TRANSMITTAL

To: Illinois Environmental Protection Agency
DWPC – Permits Section (MC15)
Attn: Part 845 Coal Combustion Residual Rule Submittal
2520 W Iles Ave
Springfield, IL 62704

From: Midwest Generation, LLC Joliet Station #29

Date: January 30, 2025

Re: Midwest Generation, LLC – Joliet #29 Generating Station
Account No. W1970450047
CCR Surface Impoundment Annual Consolidated Report

****

In accordance with the requirements of Title 35 of the Illinois Administrative Code ("35 IAC") Section 845.550, the Annual Consolidated Report is attached for the following CCR surface impoundment at Joliet #29 Generating Station:

Pond ID	CCR Surface Impoundment Description
W1970450047-02	Pond 2

The certification pages from the Hazard Potential Classification Assessment, Structural Stability Assessment, Safety Factor Assessment, and Inflow Design Flood Control System Plan have been provided in Attachment B. A full copy of these assessments can be found on our public website at www.midwestgenerationllc.com. If you have any questions or require additional information regarding this submittal, please contact Jill Buckley at Jill.Buckley@nrg.com.

2024 ANNUAL CONSOLIDATED REPORT
JOLIET 29 GENERATING STATION

POND 2 – W1970450047-02

ATTACHMENT A
2024 ANNUAL CCR FUGITIVE DUST CONTROL REPORT

Annual CCR Fugitive Dust Control Report
Joliet #29 Generating Station
1800 Channahon Road, Joliet, Illinois

1.0 Introduction

On April 15, 2021, the Illinois Pollution Control Board adopted a new part of its waste disposal regulations creating state-wide standards for the disposal of coal combustion residuals (CCR) in surface impoundments, created by the generation of electricity by coal-fired power plants (the IL CCR Rule). These requirements include air criteria specified in Title 35 of the Illinois Administrative Code, §845.500, to address the potential pollution caused by windblown dust from CCR units.

The Joliet #29 Generating Station, operated by Midwest Generation, LLC (MWG), is located at 1800 Channahon Road, Joliet, Will County, Illinois. The facility is a retired natural gas-fired electric power generating station (formerly coal-fired) situated on approximately 297 acres located on the north side of the Des Plaines River. The two electric generating units, identified as Units 7 and 8, on the property were retired on September 1, 2023. The Rule applies to this facility due to the management of CCR that is generated from the combustion of coal. The CCR unit associated with the station is Ash Pond 2.

According to the IL CCR Rule, owners or operators of CCR units must adopt measures that will effectively minimize CCR from becoming airborne at the facility by developing and operating in accordance with a Fugitive Dust Control Plan (Plan) with adequate dust control measures. In this regard, a Plan was prepared that complies with the requirements as specified in §845.500(b)(1-7) of the IL CCR Rule and placed in the Joliet facility's operating record on October 31, 2021 per §845.800(d)(7). As required, the Plan was also posted to the publicly accessible internet site per §845.810(e).

In addition to the above and per §845.500(c), an Annual Fugitive Dust Control Report (Annual Report) must be completed that includes the following:

- Description of actions taken to control CCR fugitive dust, and
- The four quarterly fugitive dust complaint reports submitted under subsection (b)(2)(B)

The Annual Report must be submitted as part of the annual consolidated report required by §845.550. This document represents the 2024 Annual Report for Joliet 29 and will also be appropriately placed in the facility's operating record per §845.800(d)(7) and posted to the publicly accessible internet site per §845.810(e).

2.0 Actions Taken to Control CCR Fugitive Dust

As detailed in the Plan and reiterated below, the station has established procedures and inspection requirements which are implemented to minimize/eliminate airborne emissions from the potential fugitive dust sources. The results from inspections conducted and associated observations made during CCR handling activities are documented on logs maintained in the station's Environmental Department. The Joliet station converted the generating boilers to fire natural gas as a fuel source and ceased coal fuel use at the facility on March 20, 2016 and retired the electric generating units on September 1, 2023. As such, no generation of CCR materials occurred during the reporting period. As described below, there is no CCR remaining at Joliet 29 Station above de minimis quantities.

2.1 Pond 2

Removal of ash from Pond 2 was completed on November 22, 2019 so that Pond 2 only contains a de minimis quantity of ash, ash remaining in the interstitial spaces in the pond warning layer. The warning layer is comprised of sand and limestone. Upon completion of removal of ash from Pond 2, the geomembrane liner was inspected. Because of Illinois Public Act 101-171, signed into law on July 30, 2019, closure activities cannot be completed until a permit is obtained from the Illinois Environmental Protection Agency.

2.2 Transport Roadways

During removal of the CCR, truck drivers are instructed on the proper procedure for cleaning trucks and a vehicle speed limit is enforced at the facility. Ash material that may not have been adequately removed from the trucks has the potential to become airborne and ultimately be deposited on haul roads. To minimize CCR fugitive dust emissions, the roads were assessed during impoundment cleaning activities, and any observed accumulated ash material was promptly cleaned up and collected for off-site removal to an off-site licensed disposal facility.

No ash transport occurred during the reporting period.

3.0 Fugitive CCR Dust Assessments

Pursuant to §845.500(b)(3), assessments of the potential fugitive dust emission sources identified in the Joliet facility's CCR Fugitive Dust Control Plan (Plan) are conducted to assess the effectiveness of the Plan, if warranted. When required, the assessment includes observation of ash removal from the pond, temporary storage, and transport activities at the facility to confirm the adequacy of the control measures. If assessments are warranted, they are conducted on a

quarterly basis by an individual designated by the contact identified below. Observations made during each assessment are to be recorded on a form similar to the one included in Appendix B of the Joliet facility's CCR Fugitive Dust Control Plan.

No assessments were warranted during this period based on the weekly CCR impoundment inspections and lack of changes to operations at this unit.

No issues were identified during this Annual Report's period of record covering January through December 2024.

Owner Representative/Responsible Person Contact Information:

Mr. Phillip Raush
Plant Manager
815-207-5412

4.0 Record of Citizen Complaints

Per the Rule, the Annual Report must include copies of the four quarterly fugitive dust complaint reports submitted under §845.500(b)(2)(B). The quarterly fugitive dust complaint reports contain a record of all citizen complaints that were received by the Joliet station with regard to fugitive dust emission incidents. In line with established protocols and within 24 hours of receipt, the station's environmental coordinator enters the citizen complaint into MWG's Environmental Management Information System (EMIS) database. The EMIS database then automatically forwards notice of the complaint to the station manager and corporate environmental department. Following initial evaluation of the complaint, MWG then conducts a thorough investigation to confirm the reported incident/conditions and implement corrective actions as may be warranted.

No complaints were registered during this Annual Report's period of record covering January through December 2024.

5.0 Summary of Corrective Actions Taken

For the 2024 reporting year and based on continued monitoring and inspections as outlined in Section 2.0 and 3.0 and as required under the CCR rules, the established control measures remain effective in minimizing potential fugitive dust emissions. Moreover, this assertion is further validated by the lack of citizen complaints logged over this same period. Accordingly, no

corrective actions were undertaken during the past year, either as a result of internally identified deficiencies or from resolution of citizen complaints.

QUARTERLY FUGITIVE DUST COMPLAINT REPORTS

MWG
Midwest Generation, LLC

Midwest Generation, LLC
Joliet Generating Station
1800 Channahon Road
Joliet, Illinois 60436

April 4, 2024

Illinois Environmental Protection Agency
DWPC – Permits Section (MC 15)
Attn: Part 845 Coal Combustion Residual Rule Submittal
1021 North Grand Avenue East
Springfield, IL 62702

Re: Midwest Generation, LLC – Joliet 29 Generating Station
Account No. W1970450047
Pond ID: W1970450047-02
CCR Surface Impoundment Quarterly Fugitive Dust Complaint Report

Dear Sir or Madam:

In accordance with the requirements of Title 35 of the Illinois Administrative Code ("35 IAC") Section 845.500(b)(2)(B), this letter serves as the fugitive dust complaint report for First Quarter 2024 at Joliet 29 Generating Station. There were no complaints received from members of the public during the period January 1, 2024 through March 31, 2024.

If you have any questions or require additional information regarding this submittal, please contact Jill Buckley at Jill.Buckley@nrg.com.

Sincerely,

Phillip Raush
Plant Manager
Joliet Generating Station

MWG
Midwest Generation, LLC

Midwest Generation, LLC
Joliet Generating Station
1800 Channahon Road
Joliet, Illinois 60436

July 9, 2024

Illinois Environmental Protection Agency
DWPC – Permits Section (MC 15)
Attn: Part 845 Coal Combustion Residual Rule Submittal
1021 North Grand Avenue East
Springfield, IL 62702

Re: Midwest Generation, LLC – Joliet 29 Generating Station
Account No. W1970450047
Pond ID: W1970450047-02
CCR Surface Impoundment Quarterly Fugitive Dust Complaint Report

Dear Sir or Madam:

In accordance with the requirements of Title 35 of the Illinois Administrative Code ("35 IAC") Section 845.500(b)(2)(B), this letter serves as the fugitive dust complaint report for Second Quarter 2024 at Joliet 29 Generating Station. There were no complaints received from members of the public during the period April 1, 2024 through June 30, 2024.

If you have any questions or require additional information regarding this submittal, please contact Jill Buckley at Jill.Buckley@nrg.com.

Sincerely,

Phillip Raush
Plant Manager, Joliet Generating Station

MWG
Midwest Generation, LLC

Midwest Generation, LLC
Joliet Generating Station
1800 Channahon Road
Joliet, Illinois 60436

October 9, 2024

Illinois Environmental Protection Agency
DWPC – Permits Section (MC 15)
Attn: Part 845 Coal Combustion Residual Rule Submittal
1021 North Grand Avenue East
Springfield, IL 62702

Re: Midwest Generation, LLC – Joliet 29 Generating Station
Account No. W1970450047
Pond ID: W1970450047-02
CCR Surface Impoundment Quarterly Fugitive Dust Complaint Report

Dear Sir or Madam:

In accordance with the requirements of Title 35 of the Illinois Administrative Code ("35 IAC") Section 845.500(b)(2)(B), this letter serves as the fugitive dust complaint report for Third Quarter 2024 at Joliet 29 Generating Station. There were no complaints received from members of the public during the period July 1, 2024 through September 30, 2024.

If you have any questions or require additional information regarding this submittal, please contact Jill Buckley at Jill.Buckley@nrg.com.

