	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #115	Date: 11/24/20 Start 12:25 PM Finish 12:30 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer				
				2	Dark Gray/Black FINE to MEDIUM SAND with interbedded SILT layers, Slightly Moist, Ash and Slag				
		40"		3				0.0	
				4					
				5					
				6					
				7				0.1	
		45"		8	Dark Gray SILT, Very Moist, Ash				
				9					
				10	- As Above, Wet				
				11				0.0	Fill
				12	--				
		60"		13	Tan/Gray FINE to MEDIUM, Moist, Roots at Top				Native
				14					
				15	--				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

Electronic Filing: Received, Clerk's Office 02/20/2024

DRAFT	Boring Number: D10	Page 1 of 1
Site Name: Waukegan Station Address: 401 E Greenwood Ave. Waukegan, IL 60187	Boring Location Point #112	Date: 11/24/20 Start 12:40 PM Finish 12:45 PM

Sample Number	Sample Device	Sample Recovery	Lithology Symbol	Depth (feet)	Detailed Soil and Rock Description	Natural Moisture Content %	Hand Penetrometer	OVA/PID/FID/OVM	Remarks
				1	Dark Brown CLAYEY TOP SOIL, Slightly Moist, 3 inch layer				Fill
				2	Gray/Black SILTY CLAY with laminations, Slightly Moist, Ash and Slag				
		48"		3				0.2	
				4	Black/Gray SILTY SAND, Slightly Moist, Slag				
				5					
				6					
				7				4.9	
		24"		8					
				9					
				10	- As Above, Wet				
				11	Dark Gray SILT, Wet, Ash			0.0	
				12					
		60"		13	- 3 inch layer Fine Sand				
				14					
				15	----------				
				16	END OF BORING AT 15 FEET				
				17					
				18					
				19					
				20					
				21					
				22					

Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.

Groundwater Data

▼ Depth While Drilling ________

▽ Depth After Drilling ________

Auger Depth ________ Rig Geoprobe

Rotary Depth ________ Geologist M. Dolan

Driller/Co Cabeno Environmental Services

Note: Boring backfilled unless otherwise noted

Illinois Environmental Protection Agency

IL 532-2275
LPC 501 Rev June 2004

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-116605-1
Client Project/Site: Waukegan Generating Station

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
3/12/2021 12:58:32 PM

Carrie Gamber, Senior Project Manager
(412)963-2428
Carrie.Gamber@Eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416

1 2 3 4 5 6 7 8 9 10 11 12 13

Table of Contents

Job ID: 180-116605-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

CASE NARRATIVE

Client: KPRG and Associates, Inc.

Project: Waukegan Generating Station

Report Number: 180-116605-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 01/28/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.8 C.

The Field Sampler was not listed on the Chain of Custody.

IC
Several samples were diluted due to the abundance of non-target analytes. Elevated reporting limits (RLs) are provided.

Chloride failed the recovery criteria low for the MS of sample C7-0-5 pH 9MS (180-116605-24) in batch 180-347170. Sulfate failed the recovery criteria high. Chloride and Sulfate failed the recovery criteria low for the MSD of sample C7-0-5 pH 9MSD (180-116605-24) in batch 180-347170. Sulfate exceeded the RPD limit.

METALS
Several samples were diluted due to the nature of the sample matrix or to bring the concentration of target analytes to within the instrument's linear range. Elevated reporting limits (RLs) are provided.

The continuing calibration verification (CCV) associated with batch 180-347838 recovered above the upper control limit for Boron. The samples associated with this CCV were non-detects -or- less than the RL for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 180-347838/102).

GENERAL CHEMSITRY
Elevated reporting limits were provided for the following samples due to the limited sample volume provided for TDS analysis: A1-0-5 pH 8 (180-116605-5), (180-116605-A-5-B DU) and BLANK MEDIUM (180-116605-32).

Definitions/Glossary

Client: KPRG and Associates, Inc.
Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: KPRG and Associates, Inc.
Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Laboratory: Eurofins TestAmerica, Pittsburgh

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	004375	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
2540G		Solid	Percent Moisture
2540G		Solid	Percent Solids
EPA 6020B	3010A	Solid	Lithium
SM 2510B		Solid	Specific Conductance
SM 2540C		Solid	Total Dissolved Solids
SM 2580B		Solid	Oxidation Reduction Potential

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-116605-1	A1-0-5 pH 13	Solid	01/25/21 11:35	01/28/21 08:30	
180-116605-2	A1-0-5 pH 12	Solid	01/25/21 11:35	01/28/21 08:30	
180-116605-3	A1-0-5 pH 10.5	Solid	01/25/21 11:35	01/28/21 08:30	
180-116605-5	A1-0-5 pH 8	Solid	01/25/21 11:35	01/28/21 08:30	
180-116605-6	A1-0-5 pH 7	Solid	01/25/21 11:35	01/28/21 08:30	
180-116605-7	A1-0-5 pH 5.5	Solid	01/25/21 11:35	01/28/21 08:30	
180-116605-8	A1-0-5 pH 4	Solid	01/25/21 11:35	01/28/21 08:30	
180-116605-9	A1-0-5 pH 2	Solid	01/25/21 11:35	01/28/21 08:30	
180-116605-10	A1-0-5 NATURAL	Solid	01/25/21 11:35	01/28/21 08:30	
180-116605-11	A9-0-5 pH 13	Solid	01/25/21 10:25	01/28/21 08:30	
180-116605-12	A9-0-5 pH 12	Solid	01/25/21 10:25	01/28/21 08:30	
180-116605-14	A9-0-5 pH 9	Solid	01/25/21 10:25	01/28/21 08:30	
180-116605-15	A9-0-5 pH 8	Solid	01/25/21 10:25	01/28/21 08:30	
180-116605-16	A9-0-5 pH 7	Solid	01/25/21 10:25	01/28/21 08:30	
180-116605-17	A9-0-5 pH 5.5	Solid	01/25/21 10:25	01/28/21 08:30	
180-116605-18	A9-0-5 pH 4	Solid	01/25/21 10:25	01/28/21 08:30	
180-116605-19	A9-0-5 pH 2	Solid	01/25/21 10:25	01/28/21 08:30	
180-116605-20	A9-0-5 pH NATURAL	Solid	01/25/21 10:25	01/28/21 08:30	
180-116605-21	C7-0-5 pH 13	Solid	01/24/21 13:30	01/28/21 08:30	
180-116605-22	C7-0-5 pH 12	Solid	01/24/21 13:30	01/28/21 08:30	
180-116605-24	C7-0-5 pH 9	Solid	01/24/21 13:30	01/28/21 08:30	
180-116605-25	C7-0-5 pH 8	Solid	01/24/21 13:30	01/28/21 08:30	
180-116605-26	C7-0-5 pH 7	Solid	01/24/21 13:30	01/28/21 08:30	
180-116605-27	C7-0-5 pH 5.5	Solid	01/24/21 13:30	01/28/21 08:30	
180-116605-28	C7-0-5 pH 4	Solid	01/24/21 13:30	01/28/21 08:30	
180-116605-29	C7-0-5 pH 2	Solid	01/24/21 13:30	01/28/21 08:30	
180-116605-30	C7-0-5 pH NATURAL	Solid	01/24/21 13:30	01/28/21 08:30	
180-116605-31	BLANK LOW	Solid	01/25/21 00:00	01/28/21 08:30	
180-116605-32	BLANK MEDIUM	Solid	01/25/21 00:00	01/28/21 08:30	
180-116605-33	BLANK HIGH	Solid	01/25/21 00:00	01/28/21 08:30	
180-116605-34	A1-0-5 PRETEST	Solid	01/25/21 11:35	01/28/21 08:30	
180-116605-36	C7-0-5 PRETEST	Solid	01/24/21 13:30	01/28/21 08:30	

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
2540G	SM 2540G	SM22	TAL PIT
EPA 9040C	pH	SW846	TAL PIT
SM 2510B	Conductivity, Specific Conductance	SM	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
SM 2580B	Reduction-Oxidation (REDOX) Potential	SM	TAL PIT
1313	Liquid-Solid Partitioning as a Function of pH via Parallel Batch	SW846	TAL PIT
3010A	Preparation, Total Metals	SW846	TAL PIT

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Client: KPRG and Associates, Inc.
Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: A1-0-5 pH 13
Lab Sample ID: 180-116605-1
Date Collected: 01/25/21 11:35
Matrix: Solid
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			346924	02/18/21 12:53	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			346924	02/18/21 13:09	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 16:01	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		5			347908	02/27/21 12:13	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	2540G		1			345845	02/08/21 12:30	LWM	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:19	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 08:23	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	1 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 08:20	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: A1-0-5 pH 12
Lab Sample ID: 180-116605-2
Date Collected: 01/25/21 11:35
Matrix: Solid
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			346924	02/18/21 11:31	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 16:16	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		5			347908	02/27/21 12:24	RJR	TAL PIT
	Instrument ID: NEMO									

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: A1-0-5 pH 12
Lab Sample ID: 180-116605-2
Date Collected: 01/25/21 11:35
Matrix: Solid
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:22	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 08:26	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	25 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 08:23	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: A1-0-5 pH 10.5
Lab Sample ID: 180-116605-3
Date Collected: 01/25/21 11:35
Matrix: Solid
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			347322	02/23/21 19:05	SAT	TAL PIT
	Instrument ID: CHIC2100A									
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 20:00	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		2			347908	02/27/21 13:24	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			347138	02/19/21 11:33	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347140	02/19/21 11:36	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	50 mL	100 mL	347449	02/23/21 17:43	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347139	02/19/21 11:33	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: A1-0-5 pH 8

Lab Sample ID: 180-116605-5

Date Collected: 01/25/21 11:35
Date Received: 01/28/21 08:30

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			347241	02/22/21 18:09	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			347241	02/22/21 18:25	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 21:45	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			347908	02/27/21 13:48	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346999	02/17/21 09:43	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347001	02/17/21 09:46	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	25 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347000	02/17/21 09:43	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: A1-0-5 pH 7

Lab Sample ID: 180-116605-6

Date Collected: 01/25/21 11:35
Date Received: 01/28/21 08:30

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			347241	02/22/21 18:41	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			347241	02/22/21 18:58	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 22:00	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			347908	02/27/21 13:50	RJR	TAL PIT
	Instrument ID: NEMO									

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: A1-0-5 pH 7

Lab Sample ID: 180-116605-6

Date Collected: 01/25/21 11:35
Matrix: Solid
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346999	02/17/21 09:49	MTW	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347001	02/17/21 09:52	MTW	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	25 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347000	02/17/21 09:49	MTW	TAL PIT
	Instrument ID:	NOEQUIP								

Client Sample ID: A1-0-5 pH 5.5

Lab Sample ID: 180-116605-7

Date Collected: 01/25/21 11:35
Matrix: Solid
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		25			347322	02/23/21 20:08	SAT	TAL PIT
	Instrument ID:	CHIC2100A								
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 20:15	RSK	TAL PIT
	Instrument ID:	A								
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		2			347908	02/27/21 13:27	RJR	TAL PIT
	Instrument ID:	NEMO								
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			347138	02/19/21 11:39	MTW	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347140	02/19/21 11:42	MTW	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	25 mL	100 mL	347450	02/23/21 17:57	GRB	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			35 g	299.6 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347139	02/19/21 11:39	MTW	TAL PIT
	Instrument ID:	NOEQUIP								

Client: KPRG and Associates, Inc.
Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: A1-0-5 pH 4
Lab Sample ID: 180-116605-8
Date Collected: 01/25/21 11:35
Matrix: Solid
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		250			346924	02/18/21 16:42	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 16:30	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			347838	02/26/21 18:53	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			347908	02/27/21 12:27	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:28	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 08:29	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	10 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 08:26	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: A1-0-5 pH 2
Lab Sample ID: 180-116605-9
Date Collected: 01/25/21 11:35
Matrix: Solid
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		25			347241	02/22/21 19:47	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 22:14	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			347728	02/25/21 22:18	RSK	TAL PIT
	Instrument ID: A									

Client: KPRG and Associates, Inc. Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: A1-0-5 pH 2 **Lab Sample ID: 180-116605-9**
Date Collected: 01/25/21 11:35 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		25			347908	02/27/21 13:53	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346999	02/17/21 09:52	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347001	02/17/21 09:55	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	10 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347000	02/17/21 09:52	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: A1-0-5 NATURAL **Lab Sample ID: 180-116605-10**
Date Collected: 01/25/21 11:35 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			346924	02/18/21 10:26	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 15:46	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		2			347908	02/27/21 12:11	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:13	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 08:16	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	100 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 08:13	MTW	TAL PIT
	Instrument ID: NOEQUIP									

1 2 3 4 5 6 7 8 9 10 11 12 13

Lab Chronicle

Client: KPRG and Associates, Inc. Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: A9-0-5 pH 13 Lab Sample ID: 180-116605-11

Date Collected: 01/25/21 10:25 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			346924	02/18/21 11:47	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 16:59	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			348027	03/01/21 14:02	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	2540G		1			345845	02/08/21 12:30	LWM	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:32	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 08:33	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	1 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 08:30	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: A9-0-5 pH 12 Lab Sample ID: 180-116605-12

Date Collected: 01/25/21 10:25 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			346924	02/18/21 12:04	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 17:21	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		5			348027	03/01/21 14:04	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:35	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: A9-0-5 pH 12

Lab Sample ID: 180-116605-12

Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 08:36	MTW	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	25 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 08:33	MTW	TAL PIT
	Instrument ID:	NOEQUIP								

Client Sample ID: A9-0-5 pH 9

Lab Sample ID: 180-116605-14

Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			347241	02/22/21 19:14	SAT	TAL PIT
	Instrument ID:	CHICS2100B								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			347241	02/22/21 19:30	SAT	TAL PIT
	Instrument ID:	CHICS2100B								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 22:32	RSK	TAL PIT
	Instrument ID:	A								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			347908	02/27/21 13:55	RJR	TAL PIT
	Instrument ID:	NEMO								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346999	02/17/21 09:55	MTW	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347001	02/17/21 09:58	MTW	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	100 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347000	02/17/21 09:55	MTW	TAL PIT
	Instrument ID:	NOEQUIP								

Lab Chronicle

Client Sample ID: A9-0-5 pH 8 Lab Sample ID: 180-116605-15

Date Collected: 01/25/21 10:25 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			347322	02/23/21 19:37	SAT	TAL PIT
	Instrument ID:	CHIC2100A								
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		50			347581	02/25/21 09:53	EPS	TAL PIT
	Instrument ID:	CHIC2100A								
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 20:29	RSK	TAL PIT
	Instrument ID:	A								
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		25			347908	02/27/21 13:29	RJR	TAL PIT
	Instrument ID:	NEMO								
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			347138	02/19/21 11:42	MTW	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347140	02/19/21 11:45	MTW	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	25 mL	100 mL	347450	02/23/21 17:57	GRB	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347139	02/19/21 11:42	MTW	TAL PIT
	Instrument ID:	NOEQUIP								

Client Sample ID: A9-0-5 pH 7 Lab Sample ID: 180-116605-16

Date Collected: 01/25/21 10:25 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		250			346924	02/18/21 16:58	SAT	TAL PIT
	Instrument ID:	CHICS2100B								
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 17:35	RSK	TAL PIT
	Instrument ID:	A								
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		25			347838	02/26/21 19:18	RSK	TAL PIT
	Instrument ID:	A								

Lab Chronicle

Client: KPRG and Associates, Inc. Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

1 2 3 4 5 6 7 8 9 10 11 12 13

Client Sample ID: A9-0-5 pH 7 Lab Sample ID: 180-116605-16

Date Collected: 01/25/21 10:25 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		25			348027	03/01/21 14:07	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:38	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 08:39	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	25 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 08:36	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: A9-0-5 pH 5.5 Lab Sample ID: 180-116605-17

Date Collected: 01/25/21 10:25 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		250			346924	02/18/21 17:14	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 17:50	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		25			347838	02/26/21 19:40	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		25			348027	03/01/21 14:10	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:41	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 08:43	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	10 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client Sample ID: A9-0-5 pH 5.5
Lab Sample ID: 180-116605-17

Date Collected: 01/25/21 10:25
Matrix: Solid
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 08:40	MTW	TAL PIT
	Instrument ID:	NOEQUIP								

Client Sample ID: A9-0-5 pH 4
Lab Sample ID: 180-116605-18

Date Collected: 01/25/21 10:25
Matrix: Solid
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		25			347241	02/22/21 20:19	SAT	TAL PIT
	Instrument ID:	CHICS2100B								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 22:47	RSK	TAL PIT
	Instrument ID:	A								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		50			347838	02/26/21 22:49	RSK	TAL PIT
	Instrument ID:	A								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		50			347908	02/27/21 13:58	RJR	TAL PIT
	Instrument ID:	NEMO								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346999	02/17/21 09:58	MTW	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347001	02/17/21 10:01	MTW	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	10 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID:	NOEQUIP								
Leach	Leach	1313			45 g	309.9 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347000	02/17/21 09:58	MTW	TAL PIT
	Instrument ID:	NOEQUIP								

Client Sample ID: A9-0-5 pH 2
Lab Sample ID: 180-116605-19

Date Collected: 01/25/21 10:25
Matrix: Solid
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		250			347322	02/23/21 21:12	SAT	TAL PIT
	Instrument ID:	CHIC2100A								

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: A9-0-5 pH 2
Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Lab Sample ID: 180-116605-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 20:44	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			347728	02/25/21 20:47	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		100			347908	02/27/21 13:32	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			347138	02/19/21 11:45	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347140	02/19/21 11:48	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	5 mL	100 mL	347450	02/23/21 17:57	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347139	02/19/21 11:45	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: A9-0-5 pH NATURAL
Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Lab Sample ID: 180-116605-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			346924	02/18/21 13:25	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			346924	02/18/21 13:42	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 16:44	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		5			347908	02/27/21 12:30	RJR	TAL PIT
	Instrument ID: NEMO									

Lab Chronicle

Client: KPRG and Associates, Inc. Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: A9-0-5 pH NATURAL Lab Sample ID: 180-116605-20

Date Collected: 01/25/21 10:25 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:47	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 08:52	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	100 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	309.9 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 08:46	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: C7-0-5 pH 13 Lab Sample ID: 180-116605-21

Date Collected: 01/24/21 13:30 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			346924	02/18/21 13:58	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			346924	02/18/21 14:14	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 18:19	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			348027	03/01/21 14:15	RJR	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	2540G		1			345845	02/08/21 12:30	LWM	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:56	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 09:02	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	1 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 08:56	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client: KPRG and Associates, Inc. Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: C7-0-5 pH 12 **Lab Sample ID: 180-116605-22**
Date Collected: 01/24/21 13:30 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			346924	02/18/21 14:31	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			346924	02/18/21 14:47	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 18:33	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			348027	03/01/21 14:18	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:59	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 09:06	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	50 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 09:00	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: C7-0-5 pH 9 **Lab Sample ID: 180-116605-24**
Date Collected: 01/24/21 13:30 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			347170	02/20/21 13:06	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 22:57	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			347908	02/27/21 14:01	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346999	02/17/21 10:01	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: C7-0-5 pH 9
Date Collected: 01/24/21 13:30
Date Received: 01/28/21 08:30

Lab Sample ID: 180-116605-24
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347001	02/17/21 10:04	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	100 mL	100 mL	346849	02/17/21 13:17	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347000	02/17/21 10:01	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: C7-0-5 pH 8
Date Collected: 01/24/21 13:30
Date Received: 01/28/21 08:30

Lab Sample ID: 180-116605-25
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		2.5			347170	02/20/21 12:33	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 23:12	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			347908	02/27/21 14:03	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346999	02/17/21 10:04	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347001	02/17/21 10:07	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	100 mL	100 mL	346849	02/17/21 13:17	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347000	02/17/21 10:04	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: C7-0-5 pH 7

Lab Sample ID: 180-116605-26

Date Collected: 01/24/21 13:30
Date Received: 01/28/21 08:30

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			347170	02/20/21 12:01	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 23:27	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			347908	02/27/21 14:16	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346999	02/17/21 10:07	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347001	02/17/21 10:10	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	25 mL	100 mL	346849	02/17/21 13:17	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347000	02/17/21 10:07	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: C7-0-5 pH 5.5

Lab Sample ID: 180-116605-27

Date Collected: 01/24/21 13:30
Date Received: 01/28/21 08:30

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		25			347322	02/23/21 20:40	SAT	TAL PIT
	Instrument ID: CHIC2100A									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 21:02	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		25			347838	02/26/21 21:47	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		25			347908	02/27/21 13:40	RJR	TAL PIT
	Instrument ID: NEMO									

Lab Chronicle

Client: KPRG and Associates, Inc. Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: C7-0-5 pH 5.5 Lab Sample ID: 180-116605-27
Date Collected: 01/24/21 13:30 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			347138	02/19/21 11:48	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347140	02/19/21 11:51	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	10 mL	100 mL	347450	02/23/21 17:57	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347139	02/19/21 11:48	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: C7-0-5 pH 4 Lab Sample ID: 180-116605-28
Date Collected: 01/24/21 13:30 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		250			346924	02/18/21 17:31	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 18:48	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		25			347838	02/26/21 20:13	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		25			348027	03/01/21 14:20	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 09:05	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 09:09	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	10 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 09:03	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: KPRG and Associates, Inc. Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: C7-0-5 pH 2 **Lab Sample ID: 180-116605-29**
Date Collected: 01/24/21 13:30 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		250			347322	02/23/21 21:27	SAT	TAL PIT
	Instrument ID: CHIC2100A									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 21:24	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			347728	02/25/21 21:27	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		25			347908	02/27/21 13:42	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			347138	02/19/21 11:51	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347140	02/19/21 11:54	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	10 mL	100 mL	347450	02/23/21 17:57	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347139	02/19/21 11:51	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: C7-0-5 pH NATURAL **Lab Sample ID: 180-116605-30**
Date Collected: 01/24/21 13:30 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			346924	02/18/21 15:03	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		5			346924	02/18/21 15:20	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 18:04	RSK	TAL PIT
	Instrument ID: A									

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: C7-0-5 pH NATURAL

Lab Sample ID: 180-116605-30

Date Collected: 01/24/21 13:30
Date Received: 01/28/21 08:30

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		10			348027	03/01/21 14:12	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:53	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 08:59	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	100 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 08:53	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: BLANK LOW

Lab Sample ID: 180-116605-31

Date Collected: 01/25/21 00:00
Date Received: 01/28/21 08:30

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			1.0 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			347241	02/22/21 16:47	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			1.0 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 23:41	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			1.0 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347908	02/27/21 14:19	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			1.0 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346999	02/17/21 10:10	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347001	02/17/21 10:13	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	25 mL	100 mL	346849	02/17/21 13:17	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	316.8 mL	346570	02/15/21 09:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347000	02/17/21 10:10	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: BLANK MEDIUM
Date Collected: 01/25/21 00:00
Date Received: 01/28/21 08:30

Lab Sample ID: 180-116605-32
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			346924	02/18/21 10:09	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			1.0 g	300 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			347170	02/20/21 11:37	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 19:02	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			1.0 g	300 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 21:41	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			1.0 g	300 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347152	02/19/21 14:57	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347908	02/27/21 13:45	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			348027	03/01/21 14:28	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 09:08	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	300 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			347138	02/19/21 11:54	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 09:12	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	300 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			347140	02/19/21 11:57	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	100 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	300 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	50 mL	100 mL	347450	02/23/21 17:57	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 09:06	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	300 mL	346857	02/17/21 12:30	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			347139	02/19/21 11:54	MTW	TAL PIT
	Instrument ID: NOEQUIP									

1 2 3 4 5 6 7 8 9 10 11 12 13

Client: KPRG and Associates, Inc. Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: BLANK HIGH Lab Sample ID: 180-116605-33
Date Collected: 01/25/21 00:00 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9056A		1			346924	02/18/21 16:09	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347728	02/25/21 19:06	RSK	TAL PIT
	Instrument ID: A									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			347908	02/27/21 13:01	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Prep	3010A			50 mL	50 mL	347151	02/19/21 14:53	TJO	TAL PIT
Leach	Analysis	EPA 6020B		1			348027	03/01/21 14:31	RJR	TAL PIT
	Instrument ID: NEMO									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 09:11	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2510B		1			346443	02/12/21 09:16	MTW	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2540C		1	1 mL	100 mL	346837	02/17/21 11:55	GRB	TAL PIT
	Instrument ID: NOEQUIP									
Leach	Leach	1313			1.0 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	SM 2580B		1			346440	02/12/21 09:10	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: A1-0-5 PRETEST Lab Sample ID: 180-116605-34
Date Collected: 01/25/21 11:35 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			35 g	299.6 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 08:25	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: C7-0-5 PRETEST Lab Sample ID: 180-116605-36
Date Collected: 01/24/21 13:30 **Matrix: Solid**
Date Received: 01/28/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Leach	Leach	1313			45 g	316.8 mL	346097	02/10/21 08:10	LWM	TAL PIT
Leach	Analysis	EPA 9040C		1			346435	02/12/21 09:02	MTW	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

- Batch Type: Leach
  - LWM = Larry Matko
- Batch Type: Prep
  - TJO = Tyler Oliver
- Batch Type: Analysis
  - EPS = Evan Scheuer
  - GRB = Gabriel Berghe
  - LWM = Larry Matko
  - MTW = Michael Wesoloski
  - RJR = Ron Rosenbaum
  - RSK = Robert Kurtz
  - SAT = Stephen Tallam

Client: KPRG and Associates, Inc. Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

1 2 3 4 5 6 7 8 9 10 11 12 13

Client Sample ID: A1-0-5 pH 13 — Lab Sample ID: 180-116605-1

Date Collected: 01/25/21 11:35 — **Matrix: Solid**
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.71	mg/L			02/18/21 12:53	1
Sulfate	86		5.0	3.8	mg/L			02/18/21 13:09	5

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	260		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 16:01	1
Boron	7100		400	190	ug/L		02/19/21 14:53	02/27/21 12:13	5
Calcium	3000		500	130	ug/L		02/19/21 14:53	02/25/21 16:01	1
Iron	170		50	20	ug/L		02/19/21 14:53	02/25/21 16:01	1
Lithium	9.3		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 16:01	1
Manganese	3.5	J	5.0	0.87	ug/L		02/19/21 14:53	02/25/21 16:01	1
Molybdenum	120		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 16:01	1
Thallium	0.32	J	1.0	0.15	ug/L		02/19/21 14:53	02/25/21 16:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.1		0.1	0.1	%			02/08/21 12:30	1
Percent Solids	86.9		0.1	0.1	%			02/08/21 12:30	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	13.1		0.1	0.1	SU			02/12/21 08:19	1
Specific Conductance	57000		1.0	1.0	umhos/cm			02/12/21 08:23	1
Total Dissolved Solids	17000		1000	1000	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	- 41		10	10	millivolts			02/12/21 08:20	1

Client Sample ID: A1-0-5 pH 12 — Lab Sample ID: 180-116605-2

Date Collected: 01/25/21 11:35 — **Matrix: Solid**
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.71	mg/L			02/18/21 11:31	1
Sulfate	86		1.0	0.76	mg/L			02/18/21 11:31	1

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	140		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 16:16	1
Boron	6600		400	190	ug/L		02/19/21 14:53	02/27/21 12:24	5
Calcium	2000		500	130	ug/L		02/19/21 14:53	02/25/21 16:16	1
Iron	190		50	20	ug/L		02/19/21 14:53	02/25/21 16:16	1
Lithium	ND		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 16:16	1
Manganese	3.7	J	5.0	0.87	ug/L		02/19/21 14:53	02/25/21 16:16	1
Molybdenum	100		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 16:16	1
Thallium	ND		1.0	0.15	ug/L		02/19/21 14:53	02/25/21 16:16	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	12.2		0.1	0.1	SU			02/12/21 08:22	1
Specific Conductance	4700		1.0	1.0	umhos/cm			02/12/21 08:26	1
Total Dissolved Solids	2400		40	40	mg/L			02/17/21 11:55	1

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: A1-0-5 pH 12 — **Lab Sample ID: 180-116605-2**
Date Collected: 01/25/21 11:35 — **Matrix: Solid**
Date Received: 01/28/21 08:30

General Chemistry - Leach (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oxidation Reduction Potential	37		10	10	millivolts			02/12/21 08:23	1

Client Sample ID: A1-0-5 pH 10.5 — **Lab Sample ID: 180-116605-3**
Date Collected: 01/25/21 11:35 — **Matrix: Solid**
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.2		1.0	0.71	mg/L			02/23/21 19:05	1
Sulfate	54		1.0	0.76	mg/L			02/23/21 19:05	1

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	32		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 20:00	1
Boron	3500		160	77	ug/L		02/19/21 14:57	02/27/21 13:24	2
Calcium	21000		500	130	ug/L		02/19/21 14:57	02/25/21 20:00	1
Iron	60		50	20	ug/L		02/19/21 14:57	02/25/21 20:00	1
Lithium	13		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 20:00	1
Manganese	0.94	J	5.0	0.87	ug/L		02/19/21 14:57	02/25/21 20:00	1
Molybdenum	60		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 20:00	1
Thallium	0.31	J	1.0	0.15	ug/L		02/19/21 14:57	02/25/21 20:00	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	10.5		0.1	0.1	SU			02/19/21 11:33	1
Specific Conductance	400		1.0	1.0	umhos/cm			02/19/21 11:36	1
Total Dissolved Solids	230		20	20	mg/L			02/23/21 17:43	1
Oxidation Reduction Potential	260		10	10	millivolts			02/19/21 11:33	1

Client Sample ID: A1-0-5 pH 8 — **Lab Sample ID: 180-116605-5**
Date Collected: 01/25/21 11:35 — **Matrix: Solid**
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		1.0	0.71	mg/L			02/22/21 18:09	1
Sulfate	230		5.0	3.8	mg/L			02/22/21 18:25	5

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 21:45	1
Boron	14000		800	390	ug/L		02/19/21 14:57	02/27/21 13:48	10
Calcium	390000		500	130	ug/L		02/19/21 14:57	02/25/21 21:45	1
Iron	23	J	50	20	ug/L		02/19/21 14:57	02/25/21 21:45	1
Lithium	38		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 21:45	1
Manganese	4.9	J	5.0	0.87	ug/L		02/19/21 14:57	02/25/21 21:45	1
Molybdenum	190		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 21:45	1
Thallium	0.85	J	1.0	0.15	ug/L		02/19/21 14:57	02/25/21 21:45	1

1 2 3 4 5 6 7 8 9 10 11 12 13

Client Sample ID: A1-0-5 pH 8 Lab Sample ID: 180-116605-5
Date Collected: 01/25/21 11:35 **Matrix: Solid**
Date Received: 01/28/21 08:30

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.1	0.1	SU			02/17/21 09:43	1
Specific Conductance	1900		1.0	1.0	umhos/cm			02/17/21 09:46	1
Total Dissolved Solids	1500		40	40	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	180		10	10	millivolts			02/17/21 09:43	1

Client Sample ID: A1-0-5 pH 7 Lab Sample ID: 180-116605-6
Date Collected: 01/25/21 11:35 **Matrix: Solid**
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		1.0	0.71	mg/L			02/22/21 18:41	1
Sulfate	220		5.0	3.8	mg/L			02/22/21 18:58	5

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.1		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 22:00	1
Boron	14000		800	390	ug/L		02/19/21 14:57	02/27/21 13:50	10
Calcium	640000		500	130	ug/L		02/19/21 14:57	02/25/21 22:00	1
Iron	22	J	50	20	ug/L		02/19/21 14:57	02/25/21 22:00	1
Lithium	52		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 22:00	1
Manganese	430		5.0	0.87	ug/L		02/19/21 14:57	02/25/21 22:00	1
Molybdenum	150		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 22:00	1
Thallium	3.6		1.0	0.15	ug/L		02/19/21 14:57	02/25/21 22:00	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.8		0.1	0.1	SU			02/17/21 09:49	1
Specific Conductance	3300		1.0	1.0	umhos/cm			02/17/21 09:52	1
Total Dissolved Solids	2800		40	40	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	230		10	10	millivolts			02/17/21 09:49	1

Client Sample ID: A1-0-5 pH 5.5 Lab Sample ID: 180-116605-7
Date Collected: 01/25/21 11:35 **Matrix: Solid**
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		25	18	mg/L			02/23/21 20:08	25
Sulfate	65		25	19	mg/L			02/23/21 20:08	25

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 20:15	1
Boron	4800		160	77	ug/L		02/19/21 14:57	02/27/21 13:27	2
Calcium	400000		500	130	ug/L		02/19/21 14:57	02/25/21 20:15	1
Iron	350000		50	20	ug/L		02/19/21 14:57	02/25/21 20:15	1
Lithium	220		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 20:15	1
Manganese	2600		5.0	0.87	ug/L		02/19/21 14:57	02/25/21 20:15	1
Molybdenum	2.7	J	5.0	0.61	ug/L		02/19/21 14:57	02/25/21 20:15	1
Thallium	16		1.0	0.15	ug/L		02/19/21 14:57	02/25/21 20:15	1

Client Sample Results

Client: KPRG and Associates, Inc.
Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: A1-0-5 pH 5.5

Lab Sample ID: 180-116605-7
Date Collected: 01/25/21 11:35
Matrix: Solid
Date Received: 01/28/21 08:30

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.4		0.1	0.1	SU			02/19/21 11:39	1
Specific Conductance	6600		1.0	1.0	umhos/cm			02/19/21 11:42	1
Total Dissolved Solids	4000		40	40	mg/L			02/23/21 17:57	1
Oxidation Reduction Potential	460		10	10	millivolts			02/19/21 11:39	1

Client Sample ID: A1-0-5 pH 4

Lab Sample ID: 180-116605-8
Date Collected: 01/25/21 11:35
Matrix: Solid
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		250	180	mg/L			02/18/21 16:42	250
Sulfate	260		250	190	mg/L			02/18/21 16:42	250

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.8		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 16:30	1
Boron	21000		800	390	ug/L		02/19/21 14:53	02/27/21 12:27	10
Calcium	1500000		5000	1300	ug/L		02/19/21 14:53	02/26/21 18:53	10
Iron	5200		50	20	ug/L		02/19/21 14:53	02/25/21 16:30	1
Lithium	190		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 16:30	1
Manganese	7300		5.0	0.87	ug/L		02/19/21 14:53	02/25/21 16:30	1
Molybdenum	9.2		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 16:30	1
Thallium	61		1.0	0.15	ug/L		02/19/21 14:53	02/25/21 16:30	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	3.7		0.1	0.1	SU			02/12/21 08:28	1
Specific Conductance	9400		1.0	1.0	umhos/cm			02/12/21 08:29	1
Total Dissolved Solids	7100		100	100	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	450		10	10	millivolts			02/12/21 08:26	1

Client Sample ID: A1-0-5 pH 2

Lab Sample ID: 180-116605-9
Date Collected: 01/25/21 11:35
Matrix: Solid
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		25	18	mg/L			02/22/21 19:47	25
Sulfate	530		25	19	mg/L			02/22/21 19:47	25

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	520		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 22:14	1
Boron	51000		2000	970	ug/L		02/19/21 14:57	02/27/21 13:53	25
Calcium	2000000		5000	1300	ug/L		02/19/21 14:57	02/25/21 22:18	10
Iron	620000		50	20	ug/L		02/19/21 14:57	02/25/21 22:14	1
Lithium	380		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 22:14	1
Manganese	13000		50	8.7	ug/L		02/19/21 14:57	02/25/21 22:18	10
Molybdenum	280		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 22:14	1
Thallium	180		1.0	0.15	ug/L		02/19/21 14:57	02/25/21 22:14	1

Client Sample Results

Client: KPRG and Associates, Inc. Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: A1-0-5 pH 2 Lab Sample ID: 180-116605-9

Date Collected: 01/25/21 11:35 **Matrix: Solid**
Date Received: 01/28/21 08:30

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	2.4		0.1	0.1	SU			02/17/21 09:52	1
Specific Conductance	18000		1.0	1.0	umhos/cm			02/17/21 09:55	1
Total Dissolved Solids	15000		100	100	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	520		10	10	millivolts			02/17/21 09:52	1

Client Sample ID: A1-0-5 NATURAL Lab Sample ID: 180-116605-10

Date Collected: 01/25/21 11:35 **Matrix: Solid**
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.5		1.0	0.71	mg/L			02/18/21 10:26	1
Sulfate	93		1.0	0.76	mg/L			02/18/21 10:26	1

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 15:46	1
Boron	5000		160	77	ug/L		02/19/21 14:53	02/27/21 12:11	2
Calcium	55000		500	130	ug/L		02/19/21 14:53	02/25/21 15:46	1
Iron	ND		50	20	ug/L		02/19/21 14:53	02/25/21 15:46	1
Lithium	14		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 15:46	1
Manganese	0.93	J	5.0	0.87	ug/L		02/19/21 14:53	02/25/21 15:46	1
Molybdenum	94		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 15:46	1
Thallium	0.26	J	1.0	0.15	ug/L		02/19/21 14:53	02/25/21 15:46	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.4		0.1	0.1	SU			02/12/21 08:13	1
Specific Conductance	310		1.0	1.0	umhos/cm			02/12/21 08:16	1
Total Dissolved Solids	220		10	10	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	280		10	10	millivolts			02/12/21 08:13	1

Client Sample ID: A9-0-5 pH 13 Lab Sample ID: 180-116605-11

Date Collected: 01/25/21 10:25 **Matrix: Solid**
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			02/18/21 11:47	1
Sulfate	19		1.0	0.76	mg/L			02/18/21 11:47	1

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1900		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 16:59	1
Boron	8700		800	390	ug/L		02/19/21 14:53	03/01/21 14:02	10
Calcium	2300		500	130	ug/L		02/19/21 14:53	02/25/21 16:59	1
Iron	140		50	20	ug/L		02/19/21 14:53	02/25/21 16:59	1
Lithium	6.4		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 16:59	1
Manganese	6.4		5.0	0.87	ug/L		02/19/21 14:53	02/25/21 16:59	1
Molybdenum	71		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 16:59	1
Thallium	1.2		1.0	0.15	ug/L		02/19/21 14:53	02/25/21 16:59	1

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: A9-0-5 pH 13

Lab Sample ID: 180-116605-11
Matrix: Solid
Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	28.3		0.1	0.1	%			02/08/21 12:30	1
Percent Solids	71.7		0.1	0.1	%			02/08/21 12:30	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	13.1		0.1	0.1	SU			02/12/21 08:32	1
Specific Conductance	56000		1.0	1.0	umhos/cm			02/12/21 08:33	1
Total Dissolved Solids	16000		1000	1000	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	- 5		10	10	millivolts			02/12/21 08:30	1

Client Sample ID: A9-0-5 pH 12

Lab Sample ID: 180-116605-12
Matrix: Solid
Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.90	J	1.0	0.71	mg/L			02/18/21 12:04	1
Sulfate	76		1.0	0.76	mg/L			02/18/21 12:04	1

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	810		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 17:21	1
Boron	7300		400	190	ug/L		02/19/21 14:53	03/01/21 14:04	5
Calcium	2700		500	130	ug/L		02/19/21 14:53	02/25/21 17:21	1
Iron	29	J	50	20	ug/L		02/19/21 14:53	02/25/21 17:21	1
Lithium	ND		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 17:21	1
Manganese	1.7	J	5.0	0.87	ug/L		02/19/21 14:53	02/25/21 17:21	1
Molybdenum	51		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 17:21	1
Thallium	0.22	J	1.0	0.15	ug/L		02/19/21 14:53	02/25/21 17:21	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	12.3		0.1	0.1	SU			02/12/21 08:35	1
Specific Conductance	5000		1.0	1.0	umhos/cm			02/12/21 08:36	1
Total Dissolved Solids	1700		40	40	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	45		10	10	millivolts			02/12/21 08:33	1

Client Sample ID: A9-0-5 pH 9

Lab Sample ID: 180-116605-14
Matrix: Solid
Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.1		1.0	0.71	mg/L			02/22/21 19:14	1
Sulfate	500		5.0	3.8	mg/L			02/22/21 19:30	5

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 22:32	1
Boron	25000		800	390	ug/L		02/19/21 14:57	02/27/21 13:55	10
Calcium	490000		500	130	ug/L		02/19/21 14:57	02/25/21 22:32	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: A9-0-5 pH 9

Lab Sample ID: 180-116605-14

Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Matrix: Solid

Method: EPA 6020B - Metals (ICP/MS) - Leach (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	50		50	20	ug/L		02/19/21 14:57	02/25/21 22:32	1
Lithium	13		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 22:32	1
Manganese	3.0	J	5.0	0.87	ug/L		02/19/21 14:57	02/25/21 22:32	1
Molybdenum	210		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 22:32	1
Thallium	0.47	J	1.0	0.15	ug/L		02/19/21 14:57	02/25/21 22:32	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.0		0.1	0.1	SU			02/17/21 09:55	1
Specific Conductance	2200		1.0	1.0	umhos/cm			02/17/21 09:58	1
Total Dissolved Solids	1900		10	10	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	330		10	10	millivolts			02/17/21 09:55	1

Client Sample ID: A9-0-5 pH 8

Lab Sample ID: 180-116605-15

Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.71	J	1.0	0.71	mg/L			02/23/21 19:37	1
Sulfate	1100		50	38	mg/L			02/25/21 09:53	50

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 20:29	1
Boron	58000		2000	970	ug/L		02/19/21 14:57	02/27/21 13:29	25
Calcium	1100000		500	130	ug/L		02/19/21 14:57	02/25/21 20:29	1
Iron	54		50	20	ug/L		02/19/21 14:57	02/25/21 20:29	1
Lithium	26		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 20:29	1
Manganese	4.8	J	5.0	0.87	ug/L		02/19/21 14:57	02/25/21 20:29	1
Molybdenum	520		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 20:29	1
Thallium	0.74	J	1.0	0.15	ug/L		02/19/21 14:57	02/25/21 20:29	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.1	0.1	SU			02/19/21 11:42	1
Specific Conductance	4800		1.0	1.0	umhos/cm			02/19/21 11:45	1
Total Dissolved Solids	4500		40	40	mg/L			02/23/21 17:57	1
Oxidation Reduction Potential	190		10	10	millivolts			02/19/21 11:42	1

Client Sample ID: A9-0-5 pH 7

Lab Sample ID: 180-116605-16

Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		250	180	mg/L			02/18/21 16:58	250
Sulfate	900		250	190	mg/L			02/18/21 16:58	250

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: A9-0-5 pH 7

Lab Sample ID: 180-116605-16

Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Matrix: Solid

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**16**		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 17:35	1
Boron	**50000**		2000	970	ug/L		02/19/21 14:53	03/01/21 14:07	25
Calcium	**1400000**		13000	3200	ug/L		02/19/21 14:53	02/26/21 19:18	25
Iron	ND		50	20	ug/L		02/19/21 14:53	02/25/21 17:35	1
Lithium	**56**		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 17:35	1
Manganese	**220**		5.0	0.87	ug/L		02/19/21 14:53	02/25/21 17:35	1
Molybdenum	**460**		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 17:35	1
Thallium	**2.6**		1.0	0.15	ug/L		02/19/21 14:53	02/25/21 17:35	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.0**		0.1	0.1	SU			02/12/21 08:38	1
Specific Conductance	**6000**		1.0	1.0	umhos/cm			02/12/21 08:39	1
Total Dissolved Solids	**5900**		40	40	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	**280**		10	10	millivolts			02/12/21 08:36	1

Client Sample ID: A9-0-5 pH 5.5

Lab Sample ID: 180-116605-17

Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		250	180	mg/L			02/18/21 17:14	250
Sulfate	**1000**		250	190	mg/L			02/18/21 17:14	250

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.4**		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 17:50	1
Boron	**60000**		2000	970	ug/L		02/19/21 14:53	03/01/21 14:10	25
Calcium	**2300000**		13000	3200	ug/L		02/19/21 14:53	02/26/21 19:40	25
Iron	ND		50	20	ug/L		02/19/21 14:53	02/25/21 17:50	1
Lithium	**160**		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 17:50	1
Manganese	**5000**		5.0	0.87	ug/L		02/19/21 14:53	02/25/21 17:50	1
Molybdenum	**120**		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 17:50	1
Thallium	**8.2**		1.0	0.15	ug/L		02/19/21 14:53	02/25/21 17:50	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**5.7**		0.1	0.1	SU			02/12/21 08:41	1
Specific Conductance	**10000**		1.0	1.0	umhos/cm			02/12/21 08:43	1
Total Dissolved Solids	**9800**		100	100	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	**350**		10	10	millivolts			02/12/21 08:40	1

Client Sample ID: A9-0-5 pH 4

Lab Sample ID: 180-116605-18

Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		25	18	mg/L			02/22/21 20:19	25
Sulfate	**1100**		25	19	mg/L			02/22/21 20:19	25

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: A9-0-5 pH 4

Lab Sample ID: 180-116605-18
Date Collected: 01/25/21 10:25
Matrix: Solid
Date Received: 01/28/21 08:30

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 22:47	1
Boron	81000		4000	1900	ug/L		02/19/21 14:57	02/27/21 13:58	50
Calcium	2800000		25000	6400	ug/L		02/19/21 14:57	02/26/21 22:49	50
Iron	540		50	20	ug/L		02/19/21 14:57	02/25/21 22:47	1
Lithium	250		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 22:47	1
Manganese	9500		5.0	0.87	ug/L		02/19/21 14:57	02/25/21 22:47	1
Molybdenum	13		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 22:47	1
Thallium	26		1.0	0.15	ug/L		02/19/21 14:57	02/25/21 22:47	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	3.9		0.1	0.1	SU			02/17/21 09:58	1
Specific Conductance	14000		1.0	1.0	umhos/cm			02/17/21 10:01	1
Total Dissolved Solids	12000		100	100	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	500		10	10	millivolts			02/17/21 09:58	1

Client Sample ID: A9-0-5 pH 2

Lab Sample ID: 180-116605-19
Date Collected: 01/25/21 10:25
Matrix: Solid
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		250	180	mg/L			02/23/21 21:12	250
Sulfate	1800		250	190	mg/L			02/23/21 21:12	250

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	970		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 20:44	1
Boron	120000		8000	3900	ug/L		02/19/21 14:57	02/27/21 13:32	100
Calcium	2700000		5000	1300	ug/L		02/19/21 14:57	02/25/21 20:47	10
Iron	400000		50	20	ug/L		02/19/21 14:57	02/25/21 20:44	1
Lithium	470		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 20:44	1
Manganese	22000		50	8.7	ug/L		02/19/21 14:57	02/25/21 20:47	10
Molybdenum	300		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 20:44	1
Thallium	91		1.0	0.15	ug/L		02/19/21 14:57	02/25/21 20:44	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	2.1		0.1	0.1	SU			02/19/21 11:45	1
Specific Conductance	22000		1.0	1.0	umhos/cm			02/19/21 11:48	1
Total Dissolved Solids	18000		200	200	mg/L			02/23/21 17:57	1
Oxidation Reduction Potential	670		10	10	millivolts			02/19/21 11:45	1

Client Sample ID: A9-0-5 pH NATURAL

Lab Sample ID: 180-116605-20
Date Collected: 01/25/21 10:25
Matrix: Solid
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.2		1.0	0.71	mg/L			02/18/21 13:25	1
Sulfate	140		5.0	3.8	mg/L			02/18/21 13:42	5

1 2 3 4 5 6 7 8 9 10 11 12 13

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: A9-0-5 pH NATURAL

Lab Sample ID: 180-116605-20

Date Collected: 01/25/21 10:25
Date Received: 01/28/21 08:30

Matrix: Solid

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	58		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 16:44	1
Boron	8200		400	190	ug/L		02/19/21 14:53	02/27/21 12:30	5
Calcium	85000		500	130	ug/L		02/19/21 14:53	02/25/21 16:44	1
Iron	ND		50	20	ug/L		02/19/21 14:53	02/25/21 16:44	1
Lithium	4.8	J	5.0	3.4	ug/L		02/19/21 14:53	02/25/21 16:44	1
Manganese	1.3	J	5.0	0.87	ug/L		02/19/21 14:53	02/25/21 16:44	1
Molybdenum	72		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 16:44	1
Thallium	0.17	J	1.0	0.15	ug/L		02/19/21 14:53	02/25/21 16:44	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	10.1		0.1	0.1	SU			02/12/21 08:47	1
Specific Conductance	420		1.0	1.0	umhos/cm			02/12/21 08:52	1
Total Dissolved Solids	310		10	10	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	310		10	10	millivolts			02/12/21 08:46	1

Client Sample ID: C7-0-5 pH 13

Lab Sample ID: 180-116605-21

Date Collected: 01/24/21 13:30
Date Received: 01/28/21 08:30

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0		1.0	0.71	mg/L			02/18/21 13:58	1
Sulfate	160		5.0	3.8	mg/L			02/18/21 14:14	5

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1000		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 18:19	1
Boron	11000		800	390	ug/L		02/19/21 14:53	03/01/21 14:15	10
Calcium	10000		500	130	ug/L		02/19/21 14:53	02/25/21 18:19	1
Iron	3500		50	20	ug/L		02/19/21 14:53	02/25/21 18:19	1
Lithium	5.2		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 18:19	1
Manganese	41		5.0	0.87	ug/L		02/19/21 14:53	02/25/21 18:19	1
Molybdenum	180		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 18:19	1
Thallium	3.5		1.0	0.15	ug/L		02/19/21 14:53	02/25/21 18:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	26.8		0.1	0.1	%			02/08/21 12:30	1
Percent Solids	73.2		0.1	0.1	%			02/08/21 12:30	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	13.1		0.1	0.1	SU			02/12/21 08:56	1
Specific Conductance	49000		1.0	1.0	umhos/cm			02/12/21 09:02	1
Total Dissolved Solids	20000		1000	1000	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	- 70		10	10	millivolts			02/12/21 08:56	1

Client: KPRG and Associates, Inc. Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: C7-0-5 pH 12 — Lab Sample ID: 180-116605-22

Date Collected: 01/24/21 13:30 — **Matrix: Solid**
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.9		1.0	0.71	mg/L			02/18/21 14:31	1
Sulfate	180		5.0	3.8	mg/L			02/18/21 14:47	5

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	470		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 18:33	1
Boron	9900		800	390	ug/L		02/19/21 14:53	03/01/21 14:18	10
Calcium	11000		500	130	ug/L		02/19/21 14:53	02/25/21 18:33	1
Iron	6000		50	20	ug/L		02/19/21 14:53	02/25/21 18:33	1
Lithium	5.9		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 18:33	1
Manganese	65		5.0	0.87	ug/L		02/19/21 14:53	02/25/21 18:33	1
Molybdenum	190		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 18:33	1
Thallium	1.1		1.0	0.15	ug/L		02/19/21 14:53	02/25/21 18:33	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	12.0		0.1	0.1	SU			02/12/21 08:59	1
Specific Conductance	3000		1.0	1.0	umhos/cm			02/12/21 09:06	1
Total Dissolved Solids	3800		20	20	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	12		10	10	millivolts			02/12/21 09:00	1

Client Sample ID: C7-0-5 pH 9 — Lab Sample ID: 180-116605-24

Date Collected: 01/24/21 13:30 — **Matrix: Solid**
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			02/20/21 13:06	1
Sulfate	190		1.0	0.76	mg/L			02/20/21 13:06	1

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	26		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 22:57	1
Boron	18000		800	390	ug/L		02/19/21 14:57	02/27/21 14:01	10
Calcium	270000		500	130	ug/L		02/19/21 14:57	02/25/21 22:57	1
Iron	ND		50	20	ug/L		02/19/21 14:57	02/25/21 22:57	1
Lithium	4.4	J	5.0	3.4	ug/L		02/19/21 14:57	02/25/21 22:57	1
Manganese	2.0	J	5.0	0.87	ug/L		02/19/21 14:57	02/25/21 22:57	1
Molybdenum	250		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 22:57	1
Thallium	0.38	J	1.0	0.15	ug/L		02/19/21 14:57	02/25/21 22:57	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.9		0.1	0.1	SU			02/17/21 10:01	1
Specific Conductance	1300		1.0	1.0	umhos/cm			02/17/21 10:04	1
Total Dissolved Solids	1100		10	10	mg/L			02/17/21 13:17	1
Oxidation Reduction Potential	340		10	10	millivolts			02/17/21 10:01	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: C7-0-5 pH 8

Lab Sample ID: 180-116605-25
Date Collected: 01/24/21 13:30
Matrix: Solid
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		2.5	1.8	mg/L			02/20/21 12:33	2.5
Sulfate	230		2.5	1.9	mg/L			02/20/21 12:33	2.5

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	35		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 23:12	1
Boron	23000		800	390	ug/L		02/19/21 14:57	02/27/21 14:03	10
Calcium	450000		500	130	ug/L		02/19/21 14:57	02/25/21 23:12	1
Iron	ND		50	20	ug/L		02/19/21 14:57	02/25/21 23:12	1
Lithium	8.9		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 23:12	1
Manganese	1.8	J	5.0	0.87	ug/L		02/19/21 14:57	02/25/21 23:12	1
Molybdenum	320		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 23:12	1
Thallium	0.66	J	1.0	0.15	ug/L		02/19/21 14:57	02/25/21 23:12	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.3		0.1	0.1	SU			02/17/21 10:04	1
Specific Conductance	2200		1.0	1.0	umhos/cm			02/17/21 10:07	1
Total Dissolved Solids	1800		10	10	mg/L			02/17/21 13:17	1
Oxidation Reduction Potential	300		10	10	millivolts			02/17/21 10:04	1

Client Sample ID: C7-0-5 pH 7

Lab Sample ID: 180-116605-26
Date Collected: 01/24/21 13:30
Matrix: Solid
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		5.0	3.6	mg/L			02/20/21 12:01	5
Sulfate	ND		5.0	3.8	mg/L			02/20/21 12:01	5

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	28		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 23:27	1
Boron	26000		800	390	ug/L		02/19/21 14:57	02/27/21 14:16	10
Calcium	980000		500	130	ug/L		02/19/21 14:57	02/25/21 23:27	1
Iron	ND		50	20	ug/L		02/19/21 14:57	02/25/21 23:27	1
Lithium	70		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 23:27	1
Manganese	180		5.0	0.87	ug/L		02/19/21 14:57	02/25/21 23:27	1
Molybdenum	320		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 23:27	1
Thallium	3.8		1.0	0.15	ug/L		02/19/21 14:57	02/25/21 23:27	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.8		0.1	0.1	SU			02/17/21 10:07	1
Specific Conductance	4600		1.0	1.0	umhos/cm			02/17/21 10:10	1
Total Dissolved Solids	4000		40	40	mg/L			02/17/21 13:17	1
Oxidation Reduction Potential	310		10	10	millivolts			02/17/21 10:07	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: C7-0-5 pH 5.5

Lab Sample ID: 180-116605-27
Date Collected: 01/24/21 13:30
Matrix: Solid
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		25	18	mg/L			02/23/21 20:40	25
Sulfate	770		25	19	mg/L			02/23/21 20:40	25

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.3		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 21:02	1
Boron	48000		2000	970	ug/L		02/19/21 14:57	02/27/21 13:40	25
Calcium	2000000		13000	3200	ug/L		02/19/21 14:57	02/26/21 21:47	25
Iron	47	J	50	20	ug/L		02/19/21 14:57	02/25/21 21:02	1
Lithium	140		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 21:02	1
Manganese	2800		5.0	0.87	ug/L		02/19/21 14:57	02/25/21 21:02	1
Molybdenum	290		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 21:02	1
Thallium	9.4		1.0	0.15	ug/L		02/19/21 14:57	02/25/21 21:02	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.6		0.1	0.1	SU			02/19/21 11:48	1
Specific Conductance	8700		1.0	1.0	umhos/cm			02/19/21 11:51	1
Total Dissolved Solids	8200		100	100	mg/L			02/23/21 17:57	1
Oxidation Reduction Potential	320		10	10	millivolts			02/19/21 11:48	1

Client Sample ID: C7-0-5 pH 4

Lab Sample ID: 180-116605-28
Date Collected: 01/24/21 13:30
Matrix: Solid
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		250	180	mg/L			02/18/21 17:31	250
Sulfate	490		250	190	mg/L			02/18/21 17:31	250