Sincerely,

Phillip Raush
Plant Manager, Joliet Generating Station

MWG
Midwest Generation, LLC

Midwest Generation, LLC
Joliet Generating Station
1800 Channahon Road
Joliet, Illinois 60436

January 7, 2025

Illinois Environmental Protection Agency
DWPC – Permits Section (MC 15)
Attn: Part 845 Coal Combustion Residual Rule Submittal
1021 North Grand Avenue East
Springfield, IL 62702

Re: Midwest Generation, LLC – Joliet 29 Generating Station
Account No. W1970450047
Pond ID: W1970450047-02
CCR Surface Impoundment Quarterly Fugitive Dust Complaint Report

Dear Sir or Madam:

In accordance with the requirements of Title 35 of the Illinois Administrative Code ("35 IAC") Section 845.500(b)(2)(B), this letter serves as the fugitive dust complaint report for Fourth Quarter 2024 at Joliet 29 Generating Station. There were no complaints received from members of the public during the period October 1, 2024 through December 31, 2024.

If you have any questions or require additional information regarding this submittal, please contact Jill Buckley at Jill.Buckley@nrg.com.

Sincerely,

Phillip Raush
Plant Manager, Joliet Generating Station

ATTACHMENT B
2024 ANNUAL INSPECTION REPORT

ANNUAL INSPECTION REPORT
ASH POND 2
JOLIET STATION
OCTOBER 2024

This annual inspection report has been prepared pursuant to both Title 35 of the Illinois Administrative Code (35 IAC) Part 845 Section 845.540(b) and Title 40 of the Code of Federal Regulations (40 CFR) Section 257.83(b) for Ash Pond 2 (Pond 2) at Joliet Station in Joliet, Illinois (Station). The purpose of this project is to perform an annual inspection of Pond 2 by a licensed professional engineer to ensure that the design, construction, operation, and maintenance of the coal combustion residuals (CCR) unit is consistent with recognized and generally accepted good engineering standards. Civil & Environmental Consultants, Inc. (CEC) completed the following scope of services in preparing this annual inspection report:

- CEC reviewed the weekly and monthly inspection reports completed by qualified station personnel and the previous annual inspection report.

- CEC performed the annual inspection in accordance with the requirements of 35 IAC 845.540 and 40 CFR 257.83(b) including observations pertaining to the following:

    - Changes in Geometry: Observations of changes in the geometry of Ash Pond 2 since the previous annual inspection.

    - Instrumentation: Inspection of the location and type of existing instrumentation and documentation of the maximum recorded readings of each instrument since the previous annual inspection from records provided by the Station.

    - Capacity and Impounded Volume: Inspection observations for the approximate minimum, maximum, and present depth and elevation of the impounded water and CCR; storage capacity of the impounding structure at the time of the inspection; and the approximate volume of the impounded water and CCR at the time of the inspection.

    - Structural/Operational Observations: Inspection for actual or potential structural weakness of the CCR surface impoundment, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR surface impoundment and appurtenant structures.

- Other Changes: Inspection including change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.

Pond 2 is a CCR surface impoundment that only receives storm water. Placement of CCRs into Pond 2 ceased in 2016 and placement of process water ceased in 2021. CEC inspected Pond 2 on September 20, 2024, and at the time of our inspection, Pond 2 contained no CCRs. CEC inspected the pond and found no signs of distress that would suggest the stability or operation of the impounding structure is compromised.

1.0 CHANGES IN GEOMETRY

The Pond 2 geometry was observed to be unchanged.

2.0 INSTRUMENTATION

Other than a water level gauge, no instrumentation was reported or observed that would be associated with the hydraulic structures, impoundment embankments, and/or slope performance.

3.0 CAPACITY AND IMPOUNDED VOLUME

The capacity and impounded volume of the Pond 2 and estimated depth of impounded water and CCR are represented in Table 1, attached. Volumes and depths were determined by reviewing inspection reports, construction drawings, and from discussions with Station personnel.

4.0 STRUCTURAL/OPERATIONAL OBSERVATIONS

Pond 2 was inspected for signs of distress that would have the potential to disrupt operation and safety of the pond. None were observed. Prior to the inspection, CEC reviewed the previous annual inspection report. This report did not identify conditions that indicate an actual or potential structural weakness. Weekly and monthly inspection reports were also reviewed and did not indicate an actual or potential structural weakness.

5.0 OTHER CHANGES

Pond 2 was inspected for signs of other changes or distresses that would have the potential to disrupt operation and safety of the basins. Our inspection showed no distresses that would affect the operation and/or stability of Pond 2.

6.0 LIMITATIONS AND CERTIFICATION

This annual inspection report was prepared to meet the requirements of 35 IAC 845.540(b) and 40 CFR 257.83(b) and was prepared under the direction of Mr. M. Dean Jones, P.E.

By affixing my seal to this, I do hereby certify to the best of my knowledge, information, and belief that the information contained in this report is true and correct. I further certify I am licensed to practice in the State of Illinois and that it is within my professional expertise to verify the correctness of the information. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Seal:

Signature: _____

Name: M. Dean Jones, P.E.

Date of Certification: October 3, 2024

Illinois Professional Engineer No.: 062-051317

Expiration Date: November 30, 2025

Table 1: Inspection Summary - Pond 2

Category	Regulation Reference	Evaluation	Recommended Action
Change in Geometry	§845.450(b)(2)(A) §257.83(b)(2)(i)	None	None
Instrumentation	§845.450(b)(2)(B) §257.83(b)(2)(ii)	None	None
Water Depth	§845.450(b)(2)(C) §257.83(b)(2)(iii)	1.6 feet, minimum 1.6 feet, at inspection 8.3 feet, maximum	None
CCR Depth	§845.450(b)(2)(C) §257.83(b)(2)(iii)	0 feet	None
Estimated Storage Capacity	§845.450(b)(2)(D) §257.83(b)(2)(iv)	38.4 Acre Feet	None
Impounded Water Volume	§845.450(b)(2)(E) §257.83(b)(2)(v)	6 Acre Feet	None
Impounded CCR Volume	§845.450(b)(2)(E) §257.83(b)(2)(v)	0 Acre Feet	None
Structural/Operational Observations	§845.450(b)(2)(F) §257.83(b)(2)(vi)	None	None
Other Changes	§845.450(b)(2)(G) §257.83(b)(2)(vii)	None	None

ATTACHMENT B.1
2024 ANNUAL HAZARD POTENTIAL CLASSIFICATION CERTIFICATION

Table 6-1 presents the 2024 hazard potential classifications assigned to Joliet 29 Ash Pond 2 under its original design capacity in accordance with 35 Ill. Adm. Code 845.440(a)(1).

Table 6-1 – 2024 Illinois Hazard Potential Classifications for Ash Pond 2 at the Joliet 29 Generating Station

CCR Surface Impoundment	2024 Illinois Hazard Potential Classification
Ash Pond 2	Class 2

However, as noted above, the 2024 hazard potential classification for Ash Pond 2 does not reflect the probability of a hypothetical failure event associated with the pond and is not contingent upon the pond's structural stability. Indeed, the 2024 annual safety factor assessment conducted pursuant to 35 Ill. Adm. Code 845.460 (Ref. 4) shows Ash Pond 2 is structurally stable under design operating conditions. Moreover, no visual signs of distress that could be indicative of dike instability were observed during S&L's September 26, 2024, condition assessment performed in support of the pond's 2024 annual structural stability assessment under 35 Ill. Adm. Code 845.450 (Ref. 3).

7.0 CERTIFICATION

I certify that:

- This hazard potential classification assessment was prepared by me or under my direct supervision.
- The work was conducted in accordance with the requirements of 35 Ill. Adm. Code 845.440.
- I am a registered professional engineer under the laws of the State of Illinois.

Certified By: Thomas Dehlin Date: 10/13/2024

Seal:

Digitally signed by Thomas Dehlin
Date: 2024.10.13 11:26:29-05'00'

ATTACHMENT B.2
2024 ANNUAL STRUCTURAL STABILITY ASSESSMENT CERTIFICATION

5.0 CERTIFICATION

I certify that:

- This structural stability assessment was prepared by me or under my direct supervision.
- The work was conducted in accordance with the requirements of 35 Ill. Adm. Code 845.450.
- I am a registered professional engineer under the laws of the State of Illinois.

Certified By: Thomas J. Dehlin Date: October 13, 2024

Seal:

Digitally signed by
Thomas Dehlin
Date: 2024.10.13
11:27:33-05'00'

ATTACHMENT B.3
2024 ANNUAL SAFETY FACTOR ASSESSMENT CERTIFICATION

Table 6-1 – 2024 Illinois CCR Rule Factors of Safety for Ash Pond 2 at the Joliet 29 Station

Loading Condition	Ash Pond 2	Min. Allowable Factor of Safety
Long-Term, Maximum Storage Pool	≥ 1.50	**1.50**
Maximum Surcharge Pool	≥ 1.40	**1.40**
Seismic	≥ 1.00	**1.00**
Liquefaction	Note 1	**1.20**

Notes: 1) The embankment soils for Ash Pond 2 are not considered susceptible to liquefaction because saturation of the embankment soils is unlikely based on the installed geomembrane liner system and depth to groundwater. Thus, liquefaction safety factors are not reported.

7.0 CERTIFICATION

I certify that:

- This safety factor assessment was prepared by me or under my direct supervision.
- The work was conducted in accordance with the requirements of 35 Ill. Adm. Code 845.460.
- I am a registered professional engineer under the laws of the State of Illinois.

Certified By: Thomas J. Dehlin Date: October 13, 2024

Seal:

Digitally signed by Thomas Dehlin
Date: 2024.10.13 11:27:08-05'00'

ATTACHMENT B.4
2024 ANNUAL INFLOW DESIGN FLOOD CONTROL SYSTEM PLAN CERTIFICATION

7.0 CERTIFICATION

I certify that:

- This inflow design flood control system plan was prepared by me or under my direct supervision.
- The work was conducted in accordance with the requirements of 35 Ill. Adm. Code 845.510.
- I am a registered professional engineer under the laws of the State of Illinois.

Certified By: Thomas Dehlin Date: 10/13/2024

Seal:

Digitally signed by Thomas Dehlin
Date: 2024.10.13 11:26:54-05'00'

ATTACHMENT C
2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

K P R G

ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

ILLINOIS CCR COMPLIANCE
ANNUAL GROUNDWATER MONITORING and CORRECTIVE ACTION REPORT - 2024

Midwest Generation, LLC
Joliet #29 Generating Station
1800 Channahon Rd.
Joliet, Illinois

Prepared By: KPRG and Associates, Inc.
14665 West Lisbon Road, Suite 1A
Brookfield, WI 53005

January 31, 2025

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ATTACHMENTS

1.0 INTRODUCTION and OVERVIEW

Groundwater monitoring requirements in accordance with the Ill. Adm. Code Title 35, Part 845: Standards for the Disposal of Coal Combustion Residuals in Surface Impoundments dated April 15, 2021 (State CCR Rule), have been completed for the ash pond monitoring wells located at the Midwest Generation, LLC (Midwest Generation) Joliet #29 Generating Station. The wells sampled were selected to meet the monitoring requirements of the State CCR Rule for Pond 2. The CCR monitoring well network around this pond consists of four monitoring wells (MW-03, MW-04, MW-05, and MW-10) as shown on Figure 1. Well MW-10 is an upgradient well. All CCR groundwater monitoring data available to date, which includes data from previous groundwater monitoring under the Federal CCR Rule, are provided in Tables 1 and 2. As part of the Application for Initial Operating Permit – Joliet #29 Generating Station submitted on October 31, 2021 (Application), *proposed* statistical background concentration calculations along with *proposed* site-specific Groundwater Protection Standards (GWPSs) were submitted for Illinois Environmental Protection Agency (Agency) review/approval. Table 3 summarizes the *proposed* background statistical concentrations for each parameter along with the site-specific *proposed* GWPSs in accordance with Section 845.600(a)(2). These are currently still under review by the Agency and, therefore, are not finalized. However, for the purposes of evaluations required for the annual report, data comparisons will be presented relative to the "*proposed*" values for statistical background concentrations and site-specific GWPSs.

This overview of the 2024 groundwater monitoring period is provided in accordance with Section 845.610(e)(4). Each required item is discussed separately below.

- Section 845.610(e)(4)(A and B) – *Proposed* statistical background concentration calculations (see Table 3) were submitted to the Agency as part of the Application for Initial Operating Permit. This Application is currently still under Agency review. However, assuming that the Agency accepts the proposed background calculations, the groundwater monitoring for the 2024 reporting period has identified the following constituents with verified potential statistically significant increases (SSIs) above the *proposed* background concentrations. It is noted that other than those constituents identified in the next bullet, none of these potential SSI concentrations are above *proposed* site-specific GWPSs. The constituents and associated wells are:

    - pH: MW-10 (3rd quarter)
    - Total Dissolved Solids: MW-05 (2nd quarter)
    - Arsenic: MW-03 (1st quarter)
    - Barium: MW-03, MW-04 and MW-05 (1st through 4th quarters)
    - Cobalt: MW-04 (1st through 4th quarters)
    - Radium: MW-10 and MW-3 (1st quarter), MW-05 (1st and 2nd quarters)
    - Selenium: MW-03 (3rd and 4th quarters)

Well MW-10 is the upgradient monitoring point.

- Section 845.610(e)(4)(C and D) – *Proposed* GWPSs in accordance with Section 845.600(a)(2) (see Table 3) were submitted to the Agency as part of the Application for Initial Operating Permit. This Application is currently still under review by the Agency. However, assuming that the Agency accepts the proposed GWPSs, the groundwater monitoring for the 2024 reporting period has identified the following constituents above the *proposed* GWPSs:

    - Cobalt: MW-04 (1st through 4th quarters)

    Well MW-10 is the upgradient monitoring point.

- Section 845.610(e)(4)(E though H) – Pond 2 is currently not in corrective action.

2.0 ANNUAL STATUS SUMMARY

As discussed in Section 1.0 the CCR monitoring well network around Pond 2 consists of four monitoring wells (MW-03, MW-04, MW-05, and MW-10) as shown on Figure 1. Well MW-10 is an upgradient well. All CCR groundwater monitoring data available to date, which includes data from previous groundwater monitoring under the Federal CCR Rule, are provided in Tables 1 and 2. The backup analytical packages have been previously provided as part of the 60-day submittal requirements. Table 3 summarizes the proposed background statistical concentrations for each parameter along with the site-specific *Proposed* GWPSs in accordance with Section 845.600(a)(2). These were included as part of the Initial Operating Permit Application referenced above, are currently still under review by the Agency and, therefore, are not finalized. However, for the purposes of evaluations required for this annual report, data comparisons will be presented relative to the "*proposed*" values for statistical background concentrations and site-specific GWPSs. This section provides the information specified under Section 845.610(e) (2-3).

2.1 Summary of Actions and Submittals (Section 845.610(e)(2))

The following key actions have been completed during the 2024 reporting period:

- Quarterly sampling of all parameters specified in Section 845.600(a) plus calcium and turbidity was completed and the associated 60-day data summary submittals were placed in the facilities operating record in accordance with Section 845.610(b)(3)(D).

- Water levels were recorded monthly for the specified CCR monitoring wells and pond water levels were concurrently recorded.

Key activities for the upcoming year include:

- Submittal of an amended Application for Initial Construction Permit is planned for the 1st quarter 2025 for proceeding to formal clean closure of the regulated Unit via removal and off-site disposal at an approved landfill.

- Receipt of an approved Application for Initial Operating Permit which will facilitate finalization of the proposed statistical background concentrations and the proposed site-specific GWPSs. Once these are accepted/finalized by the Agency, formal groundwater data comparisons and evaluations can be made based on quarterly monitoring results relative to these comparison criteria.

- Receipt of an approved amended Application for Initial Construction Permit which will facilitate closure construction activities to commence for Pond 2.

- Continued quarterly groundwater monitoring/reporting.

2.2 Groundwater Data Summary (Section 845.610(e)(3)(A-F))

Identification of monitoring wells and associated constituent concentrations above the proposed site-specific GWPSs was included in Section 1.0. For the most recent round of groundwater monitoring (4th quarter 2024), an aerial distribution map for constituent detections above the proposed GWPSs is provided on Figure 2.

There were no monitoring wells installed or decommissioned during this reporting period.

Water levels were recorded from the specified CCR monitoring wells on a monthly basis. The water levels are summarized in Table 4. Potentiometric surface maps for each round of monthly water levels are provided in Attachment 1. As noted above, groundwater flow beneath Pond 2 is consistently in a southerly direction. In accordance with Section 845.640(c)(2), groundwater flow direction and seepage velocity estimates for each round of water levels are provided in Table 5.

A summary of the number of groundwater samples collected for analysis for each CCR monitoring well along with sample dates is provided in Table 6.

Proposed statistical background concentration calculations (see Table 3) were submitted to the Agency as part of the Application for Initial Operating Permit. This Application is currently still under Agency review. However, assuming that the Agency accepts the *proposed* background calculations, the groundwater monitoring for the 2024 reporting period has identified the following constituents with potential statistically significant increases (SSIs) above the proposed background concentrations:

- pH: MW-10 (3rd quarter)
- Total Dissolved Solids: MW-05 (2nd quarter)
- Arsenic: MW-03 (1st quarter)
- Barium: MW-03, MW-04 and MW-05 (1st through 4th quarters)
- Cobalt: MW-04 (1st through 4th quarters)
- Radium: MW-10 and MW-3 (1st quarter), MW-05 (1st and 2nd quarters)
- Selenium: MW-03 (3rd and 4th quarters)

Well MW-10 is the upgradient monitoring point. As previously stated, other than those constituents identified in the second bullet in Section 1.0, none of these potential SSI concertations are above *proposed* site-specific GWPSs.