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.7		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 18:48	1
Boron	33000		2000	970	ug/L		02/19/21 14:53	03/01/21 14:20	25
Calcium	1700000		13000	3200	ug/L		02/19/21 14:53	02/26/21 20:13	25
Iron	410		50	20	ug/L		02/19/21 14:53	02/25/21 18:48	1
Lithium	230		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 18:48	1
Manganese	8900		5.0	0.87	ug/L		02/19/21 14:53	02/25/21 18:48	1
Molybdenum	6.2		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 18:48	1
Thallium	18		1.0	0.15	ug/L		02/19/21 14:53	02/25/21 18:48	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	4.0		0.1	0.1	SU			02/12/21 09:05	1
Specific Conductance	9100		1.0	1.0	umhos/cm			02/12/21 09:09	1
Total Dissolved Solids	8200		100	100	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	490		10	10	millivolts			02/12/21 09:03	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: C7-0-5 pH 2

Lab Sample ID: 180-116605-29
Date Collected: 01/24/21 13:30
Matrix: Solid
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		250	180	mg/L			02/23/21 21:27	250
Sulfate	**650**		250	190	mg/L			02/23/21 21:27	250

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**710**		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 21:24	1
Boron	**50000**		2000	970	ug/L		02/19/21 14:57	02/27/21 13:42	25
Calcium	**2200000**		5000	1300	ug/L		02/19/21 14:57	02/25/21 21:27	10
Iron	**340000**		50	20	ug/L		02/19/21 14:57	02/25/21 21:24	1
Lithium	**730**		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 21:24	1
Manganese	**18000**		50	8.7	ug/L		02/19/21 14:57	02/25/21 21:27	10
Molybdenum	**150**		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 21:24	1
Thallium	**170**		1.0	0.15	ug/L		02/19/21 14:57	02/25/21 21:24	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**2.2**		0.1	0.1	SU			02/19/21 11:51	1
Specific Conductance	**19000**		1.0	1.0	umhos/cm			02/19/21 11:54	1
Total Dissolved Solids	**15000**		100	100	mg/L			02/23/21 17:57	1
Oxidation Reduction Potential	**560**		10	10	millivolts			02/19/21 11:51	1

Client Sample ID: C7-0-5 pH NATURAL

Lab Sample ID: 180-116605-30
Date Collected: 01/24/21 13:30
Matrix: Solid
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.2**		1.0	0.71	mg/L			02/18/21 15:03	1
Sulfate	**290**		5.0	3.8	mg/L			02/18/21 15:20	5

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**22**		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 18:04	1
Boron	**13000**		800	390	ug/L		02/19/21 14:53	03/01/21 14:12	10
Calcium	**150000**		500	130	ug/L		02/19/21 14:53	02/25/21 18:04	1
Iron	ND		50	20	ug/L		02/19/21 14:53	02/25/21 18:04	1
Lithium	**4.2**	**J**	5.0	3.4	ug/L		02/19/21 14:53	02/25/21 18:04	1
Manganese	**0.98**	**J**	5.0	0.87	ug/L		02/19/21 14:53	02/25/21 18:04	1
Molybdenum	**170**		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 18:04	1
Thallium	ND		1.0	0.15	ug/L		02/19/21 14:53	02/25/21 18:04	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**9.6**		0.1	0.1	SU			02/12/21 08:53	1
Specific Conductance	**690**		1.0	1.0	umhos/cm			02/12/21 08:59	1
Total Dissolved Solids	**580**		10	10	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	**200**		10	10	millivolts			02/12/21 08:53	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Client Sample ID: BLANK LOW

Lab Sample ID: 180-116605-31

Date Collected: 01/25/21 00:00
Date Received: 01/28/21 08:30

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			02/22/21 16:47	1
Sulfate	ND		1.0	0.76	mg/L			02/22/21 16:47	1

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 23:41	1
Boron	**91**		80	39	ug/L		02/19/21 14:57	02/27/21 14:19	1
Calcium	**460**	**J**	500	130	ug/L		02/19/21 14:57	02/25/21 23:41	1
Iron	**27**	**J**	50	20	ug/L		02/19/21 14:57	02/25/21 23:41	1
Lithium	ND		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 23:41	1
Manganese	**1.5**	**J**	5.0	0.87	ug/L		02/19/21 14:57	02/25/21 23:41	1
Molybdenum	ND		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 23:41	1
Thallium	ND		1.0	0.15	ug/L		02/19/21 14:57	02/25/21 23:41	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**0.8**		0.1	0.1	SU			02/17/21 10:10	1
Specific Conductance	**74000**		1.0	1.0	umhos/cm			02/17/21 10:13	1
Total Dissolved Solids	**4100**		40	40	mg/L			02/17/21 13:17	1
Oxidation Reduction Potential	**560**		10	10	millivolts			02/17/21 10:10	1

Client Sample ID: BLANK MEDIUM

Lab Sample ID: 180-116605-32

Date Collected: 01/25/21 00:00
Date Received: 01/28/21 08:30

Matrix: Solid

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			02/18/21 10:09	1
Chloride	ND		1.0	0.71	mg/L			02/20/21 11:37	1
Sulfate	ND		1.0	0.76	mg/L			02/18/21 10:09	1
Sulfate	ND		1.0	0.76	mg/L			02/20/21 11:37	1

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 19:02	1
Arsenic	ND		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 21:41	1
Boron	**81**		80	39	ug/L		02/19/21 14:57	02/27/21 13:45	1
Boron	ND		80	39	ug/L		02/19/21 14:53	03/01/21 14:28	1
Calcium	**310**	**J**	500	130	ug/L		02/19/21 14:53	02/25/21 19:02	1
Calcium	**330**	**J**	500	130	ug/L		02/19/21 14:57	02/25/21 21:41	1
Iron	ND		50	20	ug/L		02/19/21 14:53	02/25/21 19:02	1
Iron	**32**	**J**	50	20	ug/L		02/19/21 14:57	02/25/21 21:41	1
Lithium	ND		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 19:02	1
Lithium	ND		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 21:41	1
Manganese	**1.7**	**J**	5.0	0.87	ug/L		02/19/21 14:53	02/25/21 19:02	1
Manganese	**2.7**	**J**	5.0	0.87	ug/L		02/19/21 14:57	02/25/21 21:41	1
Molybdenum	ND		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 19:02	1
Molybdenum	ND		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 21:41	1
Thallium	ND		1.0	0.15	ug/L		02/19/21 14:53	02/25/21 19:02	1
Thallium	ND		1.0	0.15	ug/L		02/19/21 14:57	02/25/21 21:41	1

Client Sample Results

Client: KPRG and Associates, Inc.
Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Client Sample ID: BLANK MEDIUM

Lab Sample ID: 180-116605-32
Date Collected: 01/25/21 00:00
Matrix: Solid
Date Received: 01/28/21 08:30

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.7		0.1	0.1	SU			02/12/21 09:08	1
pH	5.4		0.1	0.1	SU			02/19/21 11:54	1
Specific Conductance	1.0		1.0	1.0	umhos/cm			02/12/21 09:12	1
Specific Conductance	ND		1.0	1.0	umhos/cm			02/19/21 11:57	1
Total Dissolved Solids	ND		10	10	mg/L			02/17/21 11:55	1
Total Dissolved Solids	ND		20	20	mg/L			02/23/21 17:57	1
Oxidation Reduction Potential	390		10	10	millivolts			02/12/21 09:06	1
Oxidation Reduction Potential	460		10	10	millivolts			02/19/21 11:54	1

Client Sample ID: BLANK HIGH

Lab Sample ID: 180-116605-33
Date Collected: 01/25/21 00:00
Matrix: Solid
Date Received: 01/28/21 08:30

Method: EPA 9056A - Anions, Ion Chromatography - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			02/18/21 16:09	1
Sulfate	ND		1.0	0.76	mg/L			02/18/21 16:09	1

Method: EPA 6020B - Metals (ICP/MS) - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 19:06	1
Boron	ND		80	39	ug/L		02/19/21 14:53	03/01/21 14:31	1
Calcium	ND		500	130	ug/L		02/19/21 14:53	02/27/21 13:01	1
Iron	ND		50	20	ug/L		02/19/21 14:53	02/25/21 19:06	1
Lithium	ND		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 19:06	1
Manganese	2.7	J	5.0	0.87	ug/L		02/19/21 14:53	02/25/21 19:06	1
Molybdenum	ND		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 19:06	1
Thallium	ND		1.0	0.15	ug/L		02/19/21 14:53	02/25/21 19:06	1

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	13.2		0.1	0.1	SU			02/12/21 09:11	1
Specific Conductance	62000		1.0	1.0	umhos/cm			02/12/21 09:16	1
Total Dissolved Solids	19000		1000	1000	mg/L			02/17/21 11:55	1
Oxidation Reduction Potential	10		10	10	millivolts			02/12/21 09:10	1

Client Sample ID: A1-0-5 PRETEST

Lab Sample ID: 180-116605-34
Date Collected: 01/25/21 11:35
Matrix: Solid
Date Received: 01/28/21 08:30

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.3		0.1	0.1	SU			02/12/21 08:25	1

Client Sample ID: C7-0-5 PRETEST

Lab Sample ID: 180-116605-36
Date Collected: 01/24/21 13:30
Matrix: Solid
Date Received: 01/28/21 08:30

General Chemistry - Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.0		0.1	0.1	SU			02/12/21 09:02	1

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-346924/6
Matrix: Solid
Analysis Batch: 346924

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			02/18/21 07:53	1
Sulfate	ND		1.0	0.76	mg/L			02/18/21 07:53	1

Lab Sample ID: LCS 180-346924/5
Matrix: Solid
Analysis Batch: 346924

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.3		mg/L		99	80 - 120
Sulfate	50.0	49.0		mg/L		98	80 - 120

Lab Sample ID: MB 180-347170/20
Matrix: Solid
Analysis Batch: 347170

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			02/20/21 09:59	1
Sulfate	ND		1.0	0.76	mg/L			02/20/21 09:59	1

Lab Sample ID: LCS 180-347170/19
Matrix: Solid
Analysis Batch: 347170

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	52.2		mg/L		104	80 - 120
Sulfate	50.0	53.5		mg/L		107	80 - 120

Lab Sample ID: MB 180-347241/6
Matrix: Solid
Analysis Batch: 347241

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			02/22/21 11:05	1
Sulfate	ND		1.0	0.76	mg/L			02/22/21 11:05	1

Lab Sample ID: LCS 180-347241/5
Matrix: Solid
Analysis Batch: 347241

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.9		mg/L		102	80 - 120
Sulfate	50.0	51.2		mg/L		102	80 - 120

Lab Sample ID: MB 180-347322/6
Matrix: Solid
Analysis Batch: 347322

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			02/23/21 08:55	1
Sulfate	ND		1.0	0.76	mg/L			02/23/21 08:55	1

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: LCS 180-347322/5
Matrix: Solid
Analysis Batch: 347322

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.0		mg/L		102	80 - 120
Sulfate	50.0	51.0		mg/L		102	80 - 120

Lab Sample ID: MB 180-347581/6
Matrix: Solid
Analysis Batch: 347581

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.76	mg/L			02/25/21 06:59	1

Lab Sample ID: LCS 180-347581/5
Matrix: Solid
Analysis Batch: 347581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	50.5		mg/L		101	80 - 120

Lab Sample ID: 180-116605-10 MS
Matrix: Solid
Analysis Batch: 346924

Client Sample ID: A1-0-5 NATURAL
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	ND		250	246		mg/L		98	80 - 120
Sulfate	100		250	327		mg/L		90	80 - 120

Lab Sample ID: 180-116605-10 MSD
Matrix: Solid
Analysis Batch: 346924

Client Sample ID: A1-0-5 NATURAL
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	ND		250	248		mg/L		99	80 - 120	1	15
Sulfate	100		250	334		mg/L		93	80 - 120	2	15

Lab Sample ID: 180-116605-24 MS
Matrix: Solid
Analysis Batch: 347170

Client Sample ID: C7-0-5 pH 9
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	ND	F1	500	ND	F1	mg/L		0	80 - 120
Sulfate	190	F1 F2	500	964	F1	mg/L		154	80 - 120

Lab Sample ID: 180-116605-24 MSD
Matrix: Solid
Analysis Batch: 347170

Client Sample ID: C7-0-5 pH 9
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	ND	F1	500	ND	F1	mg/L		0	80 - 120	NC	15
Sulfate	190	F1 F2	500	90.6	F1 F2	mg/L		-20	80 - 120	166	15

1 2 3 4 5 6 7 8 9 10 11 12 13

QC Sample Results

Client: KPRG and Associates, Inc.
Job ID: 180-116605-1
Project/Site: Waukegan Generating Station

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-347151/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 347728
Prep Batch: 347151

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0	0.31	ug/L		02/19/21 14:53	02/25/21 15:36	1
Calcium	ND		500	130	ug/L		02/19/21 14:53	02/25/21 15:36	1
Iron	ND		50	20	ug/L		02/19/21 14:53	02/25/21 15:36	1
Lithium	ND		5.0	3.4	ug/L		02/19/21 14:53	02/25/21 15:36	1
Manganese	ND		5.0	0.87	ug/L		02/19/21 14:53	02/25/21 15:36	1
Molybdenum	ND		5.0	0.61	ug/L		02/19/21 14:53	02/25/21 15:36	1
Thallium	ND		1.0	0.15	ug/L		02/19/21 14:53	02/25/21 15:36	1

Lab Sample ID: MB 180-347151/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 347908
Prep Batch: 347151

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		80	39	ug/L		02/19/21 14:53	02/27/21 12:03	1

Lab Sample ID: LCS 180-347151/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 347728
Prep Batch: 347151

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1000	990		ug/L		99	80 - 120
Calcium	25000	27400		ug/L		110	80 - 120
Iron	5000	5720		ug/L		114	80 - 120
Lithium	500	492		ug/L		98	80 - 120
Manganese	500	515		ug/L		103	80 - 120
Molybdenum	500	517		ug/L		103	80 - 120
Thallium	1000	1100		ug/L		110	80 - 120

Lab Sample ID: LCS 180-347151/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 347908
Prep Batch: 347151

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1250	1190		ug/L		95	80 - 120

Lab Sample ID: LCSD 180-347151/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 347728
Prep Batch: 347151

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	1000	993		ug/L		99	80 - 120	0	20
Calcium	25000	27000		ug/L		108	80 - 120	2	20
Iron	5000	5820		ug/L		116	80 - 120	2	20
Lithium	500	496		ug/L		99	80 - 120	1	20
Manganese	500	519		ug/L		104	80 - 120	1	20
Molybdenum	500	526		ug/L		105	80 - 120	2	20
Thallium	1000	1090		ug/L		109	80 - 120	1	20

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 180-347151/3-A
Matrix: Solid
Analysis Batch: 347908

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 347151

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1250	1180		ug/L		95	80 - 120	0	20

Lab Sample ID: MB 180-347152/1-A
Matrix: Solid
Analysis Batch: 347728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 347152

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0	0.31	ug/L		02/19/21 14:57	02/25/21 19:42	1
Calcium	ND		500	130	ug/L		02/19/21 14:57	02/25/21 19:42	1
Iron	ND		50	20	ug/L		02/19/21 14:57	02/25/21 19:42	1
Lithium	ND		5.0	3.4	ug/L		02/19/21 14:57	02/25/21 19:42	1
Manganese	ND		5.0	0.87	ug/L		02/19/21 14:57	02/25/21 19:42	1
Molybdenum	ND		5.0	0.61	ug/L		02/19/21 14:57	02/25/21 19:42	1
Thallium	ND		1.0	0.15	ug/L		02/19/21 14:57	02/25/21 19:42	1

Lab Sample ID: MB 180-347152/1-A
Matrix: Solid
Analysis Batch: 347908

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 347152

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		80	39	ug/L		02/19/21 14:57	02/27/21 13:17	1

Lab Sample ID: LCS 180-347152/2-A
Matrix: Solid
Analysis Batch: 347728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 347152

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1000	992		ug/L		99	80 - 120
Calcium	25000	27300		ug/L		109	80 - 120
Iron	5000	5320		ug/L		106	80 - 120
Lithium	500	505		ug/L		101	80 - 120
Manganese	500	514		ug/L		103	80 - 120
Molybdenum	500	525		ug/L		105	80 - 120
Thallium	1000	1110		ug/L		111	80 - 120

Lab Sample ID: LCS 180-347152/2-A
Matrix: Solid
Analysis Batch: 347908

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 347152

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1250	1260		ug/L		101	80 - 120

Lab Sample ID: LCSD 180-347152/3-A
Matrix: Solid
Analysis Batch: 347728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 347152

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	1000	999		ug/L		100	80 - 120	1	20
Calcium	25000	28000		ug/L		112	80 - 120	3	20
Iron	5000	5360		ug/L		107	80 - 120	1	20

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 180-347152/3-A
Matrix: Solid
Analysis Batch: 347728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 347152

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	500	502		ug/L		100	80 - 120	1	20
Manganese	500	524		ug/L		105	80 - 120	2	20
Molybdenum	500	529		ug/L		106	80 - 120	1	20
Thallium	1000	1110		ug/L		111	80 - 120	1	20

Lab Sample ID: LCSD 180-347152/3-A
Matrix: Solid
Analysis Batch: 347908

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 347152

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1250	1270		ug/L		101	80 - 120	0	20

Method: 2540G - SM 2540G

Lab Sample ID: 180-116605-1 DU
Matrix: Solid
Analysis Batch: 345845

Client Sample ID: A1-0-5 pH 13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	13.1		11.7		%		11	10
Percent Solids	86.9		88.3		%		2	10

Method: EPA 9040C - pH

Lab Sample ID: LCS 180-346435/1
Matrix: Solid
Analysis Batch: 346435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: LCS 180-346999/1
Matrix: Solid
Analysis Batch: 346999

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: LCS 180-347138/1
Matrix: Solid
Analysis Batch: 347138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: 180-116605-10 DU
Matrix: Solid
Analysis Batch: 346435

Client Sample ID: A1-0-5 NATURAL
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	9.4		9.4		SU		0	2

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Method: EPA 9040C - pH

Lab Sample ID: 180-116605-20 DU
Matrix: Solid
Analysis Batch: 346435

Client Sample ID: A9-0-5 pH NATURAL
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	10.1			10.1		SU				0	2

Lab Sample ID: 180-116605-5 DU
Matrix: Solid
Analysis Batch: 346999

Client Sample ID: A1-0-5 pH 8
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.7			7.8		SU				0.1	2

Lab Sample ID: 180-116605-3 DU
Matrix: Solid
Analysis Batch: 347138

Client Sample ID: A1-0-5 pH 10.5
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	10.5			10.5		SU				0.1	2

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 180-346443/2
Matrix: Solid
Analysis Batch: 346443

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		1.0	1.0	umhos/cm			02/12/21 08:13	1

Lab Sample ID: LCS 180-346443/1
Matrix: Solid
Analysis Batch: 346443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance			84.0	85.9		umhos/cm		102	90 - 110

Lab Sample ID: MB 180-347001/2
Matrix: Solid
Analysis Batch: 347001

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		1.0	1.0	umhos/cm			02/17/21 09:43	1

Lab Sample ID: LCS 180-347001/1
Matrix: Solid
Analysis Batch: 347001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance			84.0	85.9		umhos/cm		102	90 - 110

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Method: SM 2510B - Conductivity, Specific Conductance (Continued)

Lab Sample ID: MB 180-347140/2
Matrix: Solid
Analysis Batch: 347140

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		1.0	1.0	umhos/cm			02/19/21 11:33	1

Lab Sample ID: LCS 180-347140/1
Matrix: Solid
Analysis Batch: 347140

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	84.0	86.2		umhos/cm		103	90 - 110

Lab Sample ID: 180-116605-10 DU
Matrix: Solid
Analysis Batch: 346443

Client Sample ID: A1-0-5 NATURAL
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	310		309		umhos/cm		0.6	20

Lab Sample ID: 180-116605-20 DU
Matrix: Solid
Analysis Batch: 346443

Client Sample ID: A9-0-5 pH NATURAL
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	420		424		umhos/cm		0.09	20

Lab Sample ID: 180-116605-5 DU
Matrix: Solid
Analysis Batch: 347001

Client Sample ID: A1-0-5 pH 8
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	1900		1930		umhos/cm		0.2	20

Lab Sample ID: 180-116605-3 DU
Matrix: Solid
Analysis Batch: 347140

Client Sample ID: A1-0-5 pH 10.5
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	400		403		umhos/cm		0.3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-346837/2
Matrix: Solid
Analysis Batch: 346837

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			02/17/21 11:55	1

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 180-346837/1
Matrix: Solid
Analysis Batch: 346837

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	457	446		mg/L		98	80 - 120

Lab Sample ID: MB 180-346849/2
Matrix: Solid
Analysis Batch: 346849

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			02/17/21 13:17	1

Lab Sample ID: LCS 180-346849/1
Matrix: Solid
Analysis Batch: 346849

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	457	438		mg/L		96	80 - 120

Lab Sample ID: MB 180-347449/2
Matrix: Solid
Analysis Batch: 347449

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			02/23/21 17:43	1

Lab Sample ID: LCS 180-347449/1
Matrix: Solid
Analysis Batch: 347449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	457	440		mg/L		96	80 - 120

Lab Sample ID: MB 180-347450/2
Matrix: Solid
Analysis Batch: 347450

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			02/23/21 17:57	1

Lab Sample ID: LCS 180-347450/1
Matrix: Solid
Analysis Batch: 347450

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	457	436		mg/L		95	80 - 120

Lab Sample ID: 180-116605-5 DU
Matrix: Solid
Analysis Batch: 346837

Client Sample ID: A1-0-5 pH 8
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1500		1400		mg/L		5	10

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: 180-116605-8 DU
Matrix: Solid
Analysis Batch: 346837

Client Sample ID: A1-0-5 pH 4
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	7100		7450		mg/L		6	10

Lab Sample ID: 180-116605-15 DU
Matrix: Solid
Analysis Batch: 347450

Client Sample ID: A9-0-5 pH 8
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	4500		4550		mg/L		1	10

Method: SM 2580B - Reduction-Oxidation (REDOX) Potential

Lab Sample ID: LCS 180-346440/1
Matrix: Solid
Analysis Batch: 346440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oxidation Reduction Potential	475	462		millivolts		97	90 - 110

Lab Sample ID: LCS 180-347000/1
Matrix: Solid
Analysis Batch: 347000

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oxidation Reduction Potential	475	460		millivolts		97	90 - 110

Lab Sample ID: LCS 180-347139/1
Matrix: Solid
Analysis Batch: 347139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oxidation Reduction Potential	475	461		millivolts		97	90 - 110

Lab Sample ID: 180-116605-10 DU
Matrix: Solid
Analysis Batch: 346440

Client Sample ID: A1-0-5 NATURAL
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Oxidation Reduction Potential	280		270		millivolts		2	20

Lab Sample ID: 180-116605-20 DU
Matrix: Solid
Analysis Batch: 346440

Client Sample ID: A9-0-5 pH NATURAL
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Oxidation Reduction Potential	310		300		millivolts		3	20

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Method: SM 2580B - Reduction-Oxidation (REDOX) Potential (Continued)

Lab Sample ID: 180-116605-5 DU
Matrix: Solid
Analysis Batch: 347000

Client Sample ID: A1-0-5 pH 8
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Oxidation Reduction Potential	180		175		millivolts		1	20

Lab Sample ID: 180-116605-3 DU
Matrix: Solid
Analysis Batch: 347139

Client Sample ID: A1-0-5 pH 10.5
Prep Type: Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Oxidation Reduction Potential	260		250		millivolts		4	20

QC Association Summary

HPLC/IC

Leach Batch: 346097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-1	A1-0-5 pH 13	Leach	Solid	1313	
180-116605-2	A1-0-5 pH 12	Leach	Solid	1313	
180-116605-8	A1-0-5 pH 4	Leach	Solid	1313	
180-116605-10	A1-0-5 NATURAL	Leach	Solid	1313	
180-116605-11	A9-0-5 pH 13	Leach	Solid	1313	
180-116605-12	A9-0-5 pH 12	Leach	Solid	1313	
180-116605-16	A9-0-5 pH 7	Leach	Solid	1313	
180-116605-17	A9-0-5 pH 5.5	Leach	Solid	1313	
180-116605-20	A9-0-5 pH NATURAL	Leach	Solid	1313	
180-116605-21	C7-0-5 pH 13	Leach	Solid	1313	
180-116605-22	C7-0-5 pH 12	Leach	Solid	1313	
180-116605-28	C7-0-5 pH 4	Leach	Solid	1313	
180-116605-30	C7-0-5 pH NATURAL	Leach	Solid	1313	
180-116605-32	BLANK MEDIUM	Leach	Solid	1313	
180-116605-33	BLANK HIGH	Leach	Solid	1313	
180-116605-10 MS	A1-0-5 NATURAL	Leach	Solid	1313	
180-116605-10 MSD	A1-0-5 NATURAL	Leach	Solid	1313	

Leach Batch: 346570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-5	A1-0-5 pH 8	Leach	Solid	1313	
180-116605-6	A1-0-5 pH 7	Leach	Solid	1313	
180-116605-9	A1-0-5 pH 2	Leach	Solid	1313	
180-116605-14	A9-0-5 pH 9	Leach	Solid	1313	
180-116605-18	A9-0-5 pH 4	Leach	Solid	1313	
180-116605-24	C7-0-5 pH 9	Leach	Solid	1313	
180-116605-25	C7-0-5 pH 8	Leach	Solid	1313	
180-116605-26	C7-0-5 pH 7	Leach	Solid	1313	
180-116605-31	BLANK LOW	Leach	Solid	1313	
180-116605-24 MS	C7-0-5 pH 9	Leach	Solid	1313	
180-116605-24 MSD	C7-0-5 pH 9	Leach	Solid	1313	

Leach Batch: 346857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-3	A1-0-5 pH 10.5	Leach	Solid	1313	
180-116605-7	A1-0-5 pH 5.5	Leach	Solid	1313	
180-116605-15	A9-0-5 pH 8	Leach	Solid	1313	
180-116605-19	A9-0-5 pH 2	Leach	Solid	1313	
180-116605-27	C7-0-5 pH 5.5	Leach	Solid	1313	
180-116605-29	C7-0-5 pH 2	Leach	Solid	1313	
180-116605-32	BLANK MEDIUM	Leach	Solid	1313	

Analysis Batch: 346924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-1	A1-0-5 pH 13	Leach	Solid	EPA 9056A	346097
180-116605-1	A1-0-5 pH 13	Leach	Solid	EPA 9056A	346097
180-116605-2	A1-0-5 pH 12	Leach	Solid	EPA 9056A	346097
180-116605-8	A1-0-5 pH 4	Leach	Solid	EPA 9056A	346097
180-116605-10	A1-0-5 NATURAL	Leach	Solid	EPA 9056A	346097
180-116605-11	A9-0-5 pH 13	Leach	Solid	EPA 9056A	346097
180-116605-12	A9-0-5 pH 12	Leach	Solid	EPA 9056A	346097

HPLC/IC (Continued)

Analysis Batch: 346924 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-16	A9-0-5 pH 7	Leach	Solid	EPA 9056A	346097
180-116605-17	A9-0-5 pH 5.5	Leach	Solid	EPA 9056A	346097
180-116605-20	A9-0-5 pH NATURAL	Leach	Solid	EPA 9056A	346097
180-116605-20	A9-0-5 pH NATURAL	Leach	Solid	EPA 9056A	346097
180-116605-21	C7-0-5 pH 13	Leach	Solid	EPA 9056A	346097
180-116605-21	C7-0-5 pH 13	Leach	Solid	EPA 9056A	346097
180-116605-22	C7-0-5 pH 12	Leach	Solid	EPA 9056A	346097
180-116605-22	C7-0-5 pH 12	Leach	Solid	EPA 9056A	346097
180-116605-28	C7-0-5 pH 4	Leach	Solid	EPA 9056A	346097
180-116605-30	C7-0-5 pH NATURAL	Leach	Solid	EPA 9056A	346097
180-116605-30	C7-0-5 pH NATURAL	Leach	Solid	EPA 9056A	346097
180-116605-32	BLANK MEDIUM	Leach	Solid	EPA 9056A	346097
180-116605-33	BLANK HIGH	Leach	Solid	EPA 9056A	346097
MB 180-346924/6	Method Blank	Total/NA	Solid	EPA 9056A	
LCS 180-346924/5	Lab Control Sample	Total/NA	Solid	EPA 9056A	
180-116605-10 MS	A1-0-5 NATURAL	Leach	Solid	EPA 9056A	346097
180-116605-10 MSD	A1-0-5 NATURAL	Leach	Solid	EPA 9056A	346097

Analysis Batch: 347170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-24	C7-0-5 pH 9	Leach	Solid	EPA 9056A	346570
180-116605-25	C7-0-5 pH 8	Leach	Solid	EPA 9056A	346570
180-116605-26	C7-0-5 pH 7	Leach	Solid	EPA 9056A	346570
180-116605-32	BLANK MEDIUM	Leach	Solid	EPA 9056A	346857
MB 180-347170/20	Method Blank	Total/NA	Solid	EPA 9056A	
LCS 180-347170/19	Lab Control Sample	Total/NA	Solid	EPA 9056A	
180-116605-24 MS	C7-0-5 pH 9	Leach	Solid	EPA 9056A	346570
180-116605-24 MSD	C7-0-5 pH 9	Leach	Solid	EPA 9056A	346570

Analysis Batch: 347241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-5	A1-0-5 pH 8	Leach	Solid	EPA 9056A	346570
180-116605-5	A1-0-5 pH 8	Leach	Solid	EPA 9056A	346570
180-116605-6	A1-0-5 pH 7	Leach	Solid	EPA 9056A	346570
180-116605-6	A1-0-5 pH 7	Leach	Solid	EPA 9056A	346570
180-116605-9	A1-0-5 pH 2	Leach	Solid	EPA 9056A	346570
180-116605-14	A9-0-5 pH 9	Leach	Solid	EPA 9056A	346570
180-116605-14	A9-0-5 pH 9	Leach	Solid	EPA 9056A	346570
180-116605-18	A9-0-5 pH 4	Leach	Solid	EPA 9056A	346570
180-116605-31	BLANK LOW	Leach	Solid	EPA 9056A	346570
MB 180-347241/6	Method Blank	Total/NA	Solid	EPA 9056A	
LCS 180-347241/5	Lab Control Sample	Total/NA	Solid	EPA 9056A	

Analysis Batch: 347322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-3	A1-0-5 pH 10.5	Leach	Solid	EPA 9056A	346857
180-116605-7	A1-0-5 pH 5.5	Leach	Solid	EPA 9056A	346857
180-116605-15	A9-0-5 pH 8	Leach	Solid	EPA 9056A	346857
180-116605-19	A9-0-5 pH 2	Leach	Solid	EPA 9056A	346857
180-116605-27	C7-0-5 pH 5.5	Leach	Solid	EPA 9056A	346857
180-116605-29	C7-0-5 pH 2	Leach	Solid	EPA 9056A	346857

QC Association Summary

HPLC/IC (Continued)

Analysis Batch: 347322 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-347322/6	Method Blank	Total/NA	Solid	EPA 9056A	
LCS 180-347322/5	Lab Control Sample	Total/NA	Solid	EPA 9056A	

Analysis Batch: 347581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-15	A9-0-5 pH 8	Leach	Solid	EPA 9056A	346857
MB 180-347581/6	Method Blank	Total/NA	Solid	EPA 9056A	
LCS 180-347581/5	Lab Control Sample	Total/NA	Solid	EPA 9056A	

Metals

Leach Batch: 346097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-1	A1-0-5 pH 13	Leach	Solid	1313	
180-116605-2	A1-0-5 pH 12	Leach	Solid	1313	
180-116605-8	A1-0-5 pH 4	Leach	Solid	1313	
180-116605-10	A1-0-5 NATURAL	Leach	Solid	1313	
180-116605-11	A9-0-5 pH 13	Leach	Solid	1313	
180-116605-12	A9-0-5 pH 12	Leach	Solid	1313	
180-116605-16	A9-0-5 pH 7	Leach	Solid	1313	
180-116605-17	A9-0-5 pH 5.5	Leach	Solid	1313	
180-116605-20	A9-0-5 pH NATURAL	Leach	Solid	1313	
180-116605-21	C7-0-5 pH 13	Leach	Solid	1313	
180-116605-22	C7-0-5 pH 12	Leach	Solid	1313	
180-116605-28	C7-0-5 pH 4	Leach	Solid	1313	
180-116605-30	C7-0-5 pH NATURAL	Leach	Solid	1313	
180-116605-32	BLANK MEDIUM	Leach	Solid	1313	
180-116605-33	BLANK HIGH	Leach	Solid	1313	

Leach Batch: 346570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-5	A1-0-5 pH 8	Leach	Solid	1313	
180-116605-6	A1-0-5 pH 7	Leach	Solid	1313	
180-116605-9	A1-0-5 pH 2	Leach	Solid	1313	
180-116605-14	A9-0-5 pH 9	Leach	Solid	1313	
180-116605-18	A9-0-5 pH 4	Leach	Solid	1313	
180-116605-24	C7-0-5 pH 9	Leach	Solid	1313	
180-116605-25	C7-0-5 pH 8	Leach	Solid	1313	
180-116605-26	C7-0-5 pH 7	Leach	Solid	1313	
180-116605-31	BLANK LOW	Leach	Solid	1313	

Leach Batch: 346857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-3	A1-0-5 pH 10.5	Leach	Solid	1313	
180-116605-7	A1-0-5 pH 5.5	Leach	Solid	1313	
180-116605-15	A9-0-5 pH 8	Leach	Solid	1313	
180-116605-19	A9-0-5 pH 2	Leach	Solid	1313	
180-116605-27	C7-0-5 pH 5.5	Leach	Solid	1313	
180-116605-29	C7-0-5 pH 2	Leach	Solid	1313	
180-116605-32	BLANK MEDIUM	Leach	Solid	1313	

QC Association Summary

Metals

Prep Batch: 347151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-1	A1-0-5 pH 13	Leach	Solid	3010A	346097
180-116605-2	A1-0-5 pH 12	Leach	Solid	3010A	346097
180-116605-8	A1-0-5 pH 4	Leach	Solid	3010A	346097
180-116605-10	A1-0-5 NATURAL	Leach	Solid	3010A	346097
180-116605-11	A9-0-5 pH 13	Leach	Solid	3010A	346097
180-116605-12	A9-0-5 pH 12	Leach	Solid	3010A	346097
180-116605-16	A9-0-5 pH 7	Leach	Solid	3010A	346097
180-116605-17	A9-0-5 pH 5.5	Leach	Solid	3010A	346097
180-116605-20	A9-0-5 pH NATURAL	Leach	Solid	3010A	346097
180-116605-21	C7-0-5 pH 13	Leach	Solid	3010A	346097
180-116605-22	C7-0-5 pH 12	Leach	Solid	3010A	346097
180-116605-28	C7-0-5 pH 4	Leach	Solid	3010A	346097
180-116605-30	C7-0-5 pH NATURAL	Leach	Solid	3010A	346097
180-116605-32	BLANK MEDIUM	Leach	Solid	3010A	346097
180-116605-33	BLANK HIGH	Leach	Solid	3010A	346097
MB 180-347151/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 180-347151/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 180-347151/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

Prep Batch: 347152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-3	A1-0-5 pH 10.5	Leach	Solid	3010A	346857
180-116605-5	A1-0-5 pH 8	Leach	Solid	3010A	346570
180-116605-6	A1-0-5 pH 7	Leach	Solid	3010A	346570
180-116605-7	A1-0-5 pH 5.5	Leach	Solid	3010A	346857
180-116605-9	A1-0-5 pH 2	Leach	Solid	3010A	346570
180-116605-14	A9-0-5 pH 9	Leach	Solid	3010A	346570
180-116605-15	A9-0-5 pH 8	Leach	Solid	3010A	346857
180-116605-18	A9-0-5 pH 4	Leach	Solid	3010A	346570
180-116605-19	A9-0-5 pH 2	Leach	Solid	3010A	346857
180-116605-24	C7-0-5 pH 9	Leach	Solid	3010A	346570
180-116605-25	C7-0-5 pH 8	Leach	Solid	3010A	346570
180-116605-26	C7-0-5 pH 7	Leach	Solid	3010A	346570
180-116605-27	C7-0-5 pH 5.5	Leach	Solid	3010A	346857
180-116605-29	C7-0-5 pH 2	Leach	Solid	3010A	346857
180-116605-31	BLANK LOW	Leach	Solid	3010A	346570
180-116605-32	BLANK MEDIUM	Leach	Solid	3010A	346857
MB 180-347152/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 180-347152/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 180-347152/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	

Analysis Batch: 347728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-1	A1-0-5 pH 13	Leach	Solid	EPA 6020B	347151
180-116605-2	A1-0-5 pH 12	Leach	Solid	EPA 6020B	347151
180-116605-3	A1-0-5 pH 10.5	Leach	Solid	EPA 6020B	347152
180-116605-5	A1-0-5 pH 8	Leach	Solid	EPA 6020B	347152
180-116605-6	A1-0-5 pH 7	Leach	Solid	EPA 6020B	347152
180-116605-7	A1-0-5 pH 5.5	Leach	Solid	EPA 6020B	347152
180-116605-8	A1-0-5 pH 4	Leach	Solid	EPA 6020B	347151
180-116605-9	A1-0-5 pH 2	Leach	Solid	EPA 6020B	347152

QC Association Summary

Metals (Continued)

Analysis Batch: 347728 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-9	A1-0-5 pH 2	Leach	Solid	EPA 6020B	347152
180-116605-10	A1-0-5 NATURAL	Leach	Solid	EPA 6020B	347151
180-116605-11	A9-0-5 pH 13	Leach	Solid	EPA 6020B	347151
180-116605-12	A9-0-5 pH 12	Leach	Solid	EPA 6020B	347151
180-116605-14	A9-0-5 pH 9	Leach	Solid	EPA 6020B	347152
180-116605-15	A9-0-5 pH 8	Leach	Solid	EPA 6020B	347152
180-116605-16	A9-0-5 pH 7	Leach	Solid	EPA 6020B	347151
180-116605-17	A9-0-5 pH 5.5	Leach	Solid	EPA 6020B	347151
180-116605-18	A9-0-5 pH 4	Leach	Solid	EPA 6020B	347152
180-116605-19	A9-0-5 pH 2	Leach	Solid	EPA 6020B	347152
180-116605-19	A9-0-5 pH 2	Leach	Solid	EPA 6020B	347152
180-116605-20	A9-0-5 pH NATURAL	Leach	Solid	EPA 6020B	347151
180-116605-21	C7-0-5 pH 13	Leach	Solid	EPA 6020B	347151
180-116605-22	C7-0-5 pH 12	Leach	Solid	EPA 6020B	347151
180-116605-24	C7-0-5 pH 9	Leach	Solid	EPA 6020B	347152
180-116605-25	C7-0-5 pH 8	Leach	Solid	EPA 6020B	347152
180-116605-26	C7-0-5 pH 7	Leach	Solid	EPA 6020B	347152
180-116605-27	C7-0-5 pH 5.5	Leach	Solid	EPA 6020B	347152
180-116605-28	C7-0-5 pH 4	Leach	Solid	EPA 6020B	347151
180-116605-29	C7-0-5 pH 2	Leach	Solid	EPA 6020B	347152
180-116605-29	C7-0-5 pH 2	Leach	Solid	EPA 6020B	347152
180-116605-30	C7-0-5 pH NATURAL	Leach	Solid	EPA 6020B	347151
180-116605-31	BLANK LOW	Leach	Solid	EPA 6020B	347152
180-116605-32	BLANK MEDIUM	Leach	Solid	EPA 6020B	347151
180-116605-32	BLANK MEDIUM	Leach	Solid	EPA 6020B	347152
180-116605-33	BLANK HIGH	Leach	Solid	EPA 6020B	347151
MB 180-347151/1-A	Method Blank	Total/NA	Solid	EPA 6020B	347151
MB 180-347152/1-A	Method Blank	Total/NA	Solid	EPA 6020B	347152
LCS 180-347151/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020B	347151
LCS 180-347152/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020B	347152
LCSD 180-347151/3-A	Lab Control Sample Dup	Total/NA	Solid	EPA 6020B	347151
LCSD 180-347152/3-A	Lab Control Sample Dup	Total/NA	Solid	EPA 6020B	347152

Analysis Batch: 347838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-8	A1-0-5 pH 4	Leach	Solid	EPA 6020B	347151
180-116605-16	A9-0-5 pH 7	Leach	Solid	EPA 6020B	347151
180-116605-17	A9-0-5 pH 5.5	Leach	Solid	EPA 6020B	347151
180-116605-18	A9-0-5 pH 4	Leach	Solid	EPA 6020B	347152
180-116605-27	C7-0-5 pH 5.5	Leach	Solid	EPA 6020B	347152
180-116605-28	C7-0-5 pH 4	Leach	Solid	EPA 6020B	347151

Analysis Batch: 347908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-1	A1-0-5 pH 13	Leach	Solid	EPA 6020B	347151
180-116605-2	A1-0-5 pH 12	Leach	Solid	EPA 6020B	347151
180-116605-3	A1-0-5 pH 10.5	Leach	Solid	EPA 6020B	347152
180-116605-5	A1-0-5 pH 8	Leach	Solid	EPA 6020B	347152
180-116605-6	A1-0-5 pH 7	Leach	Solid	EPA 6020B	347152
180-116605-7	A1-0-5 pH 5.5	Leach	Solid	EPA 6020B	347152
180-116605-8	A1-0-5 pH 4	Leach	Solid	EPA 6020B	347151

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

Metals (Continued)

Analysis Batch: 347908 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-9	A1-0-5 pH 2	Leach	Solid	EPA 6020B	347152
180-116605-10	A1-0-5 NATURAL	Leach	Solid	EPA 6020B	347151
180-116605-14	A9-0-5 pH 9	Leach	Solid	EPA 6020B	347152
180-116605-15	A9-0-5 pH 8	Leach	Solid	EPA 6020B	347152
180-116605-18	A9-0-5 pH 4	Leach	Solid	EPA 6020B	347152
180-116605-19	A9-0-5 pH 2	Leach	Solid	EPA 6020B	347152
180-116605-20	A9-0-5 pH NATURAL	Leach	Solid	EPA 6020B	347151
180-116605-24	C7-0-5 pH 9	Leach	Solid	EPA 6020B	347152
180-116605-25	C7-0-5 pH 8	Leach	Solid	EPA 6020B	347152
180-116605-26	C7-0-5 pH 7	Leach	Solid	EPA 6020B	347152
180-116605-27	C7-0-5 pH 5.5	Leach	Solid	EPA 6020B	347152
180-116605-29	C7-0-5 pH 2	Leach	Solid	EPA 6020B	347152
180-116605-31	BLANK LOW	Leach	Solid	EPA 6020B	347152
180-116605-32	BLANK MEDIUM	Leach	Solid	EPA 6020B	347152
180-116605-33	BLANK HIGH	Leach	Solid	EPA 6020B	347151
MB 180-347151/1-A	Method Blank	Total/NA	Solid	EPA 6020B	347151
MB 180-347152/1-A	Method Blank	Total/NA	Solid	EPA 6020B	347152
LCS 180-347151/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020B	347151
LCS 180-347152/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020B	347152
LCSD 180-347151/3-A	Lab Control Sample Dup	Total/NA	Solid	EPA 6020B	347151
LCSD 180-347152/3-A	Lab Control Sample Dup	Total/NA	Solid	EPA 6020B	347152

Analysis Batch: 348027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-11	A9-0-5 pH 13	Leach	Solid	EPA 6020B	347151
180-116605-12	A9-0-5 pH 12	Leach	Solid	EPA 6020B	347151
180-116605-16	A9-0-5 pH 7	Leach	Solid	EPA 6020B	347151
180-116605-17	A9-0-5 pH 5.5	Leach	Solid	EPA 6020B	347151
180-116605-21	C7-0-5 pH 13	Leach	Solid	EPA 6020B	347151
180-116605-22	C7-0-5 pH 12	Leach	Solid	EPA 6020B	347151
180-116605-28	C7-0-5 pH 4	Leach	Solid	EPA 6020B	347151
180-116605-30	C7-0-5 pH NATURAL	Leach	Solid	EPA 6020B	347151
180-116605-32	BLANK MEDIUM	Leach	Solid	EPA 6020B	347151
180-116605-33	BLANK HIGH	Leach	Solid	EPA 6020B	347151

General Chemistry

Analysis Batch: 345845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-1	A1-0-5 pH 13	Total/NA	Solid	2540G	
180-116605-11	A9-0-5 pH 13	Total/NA	Solid	2540G	
180-116605-21	C7-0-5 pH 13	Total/NA	Solid	2540G	
180-116605-1 DU	A1-0-5 pH 13	Total/NA	Solid	2540G	

Leach Batch: 346097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-1	A1-0-5 pH 13	Leach	Solid	1313	
180-116605-2	A1-0-5 pH 12	Leach	Solid	1313	
180-116605-8	A1-0-5 pH 4	Leach	Solid	1313	
180-116605-10	A1-0-5 NATURAL	Leach	Solid	1313	
180-116605-11	A9-0-5 pH 13	Leach	Solid	1313	

General Chemistry (Continued)

Leach Batch: 346097 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-12	A9-0-5 pH 12	Leach	Solid	1313	
180-116605-16	A9-0-5 pH 7	Leach	Solid	1313	
180-116605-17	A9-0-5 pH 5.5	Leach	Solid	1313	
180-116605-20	A9-0-5 pH NATURAL	Leach	Solid	1313	
180-116605-21	C7-0-5 pH 13	Leach	Solid	1313	
180-116605-22	C7-0-5 pH 12	Leach	Solid	1313	
180-116605-28	C7-0-5 pH 4	Leach	Solid	1313	
180-116605-30	C7-0-5 pH NATURAL	Leach	Solid	1313	
180-116605-32	BLANK MEDIUM	Leach	Solid	1313	
180-116605-33	BLANK HIGH	Leach	Solid	1313	
180-116605-34	A1-0-5 PRETEST	Leach	Solid	1313	
180-116605-36	C7-0-5 PRETEST	Leach	Solid	1313	
180-116605-8 DU	A1-0-5 pH 4	Leach	Solid	1313	
180-116605-10 DU	A1-0-5 NATURAL	Leach	Solid	1313	
180-116605-20 DU	A9-0-5 pH NATURAL	Leach	Solid	1313	

Analysis Batch: 346435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-1	A1-0-5 pH 13	Leach	Solid	EPA 9040C	346097
180-116605-2	A1-0-5 pH 12	Leach	Solid	EPA 9040C	346097
180-116605-8	A1-0-5 pH 4	Leach	Solid	EPA 9040C	346097
180-116605-10	A1-0-5 NATURAL	Leach	Solid	EPA 9040C	346097
180-116605-11	A9-0-5 pH 13	Leach	Solid	EPA 9040C	346097
180-116605-12	A9-0-5 pH 12	Leach	Solid	EPA 9040C	346097
180-116605-16	A9-0-5 pH 7	Leach	Solid	EPA 9040C	346097
180-116605-17	A9-0-5 pH 5.5	Leach	Solid	EPA 9040C	346097
180-116605-20	A9-0-5 pH NATURAL	Leach	Solid	EPA 9040C	346097
180-116605-21	C7-0-5 pH 13	Leach	Solid	EPA 9040C	346097
180-116605-22	C7-0-5 pH 12	Leach	Solid	EPA 9040C	346097
180-116605-28	C7-0-5 pH 4	Leach	Solid	EPA 9040C	346097
180-116605-30	C7-0-5 pH NATURAL	Leach	Solid	EPA 9040C	346097
180-116605-32	BLANK MEDIUM	Leach	Solid	EPA 9040C	346097
180-116605-33	BLANK HIGH	Leach	Solid	EPA 9040C	346097
180-116605-34	A1-0-5 PRETEST	Leach	Solid	EPA 9040C	346097
180-116605-36	C7-0-5 PRETEST	Leach	Solid	EPA 9040C	346097
LCS 180-346435/1	Lab Control Sample	Total/NA	Solid	EPA 9040C	
180-116605-10 DU	A1-0-5 NATURAL	Leach	Solid	EPA 9040C	346097
180-116605-20 DU	A9-0-5 pH NATURAL	Leach	Solid	EPA 9040C	346097

Analysis Batch: 346440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-1	A1-0-5 pH 13	Leach	Solid	SM 2580B	346097
180-116605-2	A1-0-5 pH 12	Leach	Solid	SM 2580B	346097
180-116605-8	A1-0-5 pH 4	Leach	Solid	SM 2580B	346097
180-116605-10	A1-0-5 NATURAL	Leach	Solid	SM 2580B	346097
180-116605-11	A9-0-5 pH 13	Leach	Solid	SM 2580B	346097
180-116605-12	A9-0-5 pH 12	Leach	Solid	SM 2580B	346097
180-116605-16	A9-0-5 pH 7	Leach	Solid	SM 2580B	346097
180-116605-17	A9-0-5 pH 5.5	Leach	Solid	SM 2580B	346097
180-116605-20	A9-0-5 pH NATURAL	Leach	Solid	SM 2580B	346097
180-116605-21	C7-0-5 pH 13	Leach	Solid	SM 2580B	346097

QC Association Summary

General Chemistry (Continued)

Analysis Batch: 346440 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-22	C7-0-5 pH 12	Leach	Solid	SM 2580B	346097
180-116605-28	C7-0-5 pH 4	Leach	Solid	SM 2580B	346097
180-116605-30	C7-0-5 pH NATURAL	Leach	Solid	SM 2580B	346097
180-116605-32	BLANK MEDIUM	Leach	Solid	SM 2580B	346097
180-116605-33	BLANK HIGH	Leach	Solid	SM 2580B	346097
LCS 180-346440/1	Lab Control Sample	Total/NA	Solid	SM 2580B	
180-116605-10 DU	A1-0-5 NATURAL	Leach	Solid	SM 2580B	346097
180-116605-20 DU	A9-0-5 pH NATURAL	Leach	Solid	SM 2580B	346097

Analysis Batch: 346443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-1	A1-0-5 pH 13	Leach	Solid	SM 2510B	346097
180-116605-2	A1-0-5 pH 12	Leach	Solid	SM 2510B	346097
180-116605-8	A1-0-5 pH 4	Leach	Solid	SM 2510B	346097
180-116605-10	A1-0-5 NATURAL	Leach	Solid	SM 2510B	346097
180-116605-11	A9-0-5 pH 13	Leach	Solid	SM 2510B	346097
180-116605-12	A9-0-5 pH 12	Leach	Solid	SM 2510B	346097
180-116605-16	A9-0-5 pH 7	Leach	Solid	SM 2510B	346097
180-116605-17	A9-0-5 pH 5.5	Leach	Solid	SM 2510B	346097
180-116605-20	A9-0-5 pH NATURAL	Leach	Solid	SM 2510B	346097
180-116605-21	C7-0-5 pH 13	Leach	Solid	SM 2510B	346097
180-116605-22	C7-0-5 pH 12	Leach	Solid	SM 2510B	346097
180-116605-28	C7-0-5 pH 4	Leach	Solid	SM 2510B	346097
180-116605-30	C7-0-5 pH NATURAL	Leach	Solid	SM 2510B	346097
180-116605-32	BLANK MEDIUM	Leach	Solid	SM 2510B	346097
180-116605-33	BLANK HIGH	Leach	Solid	SM 2510B	346097
MB 180-346443/2	Method Blank	Total/NA	Solid	SM 2510B	
LCS 180-346443/1	Lab Control Sample	Total/NA	Solid	SM 2510B	
180-116605-10 DU	A1-0-5 NATURAL	Leach	Solid	SM 2510B	346097
180-116605-20 DU	A9-0-5 pH NATURAL	Leach	Solid	SM 2510B	346097

Leach Batch: 346570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-5	A1-0-5 pH 8	Leach	Solid	1313	
180-116605-6	A1-0-5 pH 7	Leach	Solid	1313	
180-116605-9	A1-0-5 pH 2	Leach	Solid	1313	
180-116605-14	A9-0-5 pH 9	Leach	Solid	1313	
180-116605-18	A9-0-5 pH 4	Leach	Solid	1313	
180-116605-24	C7-0-5 pH 9	Leach	Solid	1313	
180-116605-25	C7-0-5 pH 8	Leach	Solid	1313	
180-116605-26	C7-0-5 pH 7	Leach	Solid	1313	
180-116605-31	BLANK LOW	Leach	Solid	1313	
180-116605-5 DU	A1-0-5 pH 8	Leach	Solid	1313	

Analysis Batch: 346837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-1	A1-0-5 pH 13	Leach	Solid	SM 2540C	346097
180-116605-2	A1-0-5 pH 12	Leach	Solid	SM 2540C	346097
180-116605-5	A1-0-5 pH 8	Leach	Solid	SM 2540C	346570
180-116605-6	A1-0-5 pH 7	Leach	Solid	SM 2540C	346570
180-116605-8	A1-0-5 pH 4	Leach	Solid	SM 2540C	346097

General Chemistry (Continued)

Analysis Batch: 346837 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-9	A1-0-5 pH 2	Leach	Solid	SM 2540C	346570
180-116605-10	A1-0-5 NATURAL	Leach	Solid	SM 2540C	346097
180-116605-11	A9-0-5 pH 13	Leach	Solid	SM 2540C	346097
180-116605-12	A9-0-5 pH 12	Leach	Solid	SM 2540C	346097
180-116605-14	A9-0-5 pH 9	Leach	Solid	SM 2540C	346570
180-116605-16	A9-0-5 pH 7	Leach	Solid	SM 2540C	346097
180-116605-17	A9-0-5 pH 5.5	Leach	Solid	SM 2540C	346097
180-116605-18	A9-0-5 pH 4	Leach	Solid	SM 2540C	346570
180-116605-20	A9-0-5 pH NATURAL	Leach	Solid	SM 2540C	346097
180-116605-21	C7-0-5 pH 13	Leach	Solid	SM 2540C	346097
180-116605-22	C7-0-5 pH 12	Leach	Solid	SM 2540C	346097
180-116605-28	C7-0-5 pH 4	Leach	Solid	SM 2540C	346097
180-116605-30	C7-0-5 pH NATURAL	Leach	Solid	SM 2540C	346097
180-116605-32	BLANK MEDIUM	Leach	Solid	SM 2540C	346097
180-116605-33	BLANK HIGH	Leach	Solid	SM 2540C	346097
MB 180-346837/2	Method Blank	Total/NA	Solid	SM 2540C	
LCS 180-346837/1	Lab Control Sample	Total/NA	Solid	SM 2540C	
180-116605-5 DU	A1-0-5 pH 8	Leach	Solid	SM 2540C	346570
180-116605-8 DU	A1-0-5 pH 4	Leach	Solid	SM 2540C	346097

Analysis Batch: 346849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-24	C7-0-5 pH 9	Leach	Solid	SM 2540C	346570
180-116605-25	C7-0-5 pH 8	Leach	Solid	SM 2540C	346570
180-116605-26	C7-0-5 pH 7	Leach	Solid	SM 2540C	346570
180-116605-31	BLANK LOW	Leach	Solid	SM 2540C	346570
MB 180-346849/2	Method Blank	Total/NA	Solid	SM 2540C	
LCS 180-346849/1	Lab Control Sample	Total/NA	Solid	SM 2540C	

Leach Batch: 346857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-3	A1-0-5 pH 10.5	Leach	Solid	1313	
180-116605-7	A1-0-5 pH 5.5	Leach	Solid	1313	
180-116605-15	A9-0-5 pH 8	Leach	Solid	1313	
180-116605-19	A9-0-5 pH 2	Leach	Solid	1313	
180-116605-27	C7-0-5 pH 5.5	Leach	Solid	1313	
180-116605-29	C7-0-5 pH 2	Leach	Solid	1313	
180-116605-32	BLANK MEDIUM	Leach	Solid	1313	
180-116605-3 DU	A1-0-5 pH 10.5	Leach	Solid	1313	
180-116605-15 DU	A9-0-5 pH 8	Leach	Solid	1313	