TABLES

Table 1. Groundwater Analytical Results - Midwest Generation, LLC, Joliet Station #29, Joliet, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228	Selenium	Thallium
MW-10 up-gradient	10/28/2015	0.47	100	200	0.41	7.04	84	790	< 0.003	< 0.001	0.041	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.013	< 0.0002	0.0060	0.2981	< 0.0025	< 0.002
	2/10/2016	0.41	100	210	0.44	7.17	120	820	< 0.003	0.001	0.043	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.011	< 0.0002	0.0067	< 0.438	< 0.0025	< 0.002
	5/12/2016	0.29	100	300	0.42	7.02	110	920	< 0.003	< 0.001	0.046	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0051	< 0.414	< 0.0025	< 0.002
	8/31/2016	0.36	89	170	0.46	6.95	100	760	< 0.003	< 0.001	0.039	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.010	< 0.0002	0.0077	< 0.394	< 0.0025	< 0.002
	11/2/2016	0.48	100	130	0.45	6.99	95	720	< 0.003	0.0018	0.035	< 0.001	< 0.0005	< 0.005	< 0.001	0.0014	0.011	< 0.0002	0.0061	0.626	< 0.0025	< 0.002
	2/6/2017	0.44	120	190	0.36	6.99	88	820	< 0.003	0.0011	0.048	< 0.001	< 0.0005	< 0.005	< 0.001	0.00086	0.014	< 0.0002	0.0056	< 0.389	< 0.0025	< 0.002
	4/26/2017	0.35	120	200	0.35	7.27	87	760	< 0.003	0.0015	0.046	< 0.001	< 0.0005	< 0.005	< 0.001	0.0012	< 0.01	< 0.0002	0.006	< 0.34	< 0.0025	< 0.002
	6/14/2017	0.29	91	160	0.43	7.48	75	690	< 0.003	< 0.001	0.034	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0072	< 0.356	< 0.0025	< 0.002
	8/2/2017	0.45	97	170	0.38	7.23	110	750	< 0.003	0.0011	0.036	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.011	< 0.0002	0.0079	0.429	< 0.0025	< 0.002
	10/18/2017	0.61	120	140	0.41	7.11	130	820	< 0.003	0.0012	0.04	^ < 0.001	< 0.0005	< 0.005	< 0.001	0.00059	0.013	< 0.0002	0.0066	< 0.422	< 0.0025	^ < 0.002
	4/24/2018	0.4	110	260	0.39	7.28	120	910	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/17/2018	0.63	120	180	0.42	7.30	110	810	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/24/2018 R	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/7/2019	0.56	130	410	0.39	7.17	95	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/3/2019 R	NA	NA	230	NA	NA	NA	830	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/2019	0.35	90	130	0.36	7.40	59	650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/20/2020	0.85	120	250	0.41	6.90	100	960	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/11/2020 R	0.26	NA	NA	NA	NA	NA	770	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/22/2020	0.34	110	230	0.41	7.11	93	850	< 0.003	0.001	0.043	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.011	< 0.0002	0.0057	NA	< 0.0025	< 0.002
	5/18/2021	0.33	140	350	0.39	7.16	210	1200	< 0.003	0.0014	0.06	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.015	< 0.0002	0.0055	< 0.4800	< 0.0025	< 0.002
	6/29/2021 R	NA	160	420	NA	7.32	190	1300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/30/2021	0.28	120	330	0.37	7.56	170	990	^+ < 0.003	0.0012	0.051	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0065	0.51	< 0.0025	< 0.002
	11/16/2021	0.39	120	260	0.38	7.01	150	1000	< 0.003	0.0012	0.049	^1+ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.011	< 0.0002	0.0066	0.692	< 0.0025	< 0.002
	3/3/2022	0.47	120	280	0.41	7.05	190	1000	< 0.003	0.0014	0.055	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.013	< 0.0002	0.0066	< 0.4	< 0.0025	< 0.002
	5/26/2022	0.39	120	280	0.41	6.90	160	1000	< 0.003	0.0013	0.046	^+ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.0064	< 0.593	< 0.0025	< 0.002
	8/31/2022	0.33	110	240	0.41	6.58	160	970	< 0.003	0.0012	0.042	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.0057	0.534	< 0.0025	< 0.002
	11/9/2022	0.32	110	240	0.57	7.00	150	880	< 0.003	0.0014	0.043	< 0.001	< 0.0005	< 0.005	< 0.001	^+ < 0.0005	0.01	< 0.0002	0.0055	0.728	< 0.0025	< 0.002
	12/20/2022 R	NS	NS	NS	0.68	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/28/2023	0.36	130	330	0.38	7.06	170	1200	< 0.003	0.0012	0.053	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.013	< 0.0002	0.0058	< 0.787	< 0.0025	< 0.002
	5/3/2023	0.37	130	310	0.39	6.99	190	1100	< 0.0030	< 0.0010	0.053	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.014	< 0.00020	0.0068	< 0.487	< 0.0025	< 0.0020
	7/20/2023	0.33	110	250	0.39	6.95	160	960	< 0.0030	< 0.0010	0.048	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.011	< 0.00020	0.0053	0.623	< 0.0025	< 0.0020
	10/26/2023	0.40	120	300	0.41	6.96	160	1100	< 0.0030	0.0011	0.050	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.011	< 0.00020	0.0064	0.739	< 0.0025	< 0.0020
	1/23/2024	0.49	110	260	0.37	6.96	160	970	^1+ < 0.0030	0.0013	0.056	^1+ < 0.0010	< 0.00050	< 0.0050	< 0.0010	0.00064	0.014	< 0.00020	0.0067	0.720	< 0.0025	< 0.0020
	5/22/2024	0.38	110	180	0.41	7.17	120	840	< 0.0030	< 0.0010	0.040	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.013	< 0.00020	0.0067	< 0.633	< 0.0025	< 0.0020
	7/30/2024	0.44	120	170	0.38	7.58	150	880	< 0.0030	< 0.0010	0.045	< 0.0010	< 0.00050	< 0.0050	< 0.0010	^1+ < 0.00050	0.013	< 0.00020	0.0071	0.455	< 0.0025	< 0.0020
	10/29/2024	0.46	130	220	0.38	7.30	160	1000	< 0.0030	< 0.0010	0.048	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.013	< 0.00020	0.0063	< 0.337	< 0.0025	< 0.0020
MW-03 down-gradient	10/28/2015	0.34	110	230	0.41	7.11	110	960	< 0.003	0.0015	0.100	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.013	< 0.0002	< 0.0050	0.41	< 0.0025	< 0.002
	2/10/2016	0.49	100	220	0.44	7.31	130	790	< 0.003	0.0017	0.100	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.011	< 0.0002	0.0060	< 1.68	0.0045	< 0.002
	5/10/2016	0.48	95	240	0.44	7.07	130	800	< 0.003	0.0011	0.095	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0062	< 0.326	0.0030	< 0.002
	8/31/2016	0.49	100	250	0.45	7.18	120	920	< 0.003	0.0013	0.095	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0086	< 0.373	0.0051	< 0.002
	11/2/2016	0.34	87	190	0.44	7.45	94	780	< 0.003	0.0019	0.082	< 0.001	< 0.0005	0.0051	< 0.001	< 0.0005	< 0.010	< 0.0002	0.0059	0.965	0.0032	< 0.002
	2/6/2017	0.40	97	140	0.39	7.35	77	720	< 0.003	0.0019	0.093	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0066	< 0.356	0.0028	< 0.002
	4/26/2017	0.54	100	210	0.36	7.03	120	820	< 0.003	0.0017	0.11	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.010	< 0.0002	0.0088	< 0.411	0.0052	< 0.002
	6/14/2017	0.45	88	190	0.44	7.43	75	760	< 0.003	0.0014	0.09	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0072	< 0.358	0.0037	< 0.002
	8/2/2017	0.41	99	200	0.40	7.34	110	850	< 0.003	0.0022	0.10	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.011	< 0.0002	0.0065	0.414	0.005	< 0.002
	10/18/2017	0.35	93	160	0.42	7.11	100	850	< 0.003	0.0015	0.088	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.012	< 0.0002	0.0055	< 0.417	0.0026	^ < 0.002
	4/24/2018	0.52	100	220	0.42	7.2	150	930	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/31/2018 R	NA	NA	NA	NA	NA	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/17/2018	0.25	100	250	0.4	7.04	110	870	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/7/2019	0.43	120	280	0.4	7.27	140	880	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/3/2019 R	NA	NA	NA	NA	NA	65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/2019	0.34	100	150	0.4	7.32	65	660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/20/2020	0.38	100	230	0.42	7.56	78	960	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/11/2020 R	NA	NA	NA	NA	NA	NA	930	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/22/2020	0.32	110	180	0.43	7.23	90	770	< 0.003	0.0014	0.1	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.01	< 0.0002	< 0.005	NA	< 0.0025	< 0.002
	5/18/2021	0.28	130	290	0.4	7.13	190	1200	< 0.003	0.0016	0.14	< 0.001	< 0.0005	< 0.005	0.0011	< 0.0005	0.014	< 0.0002	< 0.0050	1.1000	< 0.0025	< 0.002
	6/29/2021 R	NA	NA	NA	NA	7.34	210	1300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/30/2021	0.23	120	290	0.36	7.33	140	800	^+ < 0.003	0.0018	0.12	< 0.001	< 0.0005	< 0.005	0.0014	< 0.0005	0.012	< 0.0002	< 0.005	0.641	< 0.0025	< 0.002
	11/16/2021	0.3	130	280	0.37	7.11	150	1000	< 0.003	0.0018	0.14	^1+ < 0.001	< 0.0005	< 0.005	0.0018	< 0.0005	0.011	< 0.0002	< 0.005	1.15	< 0.0025	< 0.002
	3/3/2022	0.3	130	270	0.4	7.05	180	1300	< 0.003	0.0019	0.14	< 0.001	< 0.0005	< 0.005	0.0014	< 0.0005	0.012	< 0.0002	< 0.005	< 0.672	< 0.0025	< 0.002
	5/26/2022	0.39	120	280	0.41	6.98	160	1100	< 0.003	0.002	0.13	^+ < 0.001	< 0.0005	< 0.005	0.0011	< 0.0005	< 0.01	< 0.0002	< 0.005	0.557	0.0042	< 0.002
	8/31/2022	0.23	110	270	0.39	6.25	130	1200	< 0.003	0.0018	0.11	< 0.001	< 0.0005	< 0.005	0.0011	< 0.0005	0.011	< 0.0002	< 0.005	0.525	< 0.0025	< 0.002
	11/9/2022	0.25	120	300	0.54	7.03	140	1100	< 0.003	0.002	0.12	< 0.001	< 0.0005	< 0.005	0.0015	^+ < 0.0005	0.012	< 0.0002	< 0.005	< 0.536	< 0.0025	< 0.002
	2/28/2023	0.3	120	280	0.37	7.06	160	1000	< 0.003	0.0014	0.12	< 0.001	< 0.0005	< 0.005	0.0015	< 0.0005	0.011	< 0.0002	< 0.005	< 0.52	0.0033	< 0.002
	5/3/2023	0.36	130	250	0.37	6.97	200	980	< 0.0030	0.0014	0.12	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.012	< 0.00020	< 0.0050	< 0.453	0.0028	< 0.0020
	7/20/2023	0.32	130	250	0.36	6.86	190	1000	< 0.0030	0.0013	0.12	< 0.0010	< 0.00050	< 0.0050	< 0.0010	0.00072	0.010	< 0.00020	< 0.0050	< 0.523	< 0.0025	< 0.0020
	10/26/2023	0.31	130	300	0.40	6.93	170	1100	< 0.0030	0.0017	0.13	< 0.0010	< 0.00050	< 0.0050	0.0014	< 0.00050	0.010	< 0.00020	< 0.0050	0.908	0.0028	< 0.0020
	1/23/2024	0.34	96	240	0.42	7.01	160	990	^1+ < 0.0030	0.0023	0.13	^1+ < 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.013	< 0.00020	0.0054	1.21	< 0.0025	< 0.0020
	5/22/2024	0.49	110	220	0.43	7.07	170	990	< 0.0030	0.0013	0.099	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.011	< 0.00020	0.0053	< 0.594	< 0.0050	< 0.0020
	7/30/2024	0.44	100	170	0.41	7.56	130	820	< 0.0030	0.0013	0.099	< 0.0010	< 0.00050	< 0.0050	< 0.0010	^1+ < 0.00050	0.011	< 0.00020	0.0052	< 0.577	0.0037	< 0.0020
	10/29/2024	0.40	110	180	0.39	7.38	130	1000	< 0.0030	0.0013	0.11	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.011	< 0.00020	0.0050	< 0.529	0.0031	< 0.0020
MW-04 down-gradient	10/28/2015	0.34	94	F1 200	0.45	7.07	83	740	< 0.003	0.0013	0.082	^ < 0.001	< 0.0005	< 0.005	0.0063	< 0.0005	0.013	< 0.0002	0.0065	0.741	< 0.0025	< 0.002
	2/10/2016	0.32	97	210	0.47	7.22	140	810	< 0.003	0.0018	0.088	< 0.001	< 0.0005	< 0.005	0.0074	0.00062	0.011	< 0.0002	0.0063	< 1.52	< 0.0025	< 0.002
	5/10/2016	0.47	100	260	0.46	6.71	150	900	< 0.003	0.0014	0.088	< 0.001	< 0.0005	< 0.005	0.0086	< 0.0005	0.012	< 0.0002	0.0088	< 0.365	< 0.0025	< 0.002
	8/31/2016	0.42	100	210	0.45	7.07	120	890	< 0.003	0.0014	0.086	^ < 0.001	< 0.0005	< 0.005	0.0035	< 0.0005	0.011	< 0.0002	0.0083	0.432	< 0.0025	< 0.002
	11/2/2016	0.32	98	160	0.43	7.25	83	750	< 0.003	0.0025	0.079	< 0.001	< 0.0005	< 0.005	0.0100	0.0012	0.012	< 0.0002	0.007	< 0.463	< 0.0025	< 0.002
	2/6/2017	0.40	110	200	0.37	7.19	98	790	< 0.003	0.0015	0.100	< 0.001	< 0.0005	< 0.005	0.0160	< 0.0005	0.013	< 0.0002	0.0071	< 0.356	< 0.0025	< 0.002
	4/26/2017	0.33	100	220	0.37	7.46	89	770	< 0.003	0.0021	0.095	< 0.001	< 0.0005	< 0.005	0.0078	0.00055	0.012	< 0.0002	0.0069	< 0.35	< 0.0025	< 0.002
	6/14/2017	0.37	92	190	0.47	7.45	80	770	< 0.003	0.0013	0.078	< 0.001	< 0.0005	< 0.005	0.0120	< 0.0005	0.013	< 0.0002	0.0085	< 0.309	< 0.0025	< 0.002
	8/2/2017	0.35	93	180	0.43	7.41	100	770	< 0.003	0.0013	0.077	< 0.001	< 0.0005	0.04	0.0031	< 0.0005	0.012	< 0.0002	0.0091	< 0.282	0.0029	< 0.002
	10/18/2017	0.54	97	140	0.45	7.2	120	790	< 0.003	0.0019	0.082	^ < 0.001	< 0.0005	< 0.005	0.0046	0.00077	0.015	< 0.0002	0.0071	0.423	0.003	^ < 0.002
	4/24/2018	0.4	110	240	0.43	7.21	160	940	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/31/2018 R	NA	NA	NA	NA	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/17/2018	0.29	100	230	0.45	7.2	130	840	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/7/2019	0.76	120	340	0.42	7.27	120	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/3/2019 R	0.23	NA	250	NA	NA	NA	870	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/6/2019	0.3	77	140	0.41	7.33	53	670	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/20/2020	0.79	110	250	0.45	7.3	110	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/11/2020 R	0.28	NA	NA	NA	NA	NA	850	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/22/2020	0.33	100	190	0.48	7.15	83	770	< 0.003	0.0015	0.089	^ < 0.001	< 0.0005	< 0.005	0.0082	< 0.0005	0.013	< 0.0002	0.0061	NA	< 0.0025	< 0.002
	5/18/2021	0.22	120	280	0.42	7.3	190	1100	< 0.003	0.0019	0.12	< 0.001	< 0.0005	< 0.005	0.0037	< 0.0005	0.014	< 0.0002	< 0.005	< 0.4450	< 0.0025	< 0.002
	6/29/2021 R	NA	NA	NA	NA	7.36	190	1200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/30/2021	0.33	120	330	0.4	7.46	170	1000	^+ < 0.003	0.0016	0.12	< 0.001	< 0.0005	< 0.005	0.0034	< 0.0005	0.013	< 0.0002	0.0057	0.877	0.003	< 0.002
	11/16/2021	0.3	130	290	0.42	7.11	140	1000	< 0.003	0.0021	0.12	^1+ < 0.001	< 0.0005	< 0.005	0.004	< 0.0005	0.011	< 0.0002	0.0059	0.892	< 0.0025	< 0.002
	3/3/2022	0.31	120	220	0.42	7.11	170	1300	< 0.003	0.0018	0.12	< 0.001	< 0.0005	< 0.005	0.0029	< 0.0005	0.012	< 0.0002	0.0056	< 0.437	< 0.0025	< 0.002
	5/26/2022	0.26	110	290	0.44	6.94	150	1100	< 0.003	0.0019	0.1	^+ < 0.001	< 0.0005	< 0.005	0.0036	< 0.0005	< 0.01	< 0.0002	< 0.005	0.624	< 0.0025	< 0.002
	8/31/2022	0.32	120	240	0.45	6.38	150	870	< 0.003	0.0016	0.11	< 0.001	< 0.0005	< 0.005	0.0018	< 0.0005	0.012	< 0.0002	0.0055	0.804	< 0.0025	< 0.002
	11/9/2022	0.34	120	240	0.61	7.08	150	940	< 0.003	0.0021	0.11	< 0.001	< 0.0005	< 0.005	0.003	^+ < 0.0005	0.012	< 0.0002	0.0056	0.666	< 0.0025	< 0.002
	2/28/2023	0.34	120	280	0.4	7.16	150	1100	< 0.003	0.0019	0.1	< 0.001	< 0.0005	< 0.005	0.0078	< 0.0005	0.011	< 0.0002	0.0058	< 0.593	< 0.0025	< 0.002
	5/3/2023	0.28	110	290	0.40	6.97	160	1100	< 0.0030	0.0014	0.095	< 0.0010	< 0.00050	< 0.0050	0.0074	< 0.00050	0.011	< 0.00020	0.0051	< 0.488	< 0.0025	< 0.0020
	7/20/2023	0.37	120	240	0.41	7.02	180	970	< 0.0030	0.0018	0.10	< 0.0010	< 0.00050	< 0.0050	0.0025	< 0.00050	0.012	< 0.00020	< 0.0050	< 0.601	0.0027	< 0.0020
	10/26/2023	0.31	120	320	0.43	6.95	140	1100	< 0.0030	0.0016	0.094	< 0.0010	< 0.00050	< 0.0050	0.0063	< 0.00050	0.013	< 0.00020	0.0052	1.15	< 0.0025	< 0.0020
	1/23/2024	0.42	99	200	0.38	6.93	150	970	^1+ < 0.0030	0.0020	0.091	^1+ < 0.0010	< 0.00050	< 0.0050	0.0085	< 0.00051	0.018	< 0.00020	0.0056	< 0.649	< 0.0025	< 0.0020
	5/22/2024	0.39	110	200	0.41	7.12	120	910	< 0.0030	0.0016	0.077	< 0.0010	< 0.00050	< 0.0050	0.0091	0.00054	0.013	< 0.00020	0.0056	0.586	< 0.0025	< 0.0020
	7/30/2024	0.34	110	170	0.42	7.45	120	860	< 0.0030	0.0013	0.074	< 0.0010	< 0.00050	< 0.0050	0.0081	^1+ < 0.00050	0.013	< 0.00020	0.0057	< 0.471	< 0.0025	< 0.0020
	10/29/2024	0.38	120	190	0.43	7.32	120	980	< 0.0030	0.0013	0.078	< 0.0010	< 0.00050	< 0.0050	0.0095	< 0.00050	0.013	< 0.00020	0.0055	< 0.197	< 0.0025	< 0.0020

Notes: All units are in mg/l except pH is in standard units and radium is in pCi/L.
DNYA - Data not yet available.
F1 - MS and/or MSD Recovery ouside of limits.
NA - Not analyzed. No confirmation resample required.
^+ - Continuing calibration verification is outside acceptance limits, high biased.
R - Resampled under federal rule.

Table 1. Groundwater Analytical Results - Midwest Generation, LLC, Joliet Station #29, Joliet, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228	Selenium	Thallium
MW-05 down-gradient	10/28/2015	0.64	100	160	0.39	7.12	120	790	< 0.003	0.0011	0.057	^ < 0.001	< 0.0005	< 0.005	0.0013	< 0.0005	0.018	< 0.0002	0.0088	0.6231	0.0031	< 0.002
	2/10/2016	0.46	110	220	0.39	7.25	120	790	< 0.003	0.0028	0.071	< 0.001	< 0.0005	0.0062	0.0013	0.0022	< 0.02	< 0.0002	F1 0.0053	1.09	< 0.0025	< 0.002
	5/10/2016	0.8	150	220	0.46	6.88	290	950	< 0.003	0.0023	0.075	< 0.001	< 0.0005	< 0.005	< 0.001	0.0022	0.014	< 0.0002	0.008	< 0.40	0.019	< 0.002
	8/31/2016	1.0	140	99	0.56	6.81	260	820	< 0.003	< 0.001	0.07	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	< 0.01	< 0.0002	0.012	< 0.42	0.02	< 0.002
	11/2/2016	0.41	98	130	0.37	7.26	100	700	< 0.003	0.0022	0.056	< 0.001	< 0.0005	0.0051	< 0.001	0.0017	0.015	< 0.0002	0.0061	0.438	< 0.0025	< 0.002
	2/6/2017	0.48	150	180	0.30	7.22	120	790	< 0.003	0.0016	0.082	< 0.001	< 0.0005	< 0.005	< 0.001	0.0016	0.021	< 0.0002	< 0.005	0.564	0.0029	< 0.002
	4/26/2017	0.67	110	F1 190	0.37	7.28	170	770	< 0.003	0.0014	0.063	< 0.001	< 0.0005	< 0.005	< 0.001	0.0008	< 0.01	< 0.0002	0.0066	< 0.411	0.013	< 0.002
	6/14/2017	0.44	75	150	0.46	7.47	110	670	< 0.003	0.0012	0.044	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.013	< 0.0002	0.0076	< 0.316	0.0029	< 0.002
	8/2/2017	0.28	83	170	0.35	7.30	99	770	< 0.003	< 0.001	0.054	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.014	< 0.0002	0.0053	0.659	< 0.0025	< 0.002
	10/18/2017	0.42	110	110	0.38	7.16	95	720	< 0.003	0.002	0.067	^ < 0.001	< 0.0005	< 0.005	< 0.001	0.0023	0.018	< 0.0002	< 0.005	< 0.371	0.0029	^ < 0.002
	4/24/2018	0.31	110	300	0.34	7.33	130	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/31/2018 R	NA	NA	NA	NA	NA	NA	940	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/17/2018	0.31	110	210	0.36	7.29	93	810	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/6/2019	0.38	130	500	0.31	7.11	84	1300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/3/2019 R	NA	NA	150	NA	NA	NA	890	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/7/2019	0.31	180	130	0.3	7.44	64	590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/4/2019 R	NA	89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/20/2020	0.32	100	270	0.37	7.03	67	890	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/22/2020	0.52	92	180	0.38	7.16	85	720	< 0.003	0.0012	0.069	^ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.013	< 0.0002	0.0054	NA	0.003	< 0.002
	5/18/2021	0.37	130	410	0.3	7.00	160	1300	< 0.003	0.0015	0.1	< 0.001	< 0.0005	< 0.0050	< 0.0010	< 0.0005	0.023	< 0.0002	< 0.005	< 0.5970	< 0.0025	< 0.002
	6/29/2021 R	NA	NA	430	NA	7.33	150	1300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/27/2021	0.36	100	300	0.3	6.94	140	960	^+ < 0.003	0.0014	0.069	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.015	< 0.0002	< 0.005	0.528	0.0027	< 0.002
	11/16/2021	0.44	120	260	0.3	7.08	140	970	< 0.003	0.0016	0.079	^1+ < 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.014	< 0.0002	0.0069	0.738	< 0.0025	< 0.002
	3/3/2022	0.43	110	230	0.3	7.04	140	900	< 0.003	0.0015	0.074	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.017	< 0.0002	< 0.005	0.514	< 0.0025	< 0.002
	5/26/2022	0.55	120	320	0.31	6.86	140	1100	< 0.003	0.003	0.082	^+ < 0.001	< 0.0005	< 0.005	< 0.001	0.0018	0.015	< 0.0002	< 0.005	< 0.656	0.0029	< 0.002
	8/31/2022	0.43	110	240	0.32	6.5	130	1100	< 0.003	0.0015	0.066	< 0.001	< 0.0005	< 0.005	< 0.001	< 0.0005	0.016	< 0.0002	< 0.005	< 0.421	< 0.0025	< 0.002
	11/9/2022	0.39	120	230	0.42	7	120	910	< 0.003	0.0021	0.068	< 0.001	< 0.0005	< 0.005	< 0.001	0.00093	0.015	< 0.0002	< 0.005	< 0.501	< 0.0025	< 0.002
	2/28/2023	0.60	160	130	0.35	7.15	260	980	< 0.0030	0.0019	0.080	< 0.0010	< 0.00050	< 0.0050	< 0.0010	0.00084	0.013	< 0.00020	0.011	< 0.685	0.022	< 0.0020
	3/23/2023 R	0.46	130	NA	NA	NA	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/3/2023	0.50	110	270	0.30	6.96	120	910	< 0.0030	< 0.0010	0.072	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.016	< 0.00020	< 0.0050	< 0.604	0.0027	< 0.0020
	7/20/2023	0.45	110	240	0.30	6.94	120	900	< 0.0030	0.0011	0.070	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.016	< 0.00020	< 0.0050	< 0.607	< 0.0025	< 0.0020
	10/26/2023	0.42	110	220	0.32	6.96	150	910	< 0.0030	0.0012	0.073	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.015	< 0.00020	0.0050	1.16	0.0025	< 0.0020
	1/23/2024	0.49	110	210	0.29	6.93	210	1000	^1+ < 0.0030	0.0012	0.098	^1+ < 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.016	< 0.00020	0.0050	0.779	< 0.0025	< 0.0020
	5/22/2024	0.58	110	260	0.34	7.07	180	1100	< 0.0030	< 0.0010	0.072	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.015	< 0.00020	< 0.0050	0.834	< 0.0025	< 0.0020
	7/30/2024	0.52	100	150	0.31	7.45	140	750	< 0.0030	< 0.0010	0.068	< 0.0010	< 0.00050	< 0.0050	< 0.0010	^1+ < 0.00050	0.014	< 0.00020	0.0051	< 0.488	0.0025	< 0.0020
	10/29/2024	0.48	100	150	0.32	7.34	150	840	< 0.0030	< 0.0010	0.072	< 0.0010	< 0.00050	< 0.0050	< 0.0010	< 0.00050	0.015	< 0.00020	< 0.0050	< 0.19	< 0.0025	< 0.0020