Analysis Batch: 346999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-5	A1-0-5 pH 8	Leach	Solid	EPA 9040C	346570
180-116605-6	A1-0-5 pH 7	Leach	Solid	EPA 9040C	346570
180-116605-9	A1-0-5 pH 2	Leach	Solid	EPA 9040C	346570
180-116605-14	A9-0-5 pH 9	Leach	Solid	EPA 9040C	346570
180-116605-18	A9-0-5 pH 4	Leach	Solid	EPA 9040C	346570
180-116605-24	C7-0-5 pH 9	Leach	Solid	EPA 9040C	346570
180-116605-25	C7-0-5 pH 8	Leach	Solid	EPA 9040C	346570
180-116605-26	C7-0-5 pH 7	Leach	Solid	EPA 9040C	346570

Client: KPRG and Associates, Inc.
Project/Site: Waukegan Generating Station

Job ID: 180-116605-1

General Chemistry (Continued)

Analysis Batch: 346999 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-31	BLANK LOW	Leach	Solid	EPA 9040C	346570
LCS 180-346999/1	Lab Control Sample	Total/NA	Solid	EPA 9040C	
180-116605-5 DU	A1-0-5 pH 8	Leach	Solid	EPA 9040C	346570

Analysis Batch: 347000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-5	A1-0-5 pH 8	Leach	Solid	SM 2580B	346570
180-116605-6	A1-0-5 pH 7	Leach	Solid	SM 2580B	346570
180-116605-9	A1-0-5 pH 2	Leach	Solid	SM 2580B	346570
180-116605-14	A9-0-5 pH 9	Leach	Solid	SM 2580B	346570
180-116605-18	A9-0-5 pH 4	Leach	Solid	SM 2580B	346570
180-116605-24	C7-0-5 pH 9	Leach	Solid	SM 2580B	346570
180-116605-25	C7-0-5 pH 8	Leach	Solid	SM 2580B	346570
180-116605-26	C7-0-5 pH 7	Leach	Solid	SM 2580B	346570
180-116605-31	BLANK LOW	Leach	Solid	SM 2580B	346570
LCS 180-347000/1	Lab Control Sample	Total/NA	Solid	SM 2580B	
180-116605-5 DU	A1-0-5 pH 8	Leach	Solid	SM 2580B	346570

Analysis Batch: 347001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-5	A1-0-5 pH 8	Leach	Solid	SM 2510B	346570
180-116605-6	A1-0-5 pH 7	Leach	Solid	SM 2510B	346570
180-116605-9	A1-0-5 pH 2	Leach	Solid	SM 2510B	346570
180-116605-14	A9-0-5 pH 9	Leach	Solid	SM 2510B	346570
180-116605-18	A9-0-5 pH 4	Leach	Solid	SM 2510B	346570
180-116605-24	C7-0-5 pH 9	Leach	Solid	SM 2510B	346570
180-116605-25	C7-0-5 pH 8	Leach	Solid	SM 2510B	346570
180-116605-26	C7-0-5 pH 7	Leach	Solid	SM 2510B	346570
180-116605-31	BLANK LOW	Leach	Solid	SM 2510B	346570
MB 180-347001/2	Method Blank	Total/NA	Solid	SM 2510B	
LCS 180-347001/1	Lab Control Sample	Total/NA	Solid	SM 2510B	
180-116605-5 DU	A1-0-5 pH 8	Leach	Solid	SM 2510B	346570

Analysis Batch: 347138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-3	A1-0-5 pH 10.5	Leach	Solid	EPA 9040C	346857
180-116605-7	A1-0-5 pH 5.5	Leach	Solid	EPA 9040C	346857
180-116605-15	A9-0-5 pH 8	Leach	Solid	EPA 9040C	346857
180-116605-19	A9-0-5 pH 2	Leach	Solid	EPA 9040C	346857
180-116605-27	C7-0-5 pH 5.5	Leach	Solid	EPA 9040C	346857
180-116605-29	C7-0-5 pH 2	Leach	Solid	EPA 9040C	346857
180-116605-32	BLANK MEDIUM	Leach	Solid	EPA 9040C	346857
LCS 180-347138/1	Lab Control Sample	Total/NA	Solid	EPA 9040C	
180-116605-3 DU	A1-0-5 pH 10.5	Leach	Solid	EPA 9040C	346857

Analysis Batch: 347139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-3	A1-0-5 pH 10.5	Leach	Solid	SM 2580B	346857
180-116605-7	A1-0-5 pH 5.5	Leach	Solid	SM 2580B	346857
180-116605-15	A9-0-5 pH 8	Leach	Solid	SM 2580B	346857
180-116605-19	A9-0-5 pH 2	Leach	Solid	SM 2580B	346857

QC Association Summary

General Chemistry (Continued)

Analysis Batch: 347139 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-27	C7-0-5 pH 5.5	Leach	Solid	SM 2580B	346857
180-116605-29	C7-0-5 pH 2	Leach	Solid	SM 2580B	346857
180-116605-32	BLANK MEDIUM	Leach	Solid	SM 2580B	346857
LCS 180-347139/1	Lab Control Sample	Total/NA	Solid	SM 2580B	
180-116605-3 DU	A1-0-5 pH 10.5	Leach	Solid	SM 2580B	346857

Analysis Batch: 347140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-3	A1-0-5 pH 10.5	Leach	Solid	SM 2510B	346857
180-116605-7	A1-0-5 pH 5.5	Leach	Solid	SM 2510B	346857
180-116605-15	A9-0-5 pH 8	Leach	Solid	SM 2510B	346857
180-116605-19	A9-0-5 pH 2	Leach	Solid	SM 2510B	346857
180-116605-27	C7-0-5 pH 5.5	Leach	Solid	SM 2510B	346857
180-116605-29	C7-0-5 pH 2	Leach	Solid	SM 2510B	346857
180-116605-32	BLANK MEDIUM	Leach	Solid	SM 2510B	346857
MB 180-347140/2	Method Blank	Total/NA	Solid	SM 2510B	
LCS 180-347140/1	Lab Control Sample	Total/NA	Solid	SM 2510B	
180-116605-3 DU	A1-0-5 pH 10.5	Leach	Solid	SM 2510B	346857

Analysis Batch: 347449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-3	A1-0-5 pH 10.5	Leach	Solid	SM 2540C	346857
MB 180-347449/2	Method Blank	Total/NA	Solid	SM 2540C	
LCS 180-347449/1	Lab Control Sample	Total/NA	Solid	SM 2540C	

Analysis Batch: 347450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-116605-7	A1-0-5 pH 5.5	Leach	Solid	SM 2540C	346857
180-116605-15	A9-0-5 pH 8	Leach	Solid	SM 2540C	346857
180-116605-19	A9-0-5 pH 2	Leach	Solid	SM 2540C	346857
180-116605-27	C7-0-5 pH 5.5	Leach	Solid	SM 2540C	346857
180-116605-29	C7-0-5 pH 2	Leach	Solid	SM 2540C	346857
180-116605-32	BLANK MEDIUM	Leach	Solid	SM 2540C	346857
MB 180-347450/2	Method Blank	Total/NA	Solid	SM 2540C	
LCS 180-347450/1	Lab Control Sample	Total/NA	Solid	SM 2540C	
180-116605-15 DU	A9-0-5 pH 8	Leach	Solid	SM 2540C	346857

Chain of Custody Record

417665

eurofins | Environment Testing TestAmerica

Address: ______

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager:	Site Contact:	Date: 1/27/21	COC No:
Company Name: KPRG and Associates	Tel/Email:	Lab Contact:	Carrier: FEDEX	1 of 1 COCs
Address: 14665 W Lisbon Rd. Ste 1A	Analysis Turnaround Time			Sampler:
City/State/Zip: Brookfield / WI / 53005	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 262-781-0475	TAT if different from Below ______			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Waukegan Soil Samples	☐ 1 week			
Site: Waukegan Generating Station	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	LEAF Method 1313	Sample Specific Notes:
A1-0-5	11/25/20	1135	C	S		N	N	X	
A9-0-5	11/25/20	1025	C	S		N	N	X	
C7-0-5	11/24/20	1330	C	S		N	N	X	

180-116605 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ______

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

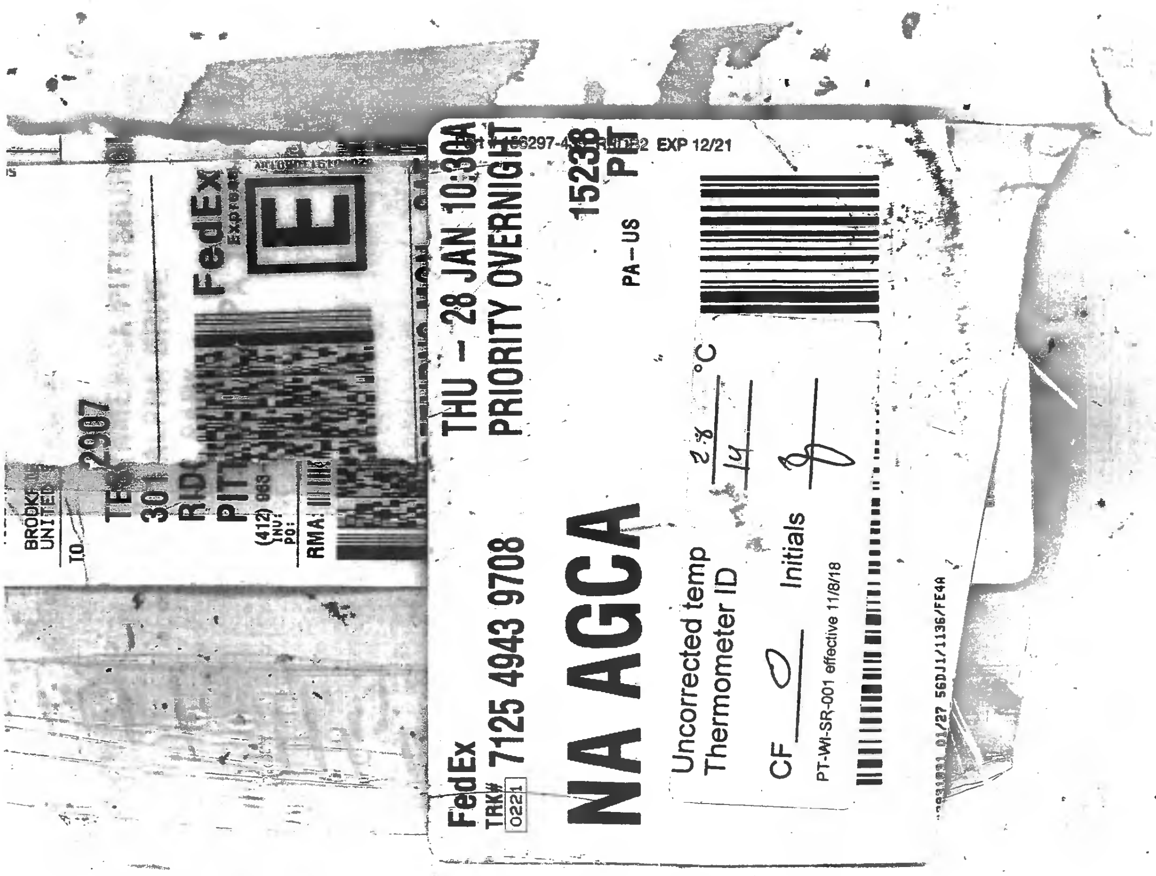
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ______ Months

Special Instructions/QC Requirements & Comments:
Parameter List: As, Bo, Chloride, Fe, Li, Mn, Mo, Sulfate, Tl, pH

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ______ Corr'd: ______ Therm ID No.: ______

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Mitchel Dolan [signature]	KPRG	1/27/20/1600	FEDEX		1/27/20 /1600
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: ETA Pitt	Date/Time: 1-28-21 8:30
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

180-116605 Waybill



Login Sample Receipt Checklist

Client: KPRG and Associates, Inc. | Job Number: 180-116605-1

Login Number: 116605
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

1 2 3 4 5 6 7 8 9 10 11 12 13

Electronic Filing: Received, Clerk's Office 02/20/2024

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ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-191680-1
Client Project/Site: Waukegan Soil Samples

For:
Midwest Generation EME LLC
401 E Greenwood Avenue
Waukegan, Illinois 60087-5197

Attn: Mr. Mark Wehling

Diana Mockler

Authorized for release by:
12/11/2020 1:53:13 PM

Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@Eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Job ID: 500-191680-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-191680-1

Comments
No additional comments.

Receipt
The samples were received on 11/25/2020 5:00 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CHI
9045C	pH	SW846	TAL CHI
9056A	Anions, Ion Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
300_Prep	Anions, Ion Chromatography, 10% Wt/Vol	MCAWW	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-191680-1	A1-0-5	Solid	11/25/20 11:35	11/25/20 17:00	
500-191680-2	A1-5-10	Solid	11/25/20 11:37	11/25/20 17:00	
500-191680-3	A2-10-12	Solid	11/25/20 11:39	11/25/20 17:00	
500-191680-4	A2-0-5	Solid	11/25/20 11:30	11/25/20 17:00	
500-191680-5	A2-5-9	Solid	11/25/20 11:32	11/25/20 17:00	
500-191680-6	A3-0-5	Solid	11/25/20 11:20	11/25/20 17:00	
500-191680-7	A3-5-10	Solid	11/25/20 11:22	11/25/20 17:00	
500-191680-8	A3-10-11	Solid	11/25/20 11:24	11/25/20 17:00	
500-191680-9	A4-0-5	Solid	11/25/20 11:10	11/25/20 17:00	
500-191680-10	A4-5-9	Solid	11/25/20 11:12	11/25/20 17:00	
500-191680-11	A5-0-5	Solid	11/25/20 11:00	11/25/20 17:00	
500-191680-12	A5-5-9.5	Solid	11/25/20 11:02	11/25/20 17:00	
500-191680-13	A6-0-5	Solid	11/25/20 10:51	11/25/20 17:00	
500-191680-14	A6-5-8	Solid	11/25/20 10:53	11/25/20 17:00	
500-191680-15	A7-0-5	Solid	11/25/20 10:43	11/25/20 17:00	
500-191680-16	A7-5-7	Solid	11/25/20 10:45	11/25/20 17:00	
500-191680-17	A8-0-5	Solid	11/25/20 10:35	11/25/20 17:00	
500-191680-18	A8-5-7	Solid	11/25/20 10:37	11/25/20 17:00	
500-191680-19	A9-0-5	Solid	11/25/20 10:25	11/25/20 17:00	
500-191680-20	A9-5-7	Solid	11/25/20 10:27	11/25/20 17:00	
500-191680-21	A10-0-5	Solid	11/25/20 10:17	11/25/20 17:00	
500-191680-22	A10-5-7	Solid	11/25/20 10:19	11/25/20 17:00	

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A1-0-5

Lab Sample ID: 500-191680-1

Date Collected: 11/25/20 11:35
Date Received: 11/25/20 17:00

Matrix: Solid
Percent Solids: 70.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15	F1	1.4	0.48	mg/Kg	☼	12/04/20 06:29	12/04/20 19:42	1
Boron	830	F2 V	7.0	0.65	mg/Kg	☼	12/04/20 06:29	12/04/20 19:42	1
Calcium	31000	V	28	4.7	mg/Kg	☼	12/04/20 06:29	12/04/20 19:42	1
Iron	45000	V	28	14	mg/Kg	☼	12/04/20 06:29	12/04/20 19:42	1
Lithium	15		1.4	0.42	mg/Kg	☼	12/04/20 06:29	12/04/20 19:42	1
Manganese	210	V	1.4	0.20	mg/Kg	☼	12/04/20 06:29	12/04/20 19:42	1
Molybdenum	14		1.4	0.58	mg/Kg	☼	12/04/20 06:29	12/04/20 19:42	1
Thallium	2.1		1.4	0.69	mg/Kg	☼	12/04/20 06:29	12/04/20 19:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.0		0.2	0.2	SU			12/01/20 17:34	1
Chloride	<2.7		2.7	2.3	mg/Kg	☼	12/04/20 12:45	12/04/20 18:50	1
Sulfate	1200		27	13	mg/Kg	☼	12/04/20 12:45	12/07/20 20:44	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A1-5-10

Lab Sample ID: 500-191680-2

Date Collected: 11/25/20 11:37
Date Received: 11/25/20 17:00

Matrix: Solid
Percent Solids: 65.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	16		1.5	0.52	mg/Kg	☼	12/04/20 06:29	12/04/20 19:59	1
Boron	480		7.5	0.70	mg/Kg	☼	12/04/20 06:29	12/04/20 19:59	1
Calcium	45000		30	5.1	mg/Kg	☼	12/04/20 06:29	12/04/20 19:59	1
Iron	32000		30	16	mg/Kg	☼	12/04/20 06:29	12/04/20 19:59	1
Lithium	16		1.5	0.45	mg/Kg	☼	12/04/20 06:29	12/04/20 19:59	1
Manganese	240		1.5	0.22	mg/Kg	☼	12/04/20 06:29	12/04/20 19:59	1
Molybdenum	8.7		1.5	0.63	mg/Kg	☼	12/04/20 06:29	12/04/20 19:59	1
Thallium	2.9		1.5	0.75	mg/Kg	☼	12/04/20 06:29	12/04/20 19:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.2	0.2	SU			12/01/20 17:37	1
Chloride	<3.0		3.0	2.5	mg/Kg	☼	12/04/20 12:45	12/04/20 19:03	1
Sulfate	2700		150	71	mg/Kg	☼	12/04/20 12:45	12/07/20 20:58	50

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191680-1
Project/Site: Waukegan Soil Samples

Client Sample ID: A2-10-12

Lab Sample ID: 500-191680-3

Date Collected: 11/25/20 11:39
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 83.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.2**	**J**	5.1	1.8	mg/Kg	☼	12/04/20 06:29	12/07/20 16:23	5
Boron	**210**		5.1	0.48	mg/Kg	☼	12/04/20 06:29	12/04/20 20:02	1
Calcium	**21000**		20	3.5	mg/Kg	☼	12/04/20 06:29	12/04/20 20:02	1
Iron	**140000**		100	53	mg/Kg	☼	12/04/20 06:29	12/07/20 16:23	5
Lithium	**29**		1.0	0.31	mg/Kg	☼	12/04/20 06:29	12/04/20 20:02	1
Manganese	**250**		1.0	0.15	mg/Kg	☼	12/04/20 06:29	12/04/20 20:02	1
Molybdenum	**17**		5.1	2.1	mg/Kg	☼	12/04/20 06:29	12/07/20 16:23	5
Thallium	<5.1		5.1	2.6	mg/Kg	☼	12/04/20 06:29	12/07/20 16:23	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**9.2**		0.2	0.2	SU			12/01/20 17:42	1
Chloride	**1.9**	**J**	2.2	1.9	mg/Kg	☼	12/04/20 12:45	12/04/20 19:16	1
Sulfate	**1100**		45	21	mg/Kg	☼	12/04/20 12:45	12/07/20 21:12	20

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A2-0-5
Date Collected: 11/25/20 11:30
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-4
Matrix: Solid
Percent Solids: 61.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**50**		1.5	0.52	mg/Kg	☼	12/04/20 06:29	12/04/20 20:05	1
Boron	**430**		7.6	0.71	mg/Kg	☼	12/04/20 06:29	12/04/20 20:05	1
Calcium	**29000**		30	5.1	mg/Kg	☼	12/04/20 06:29	12/04/20 20:05	1
Iron	**39000**		30	16	mg/Kg	☼	12/04/20 06:29	12/04/20 20:05	1
Lithium	**16**		1.5	0.45	mg/Kg	☼	12/04/20 06:29	12/04/20 20:05	1
Manganese	**380**		1.5	0.22	mg/Kg	☼	12/04/20 06:29	12/04/20 20:05	1
Molybdenum	**8.3**		1.5	0.63	mg/Kg	☼	12/04/20 06:29	12/04/20 20:05	1
Thallium	**2.6**		1.5	0.76	mg/Kg	☼	12/04/20 06:29	12/04/20 20:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**9.3**		0.2	0.2	SU			12/01/20 17:44	1
Chloride	<3.2		3.2	2.7	mg/Kg	☼	12/04/20 12:45	12/04/20 19:28	1
Sulfate	**1100**		32	15	mg/Kg	☼	12/04/20 12:45	12/07/20 21:25	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A2-5-9
Date Collected: 11/25/20 11:32
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-5
Matrix: Solid
Percent Solids: 78.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	34		1.1	0.38	mg/Kg	☼	12/04/20 06:29	12/04/20 20:18	1
Boron	180		5.5	0.51	mg/Kg	☼	12/04/20 06:29	12/04/20 20:18	1
Calcium	9600		22	3.7	mg/Kg	☼	12/04/20 06:29	12/04/20 20:18	1
Iron	41000		22	11	mg/Kg	☼	12/04/20 06:29	12/04/20 20:18	1
Lithium	14		1.1	0.33	mg/Kg	☼	12/04/20 06:29	12/04/20 20:18	1
Manganese	110		1.1	0.16	mg/Kg	☼	12/04/20 06:29	12/07/20 16:26	1
Molybdenum	12		1.1	0.46	mg/Kg	☼	12/04/20 06:29	12/04/20 20:18	1
Thallium	1.9		1.1	0.55	mg/Kg	☼	12/04/20 06:29	12/04/20 20:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.9		0.2	0.2	SU			12/01/20 17:49	1
Chloride	<2.4		2.4	2.1	mg/Kg	☼	12/04/20 12:45	12/04/20 19:41	1
Sulfate	600		24	12	mg/Kg	☼	12/04/20 12:45	12/07/20 21:39	10

1 2 3 4 5 6 7 8 9 10 11 12 13

Client Sample ID: A3-0-5
Date Collected: 11/25/20 11:20
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-6
Matrix: Solid
Percent Solids: 73.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**58**		1.2	0.41	mg/Kg	☼	12/04/20 06:29	12/04/20 20:22	1
Boron	**290**		6.0	0.56	mg/Kg	☼	12/04/20 06:29	12/04/20 20:22	1
Calcium	**20000**		24	4.1	mg/Kg	☼	12/04/20 06:29	12/04/20 20:22	1
Iron	**38000**		24	13	mg/Kg	☼	12/04/20 06:29	12/04/20 20:22	1
Lithium	**17**		1.2	0.36	mg/Kg	☼	12/04/20 06:29	12/04/20 20:22	1
Manganese	**250**		1.2	0.17	mg/Kg	☼	12/04/20 06:29	12/07/20 16:29	1
Molybdenum	**6.8**		1.2	0.50	mg/Kg	☼	12/04/20 06:29	12/04/20 20:22	1
Thallium	**2.4**		1.2	0.60	mg/Kg	☼	12/04/20 06:29	12/04/20 20:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.7**		0.2	0.2	SU			12/01/20 17:52	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/04/20 12:45	12/04/20 19:54	1
Sulfate	**1000**		26	13	mg/Kg	☼	12/04/20 12:45	12/07/20 21:52	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A3-5-10
Date Collected: 11/25/20 11:22
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-7
Matrix: Solid
Percent Solids: 61.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	32		1.4	0.48	mg/Kg	☼	12/04/20 06:29	12/04/20 20:25	1
Boron	120		7.0	0.65	mg/Kg	☼	12/04/20 06:29	12/04/20 20:25	1
Calcium	8600		28	4.8	mg/Kg	☼	12/04/20 06:29	12/04/20 20:25	1
Iron	27000		28	15	mg/Kg	☼	12/04/20 06:29	12/04/20 20:25	1
Lithium	16		1.4	0.42	mg/Kg	☼	12/04/20 06:29	12/04/20 20:25	1
Manganese	100		1.4	0.20	mg/Kg	☼	12/04/20 06:29	12/07/20 16:32	1
Molybdenum	15		1.4	0.58	mg/Kg	☼	12/04/20 06:29	12/04/20 20:25	1
Thallium	3.1		1.4	0.70	mg/Kg	☼	12/04/20 06:29	12/04/20 20:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.2	0.2	SU			12/01/20 17:54	1
Chloride	<3.0		3.0	2.6	mg/Kg	☼	12/04/20 12:45	12/04/20 20:06	1
Sulfate	260		15	7.1	mg/Kg	☼	12/04/20 12:45	12/07/20 22:06	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A3-10-11

Date Collected: 11/25/20 11:24
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-8
Matrix: Solid
Percent Solids: 81.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14		1.1	0.38	mg/Kg	☼	12/04/20 06:29	12/04/20 20:28	1
Boron	67		5.5	0.52	mg/Kg	☼	12/04/20 06:29	12/04/20 20:28	1
Calcium	6200		22	3.8	mg/Kg	☼	12/04/20 06:29	12/04/20 20:28	1
Iron	15000		22	12	mg/Kg	☼	12/04/20 06:29	12/04/20 20:28	1
Lithium	5.9		1.1	0.33	mg/Kg	☼	12/04/20 06:29	12/04/20 20:28	1
Manganese	74		1.1	0.16	mg/Kg	☼	12/04/20 06:29	12/07/20 16:36	1
Molybdenum	40		1.1	0.46	mg/Kg	☼	12/04/20 06:29	12/04/20 20:28	1
Thallium	0.57	J	1.1	0.55	mg/Kg	☼	12/04/20 06:29	12/04/20 20:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.2	0.2	SU			12/01/20 17:57	1
Chloride	<2.4		2.4	2.1	mg/Kg	☼	12/04/20 12:45	12/04/20 20:44	1
Sulfate	340		12	5.7	mg/Kg	☼	12/04/20 12:45	12/07/20 22:47	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A4-0-5

Lab Sample ID: 500-191680-9

Date Collected: 11/25/20 11:10
Date Received: 11/25/20 17:00

Matrix: Solid
Percent Solids: 70.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	31		1.3	0.44	mg/Kg	☼	12/04/20 06:29	12/04/20 20:31	1
Boron	210		6.4	0.60	mg/Kg	☼	12/04/20 06:29	12/04/20 20:31	1
Calcium	13000		26	4.4	mg/Kg	☼	12/04/20 06:29	12/04/20 20:31	1
Iron	30000		26	13	mg/Kg	☼	12/04/20 06:29	12/04/20 20:31	1
Lithium	21		1.3	0.38	mg/Kg	☼	12/04/20 06:29	12/04/20 20:31	1
Manganese	210		1.3	0.19	mg/Kg	☼	12/04/20 06:29	12/07/20 16:39	1
Molybdenum	5.8		1.3	0.53	mg/Kg	☼	12/04/20 06:29	12/04/20 20:31	1
Thallium	2.6		1.3	0.64	mg/Kg	☼	12/04/20 06:29	12/04/20 20:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.7		0.2	0.2	SU			12/01/20 17:59	1
Chloride	<2.8		2.8	2.4	mg/Kg	☼	12/04/20 12:45	12/04/20 20:57	1
Sulfate	660		28	13	mg/Kg	☼	12/04/20 12:45	12/07/20 23:01	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A4-5-9
Date Collected: 11/25/20 11:12
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-10
Matrix: Solid
Percent Solids: 61.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	24		1.4	0.48	mg/Kg	☼	12/04/20 06:29	12/04/20 20:35	1
Boron	150		6.9	0.65	mg/Kg	☼	12/04/20 06:29	12/04/20 20:35	1
Calcium	10000		28	4.7	mg/Kg	☼	12/04/20 06:29	12/04/20 20:35	1
Iron	41000		28	14	mg/Kg	☼	12/04/20 06:29	12/04/20 20:35	1
Lithium	16		1.4	0.42	mg/Kg	☼	12/04/20 06:29	12/04/20 20:35	1
Manganese	130		1.4	0.20	mg/Kg	☼	12/04/20 06:29	12/07/20 16:42	1
Molybdenum	20		1.4	0.58	mg/Kg	☼	12/04/20 06:29	12/04/20 20:35	1
Thallium	4.0		1.4	0.69	mg/Kg	☼	12/04/20 06:29	12/04/20 20:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU			12/01/20 18:02	1
Chloride	3.2		3.1	2.7	mg/Kg	☼	12/04/20 12:45	12/04/20 21:10	1
Sulfate	190		6.3	3.0	mg/Kg	☼	12/04/20 12:45	12/07/20 23:15	2

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A5-0-5
Date Collected: 11/25/20 11:00
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-11
Matrix: Solid
Percent Solids: 71.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	36		1.4	0.46	mg/Kg	☼	12/04/20 06:29	12/04/20 20:38	1
Boron	910		6.8	0.63	mg/Kg	☼	12/04/20 06:29	12/04/20 20:38	1
Calcium	26000		27	4.6	mg/Kg	☼	12/04/20 06:29	12/04/20 20:38	1
Iron	36000		27	14	mg/Kg	☼	12/04/20 06:29	12/04/20 20:38	1
Lithium	14		1.4	0.40	mg/Kg	☼	12/04/20 06:29	12/04/20 20:38	1
Manganese	210		1.4	0.20	mg/Kg	☼	12/04/20 06:29	12/07/20 16:45	1
Molybdenum	18		1.4	0.56	mg/Kg	☼	12/04/20 06:29	12/04/20 20:38	1
Thallium	3.6		1.4	0.67	mg/Kg	☼	12/04/20 06:29	12/04/20 20:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.6		0.2	0.2	SU			12/01/20 18:04	1
Chloride	<2.7		2.7	2.3	mg/Kg	☼	12/04/20 12:45	12/04/20 21:23	1
Sulfate	1300		55	26	mg/Kg	☼	12/04/20 12:45	12/07/20 23:28	20

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A5-5-9.5

Date Collected: 11/25/20 11:02
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-12
Matrix: Solid
Percent Solids: 69.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	25		1.2	0.41	mg/Kg	☼	12/04/20 06:29	12/04/20 20:41	1
Boron	180		6.0	0.56	mg/Kg	☼	12/04/20 06:29	12/04/20 20:41	1
Calcium	13000		24	4.1	mg/Kg	☼	12/04/20 06:29	12/04/20 20:41	1
Iron	36000		24	13	mg/Kg	☼	12/04/20 06:29	12/04/20 20:41	1
Lithium	16		1.2	0.36	mg/Kg	☼	12/04/20 06:29	12/04/20 20:41	1
Manganese	140		1.2	0.18	mg/Kg	☼	12/04/20 06:29	12/07/20 16:55	1
Molybdenum	75		1.2	0.50	mg/Kg	☼	12/04/20 06:29	12/04/20 20:41	1
Thallium	2.3		1.2	0.60	mg/Kg	☼	12/04/20 06:29	12/04/20 20:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.2	0.2	SU			12/01/20 18:07	1
Chloride	<2.8		2.8	2.4	mg/Kg	☼	12/10/20 07:45	12/10/20 09:32	1
Sulfate	760		28	13	mg/Kg	☼	12/10/20 07:45	12/10/20 12:43	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A6-0-5
Date Collected: 11/25/20 10:51
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-13
Matrix: Solid
Percent Solids: 72.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**39**		1.3	0.44	mg/Kg	☼	12/04/20 06:29	12/04/20 20:44	1
Boron	**150**		6.4	0.60	mg/Kg	☼	12/04/20 06:29	12/04/20 20:44	1
Calcium	**20000**		26	4.3	mg/Kg	☼	12/04/20 06:29	12/04/20 20:44	1
Iron	**37000**		26	13	mg/Kg	☼	12/04/20 06:29	12/04/20 20:44	1
Lithium	**26**		1.3	0.38	mg/Kg	☼	12/04/20 06:29	12/04/20 20:44	1
Manganese	**290**		1.3	0.19	mg/Kg	☼	12/04/20 06:29	12/07/20 16:58	1
Molybdenum	**11**		1.3	0.53	mg/Kg	☼	12/04/20 06:29	12/04/20 20:44	1
Thallium	**2.5**		1.3	0.64	mg/Kg	☼	12/04/20 06:29	12/04/20 20:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.7**		0.2	0.2	SU			12/01/20 18:09	1
Chloride	<2.8		2.8	2.4	mg/Kg	☼	12/10/20 07:45	12/10/20 10:10	1
Sulfate	**700**		28	13	mg/Kg	☼	12/10/20 07:45	12/10/20 13:21	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A6-5-8

Date Collected: 11/25/20 10:53
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-14
Matrix: Solid
Percent Solids: 69.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	23		1.4	0.46	mg/Kg	☼	12/04/20 06:29	12/04/20 20:47	1
Boron	120		6.8	0.63	mg/Kg	☼	12/04/20 06:29	12/04/20 20:47	1
Calcium	15000		27	4.6	mg/Kg	☼	12/04/20 06:29	12/04/20 20:47	1
Iron	37000		27	14	mg/Kg	☼	12/04/20 06:29	12/04/20 20:47	1
Lithium	20		1.4	0.40	mg/Kg	☼	12/04/20 06:29	12/04/20 20:47	1
Manganese	260		1.4	0.20	mg/Kg	☼	12/04/20 06:29	12/07/20 17:01	1
Molybdenum	13		1.4	0.56	mg/Kg	☼	12/04/20 06:29	12/04/20 20:47	1
Thallium	0.93	J	1.4	0.68	mg/Kg	☼	12/04/20 06:29	12/04/20 20:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			12/01/20 18:12	1
Chloride	<2.8		2.8	2.4	mg/Kg	☼	12/10/20 07:45	12/10/20 10:23	1
Sulfate	380		14	6.7	mg/Kg	☼	12/10/20 07:45	12/10/20 13:34	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A7-0-5
Date Collected: 11/25/20 10:43
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-15
Matrix: Solid
Percent Solids: 74.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	40		1.3	0.44	mg/Kg	☼	12/04/20 06:29	12/04/20 21:01	1
Boron	250		6.5	0.60	mg/Kg	☼	12/04/20 06:29	12/04/20 21:01	1
Calcium	24000		26	4.4	mg/Kg	☼	12/04/20 06:29	12/04/20 21:01	1
Iron	37000		26	13	mg/Kg	☼	12/04/20 06:29	12/04/20 21:01	1
Lithium	21		1.3	0.39	mg/Kg	☼	12/04/20 06:29	12/04/20 21:01	1
Manganese	330		1.3	0.19	mg/Kg	☼	12/04/20 06:29	12/07/20 17:05	1
Molybdenum	6.5		1.3	0.54	mg/Kg	☼	12/04/20 06:29	12/04/20 21:01	1
Thallium	2.4		1.3	0.65	mg/Kg	☼	12/04/20 06:29	12/04/20 21:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.2	0.2	SU			12/01/20 18:17	1
Chloride	<2.7		2.7	2.3	mg/Kg	☼	12/10/20 07:45	12/10/20 10:36	1
Sulfate	630		27	13	mg/Kg	☼	12/10/20 07:45	12/10/20 14:12	10

Client Sample ID: A7-5-7

Date Collected: 11/25/20 10:45
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-16
Matrix: Solid
Percent Solids: 64.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**33**		1.4	0.48	mg/Kg	☼	12/04/20 06:29	12/04/20 21:04	1
Boron	**180**		7.0	0.66	mg/Kg	☼	12/04/20 06:29	12/04/20 21:04	1
Calcium	**17000**		28	4.8	mg/Kg	☼	12/04/20 06:29	12/04/20 21:04	1
Iron	**30000**		28	15	mg/Kg	☼	12/04/20 06:29	12/04/20 21:04	1
Lithium	**28**		1.4	0.42	mg/Kg	☼	12/04/20 06:29	12/04/20 21:04	1
Manganese	**230**		1.4	0.20	mg/Kg	☼	12/04/20 06:29	12/07/20 17:08	1
Molybdenum	**280**		7.0	2.9	mg/Kg	☼	12/04/20 06:29	12/07/20 17:11	5
Thallium	**3.0**		1.4	0.70	mg/Kg	☼	12/04/20 06:29	12/04/20 21:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.8**		0.2	0.2	SU			12/01/20 18:22	1
Chloride	<3.0		3.0	2.6	mg/Kg	☼	12/10/20 07:45	12/10/20 10:49	1
Sulfate	**780**		30	14	mg/Kg	☼	12/10/20 07:45	12/10/20 14:25	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A8-0-5

Date Collected: 11/25/20 10:35
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-17
Matrix: Solid
Percent Solids: 76.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	35		1.3	0.43	mg/Kg	☼	12/04/20 06:29	12/04/20 21:08	1
Boron	130		6.3	0.59	mg/Kg	☼	12/04/20 06:29	12/04/20 21:08	1
Calcium	18000		25	4.3	mg/Kg	☼	12/04/20 06:29	12/04/20 21:08	1
Iron	34000		25	13	mg/Kg	☼	12/04/20 06:29	12/04/20 21:08	1
Lithium	29		1.3	0.38	mg/Kg	☼	12/04/20 06:29	12/04/20 21:08	1
Manganese	290		1.3	0.18	mg/Kg	☼	12/04/20 06:29	12/07/20 17:14	1
Molybdenum	5.0		1.3	0.52	mg/Kg	☼	12/04/20 06:29	12/04/20 21:08	1
Thallium	2.4		1.3	0.63	mg/Kg	☼	12/04/20 06:29	12/04/20 21:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.2	0.2	SU			12/01/20 18:25	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/10/20 07:45	12/10/20 11:01	1
Sulfate	150		5.2	2.5	mg/Kg	☼	12/10/20 07:45	12/10/20 14:38	2

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A8-5-7
Date Collected: 11/25/20 10:37
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-18
Matrix: Solid
Percent Solids: 75.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	33		1.2	0.40	mg/Kg	☼	12/04/20 06:29	12/04/20 21:11	1
Boron	460		5.8	0.54	mg/Kg	☼	12/04/20 06:29	12/04/20 21:11	1
Calcium	20000		23	3.9	mg/Kg	☼	12/04/20 06:29	12/04/20 21:11	1
Iron	35000		23	12	mg/Kg	☼	12/04/20 06:29	12/04/20 21:11	1
Lithium	21		1.2	0.35	mg/Kg	☼	12/04/20 06:29	12/04/20 21:11	1
Manganese	290		1.2	0.17	mg/Kg	☼	12/04/20 06:29	12/07/20 17:17	1
Molybdenum	11		1.2	0.48	mg/Kg	☼	12/04/20 06:29	12/04/20 21:11	1
Thallium	2.6		1.2	0.58	mg/Kg	☼	12/04/20 06:29	12/04/20 21:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.1		0.2	0.2	SU			12/01/20 18:27	1
Chloride	<2.5		2.5	2.1	mg/Kg	☼	12/10/20 07:45	12/10/20 11:40	1
Sulfate	1300		50	24	mg/Kg	☼	12/10/20 07:45	12/10/20 14:51	20

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A9-0-5
Date Collected: 11/25/20 10:25
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-19
Matrix: Solid
Percent Solids: 71.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	41		1.3	0.45	mg/Kg	☼	12/04/20 06:29	12/04/20 21:14	1
Boron	710		6.6	0.61	mg/Kg	☼	12/04/20 06:29	12/04/20 21:14	1
Calcium	27000		26	4.5	mg/Kg	☼	12/04/20 06:29	12/04/20 21:14	1
Iron	34000		26	14	mg/Kg	☼	12/04/20 06:29	12/04/20 21:14	1
Lithium	22		1.3	0.39	mg/Kg	☼	12/04/20 06:29	12/04/20 21:14	1
Manganese	370		1.3	0.19	mg/Kg	☼	12/04/20 06:29	12/07/20 17:21	1
Molybdenum	11		1.3	0.54	mg/Kg	☼	12/04/20 06:29	12/04/20 21:14	1
Thallium	2.5		1.3	0.66	mg/Kg	☼	12/04/20 06:29	12/04/20 21:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.2		0.2	0.2	SU			12/01/20 18:29	1
Chloride	<2.7		2.7	2.3	mg/Kg	☼	12/10/20 07:45	12/10/20 11:52	1
Sulfate	1000		27	13	mg/Kg	☼	12/10/20 07:45	12/10/20 15:03	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A9-5-7
Date Collected: 11/25/20 10:27
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-20
Matrix: Solid
Percent Solids: 64.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**22**		1.4	0.47	mg/Kg	☼	12/04/20 06:29	12/04/20 21:17	1
Boron	**140**		6.9	0.64	mg/Kg	☼	12/04/20 06:29	12/04/20 21:17	1
Calcium	**13000**		27	4.6	mg/Kg	☼	12/04/20 06:29	12/04/20 21:17	1
Iron	**33000**		27	14	mg/Kg	☼	12/04/20 06:29	12/04/20 21:17	1
Lithium	**18**		1.4	0.41	mg/Kg	☼	12/04/20 06:29	12/04/20 21:17	1
Manganese	**190**		1.4	0.20	mg/Kg	☼	12/04/20 06:29	12/07/20 17:24	1
Molybdenum	**260**		6.9	2.8	mg/Kg	☼	12/04/20 06:29	12/07/20 17:33	5
Thallium	**2.8**		1.4	0.68	mg/Kg	☼	12/04/20 06:29	12/04/20 21:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.5**		0.2	0.2	SU			12/01/20 18:32	1
Chloride	<3.0		3.0	2.5	mg/Kg	☼	12/10/20 07:45	12/10/20 12:05	1
Sulfate	**870**		30	14	mg/Kg	☼	12/10/20 07:45	12/10/20 15:16	10

Client Sample Results

Client Sample ID: A10-0-5
Date Collected: 11/25/20 10:17
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-21
Matrix: Solid
Percent Solids: 79.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	43		1.1	0.39	mg/Kg	☼	12/04/20 06:53	12/04/20 17:23	1
Boron	110		5.7	0.53	mg/Kg	☼	12/04/20 06:53	12/04/20 17:23	1
Calcium	15000		23	3.8	mg/Kg	☼	12/04/20 06:53	12/04/20 17:23	1
Iron	40000		23	12	mg/Kg	☼	12/04/20 06:53	12/04/20 17:23	1
Lithium	19		1.1	0.34	mg/Kg	☼	12/04/20 06:53	12/04/20 17:23	1
Manganese	260	B	1.1	0.16	mg/Kg	☼	12/04/20 06:53	12/04/20 17:23	1
Molybdenum	8.4		1.1	0.47	mg/Kg	☼	12/04/20 06:53	12/04/20 17:23	1
Thallium	2.0		1.1	0.56	mg/Kg	☼	12/04/20 06:53	12/04/20 17:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.2	0.2	SU			12/01/20 18:35	1
Chloride	<2.5		2.5	2.1	mg/Kg	☼	12/10/20 07:45	12/10/20 12:18	1
Sulfate	42		2.5	1.2	mg/Kg	☼	12/10/20 07:45	12/10/20 12:18	1

Client Sample ID: A10-5-7
Date Collected: 11/25/20 10:19
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-22
Matrix: Solid
Percent Solids: 66.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	23		1.3	0.45	mg/Kg	☼	12/04/20 06:53	12/04/20 17:26	1
Boron	210		6.5	0.61	mg/Kg	☼	12/04/20 06:53	12/04/20 17:26	1
Calcium	21000		26	4.4	mg/Kg	☼	12/04/20 06:53	12/04/20 17:26	1
Iron	31000		26	14	mg/Kg	☼	12/04/20 06:53	12/04/20 17:26	1
Lithium	19		1.3	0.39	mg/Kg	☼	12/04/20 06:53	12/04/20 17:26	1
Manganese	310	B	1.3	0.19	mg/Kg	☼	12/04/20 06:53	12/04/20 17:26	1
Molybdenum	19		1.3	0.54	mg/Kg	☼	12/04/20 06:53	12/04/20 17:26	1
Thallium	1.6		1.3	0.65	mg/Kg	☼	12/04/20 06:53	12/04/20 17:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.2	0.2	SU			12/01/20 18:37	1
Chloride	<2.9		2.9	2.5	mg/Kg	☼	12/10/20 07:45	12/10/20 12:31	1
Sulfate	2100		58	27	mg/Kg	☼	12/10/20 07:45	12/10/20 15:29	20

Definitions/Glossary

Client: Midwest Generation EME LLC Job ID: 500-191680-1
Project/Site: Waukegan Soil Samples

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
V	Serial Dilution exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Metals

Prep Batch: 575312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-1	A1-0-5	Total/NA	Solid	3050B	
500-191680-2	A1-5-10	Total/NA	Solid	3050B	
500-191680-3	A2-10-12	Total/NA	Solid	3050B	
500-191680-4	A2-0-5	Total/NA	Solid	3050B	
500-191680-5	A2-5-9	Total/NA	Solid	3050B	
500-191680-6	A3-0-5	Total/NA	Solid	3050B	
500-191680-7	A3-5-10	Total/NA	Solid	3050B	
500-191680-8	A3-10-11	Total/NA	Solid	3050B	
500-191680-9	A4-0-5	Total/NA	Solid	3050B	
500-191680-10	A4-5-9	Total/NA	Solid	3050B	
500-191680-11	A5-0-5	Total/NA	Solid	3050B	
500-191680-12	A5-5-9.5	Total/NA	Solid	3050B	
500-191680-13	A6-0-5	Total/NA	Solid	3050B	
500-191680-14	A6-5-8	Total/NA	Solid	3050B	
500-191680-15	A7-0-5	Total/NA	Solid	3050B	
500-191680-16	A7-5-7	Total/NA	Solid	3050B	
500-191680-17	A8-0-5	Total/NA	Solid	3050B	
500-191680-18	A8-5-7	Total/NA	Solid	3050B	
500-191680-19	A9-0-5	Total/NA	Solid	3050B	
500-191680-20	A9-5-7	Total/NA	Solid	3050B	
MB 500-575312/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-575312/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-191680-1 MS	A1-0-5	Total/NA	Solid	3050B	
500-191680-1 MSD	A1-0-5	Total/NA	Solid	3050B	
500-191680-1 DU	A1-0-5	Total/NA	Solid	3050B	

Prep Batch: 575329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-21	A10-0-5	Total/NA	Solid	3050B	
500-191680-22	A10-5-7	Total/NA	Solid	3050B	
MB 500-575329/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-575329/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 575564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-1	A1-0-5	Total/NA	Solid	6010B	575312
500-191680-2	A1-5-10	Total/NA	Solid	6010B	575312
500-191680-3	A2-10-12	Total/NA	Solid	6010B	575312
500-191680-4	A2-0-5	Total/NA	Solid	6010B	575312
500-191680-5	A2-5-9	Total/NA	Solid	6010B	575312
500-191680-6	A3-0-5	Total/NA	Solid	6010B	575312
500-191680-7	A3-5-10	Total/NA	Solid	6010B	575312
500-191680-8	A3-10-11	Total/NA	Solid	6010B	575312
500-191680-9	A4-0-5	Total/NA	Solid	6010B	575312
500-191680-10	A4-5-9	Total/NA	Solid	6010B	575312
500-191680-11	A5-0-5	Total/NA	Solid	6010B	575312
500-191680-12	A5-5-9.5	Total/NA	Solid	6010B	575312
500-191680-13	A6-0-5	Total/NA	Solid	6010B	575312
500-191680-14	A6-5-8	Total/NA	Solid	6010B	575312
500-191680-15	A7-0-5	Total/NA	Solid	6010B	575312
500-191680-16	A7-5-7	Total/NA	Solid	6010B	575312

Metals (Continued)

Analysis Batch: 575564 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-17	A8-0-5	Total/NA	Solid	6010B	575312
500-191680-18	A8-5-7	Total/NA	Solid	6010B	575312
500-191680-19	A9-0-5	Total/NA	Solid	6010B	575312
500-191680-20	A9-5-7	Total/NA	Solid	6010B	575312
500-191680-21	A10-0-5	Total/NA	Solid	6010B	575329
500-191680-22	A10-5-7	Total/NA	Solid	6010B	575329
MB 500-575312/1-A	Method Blank	Total/NA	Solid	6010B	575312
MB 500-575329/1-A	Method Blank	Total/NA	Solid	6010B	575329
LCS 500-575312/2-A	Lab Control Sample	Total/NA	Solid	6010B	575312
LCS 500-575329/2-A	Lab Control Sample	Total/NA	Solid	6010B	575329
500-191680-1 MS	A1-0-5	Total/NA	Solid	6010B	575312
500-191680-1 MSD	A1-0-5	Total/NA	Solid	6010B	575312
500-191680-1 DU	A1-0-5	Total/NA	Solid	6010B	575312

Analysis Batch: 575791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-3	A2-10-12	Total/NA	Solid	6010B	575312
500-191680-5	A2-5-9	Total/NA	Solid	6010B	575312
500-191680-6	A3-0-5	Total/NA	Solid	6010B	575312
500-191680-7	A3-5-10	Total/NA	Solid	6010B	575312
500-191680-8	A3-10-11	Total/NA	Solid	6010B	575312
500-191680-9	A4-0-5	Total/NA	Solid	6010B	575312
500-191680-10	A4-5-9	Total/NA	Solid	6010B	575312
500-191680-11	A5-0-5	Total/NA	Solid	6010B	575312
500-191680-12	A5-5-9.5	Total/NA	Solid	6010B	575312
500-191680-13	A6-0-5	Total/NA	Solid	6010B	575312
500-191680-14	A6-5-8	Total/NA	Solid	6010B	575312
500-191680-15	A7-0-5	Total/NA	Solid	6010B	575312
500-191680-16	A7-5-7	Total/NA	Solid	6010B	575312
500-191680-16	A7-5-7	Total/NA	Solid	6010B	575312
500-191680-17	A8-0-5	Total/NA	Solid	6010B	575312
500-191680-18	A8-5-7	Total/NA	Solid	6010B	575312
500-191680-19	A9-0-5	Total/NA	Solid	6010B	575312
500-191680-20	A9-5-7	Total/NA	Solid	6010B	575312
500-191680-20	A9-5-7	Total/NA	Solid	6010B	575312

General Chemistry

Analysis Batch: 574698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-1	A1-0-5	Total/NA	Solid	Moisture	
500-191680-2	A1-5-10	Total/NA	Solid	Moisture	
500-191680-3	A2-10-12	Total/NA	Solid	Moisture	
500-191680-4	A2-0-5	Total/NA	Solid	Moisture	
500-191680-5	A2-5-9	Total/NA	Solid	Moisture	
500-191680-6	A3-0-5	Total/NA	Solid	Moisture	
500-191680-7	A3-5-10	Total/NA	Solid	Moisture	
500-191680-8	A3-10-11	Total/NA	Solid	Moisture	
500-191680-9	A4-0-5	Total/NA	Solid	Moisture	
500-191680-10	A4-5-9	Total/NA	Solid	Moisture	
500-191680-11	A5-0-5	Total/NA	Solid	Moisture	

1 2 3 4 5 6 7 8 9 10 11 12 13

General Chemistry (Continued)

Analysis Batch: 574698 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-12	A5-5-9.5	Total/NA	Solid	Moisture	
500-191680-13	A6-0-5	Total/NA	Solid	Moisture	
500-191680-14	A6-5-8	Total/NA	Solid	Moisture	
500-191680-15	A7-0-5	Total/NA	Solid	Moisture	
500-191680-16	A7-5-7	Total/NA	Solid	Moisture	
500-191680-17	A8-0-5	Total/NA	Solid	Moisture	
500-191680-18	A8-5-7	Total/NA	Solid	Moisture	
500-191680-19	A9-0-5	Total/NA	Solid	Moisture	
500-191680-2 DU	A1-5-10	Total/NA	Solid	Moisture	

Analysis Batch: 574750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-20	A9-5-7	Total/NA	Solid	Moisture	
500-191680-21	A10-0-5	Total/NA	Solid	Moisture	
500-191680-22	A10-5-7	Total/NA	Solid	Moisture	

Analysis Batch: 574901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-1	A1-0-5	Total/NA	Solid	9045C	
500-191680-2	A1-5-10	Total/NA	Solid	9045C	
500-191680-3	A2-10-12	Total/NA	Solid	9045C	
500-191680-4	A2-0-5	Total/NA	Solid	9045C	
500-191680-5	A2-5-9	Total/NA	Solid	9045C	
500-191680-6	A3-0-5	Total/NA	Solid	9045C	
500-191680-7	A3-5-10	Total/NA	Solid	9045C	
500-191680-8	A3-10-11	Total/NA	Solid	9045C	
500-191680-9	A4-0-5	Total/NA	Solid	9045C	
500-191680-10	A4-5-9	Total/NA	Solid	9045C	
500-191680-11	A5-0-5	Total/NA	Solid	9045C	
500-191680-12	A5-5-9.5	Total/NA	Solid	9045C	
500-191680-13	A6-0-5	Total/NA	Solid	9045C	
500-191680-14	A6-5-8	Total/NA	Solid	9045C	
500-191680-15	A7-0-5	Total/NA	Solid	9045C	
500-191680-16	A7-5-7	Total/NA	Solid	9045C	
500-191680-17	A8-0-5	Total/NA	Solid	9045C	
500-191680-18	A8-5-7	Total/NA	Solid	9045C	
500-191680-19	A9-0-5	Total/NA	Solid	9045C	
500-191680-20	A9-5-7	Total/NA	Solid	9045C	
500-191680-21	A10-0-5	Total/NA	Solid	9045C	
500-191680-22	A10-5-7	Total/NA	Solid	9045C	
500-191680-2 DU	A1-5-10	Total/NA	Solid	9045C	
500-191680-15 DU	A7-0-5	Total/NA	Solid	9045C	

Prep Batch: 575398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-1	A1-0-5	Total/NA	Solid	300_Prep	
500-191680-2	A1-5-10	Total/NA	Solid	300_Prep	
500-191680-3	A2-10-12	Total/NA	Solid	300_Prep	
500-191680-4	A2-0-5	Total/NA	Solid	300_Prep	
500-191680-5	A2-5-9	Total/NA	Solid	300_Prep	
500-191680-6	A3-0-5	Total/NA	Solid	300_Prep	

General Chemistry (Continued)

Prep Batch: 575398 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-7	A3-5-10	Total/NA	Solid	300_Prep	
500-191680-8	A3-10-11	Total/NA	Solid	300_Prep	
500-191680-9	A4-0-5	Total/NA	Solid	300_Prep	
500-191680-10	A4-5-9	Total/NA	Solid	300_Prep	
500-191680-11	A5-0-5	Total/NA	Solid	300_Prep	
MB 500-575398/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 500-575398/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 575427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-1	A1-0-5	Total/NA	Solid	9056A	575398
500-191680-2	A1-5-10	Total/NA	Solid	9056A	575398
500-191680-3	A2-10-12	Total/NA	Solid	9056A	575398
500-191680-4	A2-0-5	Total/NA	Solid	9056A	575398
500-191680-5	A2-5-9	Total/NA	Solid	9056A	575398
500-191680-6	A3-0-5	Total/NA	Solid	9056A	575398
500-191680-7	A3-5-10	Total/NA	Solid	9056A	575398
500-191680-8	A3-10-11	Total/NA	Solid	9056A	575398
500-191680-9	A4-0-5	Total/NA	Solid	9056A	575398
500-191680-10	A4-5-9	Total/NA	Solid	9056A	575398
500-191680-11	A5-0-5	Total/NA	Solid	9056A	575398
MB 500-575398/1-A	Method Blank	Total/NA	Solid	9056A	575398
LCS 500-575398/2-A	Lab Control Sample	Total/NA	Solid	9056A	575398

Analysis Batch: 575604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-1	A1-0-5	Total/NA	Solid	9056A	575398
500-191680-2	A1-5-10	Total/NA	Solid	9056A	575398
500-191680-3	A2-10-12	Total/NA	Solid	9056A	575398
500-191680-4	A2-0-5	Total/NA	Solid	9056A	575398
500-191680-5	A2-5-9	Total/NA	Solid	9056A	575398
500-191680-6	A3-0-5	Total/NA	Solid	9056A	575398
500-191680-7	A3-5-10	Total/NA	Solid	9056A	575398
500-191680-8	A3-10-11	Total/NA	Solid	9056A	575398
500-191680-9	A4-0-5	Total/NA	Solid	9056A	575398
500-191680-10	A4-5-9	Total/NA	Solid	9056A	575398
500-191680-11	A5-0-5	Total/NA	Solid	9056A	575398
MB 500-575398/1-A	Method Blank	Total/NA	Solid	9056A	575398
LCS 500-575398/2-A	Lab Control Sample	Total/NA	Solid	9056A	575398