Notes: All units are in mg/l except pH is in standard units and radium is in pCi/L

DNYA - Data not yet available.

F1 - MS and/or MSD Recovery outside of limits.

NA - Not analyzed. No confirmation resample required.

^+ - Continuing calibration verification is outside acceptance limits, high biased.

R - Resampled under federal rule.

Table 2.Turbidity Measurement Data, Midwest Generation, LLC, Joliet #29 Generating Station

Well ID	Date	Turbidity (NTU)
MW-03	3/2/2021	0.45
	4/10/2021	22.9
	4/25/2021	2.40
	5/18/2021	2.53
	6/11/2021	2.34
	6/29/2021	2.86
	7/19/2021	37.40
	8/9/2021	2.71
	8/30/2021	5.70
	9/27/2021	10.27
	11/16/2021	0.80
	3/3/2022	0.00
	5/26/2022	4.26
	8/31/2022	4.10
	11/9/2022	32.60
	2/28/2023	6.98
	5/3/2023	3.00
	7/20/2023	5.90
	10/26/2023	3.50
	1/23/2024	90.70
	5/22/2024	48.07
	7/30/2024	8.94
	10/28/2024	4.82
MW-04	3/2/2021	81.89
	4/10/2021	5.96
	4/25/2021	3.02
	5/18/2021	2.52
	6/11/2021	2.80
	6/29/201	3.34
	7/19/2021	47.4
	8/9/2021	4.13
	8/30/2021	18.3
	9/27/2021	1.76
	11/16/2021	4.20
	3/3/2022	0.00
	5/26/2022	1.23
	8/31/2022	3.78
	11/9/2022	43.50
	2/28/2023	62.10
	5/3/2023	6.30
	7/20/2023	6.00
	10/26/2023	1.60
	1/23/2024	80.10
	5/22/2024	24.27
	7/30/2024	5.04
	10/29/2024	5.30
MW-05	2/25/2021	1.57
	4/10/2021	8.36
	4/25/2021	2.42
	5/17/2021	5.20
	6/11/2021	14.22
	6/29/2021	5.33
	7/19/2021	26.9
	8/9/2021	3.69
	8/27/2021	8.70
	9/27/2021	14.92
	11/16/2021	8.84
	3/3/2022	3.25
	5/26/2022	1.28
	8/31/2022	8.87
	11/9/2022	63.4
	2/28/2023	58.32
	5/3/2023	2.50
	7/20/2023	6.00
	10/26/2023	1.10
	1/23/2024	7.12
	5/22/2024	3.23
	7/30/2024	2.46
	10/29/2024	17.59

Table 2.Turbidity Measurement Data, Midwest Generation, LLC, Joliet #29 Generating Station

Well ID	Date	Turbidity (NTU)
MW-10	3/2/2021	26.07
	4/10/2021	7.31
	4/25/2021	5.21
	5/18/2021	3.73
	6/11/2021	6.65
	6/29/2021	9.49
	7/19/2021	14.5
	8/9/2021	10.08
	8/30/2021	9.3
	9/27/2021	16.3
	11/16/2021	5.59
	3/3/2022	2.86
	5/26/2022	2.08
	8/31/2022	2.93
	11/9/2022	19.6
	2/28/2023	17.13
	5/3/2023	2.6
	7/20/2023	5.6
	10/26/2023	1.4
	1/23/2024	82.7
	5/22/2024	49.31
	7/30/2024	2.27
	10/29/2024	3.17

Table 3. Proposed Site-Specific Groundwater Protection Standards - Joliet #29

Upgradient Well(s)	Parameter	Section 845.600 Standards	Interwell Background Prediction Limit	**Proposed GWPS**
MW-10	Antimony	0.006	0.003	**0.006**
MW-10	Arsenic	0.01	0.002	**0.01**
MW-10	Barium	2.0	0.063	**2.0**
MW-10	Beryllium	0.004	0.001	**0.004**
MW-10	Boron	2.0	0.831	**2.0**
MW-10	Cadmium	0.005	0.005	**0.005**
MW-10*	Chloride*	200	368	**368**
MW-10	Chromium	0.1	0.005	**0.1**
MW-10	Cobalt	0.006	0.001	**0.006**
MW-10	Combined Radium 226 + 228 (pCi/L)	5.0	0.626	**5.0**
MW-10	Fluoride	4.0	0.486	**4.0**
MW-10	Lead	0.0075	0.0014	**0.0075**
MW-10	Lithium	0.04	0.019	**0.040**
MW-10	Mercury	0.002	0.0002	**0.002**
MW-10	Molybdenum	0.10	0.009	**0.10**
MW-10	pH (standard units)	6.5-9.0	6.733-7.569	**6.5-9.0**
MW-10	Selenium	0.05	0.003	**0.050**
MW-10	Sulfate	400	214.7	**400**
MW-10	Thallium	0.002	0.002	**0.002**
MW-10*	Total Dissolved Solids*	1200	1031	**1200**
MW-10*	Calcium*	NE	143.0	**143.0**
MW-10	Turbidity	NE	31.22	**31.22**

All values are in mg/L (ppm) unless otherwise noted.
* - Limited to original 8 background samples.
NE - Not Established
Bold - Proposed Site-specific Groundwater Protection Standard based on Section 845.600(a)(2)

Table 4. Groundwater Elevations - Midwest Generation, LLC, Joliet Station #29, Joliet, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-03	10/27/15	538.78	33.87	504.91
	02/09/16	538.79	33.17	505.62
	05/10/16	538.79	32.82	505.97
	08/30/16	538.79	31.88	506.91
	11/01/16	538.79	32.88	505.91
	02/06/17	538.79	33.25	505.54
	04/25/17	538.79	33.06	505.73
	06/14/17	538.79	33.74	505.05
	08/01/17	538.79	32.36	506.43
	10/18/17	538.79	30.03	508.76
	04/24/18	538.79	32.83	505.96
	10/16/18	538.79	32.58	506.21
	05/06/19	538.79	29.59	509.20
	11/06/19	538.79	33.38	505.41
	05/20/20	538.79	27.13	511.66
	10/21/20	538.79	33.52	505.27
	05/17/21	538.79	33.05	505.74
	06/11/21	538.79	33.64	505.15
	07/19/21	538.79	33.28	505.51
	08/09/21	538.79	33.85	504.94
	11/15/21	538.79	33.19	505.60
	01/19/22	538.79	33.38	505.41
	02/16/22	538.79	33.17	505.62
	03/03/22	538.79	32.92	505.87
	04/05/22	538.79	31.76	507.03
	05/23/22	538.79	33.03	505.76
	06/30/22	538.79	33.47	505.32
	07/19/22	538.79	33.62	505.17
	08/30/22	538.79	33.58	505.21
	09/20/22	538.79	33.56	505.23
	10/13/22	538.79	33.40	505.39
	11/08/22	538.79	33.37	505.42
	12/20/22	538.79	33.05	505.74
	01/26/23	538.79	33.15	505.64
	02/21/23	538.79	32.45	506.34
	03/15/23	538.79	32.78	506.01
	04/20/23	538.79	33.28	505.51
	05/02/23	538.79	33.19	505.60
	06/08/23	538.79	33.45	505.34
	07/19/23	538.79	33.35	505.44
	08/29/23	538.79	33.66	505.13
	09/21/23	538.79	32.61	506.18
	10/25/23	538.79	33.12	505.67
	11/14/23	538.79	33.29	505.50
	12/07/23	538.79	32.96	505.83
	01/23/24	538.79	32.85	505.94
	02/20/24	538.79	33.11	505.68
	03/13/24	538.79	32.65	506.14
	04/19/24	538.79	32.99	505.80
	05/21/24	538.79	32.49	506.30
	06/19/24	538.79	33.20	505.59
	07/29/24	538.79	33.09	505.70
	08/22/24	538.79	33.44	505.35
	09/23/24	538.79	33.44	505.35
	10/28/24	538.79	33.41	505.38
	11/07/24	538.79	33.17	505.62
	12/17/24	538.79	33.37	505.42
MW-04	10/27/15	539.03	34.05	504.98
	02/09/16	539.01	33.42	505.59
	05/10/16	539.01	33.07	505.94
	08/30/16	539.01	32.08	506.93
	11/01/16	539.01	33.16	505.85
	02/06/17	539.01	33.51	505.50
	04/25/17	539.01	33.29	505.72
	06/14/17	539.01	33.99	505.02
	08/01/17	539.01	32.09	506.92
	10/18/17	539.01	30.28	508.73
	04/24/18	539.01	33.10	505.91
	10/16/18	539.01	32.85	506.16
	05/06/19	539.01	29.83	509.18
	11/06/19	539.01	31.65	507.36
	05/20/20	539.01	27.40	511.61
	10/21/20	539.01	33.48	505.53
	05/17/21	539.01	33.32	505.69
	06/11/21	539.01	33.91	505.10
	07/19/21	539.01	33.55	505.46
	08/09/21	539.01	34.14	504.87
	11/15/21	539.01	33.44	505.57
	01/19/22	539.01	33.66	505.35
	02/16/22	539.01	33.44	505.57
	03/03/22	539.01	33.17	505.84
	04/05/22	539.01	32.05	506.96
	05/23/22	539.01	33.28	505.73
	06/30/22	539.01	33.72	505.29
	07/19/22	539.01	33.87	505.14
	08/30/22	539.01	33.83	505.18
	09/20/22	539.01	33.82	505.19
	10/13/22	539.01	33.67	505.34
	11/08/22	539.01	33.64	505.37
	12/20/22	539.01	33.34	505.67
	01/26/23	539.01	33.38	505.63
	02/21/23	539.01	32.70	506.31
	03/15/23	539.01	33.07	505.94
	04/20/23	539.01	33.55	505.46
	05/02/23	539.01	33.44	505.57
	6/08/2023	539.01	33.71	505.30
	07/19/23	539.01	33.66	505.35
	08/29/23	539.01	33.92	505.09
	09/21/23	539.01	32.89	506.12
	10/25/23	539.01	33.39	505.62
	11/14/23	539.01	33.58	505.43
	12/07/23	539.01	33.24	505.77
	01/23/24	539.01	33.14	505.87
	02/20/24	539.01	33.38	505.63
	03/13/24	539.01	32.94	506.07
	04/19/24	539.01	33.24	505.77
	05/21/24	539.01	32.76	506.25
	06/19/24	539.01	33.46	505.55
	07/29/24	539.01	33.34	505.67
	08/22/24	539.01	33.72	505.29
	09/23/24	539.01	33.71	505.30
	10/28/24	539.01	33.67	505.34
	11/07/24	539.01	33.44	505.57
	12/17/24	539.01	33.65	505.36