Prep Batch: 576140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-12	A5-5-9.5	Total/NA	Solid	300_Prep	
500-191680-13	A6-0-5	Total/NA	Solid	300_Prep	
500-191680-14	A6-5-8	Total/NA	Solid	300_Prep	
500-191680-15	A7-0-5	Total/NA	Solid	300_Prep	
500-191680-16	A7-5-7	Total/NA	Solid	300_Prep	
500-191680-17	A8-0-5	Total/NA	Solid	300_Prep	
500-191680-18	A8-5-7	Total/NA	Solid	300_Prep	
500-191680-19	A9-0-5	Total/NA	Solid	300_Prep	
500-191680-20	A9-5-7	Total/NA	Solid	300_Prep	

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

General Chemistry (Continued)

Prep Batch: 576140 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-21	A10-0-5	Total/NA	Solid	300_Prep	
500-191680-22	A10-5-7	Total/NA	Solid	300_Prep	
MB 500-576140/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 500-576140/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
500-191680-12 MS	A5-5-9.5	Total/NA	Solid	300_Prep	
500-191680-12 MSD	A5-5-9.5	Total/NA	Solid	300_Prep	

Analysis Batch: 576201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191680-12	A5-5-9.5	Total/NA	Solid	9056A	576140
500-191680-12	A5-5-9.5	Total/NA	Solid	9056A	576140
500-191680-13	A6-0-5	Total/NA	Solid	9056A	576140
500-191680-13	A6-0-5	Total/NA	Solid	9056A	576140
500-191680-14	A6-5-8	Total/NA	Solid	9056A	576140
500-191680-14	A6-5-8	Total/NA	Solid	9056A	576140
500-191680-15	A7-0-5	Total/NA	Solid	9056A	576140
500-191680-15	A7-0-5	Total/NA	Solid	9056A	576140
500-191680-16	A7-5-7	Total/NA	Solid	9056A	576140
500-191680-16	A7-5-7	Total/NA	Solid	9056A	576140
500-191680-17	A8-0-5	Total/NA	Solid	9056A	576140
500-191680-17	A8-0-5	Total/NA	Solid	9056A	576140
500-191680-18	A8-5-7	Total/NA	Solid	9056A	576140
500-191680-18	A8-5-7	Total/NA	Solid	9056A	576140
500-191680-19	A9-0-5	Total/NA	Solid	9056A	576140
500-191680-19	A9-0-5	Total/NA	Solid	9056A	576140
500-191680-20	A9-5-7	Total/NA	Solid	9056A	576140
500-191680-20	A9-5-7	Total/NA	Solid	9056A	576140
500-191680-21	A10-0-5	Total/NA	Solid	9056A	576140
500-191680-22	A10-5-7	Total/NA	Solid	9056A	576140
500-191680-22	A10-5-7	Total/NA	Solid	9056A	576140
MB 500-576140/1-A	Method Blank	Total/NA	Solid	9056A	576140
LCS 500-576140/2-A	Lab Control Sample	Total/NA	Solid	9056A	576140
500-191680-12 MS	A5-5-9.5	Total/NA	Solid	9056A	576140
500-191680-12 MS	A5-5-9.5	Total/NA	Solid	9056A	576140
500-191680-12 MSD	A5-5-9.5	Total/NA	Solid	9056A	576140
500-191680-12 MSD	A5-5-9.5	Total/NA	Solid	9056A	576140

QC Sample Results

Client: Midwest Generation EME LLC Job ID: 500-191680-1
Project/Site: Waukegan Soil Samples

1 2 3 4 5 6 7 8 9 10 11 12 13

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-575312/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575564
Prep Batch: 575312

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.0		1.0	0.34	mg/Kg		12/04/20 06:29	12/04/20 19:36	1
Boron	<5.0		5.0	0.47	mg/Kg		12/04/20 06:29	12/04/20 19:36	1
Calcium	<20		20	3.4	mg/Kg		12/04/20 06:29	12/04/20 19:36	1
Iron	<20		20	10	mg/Kg		12/04/20 06:29	12/04/20 19:36	1
Lithium	<1.0		1.0	0.30	mg/Kg		12/04/20 06:29	12/04/20 19:36	1
Manganese	<1.0		1.0	0.15	mg/Kg		12/04/20 06:29	12/04/20 19:36	1
Molybdenum	<1.0		1.0	0.42	mg/Kg		12/04/20 06:29	12/04/20 19:36	1
Thallium	<1.0		1.0	0.50	mg/Kg		12/04/20 06:29	12/04/20 19:36	1

Lab Sample ID: LCS 500-575312/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575564
Prep Batch: 575312

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.26		mg/Kg		93	80 - 120
Boron	100	88.9		mg/Kg		89	80 - 120
Calcium	1000	940		mg/Kg		94	80 - 120
Iron	100	98.2		mg/Kg		98	80 - 120
Lithium	50.0	54.3		mg/Kg		109	80 - 120
Manganese	50.0	45.4		mg/Kg		91	80 - 120
Molybdenum	100	104		mg/Kg		104	80 - 120
Thallium	10.0	10.1		mg/Kg		101	80 - 120

Lab Sample ID: 500-191680-1 MS
Client Sample ID: A1-0-5
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575564
Prep Batch: 575312

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	15	F1	13.3	27.2		mg/Kg	☼	93	75 - 125
Boron	830	F2 V	133	888	4	mg/Kg	☼	47	75 - 125
Calcium	31000	V	1330	31000	4	mg/Kg	☼	5	75 - 125
Iron	45000	V	133	46400	4	mg/Kg	☼	821	75 - 125
Lithium	15		66.4	80.7		mg/Kg	☼	99	75 - 125
Manganese	210	V	66.4	260		mg/Kg	☼	80	75 - 125
Molybdenum	14		133	123		mg/Kg	☼	83	75 - 125
Thallium	2.1		13.3	14.3		mg/Kg	☼	92	75 - 125

Lab Sample ID: 500-191680-1 MSD
Client Sample ID: A1-0-5
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575564
Prep Batch: 575312

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	15	F1	14.1	23.9	F1	mg/Kg	☼	64	75 - 125	13	20
Boron	830	F2 V	141	594	4 F2	mg/Kg	☼	-165	75 - 125	40	20
Calcium	31000	V	1410	27800	4	mg/Kg	☼	-225	75 - 125	11	20
Iron	45000	V	141	46800	4	mg/Kg	☼	1106	75 - 125	1	20
Lithium	15		70.4	86.3		mg/Kg	☼	101	75 - 125	7	20
Manganese	210	V	70.4	265		mg/Kg	☼	84	75 - 125	2	20
Molybdenum	14		141	129		mg/Kg	☼	82	75 - 125	4	20

QC Sample Results

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-191680-1 MSD
Client Sample ID: A1-0-5
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575564
Prep Batch: 575312

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium	2.1		14.1	14.3		mg/Kg	☼	87	75 - 125	0	20

Lab Sample ID: 500-191680-1 DU
Client Sample ID: A1-0-5
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575564
Prep Batch: 575312

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	15	F1	16.9		mg/Kg	☼	13	20
Boron	830	F2 V	951		mg/Kg	☼	14	20
Calcium	31000	V	33000		mg/Kg	☼	6	20
Iron	45000	V	47100		mg/Kg	☼	4	20
Lithium	15		15.0		mg/Kg	☼	0.08	20
Manganese	210	V	209		mg/Kg	☼	1	20
Molybdenum	14		15.6		mg/Kg	☼	12	20
Thallium	2.1		2.94	F5	mg/Kg	☼	34	20

Lab Sample ID: MB 500-575329/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575564
Prep Batch: 575329

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.0		1.0	0.34	mg/Kg		12/04/20 06:53	12/04/20 16:58	1
Boron	<5.0		5.0	0.47	mg/Kg		12/04/20 06:53	12/04/20 16:58	1
Calcium	<20		20	3.4	mg/Kg		12/04/20 06:53	12/04/20 16:58	1
Iron	<20		20	10	mg/Kg		12/04/20 06:53	12/04/20 16:58	1
Lithium	<1.0		1.0	0.30	mg/Kg		12/04/20 06:53	12/04/20 16:58	1
Manganese	0.163	J	1.0	0.15	mg/Kg		12/04/20 06:53	12/04/20 16:58	1
Molybdenum	<1.0		1.0	0.42	mg/Kg		12/04/20 06:53	12/04/20 16:58	1
Thallium	<1.0		1.0	0.50	mg/Kg		12/04/20 06:53	12/04/20 16:58	1

Lab Sample ID: LCS 500-575329/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575564
Prep Batch: 575329

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.32		mg/Kg		93	80 - 120
Boron	100	84.9		mg/Kg		85	80 - 120
Calcium	1000	991		mg/Kg		99	80 - 120
Iron	100	100		mg/Kg		100	80 - 120
Lithium	50.0	48.9		mg/Kg		98	80 - 120
Manganese	50.0	49.9		mg/Kg		100	80 - 120
Molybdenum	100	99.9		mg/Kg		100	80 - 120
Thallium	10.0	9.93		mg/Kg		99	80 - 120

Method: 9045C - pH

Lab Sample ID: 500-191680-2 DU
Matrix: Solid
Analysis Batch: 574901

Client Sample ID: A1-5-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.5		8.5		SU		0.5	

Lab Sample ID: 500-191680-15 DU
Matrix: Solid
Analysis Batch: 574901

Client Sample ID: A7-0-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.6		8.6		SU		0.8	

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 500-575398/1-A
Matrix: Solid
Analysis Batch: 575427

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575398

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0	1.7	mg/Kg		12/04/20 12:45	12/04/20 15:40	1
Sulfate	<2.0		2.0	0.95	mg/Kg		12/04/20 12:45	12/04/20 15:40	1

Lab Sample ID: MB 500-575398/1-A
Matrix: Solid
Analysis Batch: 575604

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575398

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<2.0		2.0	0.95	mg/Kg		12/04/20 12:45	12/07/20 18:14	1

Lab Sample ID: LCS 500-575398/2-A
Matrix: Solid
Analysis Batch: 575427

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575398

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	29.8		mg/Kg		99	80 - 120
Sulfate	50.0	52.4		mg/Kg		105	80 - 120

Lab Sample ID: LCS 500-575398/2-A
Matrix: Solid
Analysis Batch: 575604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575398

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	55.7		mg/Kg		111	80 - 120

Lab Sample ID: MB 500-576140/1-A
Matrix: Solid
Analysis Batch: 576201

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 576140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0	1.7	mg/Kg		12/10/20 07:45	12/10/20 09:07	1
Sulfate	<2.0		2.0	0.95	mg/Kg		12/10/20 07:45	12/10/20 09:07	1

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 500-576140/2-A
Matrix: Solid
Analysis Batch: 576201

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 576140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			30.0	29.5		mg/Kg		98	80 - 120		
Sulfate			50.0	52.1		mg/Kg		104	80 - 120		

Lab Sample ID: 500-191680-12 MS
Matrix: Solid
Analysis Batch: 576201

Client Sample ID: A5-5-9.5
Prep Type: Total/NA
Prep Batch: 576140

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	<2.8		13.9	13.8		mg/Kg	☼	99	75 - 125		

Lab Sample ID: 500-191680-12 MS
Matrix: Solid
Analysis Batch: 576201

Client Sample ID: A5-5-9.5
Prep Type: Total/NA
Prep Batch: 576140

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	760		34.8	811	4	mg/Kg	☼	142	75 - 125		

Lab Sample ID: 500-191680-12 MSD
Matrix: Solid
Analysis Batch: 576201

Client Sample ID: A5-5-9.5
Prep Type: Total/NA
Prep Batch: 576140

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<2.8		14.0	14.4		mg/Kg	☼	103	75 - 125	4	20

Lab Sample ID: 500-191680-12 MSD
Matrix: Solid
Analysis Batch: 576201

Client Sample ID: A5-5-9.5
Prep Type: Total/NA
Prep Batch: 576140

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	760		35.0	813	4	mg/Kg	☼	148	75 - 125	0	20

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Mitchel Dolan	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-8984-5667.1
Client Contact: ~~Mark Wehling~~ MD Rich Gnat	Phone: 262-781-0475	E-Mail: Diana.Mockler@Eurofinset.com		Page: Page 1 of 1
Company: Midwest Generation EME LLC				Job #: 500-191680
Address: 401 E Greenwood Avenue	Due Date Requested:			
City: Waukegan	TAT Requested (days):			
State, Zip: IL, 60087-5197				
Phone: ~~847-...-0201(Tel) 847-599-2282(Fax)~~ MD 262-781-0475	PO #: 4502012558			
Email: ~~mark.wehling@nrg.com~~ MD richardg@kprginc.com	WO #:			
Project Name: Waukegan Soil Samples	Project #: 50001112			
Site:	SSOW#:			

Analysis Requested

500-191680 COC

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - As, B, Ca, Fe, Li, Mo, Tl, Mn (8 elements)	9056 - Chloride, Sulfate	9045D - pH	Total Number of containers	Special Instructions/Note:
				Preservation Code:		X	X				X	
1	A1-0-5	11/25/20	11:35	C	S			X	X	X		
2	A1-5-10		11:37									
3	A1-10-12		11:39									
4	A2-0-5		11:30									
5	A2-5-9		11:32									
6	A3-0-5		11:20									
7	A3-5-10		11:22									
8	A3-10-11		11:24									
9	A4-0-5		11:10									
10	A4-5-9		11:12									
11	A5-0-5		11:00									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ________ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Michael Ross	11/25/20 / 1700	KPRG	Paulla Buckley	11/25/20 1700	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.2 → 2.3

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Mitchel Dolan	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-8984-5667.1
Client Contact: [redacted] MD Rich Gnat	Phone: 262-781-0475	E-Mail: Diana.Mockler@Eurofinset.com		Page: Page 1 of 1
Company: Midwest Generation EME LLC		**Analysis Requested**		Job #: 500-191680
Address: 401 E Greenwood Avenue	**Due Date Requested:**			
City: Waukegan	**TAT Requested (days):**			
State, Zip: IL, 60087-5197				
Phone: [redacted] MD 262-781-0475	PO #: 4502012558			
Email: [redacted] MD richardg@kprginc.com	WO #:			
Project Name: Waukegan Soil Samples	Project #: 50001112			
Site:	SSOW#:			

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - As, B, Ca, Fe, Li, Mo, Tl, Mn (8 elements)	9056 - Chloride, Sulfate	9045D - pH	Total Number of containers	Special Instructions/Note:
					Preservation Code:	X	X				X	
12	A5-5-9.5	11/25/20	11:02	C	S			X	X	X		
13	A6-0-5		10:51									
14	A6-5-8		10:53									
15	A7-0-5		10:43									
16	A7-5-7		10:45									
17	A8-0-5		10:35									
18	A8-5-7		10:37									
19	A9-0-5		10:25									
20	A9-5-7		10:27									
21	A10-0-5		10:17									
22	A10-5-7		10:19									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ________ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Michael Ress	11/25/20 1700	KPRG	Paula Buckley	11/25/20 1700	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.2 → 2.3

12/11/2020

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-191680-1

Login Number: 191680
List Number: 1
Creator: Buckley, Paula M

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: Midwest Generation EME LLC
Job ID: 500-191680-1
Project/Site: Waukegan Soil Samples

Client Sample ID: A1-0-5 | **Lab Sample ID: 500-191680-1**
Date Collected: 11/25/20 11:35 | **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:34	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A1-0-5 | **Lab Sample ID: 500-191680-1**
Date Collected: 11/25/20 11:35 | **Matrix: Solid**
Date Received: 11/25/20 17:00 | **Percent Solids: 70.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 19:42	EEN	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575604	12/07/20 20:44	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 18:50	EAT	TAL CHI

Client Sample ID: A1-5-10 | **Lab Sample ID: 500-191680-2**
Date Collected: 11/25/20 11:37 | **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:37	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A1-5-10 | **Lab Sample ID: 500-191680-2**
Date Collected: 11/25/20 11:37 | **Matrix: Solid**
Date Received: 11/25/20 17:00 | **Percent Solids: 65.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 19:59	EEN	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		50	575604	12/07/20 20:58	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 19:03	EAT	TAL CHI

Client Sample ID: A2-10-12 | **Lab Sample ID: 500-191680-3**
Date Collected: 11/25/20 11:39 | **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:42	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A2-10-12
Date Collected: 11/25/20 11:39
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-3
Matrix: Solid
Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 20:02	EEN	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		5	575791	12/07/20 16:23	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		20	575604	12/07/20 21:12	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 19:16	EAT	TAL CHI

Client Sample ID: A2-0-5
Date Collected: 11/25/20 11:30
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:44	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A2-0-5
Date Collected: 11/25/20 11:30
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-4
Matrix: Solid
Percent Solids: 61.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 20:05	EEN	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575604	12/07/20 21:25	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 19:28	EAT	TAL CHI

Client Sample ID: A2-5-9
Date Collected: 11/25/20 11:32
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:49	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A2-5-9
Date Collected: 11/25/20 11:32
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-5
Matrix: Solid
Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 20:18	EEN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A2-5-9

Lab Sample ID: 500-191680-5

Date Collected: 11/25/20 11:32
Date Received: 11/25/20 17:00

Matrix: Solid
Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 16:26	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575604	12/07/20 21:39	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 19:41	EAT	TAL CHI

Client Sample ID: A3-0-5

Lab Sample ID: 500-191680-6

Date Collected: 11/25/20 11:20
Date Received: 11/25/20 17:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:52	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A3-0-5

Lab Sample ID: 500-191680-6

Date Collected: 11/25/20 11:20
Date Received: 11/25/20 17:00

Matrix: Solid
Percent Solids: 73.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 20:22	EEN	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 16:29	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575604	12/07/20 21:52	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 19:54	EAT	TAL CHI

Client Sample ID: A3-5-10

Lab Sample ID: 500-191680-7

Date Collected: 11/25/20 11:22
Date Received: 11/25/20 17:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:54	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A3-5-10

Lab Sample ID: 500-191680-7

Date Collected: 11/25/20 11:22
Date Received: 11/25/20 17:00

Matrix: Solid
Percent Solids: 61.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 20:25	EEN	TAL CHI

1 2 3 4 5 6 7 8 9 10 11 12 13

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A3-5-10

Date Collected: 11/25/20 11:22
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-7
Matrix: Solid
Percent Solids: 61.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 16:32	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575604	12/07/20 22:06	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 20:06	EAT	TAL CHI

Client Sample ID: A3-10-11

Date Collected: 11/25/20 11:24
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:57	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A3-10-11

Date Collected: 11/25/20 11:24
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-8
Matrix: Solid
Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 20:28	EEN	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 16:36	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575604	12/07/20 22:47	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 20:44	EAT	TAL CHI

Client Sample ID: A4-0-5

Date Collected: 11/25/20 11:10
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:59	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A4-0-5

Date Collected: 11/25/20 11:10
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-9
Matrix: Solid
Percent Solids: 70.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 20:31	EEN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A4-0-5
Lab Sample ID: 500-191680-9
Date Collected: 11/25/20 11:10
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 70.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 16:39	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575604	12/07/20 23:01	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 20:57	EAT	TAL CHI

Client Sample ID: A4-5-9
Lab Sample ID: 500-191680-10
Date Collected: 11/25/20 11:12
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:02	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A4-5-9
Lab Sample ID: 500-191680-10
Date Collected: 11/25/20 11:12
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 61.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 20:35	EEN	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 16:42	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		2	575604	12/07/20 23:15	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 21:10	EAT	TAL CHI

Client Sample ID: A5-0-5
Lab Sample ID: 500-191680-11
Date Collected: 11/25/20 11:00
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:04	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A5-0-5
Lab Sample ID: 500-191680-11
Date Collected: 11/25/20 11:00
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 71.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 20:38	EEN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A5-0-5 **Lab Sample ID: 500-191680-11**
Date Collected: 11/25/20 11:00 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 71.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 16:45	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		20	575604	12/07/20 23:28	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 21:23	EAT	TAL CHI

Client Sample ID: A5-5-9.5 **Lab Sample ID: 500-191680-12**
Date Collected: 11/25/20 11:02 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:07	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A5-5-9.5 **Lab Sample ID: 500-191680-12**
Date Collected: 11/25/20 11:02 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 69.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 20:41	EEN	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 16:55	JJB	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	576201	12/10/20 09:32	EAT	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	576201	12/10/20 12:43	EAT	TAL CHI

Client Sample ID: A6-0-5 **Lab Sample ID: 500-191680-13**
Date Collected: 11/25/20 10:51 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:09	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A6-0-5 **Lab Sample ID: 500-191680-13**
Date Collected: 11/25/20 10:51 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 72.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 20:44	EEN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

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Client Sample ID: A6-0-5
Date Collected: 11/25/20 10:51
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-13
Matrix: Solid
Percent Solids: 72.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 16:58	JJB	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	576201	12/10/20 10:10	EAT	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	576201	12/10/20 13:21	EAT	TAL CHI

Client Sample ID: A6-5-8
Date Collected: 11/25/20 10:53
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:12	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A6-5-8
Date Collected: 11/25/20 10:53
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-14
Matrix: Solid
Percent Solids: 69.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 20:47	EEN	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 17:01	JJB	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	576201	12/10/20 10:23	EAT	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		5	576201	12/10/20 13:34	EAT	TAL CHI

Client Sample ID: A7-0-5
Date Collected: 11/25/20 10:43
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:17	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A7-0-5
Date Collected: 11/25/20 10:43
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-15
Matrix: Solid
Percent Solids: 74.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 21:01	EEN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

1 2 3 4 5 6 7 8 9 10 11 12 13

Client Sample ID: A7-0-5
Lab Sample ID: 500-191680-15
Date Collected: 11/25/20 10:43
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 74.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 17:05	JJB	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	576201	12/10/20 10:36	EAT	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	576201	12/10/20 14:12	EAT	TAL CHI

Client Sample ID: A7-5-7
Lab Sample ID: 500-191680-16
Date Collected: 11/25/20 10:45
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:22	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A7-5-7
Lab Sample ID: 500-191680-16
Date Collected: 11/25/20 10:45
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 64.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 21:04	EEN	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 17:08	JJB	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		5	575791	12/07/20 17:11	JJB	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	576201	12/10/20 10:49	EAT	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	576201	12/10/20 14:25	EAT	TAL CHI

Client Sample ID: A8-0-5
Lab Sample ID: 500-191680-17
Date Collected: 11/25/20 10:35
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:25	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Job ID: 500-191680-1
Project/Site: Waukegan Soil Samples

Client Sample ID: A8-0-5
Lab Sample ID: 500-191680-17
Date Collected: 11/25/20 10:35
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 76.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 21:08	EEN	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 17:14	JJB	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	576201	12/10/20 11:01	EAT	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		2	576201	12/10/20 14:38	EAT	TAL CHI

Client Sample ID: A8-5-7
Lab Sample ID: 500-191680-18
Date Collected: 11/25/20 10:37
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:27	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Client Sample ID: A8-5-7
Lab Sample ID: 500-191680-18
Date Collected: 11/25/20 10:37
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 75.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 21:11	EEN	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 17:17	JJB	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	576201	12/10/20 11:40	EAT	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		20	576201	12/10/20 14:51	EAT	TAL CHI

Client Sample ID: A9-0-5
Lab Sample ID: 500-191680-19
Date Collected: 11/25/20 10:25
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:29	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Samples

Job ID: 500-191680-1

Client Sample ID: A9-0-5
Date Collected: 11/25/20 10:25
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-19
Matrix: Solid
Percent Solids: 71.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 21:14	EEN	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 17:21	JJB	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	576201	12/10/20 11:52	EAT	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	576201	12/10/20 15:03	EAT	TAL CHI

Client Sample ID: A9-5-7
Date Collected: 11/25/20 10:27
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:32	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574750	12/01/20 14:12	LWN	TAL CHI

Client Sample ID: A9-5-7
Date Collected: 11/25/20 10:27
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-20
Matrix: Solid
Percent Solids: 64.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 21:17	EEN	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575791	12/07/20 17:24	JJB	TAL CHI
Total/NA	Prep	3050B			575312	12/04/20 06:29	LMN	TAL CHI
Total/NA	Analysis	6010B		5	575791	12/07/20 17:33	JJB	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	576201	12/10/20 12:05	EAT	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	576201	12/10/20 15:16	EAT	TAL CHI

Client Sample ID: A10-0-5
Date Collected: 11/25/20 10:17
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191680-21
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:35	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574750	12/01/20 14:12	LWN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Job ID: 500-191680-1
Project/Site: Waukegan Soil Samples

Client Sample ID: A10-0-5
Lab Sample ID: 500-191680-21
Date Collected: 11/25/20 10:17
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 79.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575329	12/04/20 06:53	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 17:23	EEN	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	576201	12/10/20 12:18	EAT	TAL CHI

Client Sample ID: A10-5-7
Lab Sample ID: 500-191680-22
Date Collected: 11/25/20 10:19
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 18:37	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574750	12/01/20 14:12	LWN	TAL CHI

Client Sample ID: A10-5-7
Lab Sample ID: 500-191680-22
Date Collected: 11/25/20 10:19
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 66.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575329	12/04/20 06:53	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 17:26	EEN	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	576201	12/10/20 12:31	EAT	TAL CHI
Total/NA	Prep	300_Prep			576140	12/10/20 07:45	EAT	TAL CHI
Total/NA	Analysis	9056A		20	576201	12/10/20 15:29	EAT	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Midwest Generation EME LLC
Job ID: 500-191680-1
Project/Site: Waukegan Soil Samples

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-21

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-191681-1
Client Project/Site: Waukegan Soil Testing

For:
Midwest Generation EME LLC
401 E Greenwood Avenue
Waukegan, Illinois 60087-5197

Attn: Mr. Mark Wehling

Diana Mockler

Authorized for release by:
12/7/2020 5:54:20 PM

Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@Eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: Midwest Generation EME LLC
Job ID: 500-191681-1
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-191681-1

Comments
No additional comments.

Receipt
The samples were received on 11/25/2020 5:00 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.8º C, 2.0º C and 2.3º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CHI
9045C	pH	SW846	TAL CHI
9056A	Anions, Ion Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
300_Prep	Anions, Ion Chromatography, 10% Wt/Vol	MCAWW	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-191681-1	B5-5-9.5	Solid	11/25/20 09:30	11/25/20 17:00	
500-191681-2	B4-0-5	Solid	11/25/20 09:15	11/25/20 17:00	
500-191681-3	B4-5-9	Solid	11/25/20 09:17	11/25/20 17:00	
500-191681-4	B3-0-5	Solid	11/25/20 09:05	11/25/20 17:00	
500-191681-5	B3-5-9	Solid	11/25/20 09:07	11/25/20 17:00	
500-191681-6	B2-0-5	Solid	11/25/20 08:50	11/25/20 17:00	
500-191681-7	B2-5-10	Solid	11/25/20 08:52	11/25/20 17:00	
500-191681-8	B2-10-12	Solid	11/25/20 08:54	11/25/20 17:00	
500-191681-9	B1-0-5	Solid	11/24/20 14:55	11/25/20 17:00	
500-191681-10	B1-5-10	Solid	11/24/20 14:57	11/25/20 17:00	
500-191681-11	B1-10-12.5	Solid	11/24/20 14:59	11/25/20 17:00	
500-191681-12	B10-0-5	Solid	11/25/20 10:07	11/25/20 17:00	
500-191681-13	B10-5-9	Solid	11/25/20 10:09	11/25/20 17:00	
500-191681-14	B9-0-5	Solid	11/25/20 09:58	11/25/20 17:00	
500-191681-15	B9-5-9	Solid	11/25/20 10:00	11/25/20 17:00	
500-191681-16	B8-0-5	Solid	11/25/20 09:50	11/25/20 17:00	
500-191681-17	B8-5-10	Solid	11/25/20 09:52	11/25/20 17:00	
500-191681-18	B7-0-5	Solid	11/25/20 09:40	11/25/20 17:00	
500-191681-19	B7-5-9	Solid	11/25/20 09:42	11/25/20 17:00	
500-191681-20	B6-0-5	Solid	11/25/20 09:31	11/25/20 17:00	
500-191681-21	B6-5-10	Solid	11/25/20 09:33	11/25/20 17:00	
500-191681-22	B5-0-5	Solid	11/25/20 09:28	11/25/20 17:00	

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B5-5-9.5
Date Collected: 11/25/20 09:30
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-1
Matrix: Solid
Percent Solids: 60.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	30	F1 V	1.6	0.54	mg/Kg	☼	12/02/20 06:35	12/03/20 12:08	1
Boron	140	F1 V	7.9	0.73	mg/Kg	☼	12/02/20 06:35	12/03/20 12:08	1
Calcium	12000	F2 V	31	5.3	mg/Kg	☼	12/02/20 06:35	12/03/20 12:08	1
Iron	29000	B V	31	16	mg/Kg	☼	12/02/20 06:35	12/03/20 12:08	1
Lithium	20	F1	1.6	0.47	mg/Kg	☼	12/02/20 06:35	12/03/20 12:08	1
Manganese	170	F1 V	1.6	0.23	mg/Kg	☼	12/02/20 06:35	12/03/20 12:08	1
Molybdenum	35	F1 V	1.6	0.65	mg/Kg	☼	12/02/20 06:35	12/03/20 12:08	1
Thallium	3.4	F1	1.6	0.78	mg/Kg	☼	12/02/20 06:35	12/03/20 12:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU			12/01/20 07:12	1
Chloride	<3.3		3.3	2.8	mg/Kg	☼	12/01/20 11:00	12/01/20 13:41	1
Sulfate	430		16	7.8	mg/Kg	☼	12/01/20 11:00	12/01/20 19:37	5

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191681-1
Project/Site: Waukegan Soil Testing

Client Sample ID: B4-0-5
Lab Sample ID: 500-191681-2
Date Collected: 11/25/20 09:15
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 74.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**31**		1.3	0.43	mg/Kg	☼	12/02/20 06:35	12/03/20 12:30	1
Boron	**260**		6.4	0.59	mg/Kg	☼	12/02/20 06:35	12/03/20 12:30	1
Calcium	**16000**		25	4.3	mg/Kg	☼	12/02/20 06:35	12/03/20 12:30	1
Iron	**36000**	**B**	25	13	mg/Kg	☼	12/02/20 06:35	12/03/20 12:30	1
Lithium	**20**		1.3	0.38	mg/Kg	☼	12/02/20 06:35	12/03/20 12:30	1
Manganese	**150**		1.3	0.18	mg/Kg	☼	12/02/20 06:35	12/03/20 12:30	1
Molybdenum	**8.5**		1.3	0.53	mg/Kg	☼	12/02/20 06:35	12/03/20 12:30	1
Thallium	**2.4**		1.3	0.63	mg/Kg	☼	12/02/20 06:35	12/03/20 12:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.7**		0.2	0.2	SU			12/01/20 07:15	1
Chloride	<2.5		2.5	2.1	mg/Kg	☼	12/01/20 11:00	12/01/20 14:19	1
Sulfate	**700**		25	12	mg/Kg	☼	12/01/20 11:00	12/01/20 19:50	10

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191681-1
Project/Site: Waukegan Soil Testing

Client Sample ID: B4-5-9

Lab Sample ID: 500-191681-3
Date Collected: 11/25/20 09:17
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 64.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	22		1.4	0.49	mg/Kg	☼	12/02/20 06:35	12/03/20 12:33	1
Boron	130		7.1	0.66	mg/Kg	☼	12/02/20 06:35	12/03/20 12:33	1
Calcium	9900		28	4.8	mg/Kg	☼	12/02/20 06:35	12/03/20 12:33	1
Iron	35000	B	28	15	mg/Kg	☼	12/02/20 06:35	12/03/20 12:33	1
Lithium	16		1.4	0.43	mg/Kg	☼	12/02/20 06:35	12/03/20 12:33	1
Manganese	110		1.4	0.21	mg/Kg	☼	12/02/20 06:35	12/03/20 12:33	1
Molybdenum	69		1.4	0.59	mg/Kg	☼	12/02/20 06:35	12/03/20 12:33	1
Thallium	3.4		1.4	0.71	mg/Kg	☼	12/02/20 06:35	12/03/20 12:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			12/01/20 07:17	1
Chloride	<2.9		2.9	2.4	mg/Kg	☼	12/01/20 11:00	12/01/20 14:32	1
Sulfate	280		14	6.8	mg/Kg	☼	12/01/20 11:00	12/01/20 20:03	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B3-0-5

Lab Sample ID: 500-191681-4

Date Collected: 11/25/20 09:05
Date Received: 11/25/20 17:00

Matrix: Solid
Percent Solids: 76.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	46		1.2	0.42	mg/Kg	☼	12/02/20 06:35	12/03/20 12:36	1
Boron	260		6.1	0.57	mg/Kg	☼	12/02/20 06:35	12/03/20 12:36	1
Calcium	18000		25	4.2	mg/Kg	☼	12/02/20 06:35	12/03/20 12:36	1
Iron	33000	B	25	13	mg/Kg	☼	12/02/20 06:35	12/03/20 12:36	1
Lithium	16		1.2	0.37	mg/Kg	☼	12/02/20 06:35	12/03/20 12:36	1
Manganese	160		1.2	0.18	mg/Kg	☼	12/02/20 06:35	12/03/20 12:36	1
Molybdenum	7.1		1.2	0.51	mg/Kg	☼	12/02/20 06:35	12/03/20 12:36	1
Thallium	2.3		1.2	0.61	mg/Kg	☼	12/02/20 06:35	12/03/20 12:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.8		0.2	0.2	SU			12/01/20 07:20	1
Chloride	<2.4		2.4	2.1	mg/Kg	☼	12/01/20 11:00	12/04/20 10:27	1
Sulfate	890		24	12	mg/Kg	☼	12/01/20 11:00	12/01/20 20:15	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B3-5-9

Lab Sample ID: 500-191681-5

Date Collected: 11/25/20 09:07
Date Received: 11/25/20 17:00

Matrix: Solid
Percent Solids: 72.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**17**		1.4	0.47	mg/Kg	☼	12/02/20 06:35	12/03/20 12:39	1
Boron	**99**		6.8	0.63	mg/Kg	☼	12/02/20 06:35	12/03/20 12:39	1
Calcium	**9800**		27	4.6	mg/Kg	☼	12/02/20 06:35	12/03/20 12:39	1
Iron	**31000**	**B**	27	14	mg/Kg	☼	12/02/20 06:35	12/03/20 12:39	1
Lithium	**13**		1.4	0.41	mg/Kg	☼	12/02/20 06:35	12/03/20 12:39	1
Manganese	**120**		1.4	0.20	mg/Kg	☼	12/02/20 06:35	12/03/20 12:39	1
Molybdenum	**10**		1.4	0.57	mg/Kg	☼	12/02/20 06:35	12/03/20 12:39	1
Thallium	**1.9**		1.4	0.68	mg/Kg	☼	12/02/20 06:35	12/03/20 12:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.8**		0.2	0.2	SU			12/01/20 07:22	1
Chloride	<2.5		2.5	2.2	mg/Kg	☼	12/01/20 11:00	12/01/20 14:58	1
Sulfate	**480**		13	6.0	mg/Kg	☼	12/01/20 11:00	12/01/20 20:28	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B2-0-5

Date Collected: 11/25/20 08:50
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-6
Matrix: Solid
Percent Solids: 78.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**18**		1.2	0.41	mg/Kg	☼	12/02/20 06:35	12/03/20 12:42	1
Boron	**520**		6.1	0.56	mg/Kg	☼	12/02/20 06:35	12/03/20 12:42	1
Calcium	**27000**		24	4.1	mg/Kg	☼	12/02/20 06:35	12/03/20 12:42	1
Iron	**43000**	**B**	24	13	mg/Kg	☼	12/02/20 06:35	12/03/20 12:42	1
Lithium	**16**		1.2	0.36	mg/Kg	☼	12/02/20 06:35	12/03/20 12:42	1
Manganese	**190**		1.2	0.18	mg/Kg	☼	12/02/20 06:35	12/03/20 12:42	1
Molybdenum	**12**		1.2	0.50	mg/Kg	☼	12/02/20 06:35	12/03/20 12:42	1
Thallium	**1.9**		1.2	0.60	mg/Kg	☼	12/02/20 06:35	12/03/20 12:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**9.0**		0.2	0.2	SU			12/01/20 07:25	1
Chloride	<2.5		2.5	2.1	mg/Kg	☼	12/01/20 11:00	12/01/20 15:10	1
Sulfate	**630**		25	12	mg/Kg	☼	12/01/20 11:00	12/01/20 20:41	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

1 2 3 4 5 6 7 8 9 10 11 12 13

Client Sample ID: B2-5-10

Date Collected: 11/25/20 08:52
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-7

Matrix: Solid
Percent Solids: 80.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**11**		1.2	0.41	mg/Kg	☼	12/02/20 06:35	12/03/20 12:45	1
Boron	**540**		6.0	0.56	mg/Kg	☼	12/02/20 06:35	12/03/20 12:45	1
Calcium	**23000**		24	4.1	mg/Kg	☼	12/02/20 06:35	12/03/20 12:45	1
Iron	**50000**	**B**	24	13	mg/Kg	☼	12/02/20 06:35	12/03/20 12:45	1
Lithium	**15**		1.2	0.36	mg/Kg	☼	12/02/20 06:35	12/03/20 12:45	1
Manganese	**200**		1.2	0.17	mg/Kg	☼	12/02/20 06:35	12/03/20 12:45	1
Molybdenum	**12**		1.2	0.50	mg/Kg	☼	12/02/20 06:35	12/03/20 12:45	1
Thallium	**1.4**		1.2	0.60	mg/Kg	☼	12/02/20 06:35	12/03/20 12:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**9.0**		0.2	0.2	SU			12/01/20 07:27	1
Chloride	<2.4		2.4	2.1	mg/Kg	☼	12/01/20 11:00	12/01/20 15:23	1
Sulfate	**600**		24	12	mg/Kg	☼	12/01/20 11:00	12/01/20 20:54	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B2-10-12
Date Collected: 11/25/20 08:54
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-8
Matrix: Solid
Percent Solids: 74.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.2**		6.3	2.2	mg/Kg	☼	12/02/20 06:35	12/03/20 19:20	5
Boron	**260**		6.3	0.59	mg/Kg	☼	12/02/20 06:35	12/03/20 12:49	1
Calcium	**20000**		25	4.3	mg/Kg	☼	12/02/20 06:35	12/03/20 12:49	1
Iron	**120000**	**B**	130	66	mg/Kg	☼	12/02/20 06:35	12/03/20 19:20	5
Lithium	**27**		1.3	0.38	mg/Kg	☼	12/02/20 06:35	12/03/20 12:49	1
Manganese	**250**		1.3	0.18	mg/Kg	☼	12/02/20 06:35	12/03/20 12:49	1
Molybdenum	**29**		6.3	2.6	mg/Kg	☼	12/02/20 06:35	12/03/20 19:20	5
Thallium	<6.3		6.3	3.1	mg/Kg	☼	12/02/20 06:35	12/03/20 19:20	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.9**		0.2	0.2	SU			12/01/20 07:32	1
Chloride	<2.5		2.5	2.1	mg/Kg	☼	12/01/20 11:00	12/01/20 15:36	1
Sulfate	**750**		25	12	mg/Kg	☼	12/01/20 11:00	12/01/20 21:07	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B1-0-5
Date Collected: 11/24/20 14:55
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-9
Matrix: Solid
Percent Solids: 73.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	44		1.3	0.46	mg/Kg	☼	12/02/20 06:35	12/03/20 12:58	1
Boron	400		6.7	0.62	mg/Kg	☼	12/02/20 06:35	12/03/20 12:58	1
Calcium	38000		27	4.5	mg/Kg	☼	12/02/20 06:35	12/03/20 12:58	1
Iron	41000	B	27	14	mg/Kg	☼	12/02/20 06:35	12/03/20 12:58	1
Lithium	19		1.3	0.40	mg/Kg	☼	12/02/20 06:35	12/03/20 12:58	1
Manganese	180		1.3	0.19	mg/Kg	☼	12/02/20 06:35	12/03/20 12:58	1
Molybdenum	14		1.3	0.55	mg/Kg	☼	12/02/20 06:35	12/03/20 12:58	1
Thallium	2.6		1.3	0.66	mg/Kg	☼	12/02/20 06:35	12/03/20 12:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.8		0.2	0.2	SU			12/01/20 07:35	1
Chloride	2.3	J	2.6	2.2	mg/Kg	☼	12/01/20 11:00	12/01/20 15:48	1
Sulfate	560		26	12	mg/Kg	☼	12/01/20 11:00	12/01/20 21:19	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B1-5-10
Date Collected: 11/24/20 14:57
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-10
Matrix: Solid
Percent Solids: 77.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**21**		1.2	0.42	mg/Kg	☼	12/02/20 06:35	12/03/20 13:01	1
Boron	**250**		6.1	0.57	mg/Kg	☼	12/02/20 06:35	12/03/20 13:01	1
Calcium	**18000**		25	4.2	mg/Kg	☼	12/02/20 06:35	12/03/20 13:01	1
Iron	**41000**	**B**	25	13	mg/Kg	☼	12/02/20 06:35	12/03/20 13:01	1
Lithium	**17**		1.2	0.37	mg/Kg	☼	12/02/20 06:35	12/03/20 13:01	1
Manganese	**140**		1.2	0.18	mg/Kg	☼	12/02/20 06:35	12/03/20 13:01	1
Molybdenum	**11**		1.2	0.51	mg/Kg	☼	12/02/20 06:35	12/03/20 13:01	1
Thallium	**1.8**		1.2	0.61	mg/Kg	☼	12/02/20 06:35	12/03/20 13:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.9**		0.2	0.2	SU			12/01/20 07:40	1
Chloride	<2.5		2.5	2.2	mg/Kg	☼	12/01/20 11:00	12/01/20 16:01	1
Sulfate	**780**		25	12	mg/Kg	☼	12/01/20 11:00	12/01/20 21:32	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B1-10-12.5
Date Collected: 11/24/20 14:59
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-11
Matrix: Solid
Percent Solids: 71.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**10**		6.3	2.2	mg/Kg	☼	12/02/20 06:35	12/03/20 19:23	5
Boron	**280**		6.3	0.59	mg/Kg	☼	12/02/20 06:35	12/03/20 13:04	1
Calcium	**30000**		25	4.3	mg/Kg	☼	12/02/20 06:35	12/03/20 13:04	1
Iron	**190000**	**B**	130	66	mg/Kg	☼	12/02/20 06:35	12/03/20 19:23	5
Lithium	**44**		1.3	0.38	mg/Kg	☼	12/02/20 06:35	12/03/20 13:04	1
Manganese	**430**		1.3	0.18	mg/Kg	☼	12/02/20 06:35	12/03/20 13:04	1
Molybdenum	**20**		6.3	2.6	mg/Kg	☼	12/02/20 06:35	12/03/20 19:23	5
Thallium	<6.3		6.3	3.2	mg/Kg	☼	12/02/20 06:35	12/03/20 19:23	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.8**		0.2	0.2	SU			12/01/20 07:42	1
Chloride	**9.3**		2.6	2.2	mg/Kg	☼	12/01/20 11:00	12/01/20 16:14	1
Sulfate	**580**		26	12	mg/Kg	☼	12/01/20 11:00	12/01/20 22:10	10

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191681-1
Project/Site: Waukegan Soil Testing

Client Sample ID: B10-0-5

Lab Sample ID: 500-191681-12

Date Collected: 11/25/20 10:07
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 77.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	62		1.1	0.39	mg/Kg	☼	12/02/20 06:35	12/03/20 13:08	1
Boron	110		5.7	0.54	mg/Kg	☼	12/02/20 06:35	12/03/20 13:08	1
Calcium	8300		23	3.9	mg/Kg	☼	12/02/20 06:35	12/03/20 13:08	1
Iron	43000	B	23	12	mg/Kg	☼	12/02/20 06:35	12/03/20 13:08	1
Lithium	15		1.1	0.34	mg/Kg	☼	12/02/20 06:35	12/03/20 13:08	1
Manganese	180		1.1	0.17	mg/Kg	☼	12/02/20 06:35	12/03/20 13:08	1
Molybdenum	5.1		1.1	0.48	mg/Kg	☼	12/02/20 06:35	12/03/20 13:08	1
Thallium	3.9		1.1	0.57	mg/Kg	☼	12/02/20 06:35	12/03/20 13:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.2	0.2	SU			12/01/20 07:45	1
Chloride	<2.5		2.5	2.1	mg/Kg	☼	12/01/20 11:00	12/01/20 17:05	1
Sulfate	46		2.5	1.2	mg/Kg	☼	12/01/20 11:00	12/01/20 17:05	1

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B10-5-9
Date Collected: 11/25/20 10:09
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-13
Matrix: Solid
Percent Solids: 74.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	52		1.1	0.39	mg/Kg	☼	12/02/20 06:35	12/03/20 13:11	1
Boron	120		5.7	0.53	mg/Kg	☼	12/02/20 06:35	12/03/20 13:11	1
Calcium	16000		23	3.9	mg/Kg	☼	12/02/20 06:35	12/03/20 13:11	1
Iron	46000	B	23	12	mg/Kg	☼	12/02/20 06:35	12/03/20 13:11	1
Lithium	17		1.1	0.34	mg/Kg	☼	12/02/20 06:35	12/03/20 13:11	1
Manganese	140		1.1	0.17	mg/Kg	☼	12/02/20 06:35	12/03/20 13:11	1
Molybdenum	11		1.1	0.47	mg/Kg	☼	12/02/20 06:35	12/03/20 13:11	1
Thallium	2.2		1.1	0.57	mg/Kg	☼	12/02/20 06:35	12/03/20 13:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.2	0.2	SU			12/01/20 07:47	1
Chloride	<2.5		2.5	2.2	mg/Kg	☼	12/01/20 11:00	12/01/20 17:17	1
Sulfate	6000		250	120	mg/Kg	☼	12/01/20 11:00	12/01/20 22:23	100

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B9-0-5
Date Collected: 11/25/20 09:58
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-14
Matrix: Solid
Percent Solids: 81.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17		1.2	0.40	mg/Kg	☼	12/02/20 06:35	12/03/20 13:14	1
Boron	110		5.9	0.55	mg/Kg	☼	12/02/20 06:35	12/03/20 13:14	1
Calcium	21000		24	4.0	mg/Kg	☼	12/02/20 06:35	12/03/20 13:14	1
Iron	49000	B	24	12	mg/Kg	☼	12/02/20 06:35	12/03/20 13:14	1
Lithium	18		1.2	0.35	mg/Kg	☼	12/02/20 06:35	12/03/20 13:14	1
Manganese	230		1.2	0.17	mg/Kg	☼	12/02/20 06:35	12/03/20 13:14	1
Molybdenum	4.9		1.2	0.49	mg/Kg	☼	12/02/20 06:35	12/03/20 13:14	1
Thallium	0.72	J	1.2	0.59	mg/Kg	☼	12/02/20 06:35	12/03/20 13:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.2	0.2	SU			12/01/20 07:50	1
Chloride	<2.4	F2	2.4	2.1	mg/Kg	☼	12/01/20 13:00	12/01/20 14:47	1
Sulfate	28		2.4	1.2	mg/Kg	☼	12/01/20 13:00	12/01/20 14:47	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B9-5-9
Date Collected: 11/25/20 10:00
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-15
Matrix: Solid
Percent Solids: 67.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20		1.4	0.47	mg/Kg	☼	12/02/20 06:35	12/03/20 13:17	1
Boron	150		6.8	0.63	mg/Kg	☼	12/02/20 06:35	12/03/20 13:17	1
Calcium	15000		27	4.6	mg/Kg	☼	12/02/20 06:35	12/03/20 13:17	1
Iron	43000	B	27	14	mg/Kg	☼	12/02/20 06:35	12/03/20 13:17	1
Lithium	18		1.4	0.41	mg/Kg	☼	12/02/20 06:35	12/03/20 13:17	1
Manganese	140		1.4	0.20	mg/Kg	☼	12/02/20 06:35	12/03/20 13:17	1
Molybdenum	7.6		1.4	0.56	mg/Kg	☼	12/02/20 06:35	12/03/20 13:17	1
Thallium	4.0		1.4	0.68	mg/Kg	☼	12/02/20 06:35	12/03/20 13:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			12/01/20 07:52	1
Chloride	<3.0		3.0	2.5	mg/Kg	☼	12/01/20 13:00	12/01/20 15:28	1
Sulfate	77		3.0	1.4	mg/Kg	☼	12/01/20 13:00	12/01/20 15:28	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B8-0-5
Date Collected: 11/25/20 09:50
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-16
Matrix: Solid
Percent Solids: 73.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	37		1.3	0.46	mg/Kg	☼	12/02/20 06:35	12/03/20 13:21	1
Boron	120		6.7	0.62	mg/Kg	☼	12/02/20 06:35	12/03/20 13:21	1
Calcium	22000		27	4.5	mg/Kg	☼	12/02/20 06:35	12/03/20 13:21	1
Iron	39000	B	27	14	mg/Kg	☼	12/02/20 06:35	12/03/20 13:21	1
Lithium	13		1.3	0.40	mg/Kg	☼	12/02/20 06:35	12/03/20 13:21	1
Manganese	240		1.3	0.19	mg/Kg	☼	12/02/20 06:35	12/03/20 13:21	1
Molybdenum	3.2		1.3	0.55	mg/Kg	☼	12/02/20 06:35	12/03/20 13:21	1
Thallium	1.7		1.3	0.66	mg/Kg	☼	12/02/20 06:35	12/03/20 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU			12/01/20 07:55	1
Chloride	<2.7		2.7	2.3	mg/Kg	☼	12/01/20 13:00	12/01/20 15:41	1
Sulfate	190		13	6.4	mg/Kg	☼	12/01/20 13:00	12/01/20 20:40	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B8-5-10
Date Collected: 11/25/20 09:52
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-17
Matrix: Solid
Percent Solids: 66.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	23		1.3	0.45	mg/Kg	☼	12/02/20 06:35	12/03/20 13:24	1
Boron	180		6.5	0.61	mg/Kg	☼	12/02/20 06:35	12/03/20 13:24	1
Calcium	9900		26	4.4	mg/Kg	☼	12/02/20 06:35	12/03/20 13:24	1
Iron	49000	B	26	14	mg/Kg	☼	12/02/20 06:35	12/03/20 13:24	1
Lithium	15		1.3	0.39	mg/Kg	☼	12/02/20 06:35	12/03/20 13:24	1
Manganese	140		1.3	0.19	mg/Kg	☼	12/02/20 06:35	12/03/20 13:24	1
Molybdenum	13		1.3	0.54	mg/Kg	☼	12/02/20 06:35	12/03/20 13:24	1
Thallium	3.9		1.3	0.65	mg/Kg	☼	12/02/20 06:35	12/03/20 13:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.4		0.2	0.2	SU			12/01/20 08:00	1
Chloride	<2.9		2.9	2.5	mg/Kg	☼	12/01/20 13:00	12/01/20 15:55	1
Sulfate	840		29	14	mg/Kg	☼	12/01/20 13:00	12/01/20 20:54	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B7-0-5
Date Collected: 11/25/20 09:40
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-18
Matrix: Solid
Percent Solids: 75.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	36		1.2	0.42	mg/Kg	☼	12/02/20 06:35	12/03/20 13:27	1
Boron	170		6.2	0.58	mg/Kg	☼	12/02/20 06:35	12/03/20 13:27	1
Calcium	18000		25	4.2	mg/Kg	☼	12/02/20 06:35	12/03/20 13:27	1
Iron	37000	B	25	13	mg/Kg	☼	12/02/20 06:35	12/03/20 13:27	1
Lithium	20		1.2	0.37	mg/Kg	☼	12/02/20 06:35	12/03/20 13:27	1
Manganese	190		1.2	0.18	mg/Kg	☼	12/02/20 06:35	12/03/20 13:27	1
Molybdenum	5.8		1.2	0.51	mg/Kg	☼	12/02/20 06:35	12/03/20 13:27	1
Thallium	1.6		1.2	0.62	mg/Kg	☼	12/02/20 06:35	12/03/20 13:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.2	0.2	SU			12/01/20 08:02	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/01/20 13:00	12/01/20 16:08	1
Sulfate	970		26	12	mg/Kg	☼	12/01/20 13:00	12/01/20 21:08	10

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B7-5-9
Date Collected: 11/25/20 09:42
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-19
Matrix: Solid
Percent Solids: 64.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	30		1.3	0.44	mg/Kg	☼	12/02/20 06:35	12/03/20 13:53	1
Boron	180		6.5	0.61	mg/Kg	☼	12/02/20 06:35	12/03/20 13:53	1
Calcium	11000		26	4.4	mg/Kg	☼	12/02/20 06:35	12/03/20 13:53	1
Iron	47000	B	26	14	mg/Kg	☼	12/02/20 06:35	12/03/20 13:53	1
Lithium	17		1.3	0.39	mg/Kg	☼	12/02/20 06:35	12/03/20 13:53	1
Manganese	160		1.3	0.19	mg/Kg	☼	12/02/20 06:35	12/03/20 13:53	1
Molybdenum	13		1.3	0.54	mg/Kg	☼	12/02/20 06:35	12/03/20 13:53	1
Thallium	3.8		1.3	0.65	mg/Kg	☼	12/02/20 06:35	12/03/20 13:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.2	0.2	SU			12/01/20 08:05	1
Chloride	<2.9		2.9	2.5	mg/Kg	☼	12/01/20 13:00	12/01/20 16:22	1
Sulfate	490		15	7.0	mg/Kg	☼	12/01/20 13:00	12/01/20 21:21	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B6-0-5
Date Collected: 11/25/20 09:31
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-20
Matrix: Solid
Percent Solids: 70.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	42		1.3	0.46	mg/Kg	☼	12/02/20 06:35	12/03/20 13:56	1
Boron	160		6.7	0.62	mg/Kg	☼	12/02/20 06:35	12/03/20 13:56	1
Calcium	14000		27	4.5	mg/Kg	☼	12/02/20 06:35	12/03/20 13:56	1
Iron	36000	B	27	14	mg/Kg	☼	12/02/20 06:35	12/03/20 13:56	1
Lithium	19		1.3	0.40	mg/Kg	☼	12/02/20 06:35	12/03/20 13:56	1
Manganese	160		1.3	0.19	mg/Kg	☼	12/02/20 06:35	12/03/20 13:56	1
Molybdenum	3.5		1.3	0.55	mg/Kg	☼	12/02/20 06:35	12/03/20 13:56	1
Thallium	2.1		1.3	0.67	mg/Kg	☼	12/02/20 06:35	12/03/20 13:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU			12/01/20 08:07	1
Chloride	<2.8		2.8	2.4	mg/Kg	☼	12/01/20 13:00	12/01/20 17:03	1
Sulfate	63		2.8	1.3	mg/Kg	☼	12/01/20 13:00	12/01/20 17:03	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B6-5-10
Date Collected: 11/25/20 09:33
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-21
Matrix: Solid
Percent Solids: 71.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	35		1.3	0.43	mg/Kg	☼	12/02/20 06:56	12/02/20 18:26	1
Boron	230	B	6.3	0.58	mg/Kg	☼	12/02/20 06:56	12/02/20 18:26	1
Calcium	11000		25	4.2	mg/Kg	☼	12/02/20 06:56	12/02/20 18:26	1
Iron	35000		25	13	mg/Kg	☼	12/02/20 06:56	12/02/20 18:26	1
Lithium	19		1.3	0.37	mg/Kg	☼	12/02/20 06:56	12/02/20 18:26	1
Manganese	110		1.3	0.18	mg/Kg	☼	12/02/20 06:56	12/02/20 18:26	1
Molybdenum	8.5		1.3	0.52	mg/Kg	☼	12/02/20 06:56	12/02/20 18:26	1
Thallium	2.4		1.3	0.63	mg/Kg	☼	12/02/20 06:56	12/02/20 18:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.0		0.2	0.2	SU			12/01/20 08:10	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/01/20 13:00	12/01/20 17:16	1
Sulfate	610		26	12	mg/Kg	☼	12/01/20 13:00	12/01/20 21:35	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B5-0-5
Date Collected: 11/25/20 09:28
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-22
Matrix: Solid
Percent Solids: 68.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	35		1.3	0.46	mg/Kg	☼	12/02/20 06:56	12/02/20 18:39	1
Boron	160	B	6.7	0.63	mg/Kg	☼	12/02/20 06:56	12/02/20 18:39	1
Calcium	21000		27	4.5	mg/Kg	☼	12/02/20 06:56	12/02/20 18:39	1
Iron	35000		27	14	mg/Kg	☼	12/02/20 06:56	12/02/20 18:39	1
Lithium	16		1.3	0.40	mg/Kg	☼	12/02/20 06:56	12/02/20 18:39	1
Manganese	250		1.3	0.19	mg/Kg	☼	12/02/20 06:56	12/02/20 18:39	1
Molybdenum	3.6		1.3	0.56	mg/Kg	☼	12/02/20 06:56	12/02/20 18:39	1
Thallium	2.8		1.3	0.67	mg/Kg	☼	12/02/20 06:56	12/02/20 18:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			12/01/20 08:12	1
Chloride	<2.7		2.7	2.3	mg/Kg	☼	12/01/20 13:00	12/01/20 17:30	1
Sulfate	160		5.3	2.5	mg/Kg	☼	12/01/20 13:00	12/01/20 21:48	2

Definitions/Glossary

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
V	Serial Dilution exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Metals

Prep Batch: 574861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-1	B5-5-9.5	Total/NA	Solid	3050B	
500-191681-2	B4-0-5	Total/NA	Solid	3050B	
500-191681-3	B4-5-9	Total/NA	Solid	3050B	
500-191681-4	B3-0-5	Total/NA	Solid	3050B	
500-191681-5	B3-5-9	Total/NA	Solid	3050B	
500-191681-6	B2-0-5	Total/NA	Solid	3050B	
500-191681-7	B2-5-10	Total/NA	Solid	3050B	
500-191681-8	B2-10-12	Total/NA	Solid	3050B	
500-191681-9	B1-0-5	Total/NA	Solid	3050B	
500-191681-10	B1-5-10	Total/NA	Solid	3050B	
500-191681-11	B1-10-12.5	Total/NA	Solid	3050B	
500-191681-12	B10-0-5	Total/NA	Solid	3050B	
500-191681-13	B10-5-9	Total/NA	Solid	3050B	
500-191681-14	B9-0-5	Total/NA	Solid	3050B	
500-191681-15	B9-5-9	Total/NA	Solid	3050B	
500-191681-16	B8-0-5	Total/NA	Solid	3050B	
500-191681-17	B8-5-10	Total/NA	Solid	3050B	
500-191681-18	B7-0-5	Total/NA	Solid	3050B	
500-191681-19	B7-5-9	Total/NA	Solid	3050B	
500-191681-20	B6-0-5	Total/NA	Solid	3050B	
MB 500-574861/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-574861/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-191681-1 MS	B5-5-9.5	Total/NA	Solid	3050B	
500-191681-1 MSD	B5-5-9.5	Total/NA	Solid	3050B	
500-191681-1 DU	B5-5-9.5	Total/NA	Solid	3050B	

Prep Batch: 574875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-21	B6-5-10	Total/NA	Solid	3050B	
500-191681-22	B5-0-5	Total/NA	Solid	3050B	
MB 500-574875/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-574875/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 575088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-21	B6-5-10	Total/NA	Solid	6010B	574875
500-191681-22	B5-0-5	Total/NA	Solid	6010B	574875
MB 500-574875/1-A	Method Blank	Total/NA	Solid	6010B	574875
LCS 500-574875/2-A	Lab Control Sample	Total/NA	Solid	6010B	574875

Analysis Batch: 575218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-1	B5-5-9.5	Total/NA	Solid	6010B	574861
500-191681-2	B4-0-5	Total/NA	Solid	6010B	574861
500-191681-3	B4-5-9	Total/NA	Solid	6010B	574861
500-191681-4	B3-0-5	Total/NA	Solid	6010B	574861
500-191681-5	B3-5-9	Total/NA	Solid	6010B	574861
500-191681-6	B2-0-5	Total/NA	Solid	6010B	574861
500-191681-7	B2-5-10	Total/NA	Solid	6010B	574861
500-191681-8	B2-10-12	Total/NA	Solid	6010B	574861
500-191681-9	B1-0-5	Total/NA	Solid	6010B	574861

QC Association Summary

Metals (Continued)

Analysis Batch: 575218 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-10	B1-5-10	Total/NA	Solid	6010B	574861
500-191681-11	B1-10-12.5	Total/NA	Solid	6010B	574861
500-191681-12	B10-0-5	Total/NA	Solid	6010B	574861
500-191681-13	B10-5-9	Total/NA	Solid	6010B	574861
500-191681-14	B9-0-5	Total/NA	Solid	6010B	574861
500-191681-15	B9-5-9	Total/NA	Solid	6010B	574861
500-191681-16	B8-0-5	Total/NA	Solid	6010B	574861
500-191681-17	B8-5-10	Total/NA	Solid	6010B	574861
500-191681-18	B7-0-5	Total/NA	Solid	6010B	574861
500-191681-19	B7-5-9	Total/NA	Solid	6010B	574861
500-191681-20	B6-0-5	Total/NA	Solid	6010B	574861
MB 500-574861/1-A	Method Blank	Total/NA	Solid	6010B	574861
LCS 500-574861/2-A	Lab Control Sample	Total/NA	Solid	6010B	574861
500-191681-1 MS	B5-5-9.5	Total/NA	Solid	6010B	574861
500-191681-1 MSD	B5-5-9.5	Total/NA	Solid	6010B	574861
500-191681-1 DU	B5-5-9.5	Total/NA	Solid	6010B	574861

Analysis Batch: 575346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-8	B2-10-12	Total/NA	Solid	6010B	574861
500-191681-11	B1-10-12.5	Total/NA	Solid	6010B	574861

General Chemistry

Analysis Batch: 574491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-1	B5-5-9.5	Total/NA	Solid	Moisture	
500-191681-2	B4-0-5	Total/NA	Solid	Moisture	
500-191681-3	B4-5-9	Total/NA	Solid	Moisture	
500-191681-4	B3-0-5	Total/NA	Solid	Moisture	
500-191681-5	B3-5-9	Total/NA	Solid	Moisture	
500-191681-6	B2-0-5	Total/NA	Solid	Moisture	
500-191681-7	B2-5-10	Total/NA	Solid	Moisture	
500-191681-8	B2-10-12	Total/NA	Solid	Moisture	
500-191681-9	B1-0-5	Total/NA	Solid	Moisture	
500-191681-10	B1-5-10	Total/NA	Solid	Moisture	
500-191681-11	B1-10-12.5	Total/NA	Solid	Moisture	
500-191681-12	B10-0-5	Total/NA	Solid	Moisture	
500-191681-13	B10-5-9	Total/NA	Solid	Moisture	
500-191681-14	B9-0-5	Total/NA	Solid	Moisture	
500-191681-15	B9-5-9	Total/NA	Solid	Moisture	
500-191681-16	B8-0-5	Total/NA	Solid	Moisture	
500-191681-17	B8-5-10	Total/NA	Solid	Moisture	
500-191681-18	B7-0-5	Total/NA	Solid	Moisture	
500-191681-19	B7-5-9	Total/NA	Solid	Moisture	
500-191681-20	B6-0-5	Total/NA	Solid	Moisture	
500-191681-9 DU	B1-0-5	Total/NA	Solid	Moisture	

Analysis Batch: 574520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-21	B6-5-10	Total/NA	Solid	Moisture	

QC Association Summary

General Chemistry (Continued)

Analysis Batch: 574520 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-22	B5-0-5	Total/NA	Solid	Moisture	

Prep Batch: 574542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-1	B5-5-9.5	Total/NA	Solid	300_Prep	
500-191681-2	B4-0-5	Total/NA	Solid	300_Prep	
500-191681-3	B4-5-9	Total/NA	Solid	300_Prep	
500-191681-4	B3-0-5	Total/NA	Solid	300_Prep	
500-191681-5	B3-5-9	Total/NA	Solid	300_Prep	
500-191681-6	B2-0-5	Total/NA	Solid	300_Prep	
500-191681-7	B2-5-10	Total/NA	Solid	300_Prep	
500-191681-8	B2-10-12	Total/NA	Solid	300_Prep	
500-191681-9	B1-0-5	Total/NA	Solid	300_Prep	
500-191681-10	B1-5-10	Total/NA	Solid	300_Prep	
500-191681-11	B1-10-12.5	Total/NA	Solid	300_Prep	
500-191681-12	B10-0-5	Total/NA	Solid	300_Prep	
500-191681-13	B10-5-9	Total/NA	Solid	300_Prep	
MB 500-574542/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 500-574542/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
500-191681-13 MS	B10-5-9	Total/NA	Solid	300_Prep	
500-191681-13 MSD	B10-5-9	Total/NA	Solid	300_Prep	

Analysis Batch: 574692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-1	B5-5-9.5	Total/NA	Solid	9045C	
500-191681-2	B4-0-5	Total/NA	Solid	9045C	
500-191681-3	B4-5-9	Total/NA	Solid	9045C	
500-191681-4	B3-0-5	Total/NA	Solid	9045C	
500-191681-5	B3-5-9	Total/NA	Solid	9045C	
500-191681-6	B2-0-5	Total/NA	Solid	9045C	
500-191681-7	B2-5-10	Total/NA	Solid	9045C	
500-191681-8	B2-10-12	Total/NA	Solid	9045C	
500-191681-9	B1-0-5	Total/NA	Solid	9045C	
500-191681-10	B1-5-10	Total/NA	Solid	9045C	
500-191681-11	B1-10-12.5	Total/NA	Solid	9045C	
500-191681-12	B10-0-5	Total/NA	Solid	9045C	
500-191681-13	B10-5-9	Total/NA	Solid	9045C	
500-191681-14	B9-0-5	Total/NA	Solid	9045C	
500-191681-15	B9-5-9	Total/NA	Solid	9045C	
500-191681-16	B8-0-5	Total/NA	Solid	9045C	
500-191681-17	B8-5-10	Total/NA	Solid	9045C	
500-191681-18	B7-0-5	Total/NA	Solid	9045C	
500-191681-19	B7-5-9	Total/NA	Solid	9045C	
500-191681-20	B6-0-5	Total/NA	Solid	9045C	
500-191681-21	B6-5-10	Total/NA	Solid	9045C	
500-191681-22	B5-0-5	Total/NA	Solid	9045C	
LCS 500-574692/2	Lab Control Sample	Total/NA	Solid	9045C	
LCSD 500-574692/3	Lab Control Sample Dup	Total/NA	Solid	9045C	
500-191681-9 DU	B1-0-5	Total/NA	Solid	9045C	

General Chemistry

Prep Batch: 574695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-14	B9-0-5	Total/NA	Solid	300_Prep	
500-191681-15	B9-5-9	Total/NA	Solid	300_Prep	
500-191681-16	B8-0-5	Total/NA	Solid	300_Prep	
500-191681-17	B8-5-10	Total/NA	Solid	300_Prep	
500-191681-18	B7-0-5	Total/NA	Solid	300_Prep	
500-191681-19	B7-5-9	Total/NA	Solid	300_Prep	
500-191681-20	B6-0-5	Total/NA	Solid	300_Prep	
500-191681-21	B6-5-10	Total/NA	Solid	300_Prep	
500-191681-22	B5-0-5	Total/NA	Solid	300_Prep	
MB 500-574695/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 500-574695/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
500-191681-14 MS	B9-0-5	Total/NA	Solid	300_Prep	
500-191681-14 MSD	B9-0-5	Total/NA	Solid	300_Prep	

Analysis Batch: 574748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-1	B5-5-9.5	Total/NA	Solid	9056A	574542
500-191681-1	B5-5-9.5	Total/NA	Solid	9056A	574542
500-191681-2	B4-0-5	Total/NA	Solid	9056A	574542
500-191681-2	B4-0-5	Total/NA	Solid	9056A	574542
500-191681-3	B4-5-9	Total/NA	Solid	9056A	574542
500-191681-3	B4-5-9	Total/NA	Solid	9056A	574542
500-191681-4	B3-0-5	Total/NA	Solid	9056A	574542
500-191681-5	B3-5-9	Total/NA	Solid	9056A	574542
500-191681-5	B3-5-9	Total/NA	Solid	9056A	574542
500-191681-6	B2-0-5	Total/NA	Solid	9056A	574542
500-191681-6	B2-0-5	Total/NA	Solid	9056A	574542
500-191681-7	B2-5-10	Total/NA	Solid	9056A	574542
500-191681-7	B2-5-10	Total/NA	Solid	9056A	574542
500-191681-8	B2-10-12	Total/NA	Solid	9056A	574542
500-191681-8	B2-10-12	Total/NA	Solid	9056A	574542
500-191681-9	B1-0-5	Total/NA	Solid	9056A	574542
500-191681-9	B1-0-5	Total/NA	Solid	9056A	574542
500-191681-10	B1-5-10	Total/NA	Solid	9056A	574542
500-191681-10	B1-5-10	Total/NA	Solid	9056A	574542
500-191681-11	B1-10-12.5	Total/NA	Solid	9056A	574542
500-191681-11	B1-10-12.5	Total/NA	Solid	9056A	574542
500-191681-12	B10-0-5	Total/NA	Solid	9056A	574542
500-191681-13	B10-5-9	Total/NA	Solid	9056A	574542
500-191681-13	B10-5-9	Total/NA	Solid	9056A	574542
MB 500-574542/1-A	Method Blank	Total/NA	Solid	9056A	574542
LCS 500-574542/2-A	Lab Control Sample	Total/NA	Solid	9056A	574542
500-191681-13 MS	B10-5-9	Total/NA	Solid	9056A	574542
500-191681-13 MS	B10-5-9	Total/NA	Solid	9056A	574542
500-191681-13 MSD	B10-5-9	Total/NA	Solid	9056A	574542
500-191681-13 MSD	B10-5-9	Total/NA	Solid	9056A	574542

Analysis Batch: 574756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-14	B9-0-5	Total/NA	Solid	9056A	574695
500-191681-15	B9-5-9	Total/NA	Solid	9056A	574695

General Chemistry (Continued)

Analysis Batch: 574756 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-16	B8-0-5	Total/NA	Solid	9056A	574695
500-191681-16	B8-0-5	Total/NA	Solid	9056A	574695
500-191681-17	B8-5-10	Total/NA	Solid	9056A	574695
500-191681-17	B8-5-10	Total/NA	Solid	9056A	574695
500-191681-18	B7-0-5	Total/NA	Solid	9056A	574695
500-191681-18	B7-0-5	Total/NA	Solid	9056A	574695
500-191681-19	B7-5-9	Total/NA	Solid	9056A	574695
500-191681-19	B7-5-9	Total/NA	Solid	9056A	574695
500-191681-20	B6-0-5	Total/NA	Solid	9056A	574695
500-191681-21	B6-5-10	Total/NA	Solid	9056A	574695
500-191681-21	B6-5-10	Total/NA	Solid	9056A	574695
500-191681-22	B5-0-5	Total/NA	Solid	9056A	574695
500-191681-22	B5-0-5	Total/NA	Solid	9056A	574695
MB 500-574695/1-A	Method Blank	Total/NA	Solid	9056A	574695
LCS 500-574695/2-A	Lab Control Sample	Total/NA	Solid	9056A	574695
500-191681-14 MS	B9-0-5	Total/NA	Solid	9056A	574695
500-191681-14 MSD	B9-0-5	Total/NA	Solid	9056A	574695

Analysis Batch: 575421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191681-4	B3-0-5	Total/NA	Solid	9056A	574542
MB 500-574542/1-A	Method Blank	Total/NA	Solid	9056A	574542
LCS 500-574542/2-A	Lab Control Sample	Total/NA	Solid	9056A	574542

QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-574861/1-A
Matrix: Solid
Analysis Batch: 575218

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574861

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.0		1.0	0.34	mg/Kg		12/02/20 06:35	12/03/20 12:01	1
Boron	<5.0		5.0	0.47	mg/Kg		12/02/20 06:35	12/03/20 12:01	1
Calcium	<20		20	3.4	mg/Kg		12/02/20 06:35	12/03/20 12:01	1
Iron	11.7	J	20	10	mg/Kg		12/02/20 06:35	12/03/20 12:01	1
Lithium	<1.0		1.0	0.30	mg/Kg		12/02/20 06:35	12/03/20 12:01	1
Manganese	<1.0		1.0	0.15	mg/Kg		12/02/20 06:35	12/03/20 12:01	1
Molybdenum	<1.0		1.0	0.42	mg/Kg		12/02/20 06:35	12/03/20 12:01	1
Thallium	<1.0		1.0	0.50	mg/Kg		12/02/20 06:35	12/03/20 12:01	1

Lab Sample ID: LCS 500-574861/2-A
Matrix: Solid
Analysis Batch: 575218

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.43		mg/Kg		94	80 - 120
Boron	100	86.5		mg/Kg		87	80 - 120
Calcium	1000	896		mg/Kg		90	80 - 120
Iron	100	95.8		mg/Kg		96	80 - 120
Lithium	50.0	52.6		mg/Kg		105	80 - 120
Manganese	50.0	44.5		mg/Kg		89	80 - 120
Molybdenum	100	99.5		mg/Kg		99	80 - 120
Thallium	10.0	9.44		mg/Kg		94	80 - 120

Lab Sample ID: 500-191681-1 MS
Matrix: Solid
Analysis Batch: 575218

Client Sample ID: B5-5-9.5
Prep Type: Total/NA
Prep Batch: 574861

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	30	F1 V	14.5	40.6	F1	mg/Kg	☼	74	75 - 125
Boron	140	F1 V	145	223	F1	mg/Kg	☼	58	75 - 125
Calcium	12000	F2 V	1450	12500	4	mg/Kg	☼	53	75 - 125
Iron	29000	B V	145	38300	4	mg/Kg	☼	6192	75 - 125
Lithium	20	F1	72.5	71.8	F1	mg/Kg	☼	71	75 - 125
Manganese	170	F1 V	72.5	213	F1	mg/Kg	☼	53	75 - 125
Molybdenum	35	F1 V	145	106	F1	mg/Kg	☼	49	75 - 125
Thallium	3.4	F1	14.5	13.0	F1	mg/Kg	☼	66	75 - 125

Lab Sample ID: 500-191681-1 MSD
Matrix: Solid
Analysis Batch: 575218

Client Sample ID: B5-5-9.5
Prep Type: Total/NA
Prep Batch: 574861

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	30	F1 V	15.1	35.2	F1	mg/Kg	☼	36	75 - 125	14	20
Boron	140	F1 V	151	222	F1	mg/Kg	☼	56	75 - 125	0	20
Calcium	12000	F2 V	1510	17300	4 F2	mg/Kg	☼	369	75 - 125	32	20
Iron	29000	B V	151	31700	4	mg/Kg	☼	1613	75 - 125	19	20
Lithium	20	F1	75.3	75.3	F1	mg/Kg	☼	73	75 - 125	5	20
Manganese	170	F1 V	75.3	250		mg/Kg	☼	101	75 - 125	16	20
Molybdenum	35	F1 V	151	125	F1	mg/Kg	☼	60	75 - 125	16	20

QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-191681-1 MSD
Matrix: Solid
Analysis Batch: 575218

Client Sample ID: B5-5-9.5
Prep Type: Total/NA
Prep Batch: 574861

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium	3.4	F1	15.1	12.4	F1	mg/Kg	☼	60	75 - 125	5	20

Lab Sample ID: 500-191681-1 DU
Matrix: Solid
Analysis Batch: 575218

Client Sample ID: B5-5-9.5
Prep Type: Total/NA
Prep Batch: 574861

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	30	F1 V	30.1		mg/Kg	☼	0.8	20
Boron	140	F1 V	144		mg/Kg	☼	4	20
Calcium	12000	F2 V	12400		mg/Kg	☼	5	20
Iron	29000	B V	34500		mg/Kg	☼	16	20
Lithium	20	F1	21.0		mg/Kg	☼	4	20
Manganese	170	F1 V	180		mg/Kg	☼	3	20
Molybdenum	35	F1 V	30.3		mg/Kg	☼	14	20
Thallium	3.4	F1	3.54		mg/Kg	☼	4	20

Lab Sample ID: MB 500-574875/1-A
Matrix: Solid
Analysis Batch: 575088

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574875

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.0		1.0	0.34	mg/Kg		12/02/20 06:56	12/02/20 18:03	1
Boron	1.08	J	5.0	0.47	mg/Kg		12/02/20 06:56	12/02/20 18:03	1
Calcium	<20		20	3.4	mg/Kg		12/02/20 06:56	12/02/20 18:03	1
Iron	<20		20	10	mg/Kg		12/02/20 06:56	12/02/20 18:03	1
Lithium	<1.0		1.0	0.30	mg/Kg		12/02/20 06:56	12/02/20 18:03	1
Manganese	<1.0		1.0	0.15	mg/Kg		12/02/20 06:56	12/02/20 18:03	1
Molybdenum	<1.0		1.0	0.42	mg/Kg		12/02/20 06:56	12/02/20 18:03	1
Thallium	<1.0		1.0	0.50	mg/Kg		12/02/20 06:56	12/02/20 18:03	1

Lab Sample ID: LCS 500-574875/2-A
Matrix: Solid
Analysis Batch: 575088

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574875

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.65		mg/Kg		96	80 - 120
Boron	100	88.3		mg/Kg		88	80 - 120
Calcium	1000	962		mg/Kg		96	80 - 120
Iron	100	93.6		mg/Kg		94	80 - 120
Lithium	50.0	49.3		mg/Kg		99	80 - 120
Manganese	50.0	47.2		mg/Kg		94	80 - 120
Molybdenum	100	101		mg/Kg		101	80 - 120
Thallium	10.0	10.1		mg/Kg		101	80 - 120

QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Method: 9045C - pH

Lab Sample ID: 500-191681-9 DU
Matrix: Solid
Analysis Batch: 574692

Client Sample ID: B1-0-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	9.8		9.7		SU		0.6	

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 500-574542/1-A
Matrix: Solid
Analysis Batch: 574748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574542

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0	1.7	mg/Kg		12/01/20 11:00	12/01/20 11:47	1
Sulfate	<2.0		2.0	0.95	mg/Kg		12/01/20 11:00	12/01/20 11:47	1

Lab Sample ID: MB 500-574542/1-A
Matrix: Solid
Analysis Batch: 575421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574542

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0	1.7	mg/Kg		12/01/20 11:00	12/04/20 10:00	1

Lab Sample ID: LCS 500-574542/2-A
Matrix: Solid
Analysis Batch: 574748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574542

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	28.8		mg/Kg		96	80 - 120
Sulfate	50.0	50.9		mg/Kg		102	80 - 120

Lab Sample ID: LCS 500-574542/2-A
Matrix: Solid
Analysis Batch: 575421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574542

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.3		mg/Kg		108	80 - 120

Lab Sample ID: 500-191681-13 MS
Matrix: Solid
Analysis Batch: 574748

Client Sample ID: B10-5-9
Prep Type: Total/NA
Prep Batch: 574542

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<2.5		12.5	11.7		mg/Kg	☼	93	75 - 125

Lab Sample ID: 500-191681-13 MS
Matrix: Solid
Analysis Batch: 574748

Client Sample ID: B10-5-9
Prep Type: Total/NA
Prep Batch: 574542

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	6000		31.4	7100	4	mg/Kg	☼	3388	75 - 125

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 500-191681-13 MSD
Client Sample ID: B10-5-9
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 574748
Prep Batch: 574542

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<2.5		12.8	12.0		mg/Kg	☼	93	75 - 125	2	20

Lab Sample ID: 500-191681-13 MSD
Client Sample ID: B10-5-9
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 574748
Prep Batch: 574542

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	6000		32.1	7410	4	mg/Kg	☼	4274	75 - 125	4	20

Lab Sample ID: MB 500-574695/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 574756
Prep Batch: 574695

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0	1.7	mg/Kg		12/01/20 10:45	12/01/20 11:49	1
Sulfate	<2.0		2.0	0.95	mg/Kg		12/01/20 10:45	12/01/20 11:49	1

Lab Sample ID: LCS 500-574695/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 574756
Prep Batch: 574695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	28.7		mg/Kg		96	80 - 120
Sulfate	50.0	53.1		mg/Kg		106	80 - 120

Lab Sample ID: 500-191681-14 MS
Client Sample ID: B9-0-5
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 574756
Prep Batch: 574695

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<2.4	F2	12.1	9.20		mg/Kg	☼	76	75 - 125
Sulfate	28		30.4	61.3		mg/Kg	☼	109	75 - 125

Lab Sample ID: 500-191681-14 MSD
Client Sample ID: B9-0-5
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 574756
Prep Batch: 574695

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<2.4	F2	12.2	11.3	F2	mg/Kg	☼	93	75 - 125	21	20
Sulfate	28		30.4	60.3		mg/Kg	☼	105	75 - 125	2	20

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Mitchel Dolan	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-8984-5667.1
Client Contact: [redacted] MD Rich Gnat	Phone: 262-781-0475	E-Mail: Diana.Mockler@Eurofinset.com		Page: Page 1 of 1
Company: Midwest Generation EME LLC		**Analysis Requested**		Job #: 500-191681
Address: 401 E Greenwood Avenue	Due Date Requested:			**Preservation Codes:**
City: Waukegan	TAT Requested (days):			
State, Zip: IL, 60087-5197				
Phone: [redacted] MD 262-781-0475	PO #: 4502012558	500-191681 COC		
Email: [redacted] MD richardg@KPrginc.com	WO #:			
Project Name: Waukegan Soil Samples	Project #: 50001112			
Site:	SSOW#:			Other:

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - As, B, Ca, Fe, Li, Mo, Tl, Mn (8 elements)	9056 - Chloride, Sulfate	9045D - pH	Total Number of containers	Special Instructions/Note:
					Preservation Code:							
1	B5-5-9.5	11/25	9:30	C	S			X	X	X		
2	B4-0-5		9:15									
3	B4-5-9		9:17									
4	B3-0-5		9:05									
5	B3-5-9		9:07									
6	B2-0-5		8:50									
7	B2-5-10		8:52									
8	B2-10-12		8:54									
~~10~~ 9	B1-0-5	11/24	1455									
10	B1-5-10		1457									
11 ~~X~~	B1-10-12.5		1459									

11/25/20

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ________ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Michael Ress	Date/Time: 11/25/20 / 1700	Company: KPRG	Received by: Paula Buckley	Date/Time: 11/25/20 1700	Company: ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 4.2→2.3, 3.9→2.0, 2.7→0.8		

Ver: 01/16/2019 12/7/2020

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Mitchel Dolan	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-8984-5667.1
Client Contact: [redacted] MD Rich Gnat	Phone: 262-781-0475	E-Mail: Diana.Mockler@Eurofinset.com		Page: Page 1 of 1
Company: Midwest Generation EME LLC				Job #: 500-191681
Address: 401 E Greenwood Avenue	Due Date Requested:			
City: Waukegan	TAT Requested (days):			
State, Zip: IL, 60087-5197				
Phone: [redacted] MD 262-781-0475	PO #: 4502012558			
Email: [redacted] MD richardg@KPRGINC.com	WO #:			
Project Name: Waukegan Soil Samples	Project #: 50001112			
Site:	SSOW#:			

Analysis Requested: Field Filtered Sample (Yes or No); Perform MS/MSD (Yes or No); 6010B - As, B, Ca, Fe, Li, Mo, Tl, Mn (8 elements); 9056 - Chloride, Sulfate; 9045D - pH; Total Number of containers

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample	Perform MS/MSD	6010B	9056	9045D	Total Number of containers	Special Instructions/Note:
					Preservation Code:							
B13	B10-0-5	11/25	10:07	C	S			X	X	X		
B14	B10-5-9		10:09									
14 15	B9-0-5		9:58									
15 16	B9-5-9		10:00									
16 17	B8-0-5		9:50									
17 18	B8-5-10		9:52									
18 19	B7-0-5		9:40									
19 20	B7-5-9		9:42									
20 21	B6-0-5		9:31									
21 22	B6-5-10		9:33									
22 23	B5-0-5		9:28									

PB 11/27/20

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ________ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Michael Ross	11/25/20 / 1700	KPRG	Paula Buckley	11/25/20 1700	ETA

Custody Seals Intact: △ Yes △ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.2 → 2.3, 3.9 → 2.0, 2.7 - 0.8

12/7/2020

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-191681-1

Login Number: 191681
List Number: 1
Creator: Buckley, Paula M

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3, 2.0, 0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: Midwest Generation EME LLC Job ID: 500-191681-1
Project/Site: Waukegan Soil Testing

Client Sample ID: B5-5-9.5 Lab Sample ID: 500-191681-1
Date Collected: 11/25/20 09:30 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:12	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B5-5-9.5 Lab Sample ID: 500-191681-1
Date Collected: 11/25/20 09:30 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 60.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 12:08	JJB	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574748	12/01/20 13:41	EAT	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	574748	12/01/20 19:37	EAT	TAL CHI

Client Sample ID: B4-0-5 Lab Sample ID: 500-191681-2
Date Collected: 11/25/20 09:15 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:15	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B4-0-5 Lab Sample ID: 500-191681-2
Date Collected: 11/25/20 09:15 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 74.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 12:30	JJB	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574748	12/01/20 14:19	EAT	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	574748	12/01/20 19:50	EAT	TAL CHI

Client Sample ID: B4-5-9 Lab Sample ID: 500-191681-3
Date Collected: 11/25/20 09:17 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:17	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B4-5-9
Date Collected: 11/25/20 09:17
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-3
Matrix: Solid
Percent Solids: 64.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 12:33	JJB	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574748	12/01/20 14:32	EAT	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	574748	12/01/20 20:03	EAT	TAL CHI

Client Sample ID: B3-0-5
Date Collected: 11/25/20 09:05
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:20	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B3-0-5
Date Collected: 11/25/20 09:05
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-4
Matrix: Solid
Percent Solids: 76.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 12:36	JJB	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 10:27	EAT	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	574748	12/01/20 20:15	EAT	TAL CHI

Client Sample ID: B3-5-9
Date Collected: 11/25/20 09:07
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:22	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B3-5-9
Date Collected: 11/25/20 09:07
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-5
Matrix: Solid
Percent Solids: 72.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 12:39	JJB	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574748	12/01/20 14:58	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Job ID: 500-191681-1
Project/Site: Waukegan Soil Testing

Client Sample ID: B3-5-9
Lab Sample ID: 500-191681-5
Date Collected: 11/25/20 09:07
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 72.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	574748	12/01/20 20:28	EAT	TAL CHI

Client Sample ID: B2-0-5
Lab Sample ID: 500-191681-6
Date Collected: 11/25/20 08:50
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:25	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B2-0-5
Lab Sample ID: 500-191681-6
Date Collected: 11/25/20 08:50
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 78.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 12:42	JJB	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574748	12/01/20 15:10	EAT	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	574748	12/01/20 20:41	EAT	TAL CHI

Client Sample ID: B2-5-10
Lab Sample ID: 500-191681-7
Date Collected: 11/25/20 08:52
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:27	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B2-5-10
Lab Sample ID: 500-191681-7
Date Collected: 11/25/20 08:52
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 12:45	JJB	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574748	12/01/20 15:23	EAT	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	574748	12/01/20 20:54	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B2-10-12

Lab Sample ID: 500-191681-8
Date Collected: 11/25/20 08:54
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:32	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B2-10-12

Lab Sample ID: 500-191681-8
Date Collected: 11/25/20 08:54
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 74.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 12:49	JJB	TAL CHI
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		5	575346	12/03/20 19:20	JJB	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574748	12/01/20 15:36	EAT	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	574748	12/01/20 21:07	EAT	TAL CHI

Client Sample ID: B1-0-5

Lab Sample ID: 500-191681-9
Date Collected: 11/24/20 14:55
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:35	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B1-0-5

Lab Sample ID: 500-191681-9
Date Collected: 11/24/20 14:55
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 73.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 12:58	JJB	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574748	12/01/20 15:48	EAT	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	574748	12/01/20 21:19	EAT	TAL CHI

Client Sample ID: B1-5-10

Lab Sample ID: 500-191681-10
Date Collected: 11/24/20 14:57
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:40	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B1-5-10

Date Collected: 11/24/20 14:57
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-10
Matrix: Solid
Percent Solids: 77.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 13:01	JJB	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574748	12/01/20 16:01	EAT	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	574748	12/01/20 21:32	EAT	TAL CHI

Client Sample ID: B1-10-12.5

Date Collected: 11/24/20 14:59
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:42	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B1-10-12.5

Date Collected: 11/24/20 14:59
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-11
Matrix: Solid
Percent Solids: 71.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 13:04	JJB	TAL CHI
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		5	575346	12/03/20 19:23	JJB	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574748	12/01/20 16:14	EAT	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	574748	12/01/20 22:10	EAT	TAL CHI

Client Sample ID: B10-0-5

Date Collected: 11/25/20 10:07
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:45	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B10-0-5

Date Collected: 11/25/20 10:07
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-12
Matrix: Solid
Percent Solids: 77.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 13:08	JJB	TAL CHI

1 2 3 4 5 6 7 8 9 10 11 12 13

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B10-0-5 **Lab Sample ID: 500-191681-12**
Date Collected: 11/25/20 10:07 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 77.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574748	12/01/20 17:05	EAT	TAL CHI

Client Sample ID: B10-5-9 **Lab Sample ID: 500-191681-13**
Date Collected: 11/25/20 10:09 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:47	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B10-5-9 **Lab Sample ID: 500-191681-13**
Date Collected: 11/25/20 10:09 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 74.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 13:11	JJB	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574748	12/01/20 17:17	EAT	TAL CHI
Total/NA	Prep	300_Prep			574542	12/01/20 11:00	EAT	TAL CHI
Total/NA	Analysis	9056A		100	574748	12/01/20 22:23	EAT	TAL CHI

Client Sample ID: B9-0-5 **Lab Sample ID: 500-191681-14**
Date Collected: 11/25/20 09:58 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:50	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B9-0-5 **Lab Sample ID: 500-191681-14**
Date Collected: 11/25/20 09:58 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 81.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 13:14	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 14:47	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B9-5-9
Lab Sample ID: 500-191681-15
Date Collected: 11/25/20 10:00
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:52	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B9-5-9
Lab Sample ID: 500-191681-15
Date Collected: 11/25/20 10:00
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 67.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 13:17	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 15:28	EAT	TAL CHI

Client Sample ID: B8-0-5
Lab Sample ID: 500-191681-16
Date Collected: 11/25/20 09:50
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 07:55	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B8-0-5
Lab Sample ID: 500-191681-16
Date Collected: 11/25/20 09:50
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 73.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 13:21	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 15:41	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	574756	12/01/20 20:40	EAT	TAL CHI

Client Sample ID: B8-5-10
Lab Sample ID: 500-191681-17
Date Collected: 11/25/20 09:52
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:00	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

1 2 3 4 5 6 7 8 9 10 11 12 13

Lab Chronicle

Client: Midwest Generation EME LLC
Job ID: 500-191681-1
Project/Site: Waukegan Soil Testing

Client Sample ID: B8-5-10
Lab Sample ID: 500-191681-17
Date Collected: 11/25/20 09:52
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 66.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 13:24	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 15:55	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	574756	12/01/20 20:54	EAT	TAL CHI

Client Sample ID: B7-0-5
Lab Sample ID: 500-191681-18
Date Collected: 11/25/20 09:40
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:02	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B7-0-5
Lab Sample ID: 500-191681-18
Date Collected: 11/25/20 09:40
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 75.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 13:27	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 16:08	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	574756	12/01/20 21:08	EAT	TAL CHI

Client Sample ID: B7-5-9
Lab Sample ID: 500-191681-19
Date Collected: 11/25/20 09:42
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:05	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B7-5-9
Lab Sample ID: 500-191681-19
Date Collected: 11/25/20 09:42
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 64.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 13:53	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 16:22	EAT	TAL CHI

Client Sample ID: B7-5-9 — **Lab Sample ID: 500-191681-19**
Date Collected: 11/25/20 09:42 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 64.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	574756	12/01/20 21:21	EAT	TAL CHI

Client Sample ID: B6-0-5 — **Lab Sample ID: 500-191681-20**
Date Collected: 11/25/20 09:31 — **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:07	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574491	11/30/20 10:21	LWN	TAL CHI

Client Sample ID: B6-0-5 — **Lab Sample ID: 500-191681-20**
Date Collected: 11/25/20 09:31 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 70.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574861	12/02/20 06:35	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575218	12/03/20 13:56	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 17:03	EAT	TAL CHI

Client Sample ID: B6-5-10 — **Lab Sample ID: 500-191681-21**
Date Collected: 11/25/20 09:33 — **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:10	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: B6-5-10 — **Lab Sample ID: 500-191681-21**
Date Collected: 11/25/20 09:33 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 71.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574875	12/02/20 06:56	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575088	12/02/20 18:26	EEN	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 17:16	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	574756	12/01/20 21:35	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191681-1

Client Sample ID: B5-0-5
Date Collected: 11/25/20 09:28
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-22
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:12	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: B5-0-5
Date Collected: 11/25/20 09:28
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191681-22
Matrix: Solid
Percent Solids: 68.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			574875	12/02/20 06:56	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575088	12/02/20 18:39	EEN	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 17:30	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		2	574756	12/01/20 21:48	EAT	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Midwest Generation EME LLC
Job ID: 500-191681-1
Project/Site: Waukegan Soil Testing

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-21

eurofins

Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-191682-1
Client Project/Site: Waukegan Soil Testing

For:
Midwest Generation EME LLC
401 E Greenwood Avenue
Waukegan, Illinois 60087-5197

Attn: Mr. Mark Wehling

Diana Mockler

Authorized for release by:
12/7/2020 5:57:22 PM

Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@Eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1 2 3 4 5 6 7 8 9 10 11 12 13

Table of Contents

Case Narrative

Job ID: 500-191682-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-191682-1

Comments
No additional comments.

Receipt
The samples were received on 11/25/2020 5:00 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.8º C and 2.0º C.

Receipt Exceptions

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC); Sample #13. The container labels list sample ID as "C5-10-15", while the COC lists "C-5-10-12". Logged as "C5-10-12". Sample #19 container label list sample ID as "C7-10-15", while the COC list "C7-10-12". Logged per COC.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CHI
9045C	pH	SW846	TAL CHI
9056A	Anions, Ion Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
300_Prep	Anions, Ion Chromatography, 10% Wt/Vol	MCAWW	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Midwest Generation EME LLC | Job ID: 500-191682-1
Project/Site: Waukegan Soil Testing

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-191682-1	C1-0-5	Solid	11/24/20 14:35	11/25/20 17:00	
500-191682-2	C1-5-9	Solid	11/24/20 14:37	11/25/20 17:00	
500-191682-3	C2-0-5	Solid	11/24/20 14:18	11/25/20 17:00	
500-191682-4	C2-5-9	Solid	11/24/20 14:20	11/25/20 17:00	
500-191682-5	C3-0-5	Solid	11/24/20 14:08	11/25/20 17:00	
500-191682-6	C3-5-10	Solid	11/24/20 14:10	11/25/20 17:00	
500-191682-7	C3-10-11	Solid	11/24/20 14:12	11/25/20 17:00	
500-191682-8	C4-0-5	Solid	11/24/20 13:59	11/25/20 17:00	
500-191682-9	C4-5-10	Solid	11/24/20 14:01	11/25/20 17:00	
500-191682-10	C4-10-11	Solid	11/24/20 14:03	11/25/20 17:00	
500-191682-11	C5-0-5	Solid	11/24/20 13:50	11/25/20 17:00	
500-191682-12	C5-5-10	Solid	11/24/20 13:52	11/25/20 17:00	
500-191682-13	C5-10-12	Solid	11/24/20 13:54	11/25/20 17:00	
500-191682-14	C6-0-5	Solid	11/24/20 13:40	11/25/20 17:00	
500-191682-15	C6-5-10	Solid	11/24/20 13:42	11/25/20 17:00	
500-191682-16	C6-10-12	Solid	11/24/20 13:44	11/25/20 17:00	
500-191682-17	C7-0-5	Solid	11/24/20 13:30	11/25/20 17:00	
500-191682-18	C7-5-10	Solid	11/24/20 13:32	11/25/20 17:00	
500-191682-19	C7-10-12	Solid	11/24/20 13:34	11/25/20 17:00	
500-191682-20	C8-0-5	Solid	11/24/20 13:20	11/25/20 17:00	
500-191682-21	C8-5-10	Solid	11/24/20 13:22	11/25/20 17:00	
500-191682-22	C8-10-12	Solid	11/24/20 13:24	11/25/20 17:00	

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191682-1
Project/Site: Waukegan Soil Testing

Client Sample ID: C1-0-5
Lab Sample ID: 500-191682-1
Date Collected: 11/24/20 14:35
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 75.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	55	V	1.2	0.40	mg/Kg	☼	12/02/20 18:15	12/03/20 12:36	1
Boron	600	V	5.9	0.55	mg/Kg	☼	12/02/20 18:15	12/03/20 12:36	1
Calcium	30000	B V	24	4.0	mg/Kg	☼	12/02/20 18:15	12/03/20 12:36	1
Iron	33000	V	24	12	mg/Kg	☼	12/02/20 18:15	12/03/20 12:36	1
Lithium	19		1.2	0.35	mg/Kg	☼	12/02/20 18:15	12/03/20 12:36	1
Manganese	200	F1 V	1.2	0.17	mg/Kg	☼	12/02/20 18:15	12/03/20 12:36	1
Molybdenum	15		1.2	0.49	mg/Kg	☼	12/02/20 18:15	12/03/20 12:36	1
Thallium	3.3		1.2	0.59	mg/Kg	☼	12/02/20 18:15	12/03/20 12:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.8		0.2	0.2	SU			12/01/20 08:15	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/01/20 13:00	12/01/20 17:44	1
Sulfate	1100		51	24	mg/Kg	☼	12/01/20 13:00	12/01/20 22:29	20

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C1-5-9

Lab Sample ID: 500-191682-2

Date Collected: 11/24/20 14:37
Date Received: 11/25/20 17:00

Matrix: Solid
Percent Solids: 91.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		0.99	0.34	mg/Kg	☼	12/02/20 18:15	12/03/20 12:59	1
Boron	83		4.9	0.46	mg/Kg	☼	12/02/20 18:15	12/03/20 12:59	1
Calcium	20000	B	20	3.3	mg/Kg	☼	12/02/20 18:15	12/03/20 12:59	1
Iron	24000		20	10	mg/Kg	☼	12/02/20 18:15	12/03/20 12:59	1
Lithium	13		0.99	0.30	mg/Kg	☼	12/02/20 18:15	12/03/20 12:59	1
Manganese	120		0.99	0.14	mg/Kg	☼	12/02/20 18:15	12/03/20 12:59	1
Molybdenum	4.1		0.99	0.41	mg/Kg	☼	12/02/20 18:15	12/03/20 12:59	1
Thallium	1.2		0.99	0.49	mg/Kg	☼	12/02/20 18:15	12/03/20 12:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.2		0.2	0.2	SU			12/01/20 08:17	1
Chloride	3.5		2.1	1.8	mg/Kg	☼	12/01/20 13:00	12/01/20 17:57	1
Sulfate	310		10	4.9	mg/Kg	☼	12/01/20 13:00	12/03/20 13:46	5

Client Sample Results

Client Sample ID: C2-0-5

Lab Sample ID: 500-191682-3

Date Collected: 11/24/20 14:18
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 71.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	38		1.3	0.45	mg/Kg	☼	12/02/20 18:15	12/03/20 13:02	1
Boron	170		6.6	0.61	mg/Kg	☼	12/02/20 18:15	12/03/20 13:02	1
Calcium	16000	B	26	4.4	mg/Kg	☼	12/02/20 18:15	12/03/20 13:02	1
Iron	36000		26	14	mg/Kg	☼	12/02/20 18:15	12/03/20 13:02	1
Lithium	15		1.3	0.39	mg/Kg	☼	12/02/20 18:15	12/03/20 13:02	1
Manganese	160		1.3	0.19	mg/Kg	☼	12/02/20 18:15	12/03/20 13:02	1
Molybdenum	6.3		1.3	0.54	mg/Kg	☼	12/02/20 18:15	12/03/20 13:02	1
Thallium	3.1		1.3	0.65	mg/Kg	☼	12/02/20 18:15	12/03/20 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			12/01/20 08:20	1
Chloride	<2.7		2.7	2.3	mg/Kg	☼	12/01/20 13:00	12/01/20 18:11	1
Sulfate	240		5.4	2.5	mg/Kg	☼	12/01/20 13:00	12/03/20 14:00	2

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C2-5-9
Date Collected: 11/24/20 14:20
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-4
Matrix: Solid
Percent Solids: 80.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.1**		1.1	0.39	mg/Kg	☼	12/02/20 18:15	12/03/20 13:06	1
Boron	**190**		5.7	0.53	mg/Kg	☼	12/02/20 18:15	12/03/20 13:06	1
Calcium	**24000**	**B**	23	3.9	mg/Kg	☼	12/02/20 18:15	12/03/20 13:06	1
Iron	**120000**		110	59	mg/Kg	☼	12/02/20 18:15	12/04/20 13:24	5
Lithium	**33**		1.1	0.34	mg/Kg	☼	12/02/20 18:15	12/03/20 13:06	1
Manganese	**280**		1.1	0.17	mg/Kg	☼	12/02/20 18:15	12/03/20 13:06	1
Molybdenum	**10**		5.7	2.4	mg/Kg	☼	12/02/20 18:15	12/04/20 13:24	5
Thallium	**6.2**		5.7	2.8	mg/Kg	☼	12/02/20 18:15	12/04/20 13:24	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.7**		0.2	0.2	SU			12/01/20 08:22	1
Chloride	<2.5		2.5	2.1	mg/Kg	☼	12/01/20 13:00	12/01/20 18:24	1
Sulfate	**170**		4.9	2.3	mg/Kg	☼	12/01/20 13:00	12/03/20 14:13	2

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C3-0-5
Date Collected: 11/24/20 14:08
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-5
Matrix: Solid
Percent Solids: 73.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	37		1.3	0.44	mg/Kg	☼	12/02/20 18:15	12/03/20 13:09	1
Boron	420		6.4	0.59	mg/Kg	☼	12/02/20 18:15	12/03/20 13:09	1
Calcium	28000	B	25	4.3	mg/Kg	☼	12/02/20 18:15	12/03/20 13:09	1
Iron	34000		25	13	mg/Kg	☼	12/02/20 18:15	12/03/20 13:09	1
Lithium	16		1.3	0.38	mg/Kg	☼	12/02/20 18:15	12/03/20 13:09	1
Manganese	280		1.3	0.18	mg/Kg	☼	12/02/20 18:15	12/03/20 13:09	1
Molybdenum	6.9		1.3	0.53	mg/Kg	☼	12/02/20 18:15	12/03/20 13:09	1
Thallium	2.9		1.3	0.64	mg/Kg	☼	12/02/20 18:15	12/03/20 13:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.1		0.2	0.2	SU			12/01/20 08:27	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/01/20 13:00	12/01/20 18:38	1
Sulfate	2000		53	25	mg/Kg	☼	12/01/20 13:00	12/03/20 14:27	20

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C3-5-10
Date Collected: 11/24/20 14:10
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-6
Matrix: Solid
Percent Solids: 90.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.4**		1.0	0.35	mg/Kg	☼	12/02/20 18:15	12/03/20 13:12	1
Boron	**170**		5.1	0.48	mg/Kg	☼	12/02/20 18:15	12/03/20 13:12	1
Calcium	**18000**	**B**	21	3.5	mg/Kg	☼	12/02/20 18:15	12/03/20 13:12	1
Iron	**110000**		100	54	mg/Kg	☼	12/02/20 18:15	12/04/20 13:27	5
Lithium	**27**		1.0	0.31	mg/Kg	☼	12/02/20 18:15	12/03/20 13:12	1
Manganese	**240**		1.0	0.15	mg/Kg	☼	12/02/20 18:15	12/03/20 13:12	1
Molybdenum	**9.8**		5.1	2.1	mg/Kg	☼	12/02/20 18:15	12/04/20 13:27	5
Thallium	**4.6**	**J**	5.1	2.6	mg/Kg	☼	12/02/20 18:15	12/04/20 13:27	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.8**		0.2	0.2	SU			12/01/20 08:33	1
Chloride	<2.1		2.1	1.7	mg/Kg	☼	12/01/20 13:00	12/01/20 18:52	1
Sulfate	**160**		4.1	2.0	mg/Kg	☼	12/01/20 13:00	12/03/20 14:41	2

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191682-1
Project/Site: Waukegan Soil Testing

Client Sample ID: C3-10-11
Lab Sample ID: 500-191682-7
Date Collected: 11/24/20 14:12
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 85.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17		0.99	0.34	mg/Kg	☼	12/02/20 18:15	12/03/20 13:16	1
Boron	230		5.0	0.46	mg/Kg	☼	12/02/20 18:15	12/03/20 13:16	1
Calcium	23000	B	20	3.4	mg/Kg	☼	12/02/20 18:15	12/03/20 13:16	1
Iron	38000		20	10	mg/Kg	☼	12/02/20 18:15	12/03/20 13:16	1
Lithium	14		0.99	0.30	mg/Kg	☼	12/02/20 18:15	12/03/20 13:16	1
Manganese	220		0.99	0.14	mg/Kg	☼	12/02/20 18:15	12/03/20 13:16	1
Molybdenum	5.6		0.99	0.41	mg/Kg	☼	12/02/20 18:15	12/03/20 13:16	1
Thallium	2.4		0.99	0.50	mg/Kg	☼	12/02/20 18:15	12/03/20 13:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.1		0.2	0.2	SU			12/01/20 08:35	1
Chloride	2.5		2.3	1.9	mg/Kg	☼	12/01/20 13:00	12/01/20 19:05	1
Sulfate	1700		45	21	mg/Kg	☼	12/01/20 13:00	12/03/20 14:54	20

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C4-0-5
Date Collected: 11/24/20 13:59
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-8
Matrix: Solid
Percent Solids: 75.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	39		1.2	0.40	mg/Kg	☼	12/02/20 18:15	12/03/20 13:26	1
Boron	310		5.9	0.55	mg/Kg	☼	12/02/20 18:15	12/03/20 13:26	1
Calcium	19000	B	24	4.0	mg/Kg	☼	12/02/20 18:15	12/03/20 13:26	1
Iron	33000		24	12	mg/Kg	☼	12/02/20 18:15	12/03/20 13:26	1
Lithium	18		1.2	0.35	mg/Kg	☼	12/02/20 18:15	12/03/20 13:26	1
Manganese	220		1.2	0.17	mg/Kg	☼	12/02/20 18:15	12/03/20 13:26	1
Molybdenum	5.4		1.2	0.49	mg/Kg	☼	12/02/20 18:15	12/03/20 13:26	1
Thallium	3.6		1.2	0.59	mg/Kg	☼	12/02/20 18:15	12/03/20 13:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.2	0.2	SU			12/01/20 08:38	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/01/20 13:00	12/01/20 19:46	1
Sulfate	800		26	12	mg/Kg	☼	12/01/20 13:00	12/03/20 15:08	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C4-5-10
Date Collected: 11/24/20 14:01
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-9
Matrix: Solid
Percent Solids: 75.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17		1.1	0.39	mg/Kg	☼	12/02/20 18:15	12/03/20 13:29	1
Boron	150		5.7	0.53	mg/Kg	☼	12/02/20 18:15	12/03/20 13:29	1
Calcium	8800	B	23	3.9	mg/Kg	☼	12/02/20 18:15	12/03/20 13:29	1
Iron	42000		23	12	mg/Kg	☼	12/02/20 18:15	12/03/20 13:29	1
Lithium	13		1.1	0.34	mg/Kg	☼	12/02/20 18:15	12/03/20 13:29	1
Manganese	130		1.1	0.17	mg/Kg	☼	12/02/20 18:15	12/03/20 13:29	1
Molybdenum	18		1.1	0.47	mg/Kg	☼	12/02/20 18:15	12/03/20 13:29	1
Thallium	3.3		1.1	0.57	mg/Kg	☼	12/02/20 18:15	12/03/20 13:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU			12/01/20 08:40	1
Chloride	<2.5		2.5	2.1	mg/Kg	☼	12/01/20 13:00	12/01/20 20:00	1
Sulfate	920		25	12	mg/Kg	☼	12/01/20 13:00	12/03/20 15:21	10

Client Sample Results

Client Sample ID: C4-10-11

Lab Sample ID: 500-191682-10

Date Collected: 11/24/20 14:03
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 82.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15		1.0	0.36	mg/Kg	☼	12/02/20 18:15	12/03/20 13:32	1
Boron	210		5.2	0.48	mg/Kg	☼	12/02/20 18:15	12/03/20 13:32	1
Calcium	12000	B	21	3.5	mg/Kg	☼	12/02/20 18:15	12/03/20 13:32	1
Iron	38000		21	11	mg/Kg	☼	12/02/20 18:15	12/03/20 13:32	1
Lithium	15		1.0	0.31	mg/Kg	☼	12/02/20 18:15	12/03/20 13:32	1
Manganese	160		1.0	0.15	mg/Kg	☼	12/02/20 18:15	12/03/20 13:32	1
Molybdenum	22		1.0	0.43	mg/Kg	☼	12/02/20 18:15	12/03/20 13:32	1
Thallium	2.6		1.0	0.52	mg/Kg	☼	12/02/20 18:15	12/03/20 13:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.1		0.2	0.2	SU			12/01/20 08:43	1
Chloride	2.8		2.3	2.0	mg/Kg	☼	12/01/20 13:00	12/01/20 20:13	1
Sulfate	1200		46	22	mg/Kg	☼	12/01/20 13:00	12/03/20 16:02	20

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191682-1
Project/Site: Waukegan Soil Testing

Client Sample ID: C5-0-5
Lab Sample ID: 500-191682-11
Date Collected: 11/24/20 13:50
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 69.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	100		1.4	0.47	mg/Kg	☼	12/02/20 18:15	12/03/20 13:35	1
Boron	200		6.9	0.64	mg/Kg	☼	12/02/20 18:15	12/03/20 13:35	1
Calcium	14000	B	28	4.7	mg/Kg	☼	12/02/20 18:15	12/03/20 13:35	1
Iron	37000		28	14	mg/Kg	☼	12/02/20 18:15	12/03/20 13:35	1
Lithium	24		1.4	0.41	mg/Kg	☼	12/02/20 18:15	12/03/20 13:35	1
Manganese	200		1.4	0.20	mg/Kg	☼	12/02/20 18:15	12/03/20 13:35	1
Molybdenum	4.1		1.4	0.57	mg/Kg	☼	12/02/20 18:15	12/03/20 13:35	1
Thallium	4.3		1.4	0.69	mg/Kg	☼	12/02/20 18:15	12/03/20 13:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			12/01/20 08:45	1
Chloride	<2.7		2.7	2.3	mg/Kg	☼	12/01/20 13:00	12/01/20 20:27	1
Sulfate	400		13	6.4	mg/Kg	☼	12/01/20 13:00	12/03/20 16:16	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C5-5-10
Date Collected: 11/24/20 13:52
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-12
Matrix: Solid
Percent Solids: 74.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	43		1.2	0.40	mg/Kg	☼	12/02/20 18:15	12/03/20 13:38	1
Boron	170		5.9	0.55	mg/Kg	☼	12/02/20 18:15	12/03/20 13:38	1
Calcium	11000	B	23	4.0	mg/Kg	☼	12/02/20 18:15	12/03/20 13:38	1
Iron	39000		23	12	mg/Kg	☼	12/02/20 18:15	12/03/20 13:38	1
Lithium	18		1.2	0.35	mg/Kg	☼	12/02/20 18:15	12/03/20 13:38	1
Manganese	140		1.2	0.17	mg/Kg	☼	12/02/20 18:15	12/03/20 13:38	1
Molybdenum	10		1.2	0.49	mg/Kg	☼	12/02/20 18:15	12/03/20 13:38	1
Thallium	4.5		1.2	0.59	mg/Kg	☼	12/02/20 18:15	12/03/20 13:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU			12/01/20 08:48	1
Chloride	4.5		2.7	2.3	mg/Kg	☼	12/03/20 14:00	12/03/20 17:37	1
Sulfate	930		27	13	mg/Kg	☼	12/03/20 14:00	12/04/20 11:22	10

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191682-1
Project/Site: Waukegan Soil Testing