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-05	10/27/15	539.69	34.91	504.78
	02/09/16	539.64	34.18	505.46
	05/10/16	539.64	33.81	505.83
	08/30/16	539.64	32.82	506.82
	11/01/16	539.64	33.90	505.74
	02/06/17	539.64	34.23	505.41
	04/25/17	539.64	34.04	505.60
	06/14/17	539.64	34.74	504.90
	08/01/17	539.64	33.12	506.52
	10/18/17	539.64	31.03	508.61
	04/24/18	539.64	33.79	505.85
	10/16/18	539.64	33.61	506.03
	05/06/19	539.64	30.55	509.09
	11/06/19	539.64	32.40	507.24
	05/20/20	539.64	28.16	511.48
	10/21/20	539.64	34.52	505.12
	05/17/21	539.64	34.05	505.59
	06/11/21	539.64	34.66	504.98
	07/19/21	539.64	34.27	505.37
	08/09/21	539.64	34.78	504.86
	11/15/21	539.64	34.18	505.46
	01/19/22	539.64	34.37	505.27
	02/16/22	539.64	34.15	505.49
	03/03/22	539.64	33.93	505.71
	04/05/22	539.64	32.82	506.82
	05/23/22	539.64	34.00	505.64
	06/30/22	539.64	34.45	505.19
	07/19/22	539.64	34.64	505.00
	08/30/22	539.26	34.58	504.68
	09/20/22	539.26	34.58	504.68
	10/13/22	539.26	34.39	504.87
	11/08/22	539.26	34.38	504.88
	12/20/22	539.26	34.05	505.21
	01/26/23	539.26	34.08	505.18
	02/21/23	539.26	33.40	505.86
	03/15/23	539.26	33.79	505.47
	04/20/23	539.26	34.28	504.98
	05/02/23	539.26	34.17	505.09
	06/08/23	539.26	34.45	504.81
	07/19/23	539.26	34.38	504.88
	08/29/23	539.26	34.62	504.64
	09/21/23	539.26	33.60	505.66
	10/25/23	539.26	34.10	505.16
	11/14/23	539.26	34.28	504.98
	12/07/23	539.26	33.93	505.33
	01/23/24	539.26	33.79	505.47
	02/20/24	539.26	34.08	505.18
	03/13/24	539.26	33.63	505.63
	04/19/24	539.26	33.95	505.31
	05/21/24	539.26	33.45	505.81
	06/19/24	539.26	34.17	505.09
	07/29/24	539.26	34.05	505.21
	08/22/24	539.26	34.43	504.83
	09/23/24	539.26	34.42	504.84
	10/28/24	539.26	34.39	504.87
	11/07/24	539.26	34.16	505.10
	12/17/24	539.26	34.36	504.90
MW-10	10/27/15	540.03	35.10	504.93
	02/09/16	540.02	34.32	505.70
	05/10/16	540.02	34.02	506.00
	08/30/16	540.02	32.97	507.05
	11/01/16	540.02	34.04	505.98
	02/06/17	540.02	34.42	505.60
	04/25/17	540.02	34.22	505.80
	06/14/17	540.02	34.91	505.11
	08/01/17	540.02	33.18	506.84
	10/18/17	540.02	31.13	508.89
	04/24/18	540.02	33.97	506.05
	10/16/18	540.02	33.73	506.29
	05/06/19	540.02	30.58	509.44
	11/06/19	540.02	32.42	507.60
	05/20/20	540.02	28.09	511.93
	10/21/20	540.02	34.72	505.30
	05/17/21	540.02	34.23	505.79
	06/11/21	540.02	34.81	505.21
	07/19/21	540.02	34.45	505.57
	08/09/21	540.02	35.05	504.97
	11/15/21	540.02	34.38	505.64
	01/19/22	540.02	34.59	505.43
	02/16/22	540.02	34.38	505.64
	03/03/22	540.02	34.10	505.92
	04/05/22	540.02	32.89	507.13
	05/23/22	540.02	34.20	505.82
	06/30/22	540.02	34.68	505.34
	07/19/22	540.02	34.80	505.22
	08/30/22	540.02	34.76	505.26
	09/20/22	540.02	34.74	505.28
	10/13/22	540.02	34.61	505.41
	11/08/22	540.02	34.56	505.46
	12/20/22	540.02	34.22	505.80
	01/26/23	540.02	34.32	505.70
	02/21/23	540.02	33.61	506.41
	03/15/23	540.02	33.96	506.06
	04/20/23	540.02	34.45	505.57
	05/02/23	540.02	34.36	505.66
	06/08/23	540.02	34.64	505.38
	07/19/23	540.02	34.53	505.49
	08/29/23	540.02	34.85	505.17
	09/21/23	540.02	33.79	506.23
	10/25/23	540.02	34.30	505.72
	11/14/23	540.02	34.49	505.53
	12/07/23	540.02	34.14	505.88
	01/23/24	540.02	34.02	506.00
	02/20/24	540.02	34.29	505.73
	03/13/24	540.02	33.79	506.23
	04/19/24	540.02	34.14	505.88
	05/21/24	540.02	33.60	506.42
	06/19/24	540.02	34.39	505.63
	07/29/24	540.02	34.25	505.77
	08/22/24	540.02	34.63	505.39
	09/23/24	540.02	34.64	505.38
	10/28/24	540.02	34.60	505.42
	11/07/24	540.02	34.38	505.64
	12/17/24	540.02	34.57	505.45

MSL - Mean Sea Level
TOC - Top of Casing

Table 5. Groundwater Flow Direction and Estimated Seepage Velocity/Flow Rate - Joliet #29 Generation Station.

DATE	Groundwater Flow Direction	K_{avg} (ft/sec)*	Average Hydraulic Gradient (ft/ft)	Porosity (unitless)**	Estimated Seepage Velocity (ft/day)
1/23/2024	Southerly (SSW-SSE)	1.968E-03	0.0005	0.35	0.22
2/20/2024	Southerly (SSW-SSE)	1.968E-03	0.0004	0.35	0.18
3/13/2024	Southerly (SSW-SSE)	1.968E-03	0.0006	0.35	0.30
4/19/2024	Southerly (SSW-SSE)	1.968E-03	0.0005	0.35	0.24
5/21/2024	Southerly (SSW-SSE)	1.968E-03	0.0005	0.35	0.25
6/19/2024	Southerly (SSW-SSE)	1.968E-03	0.0005	0.35	0.26
7/29/2024	Southerly (SSW-SSE)	1.968E-03	0.0006	0.35	0.31
8/22/2024	Southerly (SSW-SSE)	1.968E-03	0.0004	0.35	0.21
9/23/2024	Southerly (SSW-SSE)	1.968E-03	0.0005	0.35	0.27
10/28/2024	Southerly (SSW-SSE)	1.968E-03	0.0005	0.35	0.23
11/7/2024	Southerly (SSW-SSE)	1.968E-03	0.0006	0.35	0.28
12/17/2024	Southerly (SSW-SSE)	1.968E-03	0.0005	0.35	0.23

* K_{avg} - K values from re-evaluation of slug test data as part of groundwater modeling in support of Application for Construction Permit per Illinois State CCR Rule.

** - Porosity estimate from Applied Hydrogeology, Fetter, 1980.

SSW - South-southwest

SSE - South-southeast

Table 6. CCR Groundwater Sample Collection Summary for 2024 - Joliet #29 Generating Station

Well ID	Number of Groundwater Sampling Events	Dates Groundwater Sampling Events
MW-10 (Upgradient)	4	1/23/2024
		5/22/2024
		7/30/2024
		10/29/2024
MW-03 (Downgradient)	4	1/23/2024
		5/22/2024
		7/30/2024
		10/29/2024
MW-04 (Downgradient)	4	1/23/2024
		5/22/2024
		7/30/2024
		10/29/2024
MW-05 (Downgradient)	4	1/23/2024
		5/22/2024
		7/30/2024
		10/29/2024

FIGURE

NOTE:
BACKGROUND MAP RETRIEVED FROM GOOGLE MAPS 2013

0 100'
APPROXIMATE SCALE

N

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14665 West Lisbon Road, Suite 2B Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