Client Sample ID: C5-10-12
Lab Sample ID: 500-191682-13

Date Collected: 11/24/20 13:54
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 87.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14		0.97	0.33	mg/Kg	☼	12/02/20 18:15	12/03/20 13:41	1
Boron	68		4.9	0.45	mg/Kg	☼	12/02/20 18:15	12/03/20 13:41	1
Calcium	7900	B	19	3.3	mg/Kg	☼	12/02/20 18:15	12/03/20 13:41	1
Iron	26000		19	10	mg/Kg	☼	12/02/20 18:15	12/03/20 13:41	1
Lithium	17		0.97	0.29	mg/Kg	☼	12/02/20 18:15	12/03/20 13:41	1
Manganese	110		0.97	0.14	mg/Kg	☼	12/02/20 18:15	12/03/20 13:41	1
Molybdenum	54		0.97	0.40	mg/Kg	☼	12/02/20 18:15	12/03/20 13:41	1
Thallium	1.5		0.97	0.49	mg/Kg	☼	12/02/20 18:15	12/03/20 13:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.2	0.2	SU			12/01/20 08:50	1
Chloride	<2.2		2.2	1.9	mg/Kg	☼	12/03/20 14:00	12/03/20 17:51	1
Sulfate	450		11	5.3	mg/Kg	☼	12/03/20 14:00	12/04/20 11:35	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C6-0-5
Date Collected: 11/24/20 13:40
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-14
Matrix: Solid
Percent Solids: 79.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	38		1.2	0.41	mg/Kg	☼	12/02/20 18:15	12/03/20 13:44	1
Boron	110		6.1	0.56	mg/Kg	☼	12/02/20 18:15	12/03/20 13:44	1
Calcium	21000	B	24	4.1	mg/Kg	☼	12/02/20 18:15	12/03/20 13:44	1
Iron	40000		24	13	mg/Kg	☼	12/02/20 18:15	12/03/20 13:44	1
Lithium	28		1.2	0.36	mg/Kg	☼	12/02/20 18:15	12/03/20 13:44	1
Manganese	230		1.2	0.18	mg/Kg	☼	12/02/20 18:15	12/03/20 13:44	1
Molybdenum	5.3		1.2	0.50	mg/Kg	☼	12/02/20 18:15	12/03/20 13:44	1
Thallium	3.1		1.2	0.60	mg/Kg	☼	12/02/20 18:15	12/03/20 13:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.2	0.2	SU			12/01/20 08:55	1
Chloride	2.5		2.5	2.1	mg/Kg	☼	12/03/20 14:00	12/03/20 18:04	1
Sulfate	42		2.5	1.2	mg/Kg	☼	12/03/20 14:00	12/03/20 18:04	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C6-5-10

Lab Sample ID: 500-191682-15

Date Collected: 11/24/20 13:42
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 68.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	36		1.5	0.50	mg/Kg	☼	12/02/20 18:15	12/03/20 13:47	1
Boron	160		7.3	0.68	mg/Kg	☼	12/02/20 18:15	12/03/20 13:47	1
Calcium	21000	B	29	4.9	mg/Kg	☼	12/02/20 18:15	12/03/20 13:47	1
Iron	44000		29	15	mg/Kg	☼	12/02/20 18:15	12/03/20 13:47	1
Lithium	27		1.5	0.44	mg/Kg	☼	12/02/20 18:15	12/03/20 13:47	1
Manganese	260		1.5	0.21	mg/Kg	☼	12/02/20 18:15	12/03/20 13:47	1
Molybdenum	5.1		1.5	0.60	mg/Kg	☼	12/02/20 18:15	12/03/20 13:47	1
Thallium	4.4		1.5	0.73	mg/Kg	☼	12/02/20 18:15	12/03/20 13:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.2	0.2	SU			12/01/20 08:58	1
Chloride	<2.9		2.9	2.5	mg/Kg	☼	12/03/20 14:00	12/03/20 19:12	1
Sulfate	340		14	6.9	mg/Kg	☼	12/03/20 14:00	12/04/20 11:49	5

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191682-1
Project/Site: Waukegan Soil Testing

Client Sample ID: C6-10-12
Lab Sample ID: 500-191682-16

Date Collected: 11/24/20 13:44
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 84.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		1.0	0.35	mg/Kg	☼	12/02/20 18:15	12/03/20 13:50	1
Boron	69		5.1	0.47	mg/Kg	☼	12/02/20 18:15	12/03/20 13:50	1
Calcium	12000	B	20	3.4	mg/Kg	☼	12/02/20 18:15	12/03/20 13:50	1
Iron	31000		20	11	mg/Kg	☼	12/02/20 18:15	12/03/20 13:50	1
Lithium	13		1.0	0.30	mg/Kg	☼	12/02/20 18:15	12/03/20 13:50	1
Manganese	130		1.0	0.15	mg/Kg	☼	12/02/20 18:15	12/03/20 13:50	1
Molybdenum	12		1.0	0.42	mg/Kg	☼	12/02/20 18:15	12/03/20 13:50	1
Thallium	2.0		1.0	0.51	mg/Kg	☼	12/02/20 18:15	12/03/20 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU			12/01/20 09:00	1
Chloride	<2.3		2.3	1.9	mg/Kg	☼	12/03/20 14:00	12/03/20 19:26	1
Sulfate	180		11	5.4	mg/Kg	☼	12/03/20 14:00	12/04/20 12:03	5

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191682-1
Project/Site: Waukegan Soil Testing

Client Sample ID: C7-0-5
Lab Sample ID: 500-191682-17
Date Collected: 11/24/20 13:30
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 75.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	51		1.3	0.43	mg/Kg	☼	12/02/20 18:15	12/03/20 13:54	1
Boron	390		6.3	0.58	mg/Kg	☼	12/02/20 18:15	12/03/20 13:54	1
Calcium	19000	B	25	4.2	mg/Kg	☼	12/02/20 18:15	12/03/20 13:54	1
Iron	39000		25	13	mg/Kg	☼	12/02/20 18:15	12/03/20 13:54	1
Lithium	20		1.3	0.37	mg/Kg	☼	12/02/20 18:15	12/03/20 13:54	1
Manganese	270		1.3	0.18	mg/Kg	☼	12/02/20 18:15	12/03/20 13:54	1
Molybdenum	7.6		1.3	0.52	mg/Kg	☼	12/02/20 18:15	12/03/20 13:54	1
Thallium	4.1		1.3	0.62	mg/Kg	☼	12/02/20 18:15	12/03/20 13:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.2	0.2	SU			12/01/20 09:03	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/03/20 14:00	12/03/20 19:40	1
Sulfate	990		53	25	mg/Kg	☼	12/03/20 14:00	12/04/20 12:43	20

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C7-5-10
Date Collected: 11/24/20 13:32
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-18
Matrix: Solid
Percent Solids: 68.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	31		1.3	0.45	mg/Kg	☼	12/02/20 18:15	12/03/20 14:07	1
Boron	360		6.6	0.61	mg/Kg	☼	12/02/20 18:15	12/03/20 14:07	1
Calcium	15000	B	26	4.5	mg/Kg	☼	12/02/20 18:15	12/03/20 14:07	1
Iron	44000		26	14	mg/Kg	☼	12/02/20 18:15	12/03/20 14:07	1
Lithium	21		1.3	0.39	mg/Kg	☼	12/02/20 18:15	12/04/20 13:33	1
Manganese	190		1.3	0.19	mg/Kg	☼	12/02/20 18:15	12/03/20 14:07	1
Molybdenum	20		1.3	0.55	mg/Kg	☼	12/02/20 18:15	12/03/20 14:07	1
Thallium	4.3		1.3	0.66	mg/Kg	☼	12/02/20 18:15	12/03/20 14:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.8		0.2	0.2	SU			12/01/20 09:05	1
Chloride	<2.9		2.9	2.4	mg/Kg	☼	12/03/20 14:00	12/03/20 19:53	1
Sulfate	620		29	14	mg/Kg	☼	12/03/20 14:00	12/04/20 12:57	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C7-10-12
Date Collected: 11/24/20 13:34
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-19
Matrix: Solid
Percent Solids: 66.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	33		1.4	0.48	mg/Kg	☼	12/02/20 18:15	12/03/20 14:10	1
Boron	170		7.0	0.65	mg/Kg	☼	12/02/20 18:15	12/03/20 14:10	1
Calcium	19000	B	28	4.7	mg/Kg	☼	12/02/20 18:15	12/03/20 14:10	1
Iron	63000		28	15	mg/Kg	☼	12/02/20 18:15	12/03/20 14:10	1
Lithium	15		1.4	0.42	mg/Kg	☼	12/02/20 18:15	12/04/20 13:36	1
Manganese	260		1.4	0.20	mg/Kg	☼	12/02/20 18:15	12/03/20 14:10	1
Molybdenum	28		1.4	0.58	mg/Kg	☼	12/02/20 18:15	12/03/20 14:10	1
Thallium	4.8		1.4	0.70	mg/Kg	☼	12/02/20 18:15	12/03/20 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.2	0.2	SU			12/01/20 09:08	1
Chloride	2.9		2.9	2.5	mg/Kg	☼	12/03/20 14:00	12/03/20 20:07	1
Sulfate	760		29	14	mg/Kg	☼	12/03/20 14:00	12/04/20 13:11	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C8-0-5
Date Collected: 11/24/20 13:20
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-20
Matrix: Solid
Percent Solids: 75.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**50**		1.3	0.44	mg/Kg	☼	12/02/20 18:15	12/03/20 14:13	1
Boron	**140**		6.4	0.60	mg/Kg	☼	12/02/20 18:15	12/03/20 14:13	1
Calcium	**25000**	**B**	26	4.4	mg/Kg	☼	12/02/20 18:15	12/03/20 14:13	1
Iron	**38000**		26	13	mg/Kg	☼	12/02/20 18:15	12/03/20 14:13	1
Lithium	**17**		1.3	0.39	mg/Kg	☼	12/02/20 18:15	12/04/20 13:39	1
Manganese	**250**		1.3	0.19	mg/Kg	☼	12/02/20 18:15	12/03/20 14:13	1
Molybdenum	**3.9**		1.3	0.53	mg/Kg	☼	12/02/20 18:15	12/03/20 14:13	1
Thallium	**3.5**		1.3	0.64	mg/Kg	☼	12/02/20 18:15	12/03/20 14:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.7**		0.2	0.2	SU			12/01/20 09:10	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/03/20 14:00	12/03/20 20:21	1
Sulfate	**280**		13	6.2	mg/Kg	☼	12/03/20 14:00	12/04/20 13:24	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C8-5-10
Date Collected: 11/24/20 13:22
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-21
Matrix: Solid
Percent Solids: 76.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	24		1.1	0.39	mg/Kg	☼	12/02/20 18:18	12/03/20 12:23	1
Boron	150		5.7	0.54	mg/Kg	☼	12/02/20 18:18	12/03/20 12:23	1
Calcium	19000	B	23	3.9	mg/Kg	☼	12/02/20 18:18	12/03/20 12:23	1
Iron	50000		23	12	mg/Kg	☼	12/02/20 18:18	12/03/20 12:23	1
Lithium	25		1.1	0.34	mg/Kg	☼	12/02/20 18:18	12/03/20 12:23	1
Manganese	220		1.1	0.17	mg/Kg	☼	12/02/20 18:18	12/03/20 12:23	1
Molybdenum	8.2		1.1	0.48	mg/Kg	☼	12/02/20 18:18	12/03/20 12:23	1
Thallium	2.8		1.1	0.57	mg/Kg	☼	12/02/20 18:18	12/03/20 12:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			12/01/20 09:13	1
Chloride	2.6		2.4	2.1	mg/Kg	☼	12/03/20 14:00	12/03/20 20:34	1
Sulfate	480		12	5.8	mg/Kg	☼	12/03/20 14:00	12/04/20 13:38	5

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C8-10-12
Date Collected: 11/24/20 13:24
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-22
Matrix: Solid
Percent Solids: 76.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	29		1.1	0.39	mg/Kg	☼	12/02/20 18:18	12/03/20 12:26	1
Boron	200		5.7	0.53	mg/Kg	☼	12/02/20 18:18	12/03/20 12:26	1
Calcium	12000	B	23	3.9	mg/Kg	☼	12/02/20 18:18	12/03/20 12:26	1
Iron	42000		23	12	mg/Kg	☼	12/02/20 18:18	12/03/20 12:26	1
Lithium	17		1.1	0.34	mg/Kg	☼	12/02/20 18:18	12/03/20 12:26	1
Manganese	160		1.1	0.17	mg/Kg	☼	12/02/20 18:18	12/03/20 12:26	1
Molybdenum	9.2		1.1	0.47	mg/Kg	☼	12/02/20 18:18	12/03/20 12:26	1
Thallium	4.6		1.1	0.57	mg/Kg	☼	12/02/20 18:18	12/03/20 12:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.4		0.2	0.2	SU			12/01/20 09:15	1
Chloride	2.6		2.5	2.1	mg/Kg	☼	12/03/20 14:00	12/03/20 20:48	1
Sulfate	1000		50	24	mg/Kg	☼	12/03/20 14:00	12/04/20 13:52	20

Definitions/Glossary

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
V	Serial Dilution exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Midwest Generation EME LLC
Job ID: 500-191682-1
Project/Site: Waukegan Soil Testing

Metals

Prep Batch: 575042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-1	C1-0-5	Total/NA	Solid	3050B	
500-191682-2	C1-5-9	Total/NA	Solid	3050B	
500-191682-3	C2-0-5	Total/NA	Solid	3050B	
500-191682-4	C2-5-9	Total/NA	Solid	3050B	
500-191682-5	C3-0-5	Total/NA	Solid	3050B	
500-191682-6	C3-5-10	Total/NA	Solid	3050B	
500-191682-7	C3-10-11	Total/NA	Solid	3050B	
500-191682-8	C4-0-5	Total/NA	Solid	3050B	
500-191682-9	C4-5-10	Total/NA	Solid	3050B	
500-191682-10	C4-10-11	Total/NA	Solid	3050B	
500-191682-11	C5-0-5	Total/NA	Solid	3050B	
500-191682-12	C5-5-10	Total/NA	Solid	3050B	
500-191682-13	C5-10-12	Total/NA	Solid	3050B	
500-191682-14	C6-0-5	Total/NA	Solid	3050B	
500-191682-15	C6-5-10	Total/NA	Solid	3050B	
500-191682-16	C6-10-12	Total/NA	Solid	3050B	
500-191682-17	C7-0-5	Total/NA	Solid	3050B	
500-191682-18	C7-5-10	Total/NA	Solid	3050B	
500-191682-19	C7-10-12	Total/NA	Solid	3050B	
500-191682-20	C8-0-5	Total/NA	Solid	3050B	
MB 500-575042/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-575042/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-191682-1 MS	C1-0-5	Total/NA	Solid	3050B	
500-191682-1 MSD	C1-0-5	Total/NA	Solid	3050B	
500-191682-1 DU	C1-0-5	Total/NA	Solid	3050B	

Prep Batch: 575043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-21	C8-5-10	Total/NA	Solid	3050B	
500-191682-22	C8-10-12	Total/NA	Solid	3050B	
MB 500-575043/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-575043/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 575235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-1	C1-0-5	Total/NA	Solid	6010B	575042
500-191682-2	C1-5-9	Total/NA	Solid	6010B	575042
500-191682-3	C2-0-5	Total/NA	Solid	6010B	575042
500-191682-4	C2-5-9	Total/NA	Solid	6010B	575042
500-191682-5	C3-0-5	Total/NA	Solid	6010B	575042
500-191682-6	C3-5-10	Total/NA	Solid	6010B	575042
500-191682-7	C3-10-11	Total/NA	Solid	6010B	575042
500-191682-8	C4-0-5	Total/NA	Solid	6010B	575042
500-191682-9	C4-5-10	Total/NA	Solid	6010B	575042
500-191682-10	C4-10-11	Total/NA	Solid	6010B	575042
500-191682-11	C5-0-5	Total/NA	Solid	6010B	575042
500-191682-12	C5-5-10	Total/NA	Solid	6010B	575042
500-191682-13	C5-10-12	Total/NA	Solid	6010B	575042
500-191682-14	C6-0-5	Total/NA	Solid	6010B	575042
500-191682-15	C6-5-10	Total/NA	Solid	6010B	575042
500-191682-16	C6-10-12	Total/NA	Solid	6010B	575042

Metals (Continued)

Analysis Batch: 575235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-17	C7-0-5	Total/NA	Solid	6010B	575042
500-191682-18	C7-5-10	Total/NA	Solid	6010B	575042
500-191682-19	C7-10-12	Total/NA	Solid	6010B	575042
500-191682-20	C8-0-5	Total/NA	Solid	6010B	575042
500-191682-21	C8-5-10	Total/NA	Solid	6010B	575043
500-191682-22	C8-10-12	Total/NA	Solid	6010B	575043
MB 500-575042/1-A	Method Blank	Total/NA	Solid	6010B	575042
MB 500-575043/1-A	Method Blank	Total/NA	Solid	6010B	575043
LCS 500-575042/2-A	Lab Control Sample	Total/NA	Solid	6010B	575042
LCS 500-575043/2-A	Lab Control Sample	Total/NA	Solid	6010B	575043
500-191682-1 MS	C1-0-5	Total/NA	Solid	6010B	575042
500-191682-1 MSD	C1-0-5	Total/NA	Solid	6010B	575042
500-191682-1 DU	C1-0-5	Total/NA	Solid	6010B	575042

Analysis Batch: 575581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-4	C2-5-9	Total/NA	Solid	6010B	575042
500-191682-6	C3-5-10	Total/NA	Solid	6010B	575042
500-191682-18	C7-5-10	Total/NA	Solid	6010B	575042
500-191682-19	C7-10-12	Total/NA	Solid	6010B	575042
500-191682-20	C8-0-5	Total/NA	Solid	6010B	575042
MRL 500-575581/15	Lab Control Sample	Total/NA	Solid	6010B	

General Chemistry

Analysis Batch: 574520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-1	C1-0-5	Total/NA	Solid	Moisture	
500-191682-2	C1-5-9	Total/NA	Solid	Moisture	
500-191682-3	C2-0-5	Total/NA	Solid	Moisture	
500-191682-4	C2-5-9	Total/NA	Solid	Moisture	
500-191682-5	C3-0-5	Total/NA	Solid	Moisture	
500-191682-6	C3-5-10	Total/NA	Solid	Moisture	
500-191682-7	C3-10-11	Total/NA	Solid	Moisture	
500-191682-8	C4-0-5	Total/NA	Solid	Moisture	
500-191682-9	C4-5-10	Total/NA	Solid	Moisture	
500-191682-10	C4-10-11	Total/NA	Solid	Moisture	
500-191682-11	C5-0-5	Total/NA	Solid	Moisture	
500-191682-12	C5-5-10	Total/NA	Solid	Moisture	
500-191682-13	C5-10-12	Total/NA	Solid	Moisture	
500-191682-14	C6-0-5	Total/NA	Solid	Moisture	
500-191682-15	C6-5-10	Total/NA	Solid	Moisture	
500-191682-5 DU	C3-0-5	Total/NA	Solid	Moisture	

Analysis Batch: 574555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-16	C6-10-12	Total/NA	Solid	Moisture	
500-191682-17	C7-0-5	Total/NA	Solid	Moisture	
500-191682-18	C7-5-10	Total/NA	Solid	Moisture	
500-191682-19	C7-10-12	Total/NA	Solid	Moisture	
500-191682-20	C8-0-5	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 574555 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-21	C8-5-10	Total/NA	Solid	Moisture	
500-191682-22	C8-10-12	Total/NA	Solid	Moisture	
500-191682-17 DU	C7-0-5	Total/NA	Solid	Moisture	

Analysis Batch: 574692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-1	C1-0-5	Total/NA	Solid	9045C	
500-191682-2	C1-5-9	Total/NA	Solid	9045C	
500-191682-3	C2-0-5	Total/NA	Solid	9045C	
500-191682-4	C2-5-9	Total/NA	Solid	9045C	
500-191682-5	C3-0-5	Total/NA	Solid	9045C	
500-191682-6	C3-5-10	Total/NA	Solid	9045C	
500-191682-7	C3-10-11	Total/NA	Solid	9045C	
500-191682-8	C4-0-5	Total/NA	Solid	9045C	
500-191682-9	C4-5-10	Total/NA	Solid	9045C	
500-191682-10	C4-10-11	Total/NA	Solid	9045C	
500-191682-11	C5-0-5	Total/NA	Solid	9045C	
500-191682-12	C5-5-10	Total/NA	Solid	9045C	
500-191682-13	C5-10-12	Total/NA	Solid	9045C	
500-191682-14	C6-0-5	Total/NA	Solid	9045C	
500-191682-15	C6-5-10	Total/NA	Solid	9045C	
500-191682-16	C6-10-12	Total/NA	Solid	9045C	
500-191682-17	C7-0-5	Total/NA	Solid	9045C	
500-191682-18	C7-5-10	Total/NA	Solid	9045C	
500-191682-19	C7-10-12	Total/NA	Solid	9045C	
500-191682-20	C8-0-5	Total/NA	Solid	9045C	
500-191682-21	C8-5-10	Total/NA	Solid	9045C	
500-191682-22	C8-10-12	Total/NA	Solid	9045C	
LCS 500-574692/2	Lab Control Sample	Total/NA	Solid	9045C	
LCSD 500-574692/3	Lab Control Sample Dup	Total/NA	Solid	9045C	
500-191682-5 DU	C3-0-5	Total/NA	Solid	9045C	

Prep Batch: 574695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-1	C1-0-5	Total/NA	Solid	300_Prep	
500-191682-2	C1-5-9	Total/NA	Solid	300_Prep	
500-191682-3	C2-0-5	Total/NA	Solid	300_Prep	
500-191682-4	C2-5-9	Total/NA	Solid	300_Prep	
500-191682-5	C3-0-5	Total/NA	Solid	300_Prep	
500-191682-6	C3-5-10	Total/NA	Solid	300_Prep	
500-191682-7	C3-10-11	Total/NA	Solid	300_Prep	
500-191682-8	C4-0-5	Total/NA	Solid	300_Prep	
500-191682-9	C4-5-10	Total/NA	Solid	300_Prep	
500-191682-10	C4-10-11	Total/NA	Solid	300_Prep	
500-191682-11	C5-0-5	Total/NA	Solid	300_Prep	
MB 500-574695/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 500-574695/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 574756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-1	C1-0-5	Total/NA	Solid	9056A	574695

1 2 3 4 5 6 7 8 9 10 11 12 13

General Chemistry (Continued)

Analysis Batch: 574756 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-1	C1-0-5	Total/NA	Solid	9056A	574695
500-191682-2	C1-5-9	Total/NA	Solid	9056A	574695
500-191682-3	C2-0-5	Total/NA	Solid	9056A	574695
500-191682-4	C2-5-9	Total/NA	Solid	9056A	574695
500-191682-5	C3-0-5	Total/NA	Solid	9056A	574695
500-191682-6	C3-5-10	Total/NA	Solid	9056A	574695
500-191682-7	C3-10-11	Total/NA	Solid	9056A	574695
500-191682-8	C4-0-5	Total/NA	Solid	9056A	574695
500-191682-9	C4-5-10	Total/NA	Solid	9056A	574695
500-191682-10	C4-10-11	Total/NA	Solid	9056A	574695
500-191682-11	C5-0-5	Total/NA	Solid	9056A	574695
MB 500-574695/1-A	Method Blank	Total/NA	Solid	9056A	574695
LCS 500-574695/2-A	Lab Control Sample	Total/NA	Solid	9056A	574695

Analysis Batch: 575204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-2	C1-5-9	Total/NA	Solid	9056A	574695
500-191682-3	C2-0-5	Total/NA	Solid	9056A	574695
500-191682-4	C2-5-9	Total/NA	Solid	9056A	574695
500-191682-5	C3-0-5	Total/NA	Solid	9056A	574695
500-191682-6	C3-5-10	Total/NA	Solid	9056A	574695
500-191682-7	C3-10-11	Total/NA	Solid	9056A	574695
500-191682-8	C4-0-5	Total/NA	Solid	9056A	574695
500-191682-9	C4-5-10	Total/NA	Solid	9056A	574695
500-191682-10	C4-10-11	Total/NA	Solid	9056A	574695
500-191682-11	C5-0-5	Total/NA	Solid	9056A	574695
500-191682-12	C5-5-10	Total/NA	Solid	9056A	575206
500-191682-13	C5-10-12	Total/NA	Solid	9056A	575206
500-191682-14	C6-0-5	Total/NA	Solid	9056A	575206
500-191682-15	C6-5-10	Total/NA	Solid	9056A	575206
500-191682-16	C6-10-12	Total/NA	Solid	9056A	575206
500-191682-17	C7-0-5	Total/NA	Solid	9056A	575206
500-191682-18	C7-5-10	Total/NA	Solid	9056A	575206
500-191682-19	C7-10-12	Total/NA	Solid	9056A	575206
500-191682-20	C8-0-5	Total/NA	Solid	9056A	575206
500-191682-21	C8-5-10	Total/NA	Solid	9056A	575206
500-191682-22	C8-10-12	Total/NA	Solid	9056A	575206
MB 500-574695/1-A	Method Blank	Total/NA	Solid	9056A	574695
MB 500-575206/1-A	Method Blank	Total/NA	Solid	9056A	575206
LCS 500-574695/2-A	Lab Control Sample	Total/NA	Solid	9056A	574695
LCS 500-575206/2-A	Lab Control Sample	Total/NA	Solid	9056A	575206
500-191682-14 MS	C6-0-5	Total/NA	Solid	9056A	575206
500-191682-14 MSD	C6-0-5	Total/NA	Solid	9056A	575206

Prep Batch: 575206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-12	C5-5-10	Total/NA	Solid	300_Prep	
500-191682-13	C5-10-12	Total/NA	Solid	300_Prep	
500-191682-14	C6-0-5	Total/NA	Solid	300_Prep	
500-191682-15	C6-5-10	Total/NA	Solid	300_Prep	
500-191682-16	C6-10-12	Total/NA	Solid	300_Prep	

QC Association Summary

General Chemistry (Continued)

Prep Batch: 575206 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-17	C7-0-5	Total/NA	Solid	300_Prep	
500-191682-18	C7-5-10	Total/NA	Solid	300_Prep	
500-191682-19	C7-10-12	Total/NA	Solid	300_Prep	
500-191682-20	C8-0-5	Total/NA	Solid	300_Prep	
500-191682-21	C8-5-10	Total/NA	Solid	300_Prep	
500-191682-22	C8-10-12	Total/NA	Solid	300_Prep	
MB 500-575206/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 500-575206/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
500-191682-14 MS	C6-0-5	Total/NA	Solid	300_Prep	
500-191682-14 MSD	C6-0-5	Total/NA	Solid	300_Prep	

Analysis Batch: 575421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191682-12	C5-5-10	Total/NA	Solid	9056A	575206
500-191682-13	C5-10-12	Total/NA	Solid	9056A	575206
500-191682-15	C6-5-10	Total/NA	Solid	9056A	575206
500-191682-16	C6-10-12	Total/NA	Solid	9056A	575206
500-191682-17	C7-0-5	Total/NA	Solid	9056A	575206
500-191682-18	C7-5-10	Total/NA	Solid	9056A	575206
500-191682-19	C7-10-12	Total/NA	Solid	9056A	575206
500-191682-20	C8-0-5	Total/NA	Solid	9056A	575206
500-191682-21	C8-5-10	Total/NA	Solid	9056A	575206
500-191682-22	C8-10-12	Total/NA	Solid	9056A	575206
MB 500-575206/1-A	Method Blank	Total/NA	Solid	9056A	575206
LCS 500-575206/2-A	Lab Control Sample	Total/NA	Solid	9056A	575206

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-575042/1-A
Matrix: Solid
Analysis Batch: 575235
Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575042

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.0		1.0	0.34	mg/Kg		12/02/20 18:15	12/03/20 12:29	1
Boron	<5.0		5.0	0.47	mg/Kg		12/02/20 18:15	12/03/20 12:29	1
Calcium	5.40	J	20	3.4	mg/Kg		12/02/20 18:15	12/03/20 12:29	1
Iron	<20		20	10	mg/Kg		12/02/20 18:15	12/03/20 12:29	1
Lithium	<1.0		1.0	0.30	mg/Kg		12/02/20 18:15	12/03/20 12:29	1
Manganese	<1.0		1.0	0.15	mg/Kg		12/02/20 18:15	12/03/20 12:29	1
Molybdenum	<1.0		1.0	0.42	mg/Kg		12/02/20 18:15	12/03/20 12:29	1
Thallium	<1.0		1.0	0.50	mg/Kg		12/02/20 18:15	12/03/20 12:29	1

Lab Sample ID: LCS 500-575042/2-A
Matrix: Solid
Analysis Batch: 575235
Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575042

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.14		mg/Kg		91	80 - 120
Boron	100	85.4		mg/Kg		85	80 - 120
Calcium	1000	944		mg/Kg		94	80 - 120
Iron	100	102		mg/Kg		102	80 - 120
Lithium	50.0	50.6		mg/Kg		101	80 - 120
Manganese	50.0	46.8		mg/Kg		94	80 - 120
Molybdenum	100	96.2		mg/Kg		96	80 - 120
Thallium	10.0	9.32		mg/Kg		93	80 - 120

Lab Sample ID: 500-191682-1 MS
Matrix: Solid
Analysis Batch: 575235
Client Sample ID: C1-0-5
Prep Type: Total/NA
Prep Batch: 575042

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	55	V	12.1	76.6	4	mg/Kg	☼	174	75 - 125
Boron	600	V	121	625	4	mg/Kg	☼	22	75 - 125
Calcium	30000	B V	1210	26600	4	mg/Kg	☼	-301	75 - 125
Iron	33000	V	121	34700	4	mg/Kg	☼	1230	75 - 125
Lithium	19		60.6	82.1		mg/Kg	☼	103	75 - 125
Manganese	200	F1 V	60.6	236	F1	mg/Kg	☼	66	75 - 125
Molybdenum	15		121	108		mg/Kg	☼	76	75 - 125
Thallium	3.3		12.1	13.2		mg/Kg	☼	82	75 - 125

Lab Sample ID: 500-191682-1 MSD
Matrix: Solid
Analysis Batch: 575235
Client Sample ID: C1-0-5
Prep Type: Total/NA
Prep Batch: 575042

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	55	V	12.0	81.9	4	mg/Kg	☼	221	75 - 125	7	20
Boron	600	V	120	670	4	mg/Kg	☼	60	75 - 125	7	20
Calcium	30000	B V	1200	25400	4	mg/Kg	☼	-400	75 - 125	4	20
Iron	33000	V	120	37000	4	mg/Kg	☼	3178	75 - 125	6	20
Lithium	19		59.9	80.5		mg/Kg	☼	102	75 - 125	2	20
Manganese	200	F1 V	59.9	242		mg/Kg	☼	76	75 - 125	3	20
Molybdenum	15		120	108		mg/Kg	☼	77	75 - 125	0	20

QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-191682-1 MSD
Matrix: Solid
Analysis Batch: 575235

Client Sample ID: C1-0-5
Prep Type: Total/NA
Prep Batch: 575042

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium	3.3		12.0	13.5		mg/Kg	☼	85	75 - 125	2	20

Lab Sample ID: 500-191682-1 DU
Matrix: Solid
Analysis Batch: 575235

Client Sample ID: C1-0-5
Prep Type: Total/NA
Prep Batch: 575042

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	55	V	67.5		mg/Kg	☼	20	20
Boron	600	V	605		mg/Kg	☼	1	20
Calcium	30000	B V	26700		mg/Kg	☼	12	20
Iron	33000	V	35800		mg/Kg	☼	7	20
Lithium	19		21.5		mg/Kg	☼	10	20
Manganese	200	F1 V	206		mg/Kg	☼	5	20
Molybdenum	15		15.5		mg/Kg	☼	0.9	20
Thallium	3.3		3.25		mg/Kg	☼	0.4	20

Lab Sample ID: MB 500-575043/1-A
Matrix: Solid
Analysis Batch: 575235

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575043

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.0		1.0	0.34	mg/Kg		12/02/20 18:18	12/03/20 11:07	1
Boron	<5.0		5.0	0.47	mg/Kg		12/02/20 18:18	12/03/20 11:07	1
Calcium	4.01	J	20	3.4	mg/Kg		12/02/20 18:18	12/03/20 11:07	1
Iron	<20		20	10	mg/Kg		12/02/20 18:18	12/03/20 11:07	1
Lithium	<1.0		1.0	0.30	mg/Kg		12/02/20 18:18	12/03/20 11:07	1
Manganese	<1.0		1.0	0.15	mg/Kg		12/02/20 18:18	12/03/20 11:07	1
Molybdenum	<1.0		1.0	0.42	mg/Kg		12/02/20 18:18	12/03/20 11:07	1
Thallium	<1.0		1.0	0.50	mg/Kg		12/02/20 18:18	12/03/20 11:07	1

Lab Sample ID: LCS 500-575043/2-A
Matrix: Solid
Analysis Batch: 575235

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575043

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.05		mg/Kg		90	80 - 120
Boron	100	84.4		mg/Kg		84	80 - 120
Calcium	1000	927		mg/Kg		93	80 - 120
Iron	100	97.9		mg/Kg		98	80 - 120
Lithium	50.0	49.2		mg/Kg		98	80 - 120
Manganese	50.0	45.5		mg/Kg		91	80 - 120
Molybdenum	100	96.0		mg/Kg		96	80 - 120
Thallium	10.0	9.37		mg/Kg		94	80 - 120

Lab Sample ID: MRL 500-575581/15
Matrix: Solid
Analysis Batch: 575581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0100	0.0107		mg/L		107	70 - 130

QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MRL 500-575581/15
Matrix: Solid
Analysis Batch: 575581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.0500	0.0481	J	mg/L		96	70 - 130
Calcium	0.200	0.201		mg/L		100	70 - 130
Iron	0.200	0.182	J	mg/L		91	70 - 130
Lithium	0.0100	0.0105		mg/L		105	70 - 130
Manganese	0.0100	0.00939	J	mg/L		94	70 - 130
Molybdenum	0.0100	0.00979	J	mg/L		98	70 - 130
Thallium	0.0100	0.00948	J	mg/L		95	70 - 130

Method: 9045C - pH

Lab Sample ID: 500-191682-5 DU
Matrix: Solid
Analysis Batch: 574692

Client Sample ID: C3-0-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.1		8.1		SU			0.5

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 500-574695/1-A
Matrix: Solid
Analysis Batch: 574756

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574695

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0	1.7	mg/Kg		12/01/20 10:45	12/01/20 11:49	1
Sulfate	<2.0		2.0	0.95	mg/Kg		12/01/20 10:45	12/01/20 11:49	1

Lab Sample ID: MB 500-574695/1-A
Matrix: Solid
Analysis Batch: 575204

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574695

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0	1.7	mg/Kg		12/01/20 10:45	12/03/20 13:19	1
Sulfate	<2.0		2.0	0.95	mg/Kg		12/01/20 10:45	12/03/20 13:19	1

Lab Sample ID: LCS 500-574695/2-A
Matrix: Solid
Analysis Batch: 574756

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	28.7		mg/Kg		96	80 - 120
Sulfate	50.0	53.1		mg/Kg		106	80 - 120

Lab Sample ID: LCS 500-574695/2-A
Matrix: Solid
Analysis Batch: 575204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	28.3		mg/Kg		94	80 - 120
Sulfate	50.0	52.1		mg/Kg		104	80 - 120

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 500-575206/1-A
Matrix: Solid
Analysis Batch: 575204

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575206

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0	1.7	mg/Kg		12/03/20 14:00	12/03/20 17:10	1
Sulfate	<2.0		2.0	0.95	mg/Kg		12/03/20 14:00	12/03/20 17:10	1

Lab Sample ID: MB 500-575206/1-A
Matrix: Solid
Analysis Batch: 575421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575206

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<2.0		2.0	0.95	mg/Kg		12/03/20 14:00	12/04/20 10:54	1

Lab Sample ID: LCS 500-575206/2-A
Matrix: Solid
Analysis Batch: 575204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575206

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	28.4		mg/Kg		95	80 - 120
Sulfate	50.0	52.3		mg/Kg		105	80 - 120

Lab Sample ID: LCS 500-575206/2-A
Matrix: Solid
Analysis Batch: 575421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575206

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	40.9		mg/Kg		82	80 - 120

Lab Sample ID: 500-191682-14 MS
Matrix: Solid
Analysis Batch: 575204

Client Sample ID: C6-0-5
Prep Type: Total/NA
Prep Batch: 575206

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.5		12.4	12.1		mg/Kg	☼	78	75 - 125
Sulfate	42		30.9	74.8		mg/Kg	☼	105	75 - 125

Lab Sample ID: 500-191682-14 MSD
Matrix: Solid
Analysis Batch: 575204

Client Sample ID: C6-0-5
Prep Type: Total/NA
Prep Batch: 575206

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.5		12.4	12.1		mg/Kg	☼	77	75 - 125	0	20
Sulfate	42		31.0	75.0		mg/Kg	☼	106	75 - 125	0	20

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Mitchel Dolan	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-8984-5667.1
Client Contact: [redacted] MD Rich Gnat	Phone: 262-781-0475	E-Mail: Diana.Mockler@Eurofinset.com		Page: Page 1 of 1
Company: Midwest Generation EME LLC			**Analysis Requested**	Job #: 500-191682
Address: 401 E Greenwood Avenue	Due Date Requested:			
City: Waukegan	TAT Requested (days):			
State, Zip: IL, 60087-5197				
Phone: [redacted] MD 262-781-0475	PO #: 4502012558			
Email: [redacted] MD richardg@kprginc.com	WO #:	500-191682 COC		
Project Name: Waukegan Soil Samples	Project #: 50001112			
Site:	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - As, B, Ca, Fe, Li, Mo, Tl, Mn (8 elements)	9056 - Chloride, Sulfate	9045D - pH	Total Number of containers	Special Instructions/Note:
				Preservation Code:								
1	C1-0-5	11/24	1435	C	S			X	X	X		
2	C1-5-9		1437									
3	C2-0-5		1418									
4	C2-5-9		1420									
5	C3-0-5		14:08									
6	C3-5-10		14:10									
7	C3-10-11		14:12									
8	C4-0-5		13:59									
9	C4-5-10		14:01									
10	C4-10-11		14:03									
11	C5-0-5		13:50									

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ________ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Michael Bless	11/25/20 / 1700	KPRG	Stephanie Hernandez	~~11/27~~ 11/25/20 1700	ETA-CHI

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.7→0.8 ; 3.9→2.0

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Mitchel Dolan	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-8984-5667.1
Client Contact: [redacted] MD Rich Gnat	Phone: 262-781-0475	E-Mail: Diana.Mockler@Eurofinset.com		Page: Page 1 of 1
Company: Midwest Generation EME LLC		**Analysis Requested**		Job #: 500-191682
Address: 401 E Greenwood Avenue	Due Date Requested:			
City: Waukegan	TAT Requested (days):			
State, Zip: IL, 60087-5197				
Phone: [redacted] MD 262-781-0475	PO #: 4502012558			
Email: [redacted] MD richardgaikprg.rc.com	WO #:			
Project Name: Waukegan Soil Samples	Project #: 50001112			
Site:	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - As, B, Ca, Fe, Li, Mo, Tl, Mn (8 elements)	9056 - Chloride, Sulfate	9045D - pH	Total Number of containers	Special Instructions/Note:
				Preservation Code:		X	X				X	
12	C-5-5-10	11/24	13:52	C	S			X	X	X		
13	C-5-10-12	↓	13:54	↓	↓			↓	↓	↓		
14	C6-0-5		13:40									
15	C6-5-10		1342									
16	C6-10-12		1344									
17	C7-0-5		1330									
18	C7-5-10		1332									
19	C7-10-12		1334									
20	C8-0-5		1320									
21	C8-5-10		1322									
22	C8-10-12		1324									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ________ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Michael Ress	11/25/20 / 1700	KPRG	Stephanie Hernandez	11/25/20 1700	ETA-CHI

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-191682-1

Login Number: 191682
List Number: 1
Creator: Hernandez, Stephanie

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8,2.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C1-0-5
Date Collected: 11/24/20 14:35
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:15	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C1-0-5
Date Collected: 11/24/20 14:35
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-1
Matrix: Solid
Percent Solids: 75.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 12:36	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 17:44	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		20	574756	12/01/20 22:29	EAT	TAL CHI

Client Sample ID: C1-5-9
Date Collected: 11/24/20 14:37
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:17	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C1-5-9
Date Collected: 11/24/20 14:37
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-2
Matrix: Solid
Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 12:59	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 17:57	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575204	12/03/20 13:46	EAT	TAL CHI

Client Sample ID: C2-0-5
Date Collected: 11/24/20 14:18
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:20	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Lab Chronicle

Client Sample ID: C2-0-5 — **Lab Sample ID: 500-191682-3**
Date Collected: 11/24/20 14:18 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 71.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:02	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 18:11	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		2	575204	12/03/20 14:00	EAT	TAL CHI

Client Sample ID: C2-5-9 — **Lab Sample ID: 500-191682-4**
Date Collected: 11/24/20 14:20 — **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:22	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C2-5-9 — **Lab Sample ID: 500-191682-4**
Date Collected: 11/24/20 14:20 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 80.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:06	JJB	TAL CHI
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		5	575581	12/04/20 13:24	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 18:24	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		2	575204	12/03/20 14:13	EAT	TAL CHI

Client Sample ID: C3-0-5 — **Lab Sample ID: 500-191682-5**
Date Collected: 11/24/20 14:08 — **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:27	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C3-0-5 — **Lab Sample ID: 500-191682-5**
Date Collected: 11/24/20 14:08 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 73.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:09	JJB	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

1 2 3 4 5 6 7 8 9 10 11 12 13

Client Sample ID: C3-0-5
Lab Sample ID: 500-191682-5
Date Collected: 11/24/20 14:08
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 73.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 18:38	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		20	575204	12/03/20 14:27	EAT	TAL CHI

Client Sample ID: C3-5-10
Lab Sample ID: 500-191682-6
Date Collected: 11/24/20 14:10
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:33	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C3-5-10
Lab Sample ID: 500-191682-6
Date Collected: 11/24/20 14:10
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:12	JJB	TAL CHI
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		5	575581	12/04/20 13:27	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 18:52	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		2	575204	12/03/20 14:41	EAT	TAL CHI

Client Sample ID: C3-10-11
Lab Sample ID: 500-191682-7
Date Collected: 11/24/20 14:12
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:35	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C3-10-11
Lab Sample ID: 500-191682-7
Date Collected: 11/24/20 14:12
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:16	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 19:05	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Job ID: 500-191682-1
Project/Site: Waukegan Soil Testing

Client Sample ID: C3-10-11
Lab Sample ID: 500-191682-7
Date Collected: 11/24/20 14:12
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		20	575204	12/03/20 14:54	EAT	TAL CHI

Client Sample ID: C4-0-5
Lab Sample ID: 500-191682-8
Date Collected: 11/24/20 13:59
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:38	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C4-0-5
Lab Sample ID: 500-191682-8
Date Collected: 11/24/20 13:59
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 75.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:26	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 19:46	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575204	12/03/20 15:08	EAT	TAL CHI

Client Sample ID: C4-5-10
Lab Sample ID: 500-191682-9
Date Collected: 11/24/20 14:01
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:40	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C4-5-10
Lab Sample ID: 500-191682-9
Date Collected: 11/24/20 14:01
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 75.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:29	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 20:00	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575204	12/03/20 15:21	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Job ID: 500-191682-1
Project/Site: Waukegan Soil Testing

Client Sample ID: C4-10-11 **Lab Sample ID: 500-191682-10**
Date Collected: 11/24/20 14:03 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:43	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C4-10-11 **Lab Sample ID: 500-191682-10**
Date Collected: 11/24/20 14:03 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 82.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:32	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 20:13	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		20	575204	12/03/20 16:02	EAT	TAL CHI

Client Sample ID: C5-0-5 **Lab Sample ID: 500-191682-11**
Date Collected: 11/24/20 13:50 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:45	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C5-0-5 **Lab Sample ID: 500-191682-11**
Date Collected: 11/24/20 13:50 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 69.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:35	JJB	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	574756	12/01/20 20:27	EAT	TAL CHI
Total/NA	Prep	300_Prep			574695	12/01/20 13:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575204	12/03/20 16:16	EAT	TAL CHI

Client Sample ID: C5-5-10 **Lab Sample ID: 500-191682-12**
Date Collected: 11/24/20 13:52 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:48	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C5-5-10 **Lab Sample ID: 500-191682-12**
Date Collected: 11/24/20 13:52 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 74.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:38	JJB	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575421	12/04/20 11:22	EAT	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 17:37	EAT	TAL CHI

Client Sample ID: C5-10-12 **Lab Sample ID: 500-191682-13**
Date Collected: 11/24/20 13:54 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:50	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C5-10-12 **Lab Sample ID: 500-191682-13**
Date Collected: 11/24/20 13:54 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 87.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:41	JJB	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575421	12/04/20 11:35	EAT	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 17:51	EAT	TAL CHI

Client Sample ID: C6-0-5 **Lab Sample ID: 500-191682-14**
Date Collected: 11/24/20 13:40 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:55	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C6-0-5 **Lab Sample ID: 500-191682-14**
Date Collected: 11/24/20 13:40 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 79.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:44	JJB	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 18:04	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Job ID: 500-191682-1
Project/Site: Waukegan Soil Testing

Client Sample ID: C6-5-10
Lab Sample ID: 500-191682-15
Date Collected: 11/24/20 13:42
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 08:58	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574520	11/30/20 12:30	LWN	TAL CHI

Client Sample ID: C6-5-10
Lab Sample ID: 500-191682-15
Date Collected: 11/24/20 13:42
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 68.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:47	JJB	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575421	12/04/20 11:49	EAT	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 19:12	EAT	TAL CHI

Client Sample ID: C6-10-12
Lab Sample ID: 500-191682-16
Date Collected: 11/24/20 13:44
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:00	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: C6-10-12
Lab Sample ID: 500-191682-16
Date Collected: 11/24/20 13:44
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:50	JJB	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575421	12/04/20 12:03	EAT	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 19:26	EAT	TAL CHI

Client Sample ID: C7-0-5
Lab Sample ID: 500-191682-17
Date Collected: 11/24/20 13:30
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:03	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C7-0-5 **Lab Sample ID: 500-191682-17**
Date Collected: 11/24/20 13:30 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 75.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 13:54	JJB	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		20	575421	12/04/20 12:43	EAT	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 19:40	EAT	TAL CHI

Client Sample ID: C7-5-10 **Lab Sample ID: 500-191682-18**
Date Collected: 11/24/20 13:32 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:05	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: C7-5-10 **Lab Sample ID: 500-191682-18**
Date Collected: 11/24/20 13:32 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 68.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 14:07	JJB	TAL CHI
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575581	12/04/20 13:33	JJB	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575421	12/04/20 12:57	EAT	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 19:53	EAT	TAL CHI

Client Sample ID: C7-10-12 **Lab Sample ID: 500-191682-19**
Date Collected: 11/24/20 13:34 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:08	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: C7-10-12 **Lab Sample ID: 500-191682-19**
Date Collected: 11/24/20 13:34 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 66.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 14:10	JJB	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C7-10-12 **Lab Sample ID: 500-191682-19**
Date Collected: 11/24/20 13:34 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 66.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575581	12/04/20 13:36	JJB	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575421	12/04/20 13:11	EAT	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 20:07	EAT	TAL CHI

Client Sample ID: C8-0-5 **Lab Sample ID: 500-191682-20**
Date Collected: 11/24/20 13:20 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:10	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: C8-0-5 **Lab Sample ID: 500-191682-20**
Date Collected: 11/24/20 13:20 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 75.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 14:13	JJB	TAL CHI
Total/NA	Prep	3050B			575042	12/02/20 18:15	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575581	12/04/20 13:39	JJB	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575421	12/04/20 13:24	EAT	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 20:21	EAT	TAL CHI

Client Sample ID: C8-5-10 **Lab Sample ID: 500-191682-21**
Date Collected: 11/24/20 13:22 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:13	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: C8-5-10 **Lab Sample ID: 500-191682-21**
Date Collected: 11/24/20 13:22 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 76.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575043	12/02/20 18:18	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 12:23	JJB	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191682-1

Client Sample ID: C8-5-10
Date Collected: 11/24/20 13:22
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-21
Matrix: Solid
Percent Solids: 76.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575421	12/04/20 13:38	EAT	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 20:34	EAT	TAL CHI

Client Sample ID: C8-10-12
Date Collected: 11/24/20 13:24
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-22
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:15	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: C8-10-12
Date Collected: 11/24/20 13:24
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191682-22
Matrix: Solid
Percent Solids: 76.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575043	12/02/20 18:18	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575235	12/03/20 12:26	JJB	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		20	575421	12/04/20 13:52	EAT	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 20:48	EAT	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-21

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-191683-1
Client Project/Site: Waukegan Soil Testing

For:
Midwest Generation EME LLC
401 E Greenwood Avenue
Waukegan, Illinois 60087-5197

Attn: Mr. Mark Wehling

Diana Mockler

Authorized for release by:
12/8/2020 11:34:04 AM

Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@Eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1 2 3 4 5 6 7 8 9 10 11 12 13

Table of Contents

Case Narrative

Job ID: 500-191683-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-191683-1

Comments
No additional comments.

Receipt
The samples were received on 11/25/2020 5:00 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.8º C and 2.0º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CHI
9045C	pH	SW846	TAL CHI
9056A	Anions, Ion Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
300_Prep	Anions, Ion Chromatography, 10% Wt/Vol	MCAWW	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Midwest Generation EME LLC
Job ID: 500-191683-1
Project/Site: Waukegan Soil Testing

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-191683-1	C9-0-5	Solid	11/24/20 13:12	11/25/20 17:01	
500-191683-2	C9-5-10	Solid	11/24/20 13:14	11/25/20 17:01	
500-191683-3	C9-10-13	Solid	11/24/20 13:16	11/25/20 17:01	
500-191683-4	C10-0-5	Solid	11/24/20 12:50	11/25/20 17:01	
500-191683-5	C10-5-10	Solid	11/24/20 12:52	11/25/20 17:01	
500-191683-6	C10-10-13	Solid	11/24/20 12:54	11/25/20 17:01	
500-191683-7	D10-0-5	Solid	11/24/20 12:45	11/25/20 17:01	
500-191683-8	D10-5-10	Solid	11/24/20 12:47	11/25/20 17:01	
500-191683-9	D10-10-15	Solid	11/24/20 12:49	11/25/20 17:01	
500-191683-10	D9-0-5	Solid	11/24/20 12:25	11/25/20 17:01	
500-191683-11	D9-5-10	Solid	11/24/20 12:27	11/25/20 17:01	
500-191683-12	D1-10-12	Solid	11/24/20 10:54	11/25/20 17:01	

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Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Client Sample ID: C9-0-5

Lab Sample ID: 500-191683-1

Date Collected: 11/24/20 13:12
Date Received: 11/25/20 17:01

Matrix: Solid
Percent Solids: 76.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**48**	**F1 V**	1.1	0.39	mg/Kg	☼	12/03/20 17:51	12/04/20 18:05	1
Boron	**120**	**F1 V**	5.7	0.53	mg/Kg	☼	12/03/20 17:51	12/04/20 18:05	1
Calcium	**29000**	**F2 B V**	23	3.9	mg/Kg	☼	12/03/20 17:51	12/04/20 18:05	1
Iron	**46000**	**V**	23	12	mg/Kg	☼	12/03/20 17:51	12/04/20 18:05	1
Lithium	**24**	**V**	1.1	0.34	mg/Kg	☼	12/03/20 17:51	12/04/20 18:05	1
Manganese	**220**	**F1 V**	1.1	0.16	mg/Kg	☼	12/03/20 17:51	12/04/20 18:05	1
Molybdenum	**7.2**	**F1**	1.1	0.47	mg/Kg	☼	12/03/20 17:51	12/04/20 18:05	1
Thallium	**1.5**		1.1	0.57	mg/Kg	☼	12/03/20 17:51	12/04/20 18:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.7**		0.2	0.2	SU			12/01/20 09:18	1
Chloride	<2.5		2.5	2.2	mg/Kg	☼	12/03/20 14:00	12/03/20 21:28	1
Sulfate	**65**		2.5	1.2	mg/Kg	☼	12/03/20 14:00	12/03/20 21:28	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

1 2 3 4 5 6 7 8 9 10 11 12 13

Client Sample ID: C9-5-10
Date Collected: 11/24/20 13:14
Date Received: 11/25/20 17:01

Lab Sample ID: 500-191683-2
Matrix: Solid
Percent Solids: 68.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	39		1.4	0.49	mg/Kg	☼	12/03/20 17:51	12/04/20 18:27	1
Boron	180		7.1	0.67	mg/Kg	☼	12/03/20 17:51	12/04/20 18:27	1
Calcium	13000	B	29	4.8	mg/Kg	☼	12/03/20 17:51	12/04/20 18:27	1
Iron	38000		29	15	mg/Kg	☼	12/03/20 17:51	12/04/20 18:27	1
Lithium	18		1.4	0.43	mg/Kg	☼	12/03/20 17:51	12/04/20 18:27	1
Manganese	150		1.4	0.21	mg/Kg	☼	12/03/20 17:51	12/04/20 18:27	1
Molybdenum	7.1		1.4	0.59	mg/Kg	☼	12/03/20 17:51	12/04/20 18:27	1
Thallium	3.0		1.4	0.71	mg/Kg	☼	12/03/20 17:51	12/04/20 18:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			12/01/20 09:23	1
Chloride	<2.8		2.8	2.3	mg/Kg	☼	12/03/20 14:00	12/03/20 21:42	1
Sulfate	660		28	13	mg/Kg	☼	12/03/20 14:00	12/04/20 14:05	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Client Sample ID: C9-10-13

Lab Sample ID: 500-191683-3

Date Collected: 11/24/20 13:16
Date Received: 11/25/20 17:01

Matrix: Solid
Percent Solids: 74.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	38		5.8	2.0	mg/Kg	☼	12/03/20 17:51	12/07/20 14:23	5
Boron	180		5.8	0.54	mg/Kg	☼	12/03/20 17:51	12/04/20 18:30	1
Calcium	22000	B	23	4.0	mg/Kg	☼	12/03/20 17:51	12/04/20 18:30	1
Iron	90000		120	61	mg/Kg	☼	12/03/20 17:51	12/07/20 14:23	5
Lithium	23		1.2	0.35	mg/Kg	☼	12/03/20 17:51	12/04/20 18:30	1
Manganese	250		1.2	0.17	mg/Kg	☼	12/03/20 17:51	12/04/20 18:30	1
Molybdenum	12		5.8	2.4	mg/Kg	☼	12/03/20 17:51	12/07/20 14:23	5
Thallium	3.7	J	5.8	2.9	mg/Kg	☼	12/03/20 17:51	12/07/20 14:23	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			12/01/20 09:25	1
Chloride	2.2	J	2.5	2.2	mg/Kg	☼	12/03/20 14:00	12/03/20 21:56	1
Sulfate	450		13	6.1	mg/Kg	☼	12/03/20 14:00	12/04/20 14:19	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Client Sample ID: C10-0-5

Date Collected: 11/24/20 12:50
Date Received: 11/25/20 17:01

Lab Sample ID: 500-191683-4
Matrix: Solid
Percent Solids: 81.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**15**		1.2	0.40	mg/Kg	☼	12/03/20 17:51	12/04/20 18:34	1
Boron	**89**		5.9	0.55	mg/Kg	☼	12/03/20 17:51	12/04/20 18:34	1
Calcium	**14000**	**B**	23	4.0	mg/Kg	☼	12/03/20 17:51	12/04/20 18:34	1
Iron	**38000**		23	12	mg/Kg	☼	12/03/20 17:51	12/04/20 18:34	1
Lithium	**15**		1.2	0.35	mg/Kg	☼	12/03/20 17:51	12/04/20 18:34	1
Manganese	**150**		1.2	0.17	mg/Kg	☼	12/03/20 17:51	12/04/20 18:34	1
Molybdenum	**4.6**		1.2	0.49	mg/Kg	☼	12/03/20 17:51	12/04/20 18:34	1
Thallium	**1.3**		1.2	0.59	mg/Kg	☼	12/03/20 17:51	12/04/20 18:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.6**		0.2	0.2	SU			12/01/20 09:28	1
Chloride	<2.3		2.3	2.0	mg/Kg	☼	12/03/20 14:00	12/03/20 22:09	1
Sulfate	**86**		2.3	1.1	mg/Kg	☼	12/03/20 14:00	12/03/20 22:09	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Client Sample ID: C10-5-10

Lab Sample ID: 500-191683-5

Date Collected: 11/24/20 12:52
Date Received: 11/25/20 17:01

Matrix: Solid
Percent Solids: 80.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**12**		1.2	0.39	mg/Kg	☼	12/03/20 17:51	12/04/20 18:37	1
Boron	**91**		5.8	0.54	mg/Kg	☼	12/03/20 17:51	12/04/20 18:37	1
Calcium	**19000**	**B**	23	3.9	mg/Kg	☼	12/03/20 17:51	12/04/20 18:37	1
Iron	**42000**		23	12	mg/Kg	☼	12/03/20 17:51	12/04/20 18:37	1
Lithium	**21**		1.2	0.35	mg/Kg	☼	12/03/20 17:51	12/04/20 18:37	1
Manganese	**180**		1.2	0.17	mg/Kg	☼	12/03/20 17:51	12/04/20 18:37	1
Molybdenum	**4.7**		1.2	0.48	mg/Kg	☼	12/03/20 17:51	12/04/20 18:37	1
Thallium	<1.2		1.2	0.58	mg/Kg	☼	12/03/20 17:51	12/04/20 18:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.6**		0.2	0.2	SU			12/01/20 09:31	1
Chloride	<2.5		2.5	2.1	mg/Kg	☼	12/03/20 14:00	12/03/20 22:23	1
Sulfate	**66**		2.5	1.2	mg/Kg	☼	12/03/20 14:00	12/03/20 22:23	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Client Sample ID: C10-10-13
Date Collected: 11/24/20 12:54
Date Received: 11/25/20 17:01

Lab Sample ID: 500-191683-6
Matrix: Solid
Percent Solids: 84.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14		5.0	1.7	mg/Kg	☼	12/03/20 17:51	12/07/20 14:26	5
Boron	100		5.0	0.47	mg/Kg	☼	12/03/20 17:51	12/04/20 18:40	1
Calcium	17000	B	20	3.4	mg/Kg	☼	12/03/20 17:51	12/04/20 18:40	1
Iron	74000		100	52	mg/Kg	☼	12/03/20 17:51	12/07/20 14:26	5
Lithium	20		1.0	0.30	mg/Kg	☼	12/03/20 17:51	12/04/20 18:40	1
Manganese	190		1.0	0.15	mg/Kg	☼	12/03/20 17:51	12/04/20 18:40	1
Molybdenum	8.0		5.0	2.1	mg/Kg	☼	12/03/20 17:51	12/07/20 14:26	5
Thallium	<5.0		5.0	2.5	mg/Kg	☼	12/03/20 17:51	12/07/20 14:26	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU			12/01/20 09:33	1
Chloride	1.9	J	2.1	1.8	mg/Kg	☼	12/03/20 14:00	12/03/20 22:36	1
Sulfate	54		2.1	1.0	mg/Kg	☼	12/03/20 14:00	12/03/20 22:36	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Client Sample ID: D10-0-5
Date Collected: 11/24/20 12:45
Date Received: 11/25/20 17:01

Lab Sample ID: 500-191683-7
Matrix: Solid
Percent Solids: 80.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	18		1.1	0.39	mg/Kg	☼	12/03/20 17:51	12/04/20 18:43	1
Boron	84		5.7	0.53	mg/Kg	☼	12/03/20 17:51	12/04/20 18:43	1
Calcium	14000	B	23	3.8	mg/Kg	☼	12/03/20 17:51	12/04/20 18:43	1
Iron	37000		23	12	mg/Kg	☼	12/03/20 17:51	12/04/20 18:43	1
Lithium	18		1.1	0.34	mg/Kg	☼	12/03/20 17:51	12/04/20 18:43	1
Manganese	170		1.1	0.16	mg/Kg	☼	12/03/20 17:51	12/04/20 18:43	1
Molybdenum	4.6		1.1	0.47	mg/Kg	☼	12/03/20 17:51	12/04/20 18:43	1
Thallium	0.98	J	1.1	0.56	mg/Kg	☼	12/03/20 17:51	12/04/20 18:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU			12/01/20 09:36	1
Chloride	<2.4		2.4	2.0	mg/Kg	☼	12/03/20 14:00	12/03/20 22:50	1
Sulfate	66		2.4	1.1	mg/Kg	☼	12/03/20 14:00	12/03/20 22:50	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

1 2 3 4 5 6 7 8 9 10 11 12 13

Client Sample ID: D10-5-10
Date Collected: 11/24/20 12:47
Date Received: 11/25/20 17:01

Lab Sample ID: 500-191683-8
Matrix: Solid
Percent Solids: 85.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**13**		1.2	0.39	mg/Kg	☼	12/03/20 17:51	12/04/20 18:46	1
Boron	**90**		5.8	0.54	mg/Kg	☼	12/03/20 17:51	12/04/20 18:46	1
Calcium	**16000**	**B**	23	3.9	mg/Kg	☼	12/03/20 17:51	12/04/20 18:46	1
Iron	**47000**		23	12	mg/Kg	☼	12/03/20 17:51	12/04/20 18:46	1
Lithium	**19**		1.2	0.34	mg/Kg	☼	12/03/20 17:51	12/04/20 18:46	1
Manganese	**190**		1.2	0.17	mg/Kg	☼	12/03/20 17:51	12/04/20 18:46	1
Molybdenum	**6.1**		1.2	0.48	mg/Kg	☼	12/03/20 17:51	12/04/20 18:46	1
Thallium	<1.2		1.2	0.57	mg/Kg	☼	12/03/20 17:51	12/04/20 18:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.5**		0.2	0.2	SU			12/01/20 09:41	1
Chloride	<2.3		2.3	1.9	mg/Kg	☼	12/03/20 14:00	12/03/20 23:04	1
Sulfate	**96**		2.3	1.1	mg/Kg	☼	12/03/20 14:00	12/03/20 23:04	1

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191683-1
Project/Site: Waukegan Soil Testing

Client Sample ID: D10-10-15
Lab Sample ID: 500-191683-9
Date Collected: 11/24/20 12:49
Matrix: Solid
Date Received: 11/25/20 17:01
Percent Solids: 67.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	32		1.5	0.50	mg/Kg	☼	12/03/20 17:51	12/04/20 18:56	1
Boron	110		7.4	0.69	mg/Kg	☼	12/03/20 17:51	12/04/20 18:56	1
Calcium	12000	B	29	5.0	mg/Kg	☼	12/03/20 17:51	12/04/20 18:56	1
Iron	46000		29	15	mg/Kg	☼	12/03/20 17:51	12/04/20 18:56	1
Lithium	13		1.5	0.44	mg/Kg	☼	12/03/20 17:51	12/04/20 18:56	1
Manganese	170		1.5	0.21	mg/Kg	☼	12/03/20 17:51	12/04/20 18:56	1
Molybdenum	22		1.5	0.61	mg/Kg	☼	12/03/20 17:51	12/04/20 18:56	1
Thallium	3.9		1.5	0.73	mg/Kg	☼	12/03/20 17:51	12/04/20 18:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			12/01/20 09:43	1
Chloride	<2.9		2.9	2.5	mg/Kg	☼	12/04/20 12:15	12/04/20 15:27	1
Sulfate	43		2.9	1.4	mg/Kg	☼	12/04/20 12:15	12/04/20 15:27	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Client Sample ID: D9-0-5

Lab Sample ID: 500-191683-10

Date Collected: 11/24/20 12:25
Date Received: 11/25/20 17:01

Matrix: Solid
Percent Solids: 86.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		1.1	0.36	mg/Kg	☼	12/03/20 17:51	12/04/20 18:59	1
Boron	72		5.3	0.49	mg/Kg	☼	12/03/20 17:51	12/04/20 18:59	1
Calcium	23000	B	21	3.6	mg/Kg	☼	12/03/20 17:51	12/04/20 18:59	1
Iron	41000		21	11	mg/Kg	☼	12/03/20 17:51	12/04/20 18:59	1
Lithium	18		1.1	0.32	mg/Kg	☼	12/03/20 17:51	12/04/20 18:59	1
Manganese	170		1.1	0.15	mg/Kg	☼	12/03/20 17:51	12/04/20 18:59	1
Molybdenum	4.4		1.1	0.44	mg/Kg	☼	12/03/20 17:51	12/04/20 18:59	1
Thallium	<1.1		1.1	0.53	mg/Kg	☼	12/03/20 17:51	12/04/20 18:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU			12/01/20 09:46	1
Chloride	<2.2		2.2	1.9	mg/Kg	☼	12/04/20 12:15	12/04/20 15:41	1
Sulfate	64	F1	2.2	1.1	mg/Kg	☼	12/04/20 12:15	12/04/20 15:41	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Client Sample ID: D9-5-10
Date Collected: 11/24/20 12:27
Date Received: 11/25/20 17:01

Lab Sample ID: 500-191683-11
Matrix: Solid
Percent Solids: 78.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.7**		1.2	0.40	mg/Kg	☼	12/03/20 17:51	12/04/20 19:03	1
Boron	**92**		5.9	0.55	mg/Kg	☼	12/03/20 17:51	12/04/20 19:03	1
Calcium	**25000**	**B**	24	4.0	mg/Kg	☼	12/03/20 17:51	12/04/20 19:03	1
Iron	**41000**		24	12	mg/Kg	☼	12/03/20 17:51	12/04/20 19:03	1
Lithium	**19**		1.2	0.35	mg/Kg	☼	12/03/20 17:51	12/04/20 19:03	1
Manganese	**180**		1.2	0.17	mg/Kg	☼	12/03/20 17:51	12/04/20 19:03	1
Molybdenum	**3.7**		1.2	0.49	mg/Kg	☼	12/03/20 17:51	12/04/20 19:03	1
Thallium	<1.2		1.2	0.59	mg/Kg	☼	12/03/20 17:51	12/04/20 19:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.8**		0.2	0.2	SU			12/01/20 16:26	1
Chloride	<2.5		2.5	2.1	mg/Kg	☼	12/04/20 12:15	12/04/20 16:22	1
Sulfate	**120**		2.5	1.2	mg/Kg	☼	12/04/20 12:15	12/04/20 16:22	1

Client Sample ID: D1-10-12
Date Collected: 11/24/20 10:54
Date Received: 11/25/20 17:01

Lab Sample ID: 500-191683-12
Matrix: Solid
Percent Solids: 82.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.8		1.1	0.36	mg/Kg	☼	12/03/20 17:51	12/04/20 19:06	1
Boron	120		5.3	0.49	mg/Kg	☼	12/03/20 17:51	12/04/20 19:06	1
Calcium	52000	B	21	3.6	mg/Kg	☼	12/03/20 17:51	12/04/20 19:06	1
Iron	22000		21	11	mg/Kg	☼	12/03/20 17:51	12/04/20 19:06	1
Lithium	22		1.1	0.32	mg/Kg	☼	12/03/20 17:51	12/04/20 19:06	1
Manganese	210		1.1	0.15	mg/Kg	☼	12/03/20 17:51	12/04/20 19:06	1
Molybdenum	5.2		1.1	0.44	mg/Kg	☼	12/03/20 17:51	12/04/20 19:06	1
Thallium	0.65	J	1.1	0.53	mg/Kg	☼	12/03/20 17:51	12/04/20 19:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.9		0.2	0.2	SU			12/01/20 16:29	1
Chloride	3.7		2.4	2.0	mg/Kg	☼	12/04/20 12:15	12/04/20 16:36	1
Sulfate	1100		48	23	mg/Kg	☼	12/04/20 12:15	12/07/20 15:03	20

Definitions/Glossary

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
V	Serial Dilution exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Metals

Prep Batch: 575261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-1	C9-0-5	Total/NA	Solid	3050B	
500-191683-2	C9-5-10	Total/NA	Solid	3050B	
500-191683-3	C9-10-13	Total/NA	Solid	3050B	
500-191683-4	C10-0-5	Total/NA	Solid	3050B	
500-191683-5	C10-5-10	Total/NA	Solid	3050B	
500-191683-6	C10-10-13	Total/NA	Solid	3050B	
500-191683-7	D10-0-5	Total/NA	Solid	3050B	
500-191683-8	D10-5-10	Total/NA	Solid	3050B	
500-191683-9	D10-10-15	Total/NA	Solid	3050B	
500-191683-10	D9-0-5	Total/NA	Solid	3050B	
500-191683-11	D9-5-10	Total/NA	Solid	3050B	
500-191683-12	D1-10-12	Total/NA	Solid	3050B	
MB 500-575261/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-575261/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-191683-1 MS	C9-0-5	Total/NA	Solid	3050B	
500-191683-1 MSD	C9-0-5	Total/NA	Solid	3050B	
500-191683-1 DU	C9-0-5	Total/NA	Solid	3050B	

Analysis Batch: 575564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-1	C9-0-5	Total/NA	Solid	6010B	575261
500-191683-2	C9-5-10	Total/NA	Solid	6010B	575261
500-191683-3	C9-10-13	Total/NA	Solid	6010B	575261
500-191683-4	C10-0-5	Total/NA	Solid	6010B	575261
500-191683-5	C10-5-10	Total/NA	Solid	6010B	575261
500-191683-6	C10-10-13	Total/NA	Solid	6010B	575261
500-191683-7	D10-0-5	Total/NA	Solid	6010B	575261
500-191683-8	D10-5-10	Total/NA	Solid	6010B	575261
500-191683-9	D10-10-15	Total/NA	Solid	6010B	575261
500-191683-10	D9-0-5	Total/NA	Solid	6010B	575261
500-191683-11	D9-5-10	Total/NA	Solid	6010B	575261
500-191683-12	D1-10-12	Total/NA	Solid	6010B	575261
MB 500-575261/1-A	Method Blank	Total/NA	Solid	6010B	575261
LCS 500-575261/2-A	Lab Control Sample	Total/NA	Solid	6010B	575261
500-191683-1 MS	C9-0-5	Total/NA	Solid	6010B	575261
500-191683-1 MSD	C9-0-5	Total/NA	Solid	6010B	575261
500-191683-1 DU	C9-0-5	Total/NA	Solid	6010B	575261

Analysis Batch: 575790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-3	C9-10-13	Total/NA	Solid	6010B	575261
500-191683-6	C10-10-13	Total/NA	Solid	6010B	575261

General Chemistry

Analysis Batch: 574555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-1	C9-0-5	Total/NA	Solid	Moisture	
500-191683-2	C9-5-10	Total/NA	Solid	Moisture	
500-191683-3	C9-10-13	Total/NA	Solid	Moisture	
500-191683-4	C10-0-5	Total/NA	Solid	Moisture	

1 2 3 4 5 6 7 8 9 10 11 12 13

General Chemistry (Continued)

Analysis Batch: 574555 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-5	C10-5-10	Total/NA	Solid	Moisture	
500-191683-6	C10-10-13	Total/NA	Solid	Moisture	
500-191683-7	D10-0-5	Total/NA	Solid	Moisture	
500-191683-8	D10-5-10	Total/NA	Solid	Moisture	
500-191683-9	D10-10-15	Total/NA	Solid	Moisture	
500-191683-10	D9-0-5	Total/NA	Solid	Moisture	
500-191683-11	D9-5-10	Total/NA	Solid	Moisture	
500-191683-12	D1-10-12	Total/NA	Solid	Moisture	

Analysis Batch: 574692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-1	C9-0-5	Total/NA	Solid	9045C	
500-191683-2	C9-5-10	Total/NA	Solid	9045C	
500-191683-3	C9-10-13	Total/NA	Solid	9045C	
500-191683-4	C10-0-5	Total/NA	Solid	9045C	
500-191683-5	C10-5-10	Total/NA	Solid	9045C	
500-191683-6	C10-10-13	Total/NA	Solid	9045C	
500-191683-7	D10-0-5	Total/NA	Solid	9045C	
500-191683-8	D10-5-10	Total/NA	Solid	9045C	
500-191683-9	D10-10-15	Total/NA	Solid	9045C	
500-191683-10	D9-0-5	Total/NA	Solid	9045C	
LCS 500-574692/2	Lab Control Sample	Total/NA	Solid	9045C	
LCSD 500-574692/3	Lab Control Sample Dup	Total/NA	Solid	9045C	
500-191683-7 DU	D10-0-5	Total/NA	Solid	9045C	

Analysis Batch: 574901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-11	D9-5-10	Total/NA	Solid	9045C	
500-191683-12	D1-10-12	Total/NA	Solid	9045C	

Analysis Batch: 575204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-1	C9-0-5	Total/NA	Solid	9056A	575206
500-191683-2	C9-5-10	Total/NA	Solid	9056A	575206
500-191683-3	C9-10-13	Total/NA	Solid	9056A	575206
500-191683-4	C10-0-5	Total/NA	Solid	9056A	575206
500-191683-5	C10-5-10	Total/NA	Solid	9056A	575206
500-191683-6	C10-10-13	Total/NA	Solid	9056A	575206
500-191683-7	D10-0-5	Total/NA	Solid	9056A	575206
500-191683-8	D10-5-10	Total/NA	Solid	9056A	575206
MB 500-575206/1-A	Method Blank	Total/NA	Solid	9056A	575206
LCS 500-575206/2-A	Lab Control Sample	Total/NA	Solid	9056A	575206

Prep Batch: 575206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-1	C9-0-5	Total/NA	Solid	300_Prep	
500-191683-2	C9-5-10	Total/NA	Solid	300_Prep	
500-191683-3	C9-10-13	Total/NA	Solid	300_Prep	
500-191683-4	C10-0-5	Total/NA	Solid	300_Prep	
500-191683-5	C10-5-10	Total/NA	Solid	300_Prep	
500-191683-6	C10-10-13	Total/NA	Solid	300_Prep	

QC Association Summary

General Chemistry (Continued)

Prep Batch: 575206 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-7	D10-0-5	Total/NA	Solid	300_Prep	
500-191683-8	D10-5-10	Total/NA	Solid	300_Prep	
MB 500-575206/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 500-575206/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 575387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-9	D10-10-15	Total/NA	Solid	300_Prep	
500-191683-10	D9-0-5	Total/NA	Solid	300_Prep	
500-191683-11	D9-5-10	Total/NA	Solid	300_Prep	
500-191683-12	D1-10-12	Total/NA	Solid	300_Prep	
MB 500-575387/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 500-575387/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
500-191683-10 MS	D9-0-5	Total/NA	Solid	300_Prep	
500-191683-10 MSD	D9-0-5	Total/NA	Solid	300_Prep	

Analysis Batch: 575421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-2	C9-5-10	Total/NA	Solid	9056A	575206
500-191683-3	C9-10-13	Total/NA	Solid	9056A	575206
500-191683-9	D10-10-15	Total/NA	Solid	9056A	575387
500-191683-10	D9-0-5	Total/NA	Solid	9056A	575387
500-191683-11	D9-5-10	Total/NA	Solid	9056A	575387
500-191683-12	D1-10-12	Total/NA	Solid	9056A	575387
MB 500-575206/1-A	Method Blank	Total/NA	Solid	9056A	575206
MB 500-575387/1-A	Method Blank	Total/NA	Solid	9056A	575387
LCS 500-575206/2-A	Lab Control Sample	Total/NA	Solid	9056A	575206
LCS 500-575387/2-A	Lab Control Sample	Total/NA	Solid	9056A	575387
500-191683-10 MS	D9-0-5	Total/NA	Solid	9056A	575387
500-191683-10 MSD	D9-0-5	Total/NA	Solid	9056A	575387

Analysis Batch: 575604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191683-12	D1-10-12	Total/NA	Solid	9056A	575387
MB 500-575387/1-A	Method Blank	Total/NA	Solid	9056A	575387
LCS 500-575387/2-A	Lab Control Sample	Total/NA	Solid	9056A	575387

QC Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191683-1
Project/Site: Waukegan Soil Testing

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-575261/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575564
Prep Batch: 575261

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.0		1.0	0.34	mg/Kg		12/03/20 17:51	12/04/20 17:58	1
Boron	<5.0		5.0	0.47	mg/Kg		12/03/20 17:51	12/04/20 17:58	1
Calcium	14.2	J	20	3.4	mg/Kg		12/03/20 17:51	12/04/20 17:58	1
Iron	<20		20	10	mg/Kg		12/03/20 17:51	12/04/20 17:58	1
Lithium	<1.0		1.0	0.30	mg/Kg		12/03/20 17:51	12/04/20 17:58	1
Manganese	<1.0		1.0	0.15	mg/Kg		12/03/20 17:51	12/04/20 17:58	1
Molybdenum	<1.0		1.0	0.42	mg/Kg		12/03/20 17:51	12/04/20 17:58	1
Thallium	<1.0		1.0	0.50	mg/Kg		12/03/20 17:51	12/04/20 17:58	1

Lab Sample ID: LCS 500-575261/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575564
Prep Batch: 575261

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.13		mg/Kg		91	80 - 120
Boron	100	84.4		mg/Kg		84	80 - 120
Calcium	1000	933		mg/Kg		93	80 - 120
Iron	100	99.5		mg/Kg		99	80 - 120
Lithium	50.0	50.2		mg/Kg		100	80 - 120
Manganese	50.0	45.4		mg/Kg		91	80 - 120
Molybdenum	100	98.9		mg/Kg		99	80 - 120
Thallium	10.0	9.81		mg/Kg		98	80 - 120

Lab Sample ID: 500-191683-1 MS
Client Sample ID: C9-0-5
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575564
Prep Batch: 575261

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	48	F1 V	12.1	67.7	F1	mg/Kg	☼	161	75 - 125
Boron	120	F1 V	121	205	F1	mg/Kg	☼	71	75 - 125
Calcium	29000	F2 B V	1210	29800	4	mg/Kg	☼	77	75 - 125
Iron	46000	V	121	44700	4	mg/Kg	☼	-1110	75 - 125
Lithium	24	V	60.6	81.8		mg/Kg	☼	95	75 - 125
Manganese	220	F1 V	60.6	274		mg/Kg	☼	94	75 - 125
Molybdenum	7.2	F1	121	98.0		mg/Kg	☼	75	75 - 125
Thallium	1.5		12.1	12.1		mg/Kg	☼	87	75 - 125

Lab Sample ID: 500-191683-1 MSD
Client Sample ID: C9-0-5
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575564
Prep Batch: 575261

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	48	F1 V	12.3	69.0	F1	mg/Kg	☼	168	75 - 125	2	20
Boron	120	F1 V	123	199	F1	mg/Kg	☼	65	75 - 125	3	20
Calcium	29000	F2 B V	1230	22300	4 F2	mg/Kg	☼	-533	75 - 125	29	20
Iron	46000	V	123	42000	4	mg/Kg	☼	-3297	75 - 125	6	20
Lithium	24	V	61.6	78.1		mg/Kg	☼	87	75 - 125	5	20
Manganese	220	F1 V	61.6	241	F1	mg/Kg	☼	39	75 - 125	13	20
Molybdenum	7.2	F1	123	96.6	F1	mg/Kg	☼	73	75 - 125	1	20

QC Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-191683-1 MSD
Matrix: Solid
Analysis Batch: 575564

Client Sample ID: C9-0-5
Prep Type: Total/NA
Prep Batch: 575261

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium	1.5		12.3	12.2		mg/Kg	☼	87	75 - 125	1	20

Lab Sample ID: 500-191683-1 DU
Matrix: Solid
Analysis Batch: 575564

Client Sample ID: C9-0-5
Prep Type: Total/NA
Prep Batch: 575261

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	48	F1 V	58.0		mg/Kg	☼	18	20
Boron	120	F1 V	119		mg/Kg	☼	0.4	20
Calcium	29000	F2 B V	23400	F3	mg/Kg	☼	21	20
Iron	46000	V	45000		mg/Kg	☼	2	20
Lithium	24	V	24.2		mg/Kg	☼	0.7	20
Manganese	220	F1 V	231		mg/Kg	☼	6	20
Molybdenum	7.2	F1	7.57		mg/Kg	☼	6	20
Thallium	1.5		1.74		mg/Kg	☼	14	20

Method: 9045C - pH

Lab Sample ID: 500-191683-7 DU
Matrix: Solid
Analysis Batch: 574692

Client Sample ID: D10-0-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.6		7.6		SU		0.1	

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 500-575206/1-A
Matrix: Solid
Analysis Batch: 575204

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575206

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0	1.7	mg/Kg		12/03/20 14:00	12/03/20 17:10	1
Sulfate	<2.0		2.0	0.95	mg/Kg		12/03/20 14:00	12/03/20 17:10	1

Lab Sample ID: MB 500-575206/1-A
Matrix: Solid
Analysis Batch: 575421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575206

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<2.0		2.0	0.95	mg/Kg		12/03/20 14:00	12/04/20 10:54	1

Lab Sample ID: LCS 500-575206/2-A
Matrix: Solid
Analysis Batch: 575204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575206

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	28.4		mg/Kg		95	80 - 120
Sulfate	50.0	52.3		mg/Kg		105	80 - 120

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 500-575206/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 575421 — **Prep Batch: 575206**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	40.9		mg/Kg		82	80 - 120

Lab Sample ID: MB 500-575387/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 575421 — **Prep Batch: 575387**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0	1.7	mg/Kg		12/04/20 12:15	12/04/20 14:33	1
Sulfate	<2.0		2.0	0.95	mg/Kg		12/04/20 12:15	12/04/20 14:33	1

Lab Sample ID: MB 500-575387/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 575604 — **Prep Batch: 575387**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<2.0		2.0	0.95	mg/Kg		12/04/20 12:15	12/07/20 14:36	1

Lab Sample ID: LCS 500-575387/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 575421 — **Prep Batch: 575387**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.5		mg/Kg		108	80 - 120
Sulfate	50.0	56.0		mg/Kg		112	80 - 120

Lab Sample ID: LCS 500-575387/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 575604 — **Prep Batch: 575387**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	56.1		mg/Kg		112	80 - 120

Lab Sample ID: 500-191683-10 MS — **Client Sample ID: D9-0-5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 575421 — **Prep Batch: 575387**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<2.2		11.2	12.2		mg/Kg	☼	109	75 - 125
Sulfate	64	F1	28.1	99.9	F1	mg/Kg	☼	128	75 - 125

Lab Sample ID: 500-191683-10 MSD — **Client Sample ID: D9-0-5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 575421 — **Prep Batch: 575387**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<2.2		11.1	11.6		mg/Kg	☼	104	75 - 125	5	20
Sulfate	64	F1	27.9	91.8		mg/Kg	☼	100	75 - 125	8	20

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Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Mitchel Dolan	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-8984-5667.1
Client Contact: [redacted] MD Rich Gnat	Phone: 262-781-0475	E-Mail: Diana.Mockler@Eurofinset.com		Page: Page 1 of 1
Company: Midwest Generation EME LLC		**Analysis Requested**		Job #: 500-191683
Address: 401 E Greenwood Avenue	Due Date Requested:			**Preservation Codes:**
City: Waukegan	TAT Requested (days):			
State, Zip: IL, 60087-5197				
Phone: [redacted] (Fax) MD 262-781-0475	PO #: 4502012558			
Email: [redacted] MD richardg@KPRg.inc.com	WO #:			
Project Name: Waukegan Soil Samples	Project #: 50001112			
Site:	SSOW#:			Other:

500-191683 COC

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - As, B, Ca, Fe, Li, Mo, Tl, Mn (8 elements)	9056 - Chloride, Sulfate	9045D - pH	Total Number of containers	Special Instructions/Note:
				Preservation Code:								
1	C9-0-5	11/24	13:12	C	S			X	X	X		
2	C9-5-10		13:14									
3	C9-10-13		13:16									
4	C10-0-5		12:50									
5	C10-5-10		12:52									
6	C10-10-13		12:54									
7	D10-0-5		1245									
8	D10-5-10		1247									
9	D10-10-15		1249									
10	D9-0-5		12:25									
11	D9-5-10		12:27									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ________ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Michael Ress	Date/Time: 11/25/20 / 1700	Company: KPRG	Received by: [signature]	Date/Time: 11/25/20 1700	Company: ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.7→0.8, 3.9→2.0		

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Mitchel Dolan	Lab PM: Mockler, Diana J	Carrier Tracking No(s):
Client Contact: [redacted] MD Rich Gnat	Phone: 262-781-0475	E-Mail: Diana.Mockler@Eurofinset.com	COC No: 500-8984-5667.1
Company: Midwest Generation EME LLC			Page: Page 1 of 1
Address: 401 E Greenwood Avenue	Due Date Requested:		Job #: 500-191683
City: Waukegan	TAT Requested (days):		
State, Zip: IL, 60087-5197			
Phone: [redacted] MD 262-781-0475	PO #: 4502012558		
Email: [redacted] MD richardg@kprginc.com	WO #:		
Project Name: Waukegan Soil Samples	Project #: 50001112		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - As, B, Ca, Fe, Li, Mo, Tl, Mn (8 elements)	9056 - Chloride, Sulfate	9045D - pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X				X	
12 DI-10-12	11/24	10:54	C	S			X	X	X		

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For ________ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/25/20 / 1700	KPRG	Paula Buckley	11/25/20 1700	ETA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.7→0.8, 3.9→2.0

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC | Job Number: 500-191683-1

Login Number: 191683 | **List Source: Eurofins TestAmerica, Chicago**
List Number: 1
Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8, 2.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: Midwest Generation EME LLC
Job ID: 500-191683-1
Project/Site: Waukegan Soil Testing

Client Sample ID: C9-0-5
Lab Sample ID: 500-191683-1

Date Collected: 11/24/20 13:12
Matrix: Solid
Date Received: 11/25/20 17:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:18	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: C9-0-5
Lab Sample ID: 500-191683-1

Date Collected: 11/24/20 13:12
Matrix: Solid
Date Received: 11/25/20 17:01
Percent Solids: 76.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 18:05	EEN	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 21:28	EAT	TAL CHI

Client Sample ID: C9-5-10
Lab Sample ID: 500-191683-2

Date Collected: 11/24/20 13:14
Matrix: Solid
Date Received: 11/25/20 17:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:23	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: C9-5-10
Lab Sample ID: 500-191683-2

Date Collected: 11/24/20 13:14
Matrix: Solid
Date Received: 11/25/20 17:01
Percent Solids: 68.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 18:27	EEN	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575421	12/04/20 14:05	EAT	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 21:42	EAT	TAL CHI

Client Sample ID: C9-10-13
Lab Sample ID: 500-191683-3

Date Collected: 11/24/20 13:16
Matrix: Solid
Date Received: 11/25/20 17:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:25	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Lab Chronicle

Client Sample ID: C9-10-13 — Lab Sample ID: 500-191683-3

Date Collected: 11/24/20 13:16 — Matrix: Solid
Date Received: 11/25/20 17:01 — Percent Solids: 74.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 18:30	EEN	TAL CHI
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		5	575790	12/07/20 14:23	EEN	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575421	12/04/20 14:19	EAT	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 21:56	EAT	TAL CHI

Client Sample ID: C10-0-5 — Lab Sample ID: 500-191683-4

Date Collected: 11/24/20 12:50 — Matrix: Solid
Date Received: 11/25/20 17:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:28	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: C10-0-5 — Lab Sample ID: 500-191683-4

Date Collected: 11/24/20 12:50 — Matrix: Solid
Date Received: 11/25/20 17:01 — Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 18:34	EEN	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 22:09	EAT	TAL CHI

Client Sample ID: C10-5-10 — Lab Sample ID: 500-191683-5

Date Collected: 11/24/20 12:52 — Matrix: Solid
Date Received: 11/25/20 17:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:31	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: C10-5-10 — Lab Sample ID: 500-191683-5

Date Collected: 11/24/20 12:52 — Matrix: Solid
Date Received: 11/25/20 17:01 — Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 18:37	EEN	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 22:23	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Job ID: 500-191683-1
Project/Site: Waukegan Soil Testing

Client Sample ID: C10-10-13
Lab Sample ID: 500-191683-6
Date Collected: 11/24/20 12:54
Matrix: Solid
Date Received: 11/25/20 17:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:33	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: C10-10-13
Lab Sample ID: 500-191683-6
Date Collected: 11/24/20 12:54
Matrix: Solid
Date Received: 11/25/20 17:01
Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 18:40	EEN	TAL CHI
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		5	575790	12/07/20 14:26	EEN	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 22:36	EAT	TAL CHI

Client Sample ID: D10-0-5
Lab Sample ID: 500-191683-7
Date Collected: 11/24/20 12:45
Matrix: Solid
Date Received: 11/25/20 17:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:36	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: D10-0-5
Lab Sample ID: 500-191683-7
Date Collected: 11/24/20 12:45
Matrix: Solid
Date Received: 11/25/20 17:01
Percent Solids: 80.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 18:43	EEN	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 22:50	EAT	TAL CHI

Client Sample ID: D10-5-10
Lab Sample ID: 500-191683-8
Date Collected: 11/24/20 12:47
Matrix: Solid
Date Received: 11/25/20 17:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:41	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Client Sample ID: D10-5-10
Lab Sample ID: 500-191683-8
Date Collected: 11/24/20 12:47
Matrix: Solid
Date Received: 11/25/20 17:01
Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 18:46	EEN	TAL CHI
Total/NA	Prep	300_Prep			575206	12/03/20 14:00	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575204	12/03/20 23:04	EAT	TAL CHI

Client Sample ID: D10-10-15
Lab Sample ID: 500-191683-9
Date Collected: 11/24/20 12:49
Matrix: Solid
Date Received: 11/25/20 17:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:43	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: D10-10-15
Lab Sample ID: 500-191683-9
Date Collected: 11/24/20 12:49
Matrix: Solid
Date Received: 11/25/20 17:01
Percent Solids: 67.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 18:56	EEN	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 15:27	EAT	TAL CHI

Client Sample ID: D9-0-5
Lab Sample ID: 500-191683-10
Date Collected: 11/24/20 12:25
Matrix: Solid
Date Received: 11/25/20 17:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574692	12/01/20 09:46	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: D9-0-5
Lab Sample ID: 500-191683-10
Date Collected: 11/24/20 12:25
Matrix: Solid
Date Received: 11/25/20 17:01
Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 18:59	EEN	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 15:41	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191683-1

Client Sample ID: D9-5-10

Lab Sample ID: 500-191683-11
Date Collected: 11/24/20 12:27
Matrix: Solid
Date Received: 11/25/20 17:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 16:26	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: D9-5-10

Lab Sample ID: 500-191683-11
Date Collected: 11/24/20 12:27
Matrix: Solid
Date Received: 11/25/20 17:01
Percent Solids: 78.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 19:03	EEN	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 16:22	EAT	TAL CHI

Client Sample ID: D1-10-12

Lab Sample ID: 500-191683-12
Date Collected: 11/24/20 10:54
Matrix: Solid
Date Received: 11/25/20 17:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 16:29	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: D1-10-12

Lab Sample ID: 500-191683-12
Date Collected: 11/24/20 10:54
Matrix: Solid
Date Received: 11/25/20 17:01
Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575261	12/03/20 17:51	BDE	TAL CHI
Total/NA	Analysis	6010B		1	575564	12/04/20 19:06	EEN	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 16:36	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		20	575604	12/07/20 15:03	EAT	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-21

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-191684-1
Client Project/Site: Waukegan Soil Testing

For:
Midwest Generation EME LLC
401 E Greenwood Avenue
Waukegan, Illinois 60087-5197

Attn: Mr. Mark Wehling

Diana Mockler

Authorized for release by:
12/8/2020 9:42:23 AM

Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@Eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1 2 3 4 5 6 7 8 9 10 11 12 13

Table of Contents

Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Job ID: 500-191684-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-191684-1

Comments
No additional comments.

Receipt
The samples were received on 11/25/2020 5:00 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.8º C and 2.0º C.

Metals
Method 6010B: The continuing calibration blank (CCB) at line 29 contained Manganese above the reporting limit (RL). Associated samples were not re-analyzed because results were greater than 10X the value found in the CCB.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CHI
9045C	pH	SW846	TAL CHI
9056A	Anions, Ion Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
300_Prep	Anions, Ion Chromatography, 10% Wt/Vol	MCAWW	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Midwest Generation EME LLC
Job ID: 500-191684-1
Project/Site: Waukegan Soil Testing

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-191684-1	D5-5-10	Solid	11/24/20 11:42	11/25/20 17:00	
500-191684-2	D5-10-15	Solid	11/24/20 11:44	11/25/20 17:00	
500-191684-3	D4-0-5	Solid	11/24/20 11:35	11/25/20 17:00	
500-191684-4	D4-5-8	Solid	11/24/20 11:37	11/25/20 17:00	
500-191684-5	D4-11-15	Solid	11/24/20 11:39	11/25/20 17:00	
500-191684-6	D3-0-5	Solid	11/24/20 11:20	11/25/20 17:00	
500-191684-7	D3-5-9	Solid	11/24/20 11:22	11/25/20 17:00	
500-191684-8	D2-0-5	Solid	11/24/20 11:05	11/25/20 17:00	
500-191684-9	D2-5-9	Solid	11/24/20 11:07	11/25/20 17:00	
500-191684-10	D1-0-5	Solid	11/24/20 10:50	11/25/20 17:00	
500-191684-11	D1-5-10	Solid	11/24/20 10:52	11/25/20 17:00	
500-191684-12	D9-10-12	Solid	11/24/20 12:29	11/25/20 17:00	
500-191684-13	D8-0-5	Solid	11/24/20 12:15	11/25/20 17:00	
500-191684-14	D8-5-10	Solid	11/24/20 12:17	11/25/20 17:00	
500-191684-15	D8-10-15	Solid	11/24/20 12:19	11/25/20 17:00	
500-191684-16	D7-0-5	Solid	11/24/20 12:05	11/25/20 17:00	
500-191684-17	D7-5-10	Solid	11/24/20 12:07	11/25/20 17:00	
500-191684-18	D7-10-15	Solid	11/24/20 12:09	11/25/20 17:00	
500-191684-19	D6-0-5	Solid	11/24/20 11:55	11/25/20 17:00	
500-191684-20	D6-5-10	Solid	11/24/20 11:57	11/25/20 17:00	
500-191684-21	D6-10-15	Solid	11/24/20 11:59	11/25/20 17:00	
500-191684-22	D5-0-5	Solid	11/24/20 11:40	11/25/20 17:00	

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191684-1
Project/Site: Waukegan Soil Testing

Client Sample ID: D5-5-10
Lab Sample ID: 500-191684-1
Date Collected: 11/24/20 11:42
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 73.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	94	V	1.3	0.44	mg/Kg	☼	12/03/20 06:34	12/03/20 16:44	1
Boron	140	F1 V B	6.5	0.60	mg/Kg	☼	12/03/20 06:34	12/03/20 16:44	1
Calcium	15000	V B	26	4.4	mg/Kg	☼	12/03/20 06:34	12/03/20 16:44	1
Iron	40000	V	26	13	mg/Kg	☼	12/03/20 06:34	12/03/20 16:44	1
Lithium	18		1.3	0.39	mg/Kg	☼	12/03/20 06:34	12/03/20 16:44	1
Manganese	150	F1 B ^	1.3	0.19	mg/Kg	☼	12/03/20 06:34	12/03/20 16:44	1
Molybdenum	7.0		1.3	0.54	mg/Kg	☼	12/03/20 06:34	12/03/20 16:44	1
Thallium	3.4		1.3	0.64	mg/Kg	☼	12/03/20 06:34	12/03/20 16:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.3		0.2	0.2	SU			12/01/20 16:31	1
Chloride	6.4		2.7	2.3	mg/Kg	☼	12/04/20 12:15	12/04/20 16:49	1
Sulfate	13000		530	250	mg/Kg	☼	12/04/20 12:15	12/07/20 15:16	200

Client Sample Results

Client: Midwest Generation EME LLC
Job ID: 500-191684-1
Project/Site: Waukegan Soil Testing

Client Sample ID: D5-10-15
Lab Sample ID: 500-191684-2
Date Collected: 11/24/20 11:44
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 72.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20		1.4	0.46	mg/Kg	☼	12/03/20 06:34	12/03/20 17:06	1
Boron	170	B	6.8	0.63	mg/Kg	☼	12/03/20 06:34	12/03/20 17:06	1
Calcium	17000	B	27	4.6	mg/Kg	☼	12/03/20 06:34	12/03/20 17:06	1
Iron	60000		27	14	mg/Kg	☼	12/03/20 06:34	12/03/20 17:06	1
Lithium	18		1.4	0.40	mg/Kg	☼	12/03/20 06:34	12/03/20 17:06	1
Manganese	180	B	1.4	0.20	mg/Kg	☼	12/03/20 06:34	12/03/20 17:06	1
Molybdenum	8.6		1.4	0.56	mg/Kg	☼	12/03/20 06:34	12/03/20 17:06	1
Thallium	2.6		1.4	0.68	mg/Kg	☼	12/03/20 06:34	12/03/20 17:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.2	0.2	SU			12/01/20 16:34	1
Chloride	2.3	J	2.7	2.3	mg/Kg	☼	12/04/20 12:15	12/04/20 17:03	1
Sulfate	920		27	13	mg/Kg	☼	12/04/20 12:15	12/07/20 15:30	10

Client Sample Results

Client Sample ID: D4-0-5
Lab Sample ID: 500-191684-3
Date Collected: 11/24/20 11:35
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 87.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.9**		4.8	1.6	mg/Kg	☼	12/03/20 06:34	12/04/20 12:27	5
Boron	**98**	**B**	4.8	0.45	mg/Kg	☼	12/03/20 06:34	12/03/20 17:09	1
Calcium	**20000**	**B**	19	3.2	mg/Kg	☼	12/03/20 06:34	12/03/20 17:09	1
Iron	**84000**		96	50	mg/Kg	☼	12/03/20 06:34	12/04/20 12:27	5
Lithium	**18**		0.96	0.29	mg/Kg	☼	12/03/20 06:34	12/03/20 17:09	1
Manganese	**250**	**B**	0.96	0.14	mg/Kg	☼	12/03/20 06:34	12/03/20 17:09	1
Molybdenum	**7.4**		4.8	2.0	mg/Kg	☼	12/03/20 06:34	12/04/20 12:27	5
Thallium	<4.8		4.8	2.4	mg/Kg	☼	12/03/20 06:34	12/04/20 12:27	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.8**		0.2	0.2	SU			12/01/20 16:36	1
Chloride	**3.8**		2.3	1.9	mg/Kg	☼	12/04/20 12:15	12/04/20 17:17	1
Sulfate	**210**		11	5.3	mg/Kg	☼	12/04/20 12:15	12/07/20 15:44	5

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D4-5-8
Date Collected: 11/24/20 11:37
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-4
Matrix: Solid
Percent Solids: 86.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	26		1.0	0.35	mg/Kg	☼	12/03/20 06:34	12/03/20 17:12	1
Boron	47	B	5.1	0.47	mg/Kg	☼	12/03/20 06:34	12/03/20 17:12	1
Calcium	49000	B	20	3.5	mg/Kg	☼	12/03/20 06:34	12/03/20 17:12	1
Iron	28000		20	11	mg/Kg	☼	12/03/20 06:34	12/03/20 17:12	1
Lithium	14		1.0	0.30	mg/Kg	☼	12/03/20 06:34	12/03/20 17:12	1
Manganese	290	B	1.0	0.15	mg/Kg	☼	12/03/20 06:34	12/03/20 17:12	1
Molybdenum	3.0		1.0	0.42	mg/Kg	☼	12/03/20 06:34	12/03/20 17:12	1
Thallium	0.66	J	1.0	0.51	mg/Kg	☼	12/03/20 06:34	12/03/20 17:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			12/01/20 16:39	1
Chloride	5.6		2.1	1.8	mg/Kg	☼	12/04/20 12:15	12/04/20 17:30	1
Sulfate	370		11	5.0	mg/Kg	☼	12/04/20 12:15	12/07/20 15:57	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D4-11-15
Date Collected: 11/24/20 11:39
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-5
Matrix: Solid
Percent Solids: 75.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.7		1.3	0.44	mg/Kg	☼	12/03/20 06:34	12/03/20 17:16	1
Boron	130	B	6.4	0.59	mg/Kg	☼	12/03/20 06:34	12/03/20 17:16	1
Calcium	21000	B	25	4.3	mg/Kg	☼	12/03/20 06:34	12/03/20 17:16	1
Iron	42000		25	13	mg/Kg	☼	12/03/20 06:34	12/03/20 17:16	1
Lithium	19		1.3	0.38	mg/Kg	☼	12/03/20 06:34	12/03/20 17:16	1
Manganese	240	B	1.3	0.18	mg/Kg	☼	12/03/20 06:34	12/03/20 17:16	1
Molybdenum	6.2		1.3	0.53	mg/Kg	☼	12/03/20 06:34	12/03/20 17:16	1
Thallium	0.71	J	1.3	0.64	mg/Kg	☼	12/03/20 06:34	12/03/20 17:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.8		0.2	0.2	SU			12/01/20 16:41	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/04/20 12:15	12/04/20 18:11	1
Sulfate	550		26	12	mg/Kg	☼	12/04/20 12:15	12/07/20 16:11	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D3-0-5
Date Collected: 11/24/20 11:20
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-6
Matrix: Solid
Percent Solids: 84.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**7.5**		1.2	0.40	mg/Kg	☼	12/03/20 06:34	12/03/20 17:19	1
Boron	**87**	**B**	5.9	0.55	mg/Kg	☼	12/03/20 06:34	12/03/20 17:19	1
Calcium	**24000**	**B**	24	4.0	mg/Kg	☼	12/03/20 06:34	12/03/20 17:19	1
Iron	**57000**		24	12	mg/Kg	☼	12/03/20 06:34	12/03/20 17:19	1
Lithium	**18**		1.2	0.35	mg/Kg	☼	12/03/20 06:34	12/03/20 17:19	1
Manganese	**300**	**B**	1.2	0.17	mg/Kg	☼	12/03/20 06:34	12/03/20 17:19	1
Molybdenum	**6.4**		1.2	0.49	mg/Kg	☼	12/03/20 06:34	12/03/20 17:19	1
Thallium	<1.2		1.2	0.59	mg/Kg	☼	12/03/20 06:34	12/03/20 17:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.6**		0.2	0.2	SU			12/01/20 16:44	1
Chloride	<2.3		2.3	2.0	mg/Kg	☼	12/04/20 12:15	12/04/20 18:25	1
Sulfate	**170**		12	5.5	mg/Kg	☼	12/04/20 12:15	12/07/20 16:25	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D3-5-9

Date Collected: 11/24/20 11:22
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-7
Matrix: Solid
Percent Solids: 79.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	99		1.2	0.42	mg/Kg	☼	12/03/20 06:34	12/03/20 17:22	1
Boron	120	B	6.1	0.57	mg/Kg	☼	12/03/20 06:34	12/03/20 17:22	1
Calcium	9400	B	24	4.1	mg/Kg	☼	12/03/20 06:34	12/03/20 17:22	1
Iron	46000		24	13	mg/Kg	☼	12/03/20 06:34	12/03/20 17:22	1
Lithium	26		1.2	0.37	mg/Kg	☼	12/03/20 06:34	12/03/20 17:22	1
Manganese	130	B	1.2	0.18	mg/Kg	☼	12/03/20 06:34	12/03/20 17:22	1
Molybdenum	5.9		1.2	0.51	mg/Kg	☼	12/03/20 06:34	12/03/20 17:22	1
Thallium	3.8		1.2	0.61	mg/Kg	☼	12/03/20 06:34	12/03/20 17:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.2	0.2	SU			12/01/20 16:46	1
Chloride	<2.5		2.5	2.1	mg/Kg	☼	12/04/20 12:15	12/04/20 18:39	1
Sulfate	810		25	12	mg/Kg	☼	12/04/20 12:15	12/07/20 16:39	10

Client Sample ID: D2-0-5
Lab Sample ID: 500-191684-8
Date Collected: 11/24/20 11:05
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 86.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		1.1	0.39	mg/Kg	☼	12/03/20 06:34	12/03/20 17:25	1
Boron	64	B	5.7	0.53	mg/Kg	☼	12/03/20 06:34	12/03/20 17:25	1
Calcium	40000	B	23	3.8	mg/Kg	☼	12/03/20 06:34	12/03/20 17:25	1
Iron	33000		23	12	mg/Kg	☼	12/03/20 06:34	12/03/20 17:25	1
Lithium	19		1.1	0.34	mg/Kg	☼	12/03/20 06:34	12/03/20 17:25	1
Manganese	230	B	1.1	0.16	mg/Kg	☼	12/03/20 06:34	12/03/20 17:25	1
Molybdenum	6.1		1.1	0.47	mg/Kg	☼	12/03/20 06:34	12/03/20 17:25	1
Thallium	<1.1		1.1	0.56	mg/Kg	☼	12/03/20 06:34	12/03/20 17:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.7		0.2	0.2	SU			12/01/20 16:54	1
Chloride	<2.2		2.2	1.9	mg/Kg	☼	12/04/20 12:15	12/04/20 18:52	1
Sulfate	89		2.2	1.0	mg/Kg	☼	12/04/20 12:15	12/04/20 18:52	1

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D2-5-9
Date Collected: 11/24/20 11:07
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-9
Matrix: Solid
Percent Solids: 76.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	73		1.2	0.41	mg/Kg	☼	12/03/20 06:34	12/03/20 17:29	1
Boron	120	B	6.0	0.56	mg/Kg	☼	12/03/20 06:34	12/03/20 17:29	1
Calcium	29000	B	24	4.1	mg/Kg	☼	12/03/20 06:34	12/03/20 17:29	1
Iron	35000		24	12	mg/Kg	☼	12/03/20 06:34	12/03/20 17:29	1
Lithium	21		1.2	0.36	mg/Kg	☼	12/03/20 06:34	12/03/20 17:29	1
Manganese	230	B	1.2	0.17	mg/Kg	☼	12/03/20 06:34	12/03/20 17:29	1
Molybdenum	4.3		1.2	0.50	mg/Kg	☼	12/03/20 06:34	12/03/20 17:29	1
Thallium	2.7		1.2	0.60	mg/Kg	☼	12/03/20 06:34	12/03/20 17:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.6		0.2	0.2	SU			12/01/20 16:56	1
Chloride	<2.5		2.5	2.1	mg/Kg	☼	12/04/20 12:15	12/04/20 19:06	1
Sulfate	210		13	6.0	mg/Kg	☼	12/04/20 12:15	12/07/20 17:20	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D1-0-5
Date Collected: 11/24/20 10:50
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-10
Matrix: Solid
Percent Solids: 85.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.0		1.0	0.35	mg/Kg	☼	12/03/20 06:34	12/03/20 17:38	1
Boron	79	B	5.1	0.47	mg/Kg	☼	12/03/20 06:34	12/03/20 17:38	1
Calcium	44000	B	20	3.4	mg/Kg	☼	12/03/20 06:34	12/03/20 17:38	1
Iron	29000		20	11	mg/Kg	☼	12/03/20 06:34	12/03/20 17:38	1
Lithium	24		1.0	0.30	mg/Kg	☼	12/03/20 06:34	12/03/20 17:38	1
Manganese	230	B	1.0	0.15	mg/Kg	☼	12/03/20 06:34	12/03/20 17:38	1
Molybdenum	4.4		1.0	0.42	mg/Kg	☼	12/03/20 06:34	12/03/20 17:38	1
Thallium	0.69	J	1.0	0.51	mg/Kg	☼	12/03/20 06:34	12/03/20 17:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.9		0.2	0.2	SU			12/01/20 16:59	1
Chloride	<2.2		2.2	1.9	mg/Kg	☼	12/04/20 12:15	12/04/20 19:20	1
Sulfate	86		2.2	1.0	mg/Kg	☼	12/04/20 12:15	12/04/20 19:20	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D1-5-10
Date Collected: 11/24/20 10:52
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-11
Matrix: Solid
Percent Solids: 80.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	32		1.2	0.42	mg/Kg	☼	12/03/20 06:34	12/03/20 17:42	1
Boron	150	B	6.1	0.57	mg/Kg	☼	12/03/20 06:34	12/03/20 17:42	1
Calcium	47000	B	24	4.1	mg/Kg	☼	12/03/20 06:34	12/03/20 17:42	1
Iron	29000		24	13	mg/Kg	☼	12/03/20 06:34	12/03/20 17:42	1
Lithium	23		1.2	0.37	mg/Kg	☼	12/03/20 06:34	12/03/20 17:42	1
Manganese	220	B	1.2	0.18	mg/Kg	☼	12/03/20 06:34	12/03/20 17:42	1
Molybdenum	5.8		1.2	0.51	mg/Kg	☼	12/03/20 06:34	12/03/20 17:42	1
Thallium	2.1		1.2	0.61	mg/Kg	☼	12/03/20 06:34	12/03/20 17:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6		0.2	0.2	SU			12/01/20 17:02	1
Chloride	<2.4		2.4	2.1	mg/Kg	☼	12/04/20 12:15	12/04/20 19:33	1
Sulfate	1100		49	23	mg/Kg	☼	12/04/20 12:15	12/07/20 17:33	20

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D9-10-12
Date Collected: 11/24/20 12:29
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-12
Matrix: Solid
Percent Solids: 66.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	31		1.4	0.49	mg/Kg	☼	12/03/20 06:34	12/03/20 17:45	1
Boron	140	B	7.1	0.66	mg/Kg	☼	12/03/20 06:34	12/03/20 17:45	1
Calcium	18000	B	29	4.8	mg/Kg	☼	12/03/20 06:34	12/03/20 17:45	1
Iron	52000		29	15	mg/Kg	☼	12/03/20 06:34	12/03/20 17:45	1
Lithium	15		1.4	0.43	mg/Kg	☼	12/03/20 06:34	12/03/20 17:45	1
Manganese	260	B	1.4	0.21	mg/Kg	☼	12/03/20 06:34	12/03/20 17:45	1
Molybdenum	6.4		1.4	0.59	mg/Kg	☼	12/03/20 06:34	12/03/20 17:45	1
Thallium	5.6		1.4	0.71	mg/Kg	☼	12/03/20 06:34	12/03/20 17:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.2	0.2	SU			12/01/20 17:04	1
Chloride	<2.8		2.8	2.4	mg/Kg	☼	12/04/20 12:15	12/04/20 19:47	1
Sulfate	62		2.8	1.3	mg/Kg	☼	12/04/20 12:15	12/04/20 19:47	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D8-0-5
Date Collected: 11/24/20 12:15
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-13
Matrix: Solid
Percent Solids: 87.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**8.4**		5.1	1.8	mg/Kg	☼	12/03/20 06:34	12/04/20 12:30	5
Boron	**110**	**B**	5.1	0.48	mg/Kg	☼	12/03/20 06:34	12/03/20 17:48	1
Calcium	**35000**	**B**	20	3.5	mg/Kg	☼	12/03/20 06:34	12/03/20 17:48	1
Iron	**78000**		100	53	mg/Kg	☼	12/03/20 06:34	12/04/20 12:30	5
Lithium	**24**		1.0	0.31	mg/Kg	☼	12/03/20 06:34	12/03/20 17:48	1
Manganese	**240**	**B**	1.0	0.15	mg/Kg	☼	12/03/20 06:34	12/03/20 17:48	1
Molybdenum	**7.0**		5.1	2.1	mg/Kg	☼	12/03/20 06:34	12/04/20 12:30	5
Thallium	<5.1		5.1	2.6	mg/Kg	☼	12/03/20 06:34	12/04/20 12:30	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.8**		0.2	0.2	SU			12/01/20 17:07	1
Chloride	<2.2		2.2	1.9	mg/Kg	☼	12/04/20 12:15	12/04/20 20:01	1
Sulfate	**160**		11	5.2	mg/Kg	☼	12/04/20 12:15	12/07/20 17:47	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D8-5-10
Date Collected: 11/24/20 12:17
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-14
Matrix: Solid
Percent Solids: 86.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**18**		1.1	0.38	mg/Kg	☼	12/03/20 06:34	12/03/20 17:51	1
Boron	**74**	**B**	5.6	0.52	mg/Kg	☼	12/03/20 06:34	12/03/20 17:51	1
Calcium	**24000**	**B**	22	3.8	mg/Kg	☼	12/03/20 06:34	12/03/20 17:51	1
Iron	**45000**		22	12	mg/Kg	☼	12/03/20 06:34	12/03/20 17:51	1
Lithium	**15**		1.1	0.33	mg/Kg	☼	12/03/20 06:34	12/03/20 17:51	1
Manganese	**180**	**B**	1.1	0.16	mg/Kg	☼	12/03/20 06:34	12/03/20 17:51	1
Molybdenum	**9.9**		1.1	0.46	mg/Kg	☼	12/03/20 06:34	12/03/20 17:51	1
Thallium	<1.1		1.1	0.56	mg/Kg	☼	12/03/20 06:34	12/03/20 17:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.6**		0.2	0.2	SU			12/01/20 17:09	1
Chloride	<2.2		2.2	1.9	mg/Kg	☼	12/04/20 12:15	12/04/20 20:14	1
Sulfate	**290**		11	5.3	mg/Kg	☼	12/04/20 12:15	12/07/20 18:00	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D8-10-15
Date Collected: 11/24/20 12:19
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-15
Matrix: Solid
Percent Solids: 73.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	23		1.3	0.44	mg/Kg	☼	12/03/20 06:34	12/03/20 17:55	1
Boron	110	B	6.4	0.60	mg/Kg	☼	12/03/20 06:34	12/03/20 17:55	1
Calcium	19000	B	26	4.4	mg/Kg	☼	12/03/20 06:34	12/03/20 17:55	1
Iron	51000		26	13	mg/Kg	☼	12/03/20 06:34	12/03/20 17:55	1
Lithium	16		1.3	0.38	mg/Kg	☼	12/03/20 06:34	12/03/20 17:55	1
Manganese	250	B	1.3	0.19	mg/Kg	☼	12/03/20 06:34	12/03/20 17:55	1
Molybdenum	10		1.3	0.53	mg/Kg	☼	12/03/20 06:34	12/03/20 17:55	1
Thallium	2.9		1.3	0.64	mg/Kg	☼	12/03/20 06:34	12/03/20 17:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.2	0.2	SU			12/01/20 17:12	1
Chloride	<2.7		2.7	2.3	mg/Kg	☼	12/04/20 12:15	12/04/20 20:55	1
Sulfate	570		27	13	mg/Kg	☼	12/04/20 12:15	12/07/20 18:41	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D7-0-5

Lab Sample ID: 500-191684-16

Date Collected: 11/24/20 12:05
Date Received: 11/25/20 17:00

Matrix: Solid
Percent Solids: 83.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	29		5.9	2.0	mg/Kg	☼	12/03/20 06:34	12/04/20 12:34	5
Boron	150	B	5.9	0.55	mg/Kg	☼	12/03/20 06:34	12/03/20 17:58	1
Calcium	35000	B	24	4.0	mg/Kg	☼	12/03/20 06:34	12/03/20 17:58	1
Iron	98000		120	62	mg/Kg	☼	12/03/20 06:34	12/04/20 12:34	5
Lithium	23		1.2	0.35	mg/Kg	☼	12/03/20 06:34	12/03/20 17:58	1
Manganese	350	B	1.2	0.17	mg/Kg	☼	12/03/20 06:34	12/03/20 17:58	1
Molybdenum	8.5		5.9	2.5	mg/Kg	☼	12/03/20 06:34	12/04/20 12:34	5
Thallium	<5.9		5.9	3.0	mg/Kg	☼	12/03/20 06:34	12/04/20 12:34	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.0		0.2	0.2	SU			12/01/20 17:14	1
Chloride	<2.3		2.3	1.9	mg/Kg	☼	12/04/20 12:15	12/04/20 21:09	1
Sulfate	77		2.3	1.1	mg/Kg	☼	12/04/20 12:15	12/04/20 21:09	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D7-5-10
Date Collected: 11/24/20 12:07
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-17
Matrix: Solid
Percent Solids: 75.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	69		1.3	0.44	mg/Kg	☼	12/03/20 06:34	12/03/20 18:01	1
Boron	180	B	6.4	0.59	mg/Kg	☼	12/03/20 06:34	12/03/20 18:01	1
Calcium	23000	B	25	4.3	mg/Kg	☼	12/03/20 06:34	12/03/20 18:01	1
Iron	47000		25	13	mg/Kg	☼	12/03/20 06:34	12/03/20 18:01	1
Lithium	25		1.3	0.38	mg/Kg	☼	12/03/20 06:34	12/03/20 18:01	1
Manganese	240	B	1.3	0.18	mg/Kg	☼	12/03/20 06:34	12/03/20 18:01	1
Molybdenum	5.4		1.3	0.53	mg/Kg	☼	12/03/20 06:34	12/03/20 18:01	1
Thallium	3.7		1.3	0.64	mg/Kg	☼	12/03/20 06:34	12/03/20 18:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5		0.2	0.2	SU			12/01/20 17:17	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/04/20 12:45	12/04/20 16:05	1
Sulfate	850		26	12	mg/Kg	☼	12/04/20 12:45	12/07/20 18:55	10

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D7-10-15
Date Collected: 11/24/20 12:09
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-18
Matrix: Solid
Percent Solids: 64.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**28**		1.3	0.45	mg/Kg	☼	12/03/20 06:34	12/03/20 18:04	1
Boron	**150**	**B**	6.5	0.61	mg/Kg	☼	12/03/20 06:34	12/03/20 18:04	1
Calcium	**17000**	**B**	26	4.4	mg/Kg	☼	12/03/20 06:34	12/03/20 18:04	1
Iron	**55000**		26	14	mg/Kg	☼	12/03/20 06:34	12/03/20 18:04	1
Lithium	**18**		1.3	0.39	mg/Kg	☼	12/03/20 06:34	12/03/20 18:04	1
Manganese	**230**	**B**	1.3	0.19	mg/Kg	☼	12/03/20 06:34	12/03/20 18:04	1
Molybdenum	**29**		1.3	0.54	mg/Kg	☼	12/03/20 06:34	12/03/20 18:04	1
Thallium	**2.3**		1.3	0.65	mg/Kg	☼	12/03/20 06:34	12/03/20 18:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.6**		0.2	0.2	SU			12/01/20 17:22	1
Chloride	<3.0		3.0	2.5	mg/Kg	☼	12/04/20 12:45	12/04/20 16:18	1
Sulfate	**790**		30	14	mg/Kg	☼	12/04/20 12:45	12/07/20 19:09	10

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D6-0-5
Date Collected: 11/24/20 11:55
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-19
Matrix: Solid
Percent Solids: 85.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**64**		1.1	0.39	mg/Kg	☼	12/03/20 06:34	12/03/20 18:08	1
Boron	**98**	**B**	5.7	0.54	mg/Kg	☼	12/03/20 06:34	12/03/20 18:08	1
Calcium	**26000**	**B**	23	3.9	mg/Kg	☼	12/03/20 06:34	12/03/20 18:08	1
Iron	**36000**		23	12	mg/Kg	☼	12/03/20 06:34	12/03/20 18:08	1
Lithium	**22**		1.1	0.34	mg/Kg	☼	12/03/20 06:34	12/03/20 18:08	1
Manganese	**190**	**B**	1.1	0.17	mg/Kg	☼	12/03/20 06:34	12/03/20 18:08	1
Molybdenum	**6.8**		1.1	0.48	mg/Kg	☼	12/03/20 06:34	12/03/20 18:08	1
Thallium	**1.8**		1.1	0.57	mg/Kg	☼	12/03/20 06:34	12/03/20 18:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.1**		0.2	0.2	SU			12/01/20 17:24	1
Chloride	<2.3		2.3	1.9	mg/Kg	☼	12/04/20 12:45	12/04/20 16:31	1
Sulfate	**21**		2.3	1.1	mg/Kg	☼	12/04/20 12:45	12/04/20 16:31	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D6-5-10
Date Collected: 11/24/20 11:57
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-20
Matrix: Solid
Percent Solids: 74.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	150		6.2	2.1	mg/Kg	☼	12/03/20 06:34	12/04/20 12:37	5
Boron	440	B	6.2	0.58	mg/Kg	☼	12/03/20 06:34	12/03/20 18:21	1
Calcium	8600	B	25	4.2	mg/Kg	☼	12/03/20 06:34	12/03/20 18:21	1
Iron	40000		25	13	mg/Kg	☼	12/03/20 06:34	12/03/20 18:21	1
Lithium	26		1.2	0.37	mg/Kg	☼	12/03/20 06:34	12/03/20 18:21	1
Manganese	130	B	1.2	0.18	mg/Kg	☼	12/03/20 06:34	12/03/20 18:21	1
Molybdenum	11		1.2	0.52	mg/Kg	☼	12/03/20 06:34	12/03/20 18:21	1
Thallium	3.4		1.2	0.62	mg/Kg	☼	12/03/20 06:34	12/03/20 18:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.7		0.2	0.2	SU			12/01/20 17:27	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/04/20 12:45	12/04/20 16:43	1
Sulfate	560		26	12	mg/Kg	☼	12/04/20 12:45	12/07/20 19:22	10

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D6-10-15
Date Collected: 11/24/20 11:59
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-21
Matrix: Solid
Percent Solids: 75.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	24		1.2	0.42	mg/Kg	☼	12/03/20 05:59	12/03/20 16:21	1
Boron	150		6.1	0.57	mg/Kg	☼	12/03/20 05:59	12/03/20 16:21	1
Calcium	15000	B	25	4.2	mg/Kg	☼	12/03/20 05:59	12/03/20 16:21	1
Iron	51000		25	13	mg/Kg	☼	12/03/20 05:59	12/03/20 16:21	1
Lithium	20		1.2	0.37	mg/Kg	☼	12/03/20 05:59	12/03/20 16:21	1
Manganese	180	B ^	1.2	0.18	mg/Kg	☼	12/03/20 05:59	12/03/20 16:21	1
Molybdenum	8.5		1.2	0.51	mg/Kg	☼	12/03/20 05:59	12/03/20 16:21	1
Thallium	2.5		1.2	0.61	mg/Kg	☼	12/03/20 05:59	12/03/20 16:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.5		0.2	0.2	SU			12/01/20 17:29	1
Chloride	<2.6		2.6	2.2	mg/Kg	☼	12/04/20 12:45	12/04/20 16:56	1
Sulfate	400		13	6.2	mg/Kg	☼	12/04/20 12:45	12/07/20 20:03	5

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D5-0-5
Date Collected: 11/24/20 11:40
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-22
Matrix: Solid
Percent Solids: 92.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.9		1.1	0.36	mg/Kg	☼	12/03/20 05:59	12/03/20 16:24	1
Boron	35		5.3	0.49	mg/Kg	☼	12/03/20 05:59	12/03/20 16:24	1
Calcium	20000	B	21	3.6	mg/Kg	☼	12/03/20 05:59	12/03/20 16:24	1
Iron	28000		21	11	mg/Kg	☼	12/03/20 05:59	12/03/20 16:24	1
Lithium	11		1.1	0.32	mg/Kg	☼	12/03/20 05:59	12/03/20 16:24	1
Manganese	300	B ^	1.1	0.15	mg/Kg	☼	12/03/20 05:59	12/03/20 16:24	1
Molybdenum	2.8		1.1	0.44	mg/Kg	☼	12/03/20 05:59	12/03/20 16:24	1
Thallium	<1.1		1.1	0.53	mg/Kg	☼	12/03/20 05:59	12/03/20 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.2		0.2	0.2	SU			12/01/20 17:32	1
Chloride	1.8	J	2.1	1.8	mg/Kg	☼	12/04/20 12:45	12/04/20 17:09	1
Sulfate	190		10	5.0	mg/Kg	☼	12/04/20 12:45	12/07/20 20:17	5

Definitions/Glossary

Client: Midwest Generation EME LLC
Job ID: 500-191684-1
Project/Site: Waukegan Soil Testing

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
V	Serial Dilution exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Metals

Prep Batch: 575072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-21	D6-10-15	Total/NA	Solid	3050B	
500-191684-22	D5-0-5	Total/NA	Solid	3050B	
MB 500-575072/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-575072/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 575077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-1	D5-5-10	Total/NA	Solid	3050B	
500-191684-2	D5-10-15	Total/NA	Solid	3050B	
500-191684-3	D4-0-5	Total/NA	Solid	3050B	
500-191684-4	D4-5-8	Total/NA	Solid	3050B	
500-191684-5	D4-11-15	Total/NA	Solid	3050B	
500-191684-6	D3-0-5	Total/NA	Solid	3050B	
500-191684-7	D3-5-9	Total/NA	Solid	3050B	
500-191684-8	D2-0-5	Total/NA	Solid	3050B	
500-191684-9	D2-5-9	Total/NA	Solid	3050B	
500-191684-10	D1-0-5	Total/NA	Solid	3050B	
500-191684-11	D1-5-10	Total/NA	Solid	3050B	
500-191684-12	D9-10-12	Total/NA	Solid	3050B	
500-191684-13	D8-0-5	Total/NA	Solid	3050B	
500-191684-14	D8-5-10	Total/NA	Solid	3050B	
500-191684-15	D8-10-15	Total/NA	Solid	3050B	
500-191684-16	D7-0-5	Total/NA	Solid	3050B	
500-191684-17	D7-5-10	Total/NA	Solid	3050B	
500-191684-18	D7-10-15	Total/NA	Solid	3050B	
500-191684-19	D6-0-5	Total/NA	Solid	3050B	
500-191684-20	D6-5-10	Total/NA	Solid	3050B	
MB 500-575077/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-575077/2-A	Lab Control Sample	Total/NA	Solid	3050B	
500-191684-1 MS	D5-5-10	Total/NA	Solid	3050B	
500-191684-1 MSD	D5-5-10	Total/NA	Solid	3050B	
500-191684-1 DU	D5-5-10	Total/NA	Solid	3050B	

Analysis Batch: 575346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-1	D5-5-10	Total/NA	Solid	6010B	575077
500-191684-2	D5-10-15	Total/NA	Solid	6010B	575077
500-191684-3	D4-0-5	Total/NA	Solid	6010B	575077
500-191684-4	D4-5-8	Total/NA	Solid	6010B	575077
500-191684-5	D4-11-15	Total/NA	Solid	6010B	575077
500-191684-6	D3-0-5	Total/NA	Solid	6010B	575077
500-191684-7	D3-5-9	Total/NA	Solid	6010B	575077
500-191684-8	D2-0-5	Total/NA	Solid	6010B	575077
500-191684-9	D2-5-9	Total/NA	Solid	6010B	575077
500-191684-10	D1-0-5	Total/NA	Solid	6010B	575077
500-191684-11	D1-5-10	Total/NA	Solid	6010B	575077
500-191684-12	D9-10-12	Total/NA	Solid	6010B	575077
500-191684-13	D8-0-5	Total/NA	Solid	6010B	575077
500-191684-14	D8-5-10	Total/NA	Solid	6010B	575077
500-191684-15	D8-10-15	Total/NA	Solid	6010B	575077
500-191684-16	D7-0-5	Total/NA	Solid	6010B	575077

Metals (Continued)

Analysis Batch: 575346 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-17	D7-5-10	Total/NA	Solid	6010B	575077
500-191684-18	D7-10-15	Total/NA	Solid	6010B	575077
500-191684-19	D6-0-5	Total/NA	Solid	6010B	575077
500-191684-20	D6-5-10	Total/NA	Solid	6010B	575077
500-191684-21	D6-10-15	Total/NA	Solid	6010B	575072
500-191684-22	D5-0-5	Total/NA	Solid	6010B	575072
MB 500-575072/1-A	Method Blank	Total/NA	Solid	6010B	575072
MB 500-575077/1-A	Method Blank	Total/NA	Solid	6010B	575077
LCS 500-575072/2-A	Lab Control Sample	Total/NA	Solid	6010B	575072
LCS 500-575077/2-A	Lab Control Sample	Total/NA	Solid	6010B	575077
500-191684-1 MS	D5-5-10	Total/NA	Solid	6010B	575077
500-191684-1 MSD	D5-5-10	Total/NA	Solid	6010B	575077
500-191684-1 DU	D5-5-10	Total/NA	Solid	6010B	575077

Analysis Batch: 575404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-3	D4-0-5	Total/NA	Solid	6010B	575077
500-191684-13	D8-0-5	Total/NA	Solid	6010B	575077
500-191684-16	D7-0-5	Total/NA	Solid	6010B	575077
500-191684-20	D6-5-10	Total/NA	Solid	6010B	575077

General Chemistry

Analysis Batch: 574555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-1	D5-5-10	Total/NA	Solid	Moisture	

Analysis Batch: 574673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-2	D5-10-15	Total/NA	Solid	Moisture	
500-191684-3	D4-0-5	Total/NA	Solid	Moisture	
500-191684-4	D4-5-8	Total/NA	Solid	Moisture	
500-191684-5	D4-11-15	Total/NA	Solid	Moisture	
500-191684-6	D3-0-5	Total/NA	Solid	Moisture	
500-191684-7	D3-5-9	Total/NA	Solid	Moisture	
500-191684-8	D2-0-5	Total/NA	Solid	Moisture	
500-191684-9	D2-5-9	Total/NA	Solid	Moisture	
500-191684-10	D1-0-5	Total/NA	Solid	Moisture	
500-191684-11	D1-5-10	Total/NA	Solid	Moisture	
500-191684-12	D9-10-12	Total/NA	Solid	Moisture	
500-191684-13	D8-0-5	Total/NA	Solid	Moisture	
500-191684-14	D8-5-10	Total/NA	Solid	Moisture	
500-191684-15	D8-10-15	Total/NA	Solid	Moisture	
500-191684-16	D7-0-5	Total/NA	Solid	Moisture	
500-191684-17	D7-5-10	Total/NA	Solid	Moisture	
500-191684-18	D7-10-15	Total/NA	Solid	Moisture	
500-191684-19	D6-0-5	Total/NA	Solid	Moisture	
500-191684-20	D6-5-10	Total/NA	Solid	Moisture	
500-191684-21	D6-10-15	Total/NA	Solid	Moisture	
500-191684-7 DU	D3-5-9	Total/NA	Solid	Moisture	

QC Association Summary

General Chemistry

Analysis Batch: 574698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-22	D5-0-5	Total/NA	Solid	Moisture	

Analysis Batch: 574901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-1	D5-5-10	Total/NA	Solid	9045C	
500-191684-2	D5-10-15	Total/NA	Solid	9045C	
500-191684-3	D4-0-5	Total/NA	Solid	9045C	
500-191684-4	D4-5-8	Total/NA	Solid	9045C	
500-191684-5	D4-11-15	Total/NA	Solid	9045C	
500-191684-6	D3-0-5	Total/NA	Solid	9045C	
500-191684-7	D3-5-9	Total/NA	Solid	9045C	
500-191684-8	D2-0-5	Total/NA	Solid	9045C	
500-191684-9	D2-5-9	Total/NA	Solid	9045C	
500-191684-10	D1-0-5	Total/NA	Solid	9045C	
500-191684-11	D1-5-10	Total/NA	Solid	9045C	
500-191684-12	D9-10-12	Total/NA	Solid	9045C	
500-191684-13	D8-0-5	Total/NA	Solid	9045C	
500-191684-14	D8-5-10	Total/NA	Solid	9045C	
500-191684-15	D8-10-15	Total/NA	Solid	9045C	
500-191684-16	D7-0-5	Total/NA	Solid	9045C	
500-191684-17	D7-5-10	Total/NA	Solid	9045C	
500-191684-18	D7-10-15	Total/NA	Solid	9045C	
500-191684-19	D6-0-5	Total/NA	Solid	9045C	
500-191684-20	D6-5-10	Total/NA	Solid	9045C	
500-191684-21	D6-10-15	Total/NA	Solid	9045C	
500-191684-22	D5-0-5	Total/NA	Solid	9045C	
500-191684-7 DU	D3-5-9	Total/NA	Solid	9045C	

Prep Batch: 575387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-1	D5-5-10	Total/NA	Solid	300_Prep	
500-191684-2	D5-10-15	Total/NA	Solid	300_Prep	
500-191684-3	D4-0-5	Total/NA	Solid	300_Prep	
500-191684-4	D4-5-8	Total/NA	Solid	300_Prep	
500-191684-5	D4-11-15	Total/NA	Solid	300_Prep	
500-191684-6	D3-0-5	Total/NA	Solid	300_Prep	
500-191684-7	D3-5-9	Total/NA	Solid	300_Prep	
500-191684-8	D2-0-5	Total/NA	Solid	300_Prep	
500-191684-9	D2-5-9	Total/NA	Solid	300_Prep	
500-191684-10	D1-0-5	Total/NA	Solid	300_Prep	
500-191684-11	D1-5-10	Total/NA	Solid	300_Prep	
500-191684-12	D9-10-12	Total/NA	Solid	300_Prep	
500-191684-13	D8-0-5	Total/NA	Solid	300_Prep	
500-191684-14	D8-5-10	Total/NA	Solid	300_Prep	
500-191684-15	D8-10-15	Total/NA	Solid	300_Prep	
500-191684-16	D7-0-5	Total/NA	Solid	300_Prep	
MB 500-575387/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 500-575387/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

General Chemistry

Prep Batch: 575398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-17	D7-5-10	Total/NA	Solid	300_Prep	
500-191684-18	D7-10-15	Total/NA	Solid	300_Prep	
500-191684-19	D6-0-5	Total/NA	Solid	300_Prep	
500-191684-20	D6-5-10	Total/NA	Solid	300_Prep	
500-191684-21	D6-10-15	Total/NA	Solid	300_Prep	
500-191684-22	D5-0-5	Total/NA	Solid	300_Prep	
MB 500-575398/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 500-575398/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 575421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-1	D5-5-10	Total/NA	Solid	9056A	575387
500-191684-2	D5-10-15	Total/NA	Solid	9056A	575387
500-191684-3	D4-0-5	Total/NA	Solid	9056A	575387
500-191684-4	D4-5-8	Total/NA	Solid	9056A	575387
500-191684-5	D4-11-15	Total/NA	Solid	9056A	575387
500-191684-6	D3-0-5	Total/NA	Solid	9056A	575387
500-191684-7	D3-5-9	Total/NA	Solid	9056A	575387
500-191684-8	D2-0-5	Total/NA	Solid	9056A	575387
500-191684-9	D2-5-9	Total/NA	Solid	9056A	575387
500-191684-10	D1-0-5	Total/NA	Solid	9056A	575387
500-191684-11	D1-5-10	Total/NA	Solid	9056A	575387
500-191684-12	D9-10-12	Total/NA	Solid	9056A	575387
500-191684-13	D8-0-5	Total/NA	Solid	9056A	575387
500-191684-14	D8-5-10	Total/NA	Solid	9056A	575387
500-191684-15	D8-10-15	Total/NA	Solid	9056A	575387
500-191684-16	D7-0-5	Total/NA	Solid	9056A	575387
MB 500-575387/1-A	Method Blank	Total/NA	Solid	9056A	575387
LCS 500-575387/2-A	Lab Control Sample	Total/NA	Solid	9056A	575387

Analysis Batch: 575427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-17	D7-5-10	Total/NA	Solid	9056A	575398
500-191684-18	D7-10-15	Total/NA	Solid	9056A	575398
500-191684-19	D6-0-5	Total/NA	Solid	9056A	575398
500-191684-20	D6-5-10	Total/NA	Solid	9056A	575398
500-191684-21	D6-10-15	Total/NA	Solid	9056A	575398
500-191684-22	D5-0-5	Total/NA	Solid	9056A	575398
MB 500-575398/1-A	Method Blank	Total/NA	Solid	9056A	575398
LCS 500-575398/2-A	Lab Control Sample	Total/NA	Solid	9056A	575398

Analysis Batch: 575604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-1	D5-5-10	Total/NA	Solid	9056A	575387
500-191684-2	D5-10-15	Total/NA	Solid	9056A	575387
500-191684-3	D4-0-5	Total/NA	Solid	9056A	575387
500-191684-4	D4-5-8	Total/NA	Solid	9056A	575387
500-191684-5	D4-11-15	Total/NA	Solid	9056A	575387
500-191684-6	D3-0-5	Total/NA	Solid	9056A	575387
500-191684-7	D3-5-9	Total/NA	Solid	9056A	575387
500-191684-9	D2-5-9	Total/NA	Solid	9056A	575387

QC Association Summary

General Chemistry (Continued)

Analysis Batch: 575604 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-191684-11	D1-5-10	Total/NA	Solid	9056A	575387
500-191684-13	D8-0-5	Total/NA	Solid	9056A	575387
500-191684-14	D8-5-10	Total/NA	Solid	9056A	575387
500-191684-15	D8-10-15	Total/NA	Solid	9056A	575387
500-191684-17	D7-5-10	Total/NA	Solid	9056A	575398
500-191684-18	D7-10-15	Total/NA	Solid	9056A	575398
500-191684-20	D6-5-10	Total/NA	Solid	9056A	575398
500-191684-21	D6-10-15	Total/NA	Solid	9056A	575398
500-191684-22	D5-0-5	Total/NA	Solid	9056A	575398
MB 500-575387/1-A	Method Blank	Total/NA	Solid	9056A	575387
MB 500-575398/1-A	Method Blank	Total/NA	Solid	9056A	575398
LCS 500-575387/2-A	Lab Control Sample	Total/NA	Solid	9056A	575387
LCS 500-575398/2-A	Lab Control Sample	Total/NA	Solid	9056A	575398

QC Sample Results

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-575072/1-A
Matrix: Solid
Analysis Batch: 575346

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575072

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.0		1.0	0.34	mg/Kg		12/03/20 05:59	12/03/20 15:43	1
Boron	<5.0		5.0	0.47	mg/Kg		12/03/20 05:59	12/03/20 15:43	1
Calcium	5.17	J	20	3.4	mg/Kg		12/03/20 05:59	12/03/20 15:43	1
Iron	<20		20	10	mg/Kg		12/03/20 05:59	12/03/20 15:43	1
Lithium	<1.0		1.0	0.30	mg/Kg		12/03/20 05:59	12/03/20 15:43	1
Manganese	0.368	J	1.0	0.15	mg/Kg		12/03/20 05:59	12/03/20 15:43	1
Molybdenum	<1.0		1.0	0.42	mg/Kg		12/03/20 05:59	12/03/20 15:43	1
Thallium	<1.0		1.0	0.50	mg/Kg		12/03/20 05:59	12/03/20 15:43	1

Lab Sample ID: LCS 500-575072/2-A
Matrix: Solid
Analysis Batch: 575346

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575072

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.41		mg/Kg		94	80 - 120
Boron	100	86.4		mg/Kg		86	80 - 120
Calcium	1000	977		mg/Kg		98	80 - 120
Iron	100	101		mg/Kg		101	80 - 120
Lithium	50.0	49.6		mg/Kg		99	80 - 120
Manganese	50.0	48.2		mg/Kg		96	80 - 120
Molybdenum	100	99.3		mg/Kg		99	80 - 120
Thallium	10.0	10.1		mg/Kg		101	80 - 120

Lab Sample ID: MB 500-575077/1-A
Matrix: Solid
Analysis Batch: 575346

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575077

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.0		1.0	0.34	mg/Kg		12/03/20 06:34	12/03/20 16:37	1
Boron	1.47	J	5.0	0.47	mg/Kg		12/03/20 06:34	12/03/20 16:37	1
Calcium	13.0	J	20	3.4	mg/Kg		12/03/20 06:34	12/03/20 16:37	1
Iron	<20		20	10	mg/Kg		12/03/20 06:34	12/03/20 16:37	1
Lithium	<1.0		1.0	0.30	mg/Kg		12/03/20 06:34	12/03/20 16:37	1
Manganese	0.520	J	1.0	0.15	mg/Kg		12/03/20 06:34	12/03/20 16:37	1
Molybdenum	<1.0		1.0	0.42	mg/Kg		12/03/20 06:34	12/03/20 16:37	1
Thallium	<1.0		1.0	0.50	mg/Kg		12/03/20 06:34	12/03/20 16:37	1

Lab Sample ID: LCS 500-575077/2-A
Matrix: Solid
Analysis Batch: 575346

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575077

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10.0	9.64		mg/Kg		96	80 - 120
Boron	100	88.3		mg/Kg		88	80 - 120
Calcium	1000	937		mg/Kg		94	80 - 120
Iron	100	102		mg/Kg		102	80 - 120
Lithium	50.0	48.9		mg/Kg		98	80 - 120
Manganese	50.0	46.2		mg/Kg		92	80 - 120
Molybdenum	100	99.8		mg/Kg		100	80 - 120

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 500-575077/2-A
Matrix: Solid
Analysis Batch: 575346

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575077

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	10.0	9.99		mg/Kg		100	80 - 120

Lab Sample ID: 500-191684-1 MS
Matrix: Solid
Analysis Batch: 575346

Client Sample ID: D5-5-10
Prep Type: Total/NA
Prep Batch: 575077

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	94	V	11.6	103	4	mg/Kg	☼	78	75 - 125
Boron	140	F1 V B	116	221	F1	mg/Kg	☼	73	75 - 125
Calcium	15000	V B	1160	17400	4	mg/Kg	☼	192	75 - 125
Iron	40000	V	116	42300	4	mg/Kg	☼	2297	75 - 125
Lithium	18		58.2	73.9		mg/Kg	☼	96	75 - 125
Manganese	150	F1 B ^	58.2	193	F1	mg/Kg	☼	70	75 - 125
Molybdenum	7.0		116	98.2		mg/Kg	☼	78	75 - 125
Thallium	3.4		11.6	13.6		mg/Kg	☼	87	75 - 125

Lab Sample ID: 500-191684-1 MSD
Matrix: Solid
Analysis Batch: 575346

Client Sample ID: D5-5-10
Prep Type: Total/NA
Prep Batch: 575077

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	94	V	12.7	94.0	4	mg/Kg	☼	-4	75 - 125	10	20
Boron	140	F1 V B	127	222	F1	mg/Kg	☼	68	75 - 125	1	20
Calcium	15000	V B	1270	15800	4	mg/Kg	☼	45	75 - 125	10	20
Iron	40000	V	127	37600	4	mg/Kg	☼	-1634	75 - 125	12	20
Lithium	18		63.5	75.1		mg/Kg	☼	90	75 - 125	2	20
Manganese	150	F1 B ^	63.5	189	F1	mg/Kg	☼	58	75 - 125	2	20
Molybdenum	7.0		127	104		mg/Kg	☼	76	75 - 125	5	20
Thallium	3.4		12.7	14.0		mg/Kg	☼	83	75 - 125	3	20

Lab Sample ID: 500-191684-1 DU
Matrix: Solid
Analysis Batch: 575346

Client Sample ID: D5-5-10
Prep Type: Total/NA
Prep Batch: 575077

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	94	V	96.7		mg/Kg	☼	2	20
Boron	140	F1 V B	137		mg/Kg	☼	0.7	20
Calcium	15000	V B	12800		mg/Kg	☼	17	20
Iron	40000	V	38200		mg/Kg	☼	4	20
Lithium	18		18.6		mg/Kg	☼	2	20
Manganese	150	F1 B ^	148		mg/Kg	☼	3	20
Molybdenum	7.0		6.77		mg/Kg	☼	3	20
Thallium	3.4		3.11		mg/Kg	☼	10	20

Method: 9045C - pH

Lab Sample ID: 500-191684-7 DU
Matrix: Solid
Analysis Batch: 574901

Client Sample ID: D3-5-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.5			7.5		SU				0.3	

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 500-575387/1-A
Matrix: Solid
Analysis Batch: 575421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575387

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0	1.7	mg/Kg		12/04/20 12:15	12/04/20 14:33	1
Sulfate	<2.0		2.0	0.95	mg/Kg		12/04/20 12:15	12/04/20 14:33	1

Lab Sample ID: MB 500-575387/1-A
Matrix: Solid
Analysis Batch: 575604

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575387

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<2.0		2.0	0.95	mg/Kg		12/04/20 12:15	12/07/20 14:36	1

Lab Sample ID: LCS 500-575387/2-A
Matrix: Solid
Analysis Batch: 575421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.5		mg/Kg		108	80 - 120
Sulfate	50.0	56.0		mg/Kg		112	80 - 120

Lab Sample ID: LCS 500-575387/2-A
Matrix: Solid
Analysis Batch: 575604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575387

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	56.1		mg/Kg		112	80 - 120

Lab Sample ID: MB 500-575398/1-A
Matrix: Solid
Analysis Batch: 575427

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575398

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0	1.7	mg/Kg		12/04/20 12:45	12/04/20 15:40	1
Sulfate	<2.0		2.0	0.95	mg/Kg		12/04/20 12:45	12/04/20 15:40	1

Lab Sample ID: MB 500-575398/1-A
Matrix: Solid
Analysis Batch: 575604

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575398

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<2.0		2.0	0.95	mg/Kg		12/04/20 12:45	12/07/20 18:14	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 500-575398/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575427
Prep Batch: 575398

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	29.8		mg/Kg		99	80 - 120
Sulfate	50.0	52.4		mg/Kg		105	80 - 120

Lab Sample ID: LCS 500-575398/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 575604
Prep Batch: 575398

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	55.7		mg/Kg		111	80 - 120

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Mitchel Dolan	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-8984-5667.1
Client Contact: [redacted] MD Rich Gnat	Phone: 262-781-0475	E-Mail: Diana.Mockler@Eurofinset.com		Page: Page 1 of 1
Company: Midwest Generation EME LLC		**Analysis Requested**		Job #: 500-191684
Address: 401 E Greenwood Avenue	Due Date Requested:			**Preservation Codes:**
City: Waukegan	TAT Requested (days):			
State, Zip: IL, 60087-5197				
Phone: [redacted] MD 262-781-0475	PO #: 4502012558			
Email: [redacted] MD richardg@kprginc.com	WO #:			
Project Name: Waukegan Soil Samples	Project #: 50001112	500-191684 COC		Other:
Site:	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - As, B, Ca, Fe, Li, Mo, Tl, Mn (8 elements)	9056 - Chloride, Sulfate	9045D - pH	Total Number of containers	Special Instructions/Note:
				Preservation Code:		X	X				X	
1	D5-5-10	11/24	11:42	C	S			X	X	X		
2	D5-10-15	↓	11:44	↓	↓			↓	↓	↓		
3	D4-0-5		11:35									
4	D4-5-8		11:37									
5	D4-11-15		11:39									
6	D3-0-5		11:20									
7	D3-5-9		11:22									
8	D2-0-5		11:05									
9	D2-5-9		11:07									
10	D1-0-5		10:50									
11	D1-5-10		10:52									

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ______ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Michael Ress	11/25/20 / 1700	KPRG	Stephanie Hernandez	11/25/20 1700	ETA-CHI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.7+0.8, 3.9+2.0

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Mitchel Dolan	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-8984-5667.1
Client Contact: [redacted] MD Rich Gnat	Phone: 262-781-0475	E-Mail: Diana.Mockler@Eurofinset.com		Page: Page 1 of 1
Company: Midwest Generation EME LLC		**Analysis Requested**		Job #: 500-191684
Address: 401 E Greenwood Avenue	Due Date Requested:			
City: Waukegan	TAT Requested (days):			
State, Zip: IL, 60087-5197				
Phone: [redacted] MD 262-781-0475	PO #: 4502012558			
Email: [redacted] MD richardg@kprginc.com	WO #:			
Project Name: Waukegan Soil Samples	Project #: 50001112			
Site:	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - As, B, Ca, Fe, Li, Mo, Tl, Mn (8 elements)	9056 - Chloride, Sulfate	9045D - pH	Total Number of containers	Special Instructions/Note:
				Preservation Code:								
12	D9-10-12	11/24	12:29	C	S			X	X	X		
13	D8-0-5		12:15									
14	D8-5-10		12:17									
15	D8-10-15		12:19									
16	D7-0-5		12:05									
17	D7-5-10		12:07									
18	D7-10-15		12:09									
19	D6-0-5		11:55									
20	D6-5-10		11:57									
21	D6-10-15		11:59									
22	D5-0-5		11:40									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ______ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Michael Ress	11/25/20 1700	KPRG	Stephanie Hernandez	11/25/20 1700	ETA-CHI

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

12/8/2020

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-191684-1

Login Number: 191684
List Number: 1
Creator: Hernandez, Stephanie

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8,2.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

1 2 3 4 5 6 7 8 9 10 11 12 13

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

1 2 3 4 5 6 7 8 9 10 11 12 13

Client Sample ID: D5-5-10
Date Collected: 11/24/20 11:42
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 16:31	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574555	11/30/20 14:50	LWN	TAL CHI

Client Sample ID: D5-5-10
Date Collected: 11/24/20 11:42
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-1
Matrix: Solid
Percent Solids: 73.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 16:44	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 16:49	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		200	575604	12/07/20 15:16	EAT	TAL CHI

Client Sample ID: D5-10-15
Date Collected: 11/24/20 11:44
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 16:34	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D5-10-15
Date Collected: 11/24/20 11:44
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-2
Matrix: Solid
Percent Solids: 72.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:06	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 17:03	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575604	12/07/20 15:30	EAT	TAL CHI

Client Sample ID: D4-0-5
Date Collected: 11/24/20 11:35
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 16:36	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D4-0-5 Lab Sample ID: 500-191684-3
Date Collected: 11/24/20 11:35 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 87.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:09	JJB	TAL CHI
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		5	575404	12/04/20 12:27	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 17:17	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575604	12/07/20 15:44	EAT	TAL CHI

Client Sample ID: D4-5-8 Lab Sample ID: 500-191684-4
Date Collected: 11/24/20 11:37 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 16:39	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D4-5-8 Lab Sample ID: 500-191684-4
Date Collected: 11/24/20 11:37 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 86.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:12	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 17:30	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575604	12/07/20 15:57	EAT	TAL CHI

Client Sample ID: D4-11-15 Lab Sample ID: 500-191684-5
Date Collected: 11/24/20 11:39 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 16:41	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D4-11-15 Lab Sample ID: 500-191684-5
Date Collected: 11/24/20 11:39 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 75.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:16	JJB	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D4-11-15

Lab Sample ID: 500-191684-5

Date Collected: 11/24/20 11:39
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 75.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 18:11	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575604	12/07/20 16:11	EAT	TAL CHI

Client Sample ID: D3-0-5

Lab Sample ID: 500-191684-6

Date Collected: 11/24/20 11:20
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 16:44	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D3-0-5

Lab Sample ID: 500-191684-6

Date Collected: 11/24/20 11:20
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:19	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 18:25	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575604	12/07/20 16:25	EAT	TAL CHI

Client Sample ID: D3-5-9

Lab Sample ID: 500-191684-7

Date Collected: 11/24/20 11:22
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 16:46	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D3-5-9

Lab Sample ID: 500-191684-7

Date Collected: 11/24/20 11:22
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:22	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 18:39	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575604	12/07/20 16:39	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Job ID: 500-191684-1
Project/Site: Waukegan Soil Testing

Client Sample ID: D2-0-5 — **Lab Sample ID: 500-191684-8**
Date Collected: 11/24/20 11:05 — **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 16:54	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D2-0-5 — **Lab Sample ID: 500-191684-8**
Date Collected: 11/24/20 11:05 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 86.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:25	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 18:52	EAT	TAL CHI

Client Sample ID: D2-5-9 — **Lab Sample ID: 500-191684-9**
Date Collected: 11/24/20 11:07 — **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 16:56	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D2-5-9 — **Lab Sample ID: 500-191684-9**
Date Collected: 11/24/20 11:07 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 76.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:29	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 19:06	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575604	12/07/20 17:20	EAT	TAL CHI

Client Sample ID: D1-0-5 — **Lab Sample ID: 500-191684-10**
Date Collected: 11/24/20 10:50 — **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 16:59	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D1-0-5
Lab Sample ID: 500-191684-10
Date Collected: 11/24/20 10:50
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:38	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 19:20	EAT	TAL CHI

Client Sample ID: D1-5-10
Lab Sample ID: 500-191684-11
Date Collected: 11/24/20 10:52
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:02	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D1-5-10
Lab Sample ID: 500-191684-11
Date Collected: 11/24/20 10:52
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:42	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 19:33	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		20	575604	12/07/20 17:33	EAT	TAL CHI

Client Sample ID: D9-10-12
Lab Sample ID: 500-191684-12
Date Collected: 11/24/20 12:29
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:04	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D9-10-12
Lab Sample ID: 500-191684-12
Date Collected: 11/24/20 12:29
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 66.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:45	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 19:47	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Job ID: 500-191684-1
Project/Site: Waukegan Soil Testing

Client Sample ID: D8-0-5
Lab Sample ID: 500-191684-13
Date Collected: 11/24/20 12:15
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:07	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D8-0-5
Lab Sample ID: 500-191684-13
Date Collected: 11/24/20 12:15
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:48	JJB	TAL CHI
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		5	575404	12/04/20 12:30	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 20:01	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575604	12/07/20 17:47	EAT	TAL CHI

Client Sample ID: D8-5-10
Lab Sample ID: 500-191684-14
Date Collected: 11/24/20 12:17
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:09	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D8-5-10
Lab Sample ID: 500-191684-14
Date Collected: 11/24/20 12:17
Matrix: Solid
Date Received: 11/25/20 17:00
Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:51	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 20:14	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575604	12/07/20 18:00	EAT	TAL CHI

Client Sample ID: D8-10-15
Lab Sample ID: 500-191684-15
Date Collected: 11/24/20 12:19
Matrix: Solid
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:12	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D8-10-15 **Lab Sample ID: 500-191684-15**
Date Collected: 11/24/20 12:19 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 73.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:55	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 20:55	EAT	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575604	12/07/20 18:41	EAT	TAL CHI

Client Sample ID: D7-0-5 **Lab Sample ID: 500-191684-16**
Date Collected: 11/24/20 12:05 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:14	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D7-0-5 **Lab Sample ID: 500-191684-16**
Date Collected: 11/24/20 12:05 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 83.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 17:58	JJB	TAL CHI
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		5	575404	12/04/20 12:34	JJB	TAL CHI
Total/NA	Prep	300_Prep			575387	12/04/20 12:15	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575421	12/04/20 21:09	EAT	TAL CHI

Client Sample ID: D7-5-10 **Lab Sample ID: 500-191684-17**
Date Collected: 11/24/20 12:07 **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:17	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D7-5-10 **Lab Sample ID: 500-191684-17**
Date Collected: 11/24/20 12:07 **Matrix: Solid**
Date Received: 11/25/20 17:00 **Percent Solids: 75.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 18:01	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575604	12/07/20 18:55	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC — Job ID: 500-191684-1
Project/Site: Waukegan Soil Testing

Client Sample ID: D7-5-10 — **Lab Sample ID: 500-191684-17**
Date Collected: 11/24/20 12:07 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 75.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 16:05	EAT	TAL CHI

Client Sample ID: D7-10-15 — **Lab Sample ID: 500-191684-18**
Date Collected: 11/24/20 12:09 — **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:22	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D7-10-15 — **Lab Sample ID: 500-191684-18**
Date Collected: 11/24/20 12:09 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 64.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 18:04	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575604	12/07/20 19:09	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 16:18	EAT	TAL CHI

Client Sample ID: D6-0-5 — **Lab Sample ID: 500-191684-19**
Date Collected: 11/24/20 11:55 — **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:24	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D6-0-5 — **Lab Sample ID: 500-191684-19**
Date Collected: 11/24/20 11:55 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 18:08	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 16:31	EAT	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC — Job ID: 500-191684-1
Project/Site: Waukegan Soil Testing

Client Sample ID: D6-5-10 — Lab Sample ID: 500-191684-20

Date Collected: 11/24/20 11:57 — **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:27	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D6-5-10 — Lab Sample ID: 500-191684-20

Date Collected: 11/24/20 11:57 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 74.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 18:21	JJB	TAL CHI
Total/NA	Prep	3050B			575077	12/03/20 06:34	LMN	TAL CHI
Total/NA	Analysis	6010B		5	575404	12/04/20 12:37	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		10	575604	12/07/20 19:22	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 16:43	EAT	TAL CHI

Client Sample ID: D6-10-15 — Lab Sample ID: 500-191684-21

Date Collected: 11/24/20 11:59 — **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:29	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574673	12/01/20 09:33	LWN	TAL CHI

Client Sample ID: D6-10-15 — Lab Sample ID: 500-191684-21

Date Collected: 11/24/20 11:59 — **Matrix: Solid**
Date Received: 11/25/20 17:00 — **Percent Solids: 75.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575072	12/03/20 05:59	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 16:21	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575604	12/07/20 20:03	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 16:56	EAT	TAL CHI

Client Sample ID: D5-0-5 — Lab Sample ID: 500-191684-22

Date Collected: 11/24/20 11:40 — **Matrix: Solid**
Date Received: 11/25/20 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1	574901	12/01/20 17:32	SMO	TAL CHI
Total/NA	Analysis	Moisture		1	574698	12/01/20 11:38	LWN	TAL CHI

Lab Chronicle

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Client Sample ID: D5-0-5
Date Collected: 11/24/20 11:40
Date Received: 11/25/20 17:00

Lab Sample ID: 500-191684-22
Matrix: Solid
Percent Solids: 92.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			575072	12/03/20 05:59	LMN	TAL CHI
Total/NA	Analysis	6010B		1	575346	12/03/20 16:24	JJB	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		5	575604	12/07/20 20:17	EAT	TAL CHI
Total/NA	Prep	300_Prep			575398	12/04/20 12:45	EAT	TAL CHI
Total/NA	Analysis	9056A		1	575427	12/04/20 17:09	EAT	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Midwest Generation EME LLC
Project/Site: Waukegan Soil Testing

Job ID: 500-191684-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-21

EXHIBIT 44

City of Waukegan 2023 Annual Water Quality Report

Welcome to your Annual Water Quality Report covering the period from January 1 through December 31, 2022. Your tap water met all USEPA and state drinking water health standards. We are pleased to report that our system had no violation of a contaminant level. This report summarizes important information about where your tap water comes from, how it is treated, and what it contains. ***Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo o hable con alguien que lo entienda bien.***

How is the water purified?

Waukegan draws water from Lake Michigan via an intake that extends into the Lake. The water undergoes various treatment processes before being delivered as finished tap water. Aluminum sulfate and polymer are added to the water to destabilize and increase the density of substances that cause turbidity (cloudiness). The water flows to the settling basins, where it undergoes gentle mixing and where turbidity-causing substances are allowed to settle out. The water then flows through the filters that consist of natural media layers (gravel, sand, and anthracite) to remove the remaining particles and bacteria. The water is disinfected with chlorine three times during this process and monitored for turbidity to provide the maximum barrier against bacteria, viruses, and other microorganisms. Fluoride is added (as mandated by State law) to reduce tooth decay followed by phosphate to protect the integrity of water mains and house plumbing against corrosion.

What does the water contain?

Our water is tested and monitored onsite at the treatment plant every day, 24/7, 365 days a year. In addition to manual testing, we have continuous online monitoring instruments that monitor turbidity and chlorine residuals. Our turbidity instruments monitor the water every 3 seconds. That is over 94 million readings a year for just one water quality parameter. Turbidity is a measurement of the cloudiness of water due to suspended particles. It is a good indicator of water quality and the effectiveness of our filtration and disinfection. Chlorine levels are monitored every 2.5 minutes. The drinking water is analyzed onsite and also by EPA approved NELAP accredited laboratories to test for over 100 contaminants in the finished water. The water is tested for bacteria, radioactive compounds, fertilizers, herbicides, and insecticides as well as contaminants from plastics, petroleum, metals, textile-finishing, pharmaceutical, and chemicals factories just to name a few.

Despite the concern of PCB's along Waukegan's Harbor, there are no PCB's in our drinking water. If you would like to see all of the contaminants that Waukegan tested for during 2022 please go to https://water.epa.state.il.us/dww/JSP/WaterSystemDetail.jsp?tinwsys_is_number=716978&tinwsys_st_code=IL&wsnumber=IL0971900

Lead and Copper

Lead in drinking water is primarily indicative of household plumbing and/or service line corrosion. We cannot control the variety of materials used in plumbing components. However, we add blended phosphate to the water to minimize the leaching of lead-containing plumbing material. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead

Want to know more about Lake Michigan water?

The overall quality of Lake Michigan water has improved substantially since the late 1960s. This is primarily due to IL EPA enforcing stricter regulations regarding the direct discharge of municipal and industrial wastes into the Lake. According to the *Source Water Assessment Report,* since the water supply's intake is 6,200 feet into the lake there is low susceptibility to shoreline contaminants due to mixing and dilution. The full summary of this report can be found at http://dataservices.epa.illinois.gov/swap/factsheet.aspx

Lake Michigan Harbor, 2022

Table 1 lists regulated contaminants found in the finished water for the year 2022. If the contaminant does not appear on the list below, it means that it was not detected in the water. Over 80 regulated contaminants are monitored.

Contaminant and Source of Contamination	Highest Level Detected (mg/L) *(footnote 1, 12)*	Range of Levels (mg/L) *(footnote 8)*	MCL (mg/L) *(footnote 2)*	MCLG (mg/L) *(footnote 3)*	Violation	Collection Date
Regulated Contaminants						
Biological Contaminants						
Total Coliform Bacteria are *naturally present in the environment and used as an indicator for other bacteria*	5.0% (2.1 sample total coliform positive, E.coli negative)	N/A	5% of monthly samples	0	No	monthly
Turbidity (NTU) *soil runoff (footnote 5, 6)*	0.16 (Highest single measurement)	0.16	TT = 1.0	N/A	No	every 2 hours
Turbidity (lowest monthly % limit)	100%	100%	T T= 0.3	N/A	No	
Inorganic Contaminants						
Barium *discharges of drilling wastes and metal refineries; erosion of natural deposits*	0.019	0.019 - 0.019	2	2	No	2022
Zinc (State regulated – *footnote 7*) *Naturally occurring; discharge from metal factories*	0.036	0.036—0.036	5	5	No	2022
Sodium (State regulated - *footnote 7*) *natural erosion, used in water softener regeneration*	8.0	8.3 – 8.3	N/A	N/A	No	2022
Chlorine *disinfectant*	1.0	1.0 – 1.2	4 (MRDL) *(footnote 10)*	4 (MRDL *(footnote 11)*	No	Continuously
Lead (distribution system – *footnote 14) corrosion of household plumbing and/or service lines*	6.4 (90th %)	1 sample exceeding AL (0.023 –0.023)	AL = 0.015 *(footnote 15)*	0	No	*every year July - September 2022
Fluoride *water additive to reduce tooth decay*	0.6	0.603– 0.603	4.0	4	No	Monthly
Nitrate measured as Nitrogen (State regulated – *footnote 7) fertilizer, sewage runoff; natural erosion*	0.34	0.34 – 0.34	10	10	No	2022
Copper (distribution system) *corrosion of household plumbing and/or service lines*	0.069 (90th %)	0 samples exceeding AL (0 - 0.00)	AL = 1.3	1.3	No	every year July - September 2022
Disinfection By-Products						
Haloacetic Acids (HAA5) – *footnote 16 by-product of water disinfection*	18	0.0 – 21.2	60	N/A	No	2022
Total Trihalomethanes (TTHM) *by-product of water disinfection*	35	16.32 –35.5	80	N/A	No	2022

PFAS Detection In 2022, our Public Water Supply was sampled as part of the State of Illinois PFAS Statewide Investigation. The results from this sampling in 2022 indicated that three PFAS were at the detectable limit in two quarterly sampling results. One sample was just .1 Parts per Trillion over the suggested guidance lever and one was .2 PPT over the suggested guidance health advisory level which was established level by Illinois EPA. Follow-up monitoring is being conducted. For more information about PFAS health advisories https://epa.illinois.gov/topics/water-quality/pfas/pfas-healthadvisory.html

City of Waukegan PFA Description: Table 2. Below. Reflect Water Quality Samples – PFAS The City of Waukegan collected samples quarterly to monitor PFAs. 12/7/2022, 9/7 2022, 5/18, 2022, and 1/19,2022 Analytes of both Finished and Raw Water for all PFA.s where analysis is possible. To view sampling dates and results please go to the following link: https://link.edgepilot.com/s/f9145d59/FTJJtbAgtU2NSoPhnR246g?u=https://www.waukeganil.gov/555/Reports

Table 2.0

PFAS Analyte Name	Acronym	Health-Based Guidance Level ng/l	Analytical Results 1/19/22 Finished	Analytical Results 1/19/22 System	Analytical Results 5/18/22 Finished	Analytical Results 5/18/22 System	Analytical Results 9/07/22 Finished	Analytical Results 9/07/22 System	Analytical Results 12/07/22 Finished	Analytical Results 12/07/22 System
Perfluorooctanoic acid	PFBS	2,100	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorooctanesulfonic acid	PFHxS	140	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorobutanesulfonic acid	PFNA	21	ND	ND	ND	ND	ND	ND	ND	ND
Perfluoroheptanoic acid	PFOS	14	ND	ND	ND	2	2.1	2.2	ND	ND
Perfluorohexanesulfonic acid	PFOA	2	ND	ND	ND	ND	2	2	ND	ND
Perfluorononanoic acid	PFHxA	560,000	ND	ND	ND	ND	ND	ND	ND	ND
Perfluorodecanoic acid	HFPO-DA	560	ND	ND	ND	ND	ND	ND	ND	ND

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal particles.

Definitions and Abbreviations for Table 1 and Table 2 (Footnote reference)

1. Highest Level Detected – in most cases, this is the annual average of all samples collected during the CCR calendar year.
2. Maximum Contaminant Level (MCL) - The highest contaminant level that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
3. Maximum Contaminant Level Goal (MCLG) - Level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
4. Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water
5. Turbidity - Turbidity is a measurement of the cloudiness of water due to suspended particles. It is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.
6. NTU – Nephelometric Turbidity Units
7. State regulated - this contaminant is regulated by the State. Currently, no federal standard exists for this contaminant.
8. Range of levels - the lowest to the highest measurement of a contaminant that was detected throughout the year.
9. N/A - not applicable
10. Maximum residual disinfectant level (MRDL) - The highest disinfectant level allowed in drinking water. There is adequate evidence that the addition of disinfectant is necessary for control of microbial contaminants.
11. Maximum residual disinfectant level goal (MRDLG) – Drinking water disinfectant level below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
12. mg/L – milligrams per liter (also known as parts per million or ppm)
13. Unregulated Contaminants - a maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language has been set. The purpose of the unregulated contaminant monitoring rule (UCMR) is to assist the USEPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.
14. Distribution system applies to contaminant levels found at consumers' taps.
15. Action Level (AL) – The concentration of a contaminant that triggers treatment by the water supply
16. Disinfection By-Products level detected is based on the locational running annual average (LRAA), which is calculated by adding the current quarter plus three previous quarters and dividing by four. The location with the highest result is used.
17. The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC requirements.

Is the water safe?

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and pick up substances resulting from the presence of animals or from human activity. Possible contaminants consist of:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from storm water runoff, industrial, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from storm water runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations and storm water runoff
- Radioactive contaminants can be naturally-occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Cryptosporidium Testing

Cryptosporidium and Giardia testing on Lake Michigan influent was conducted between October 2015 and September 2017. Cryptosporidium is a single-celled protozoan parasite commonly found in surface water. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised are at greater risk of developing life-threatening illnesses and are encouraged to consult their doctor regarding appropriate precautions to avoid infection.

One test result yielded cryptosporidium of 0.2 oocysts/L in February 2016. The mean Cryptosporidium concentration was at 0.017 oocysts/L, well below the treatment technique trigger of 0.075 oocysts/L. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Our treatment process of filtration and disinfection has been optimized to provide effective barriers against these organisms.

Table 3 lists results for some of the parameters of water testing, which are primarily used for treatment process control.

Contaminant	Level Detected (mg/L)
Sulfate	27
Chloride	15
Total Dissolved Solids (TDS)	160
Conductivity (µS/cm)	281
Calcium	33
Magnesium	12
Total Hardness (as $CaCO_3$)	130
pH	7.3 – 7.6

Get Involved

If you have any questions or comments about this report please contact the Water Plant Superintendent, Antonio Dominguez at 847-599-2687. You may also attend any of our regularly scheduled meetings that convene on the first and third Monday each month at the Council Chambers of City Hall located at 100 Martin Luther King Jr. Ave. Please call 847-599-2500 for meeting times.