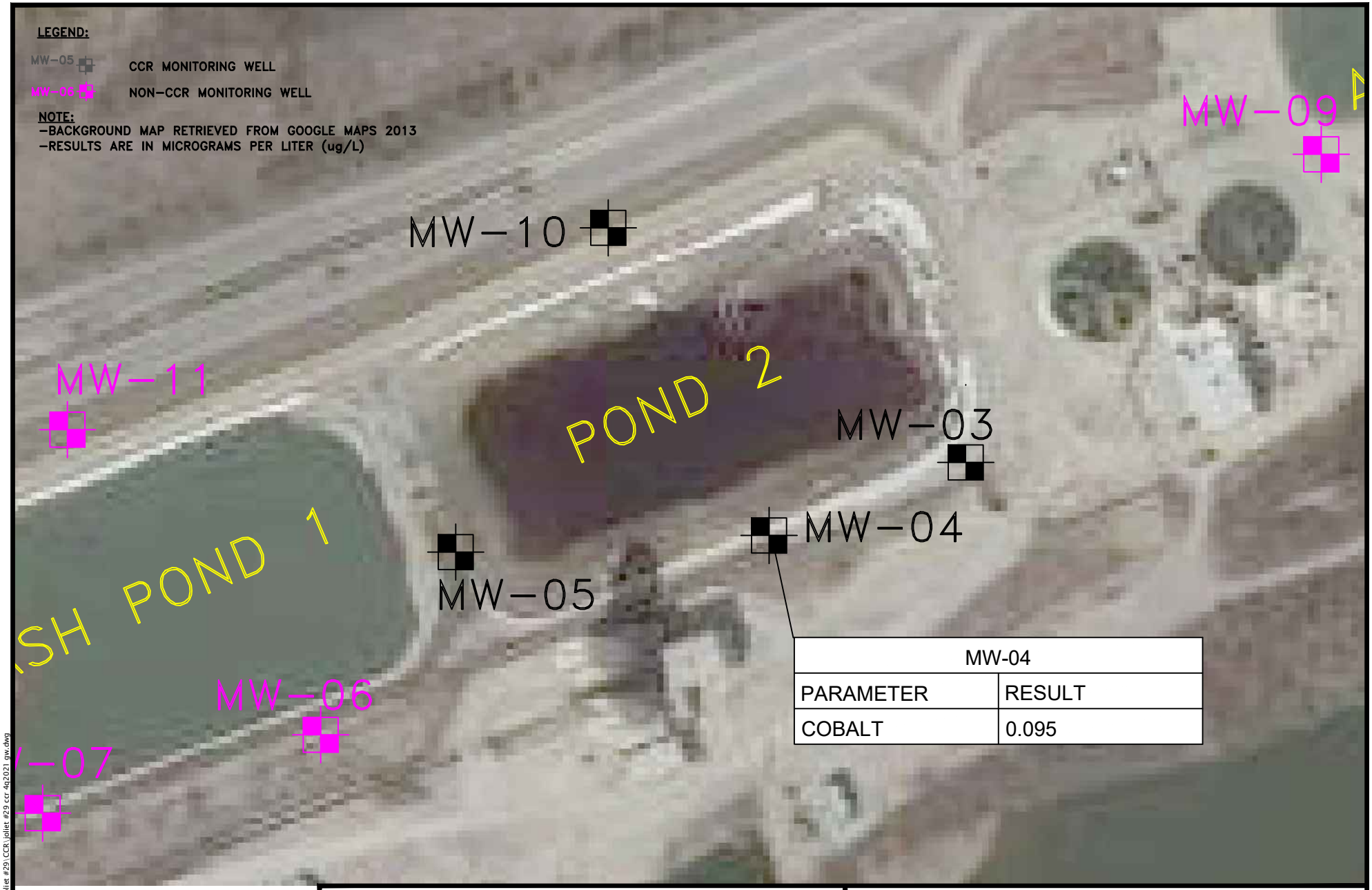
CCR MONITORING WELLS SITE MAP

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 100' | Date: December 27, 2017

KPRG Project No. 12313.0 | FIGURE 1

W:\projects\midwest generation attorney-client privilege\gw evaluations\joliet #29 map.dwg



MW-04	
PARAMETER	RESULT
COBALT	0.095

0 125'
APPROXIMATE SCALE

N

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4Q2024 AREAL DISTRIBUTION MAP OF PARAMETERS ABOVE GWPSs

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 14, 2025

KPRG Project No. 12313.0 | Figure 2

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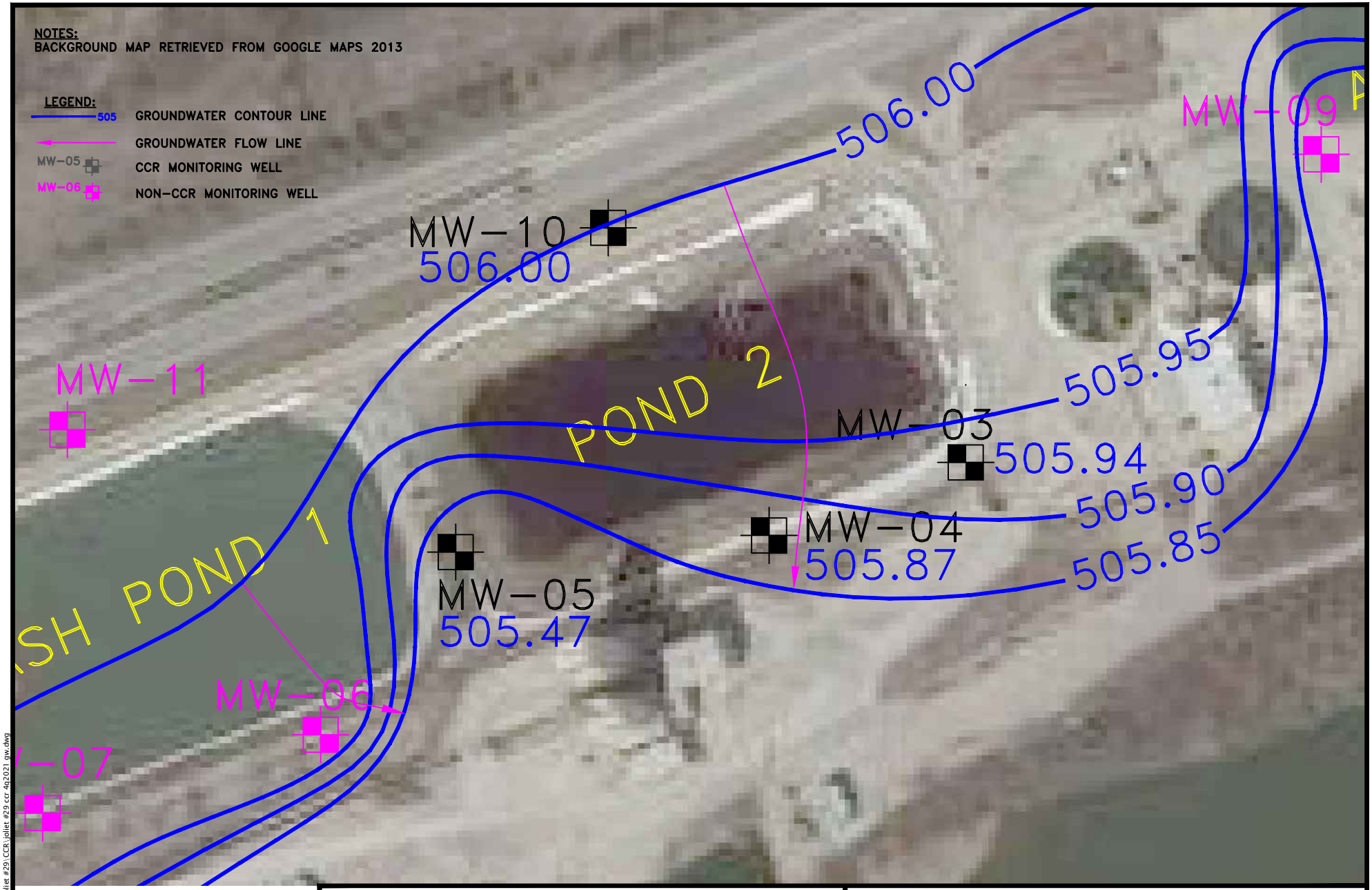
ATTACHMENT 1
Monthly Potentiometric Maps



0 125'
APPROXIMATE SCALE

N

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POTENTIOMETRIC MAP 01/2024

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 3, 2025

KPRG Project No. 12313.0 | ATTACHMENT 1

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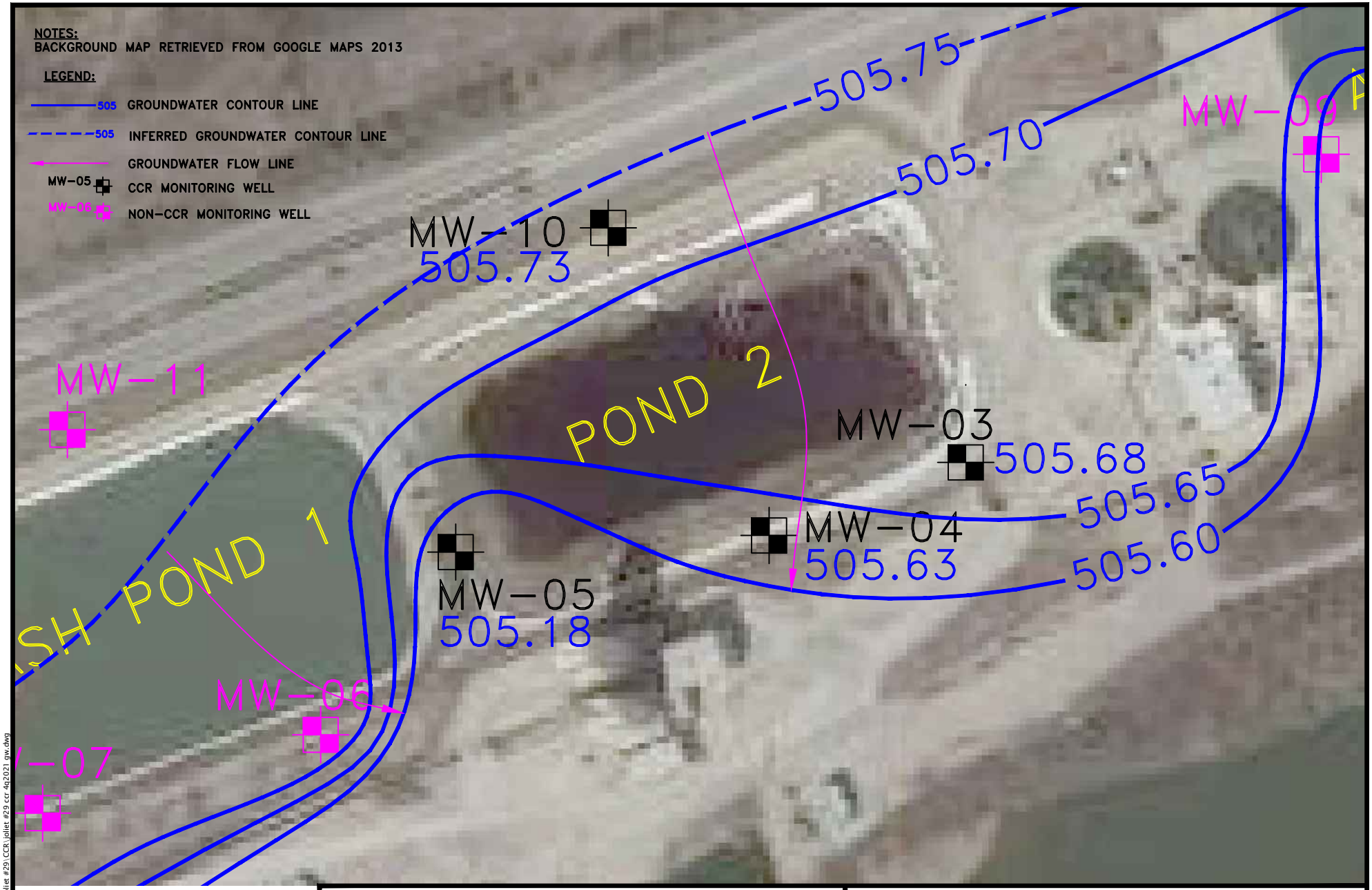

0 125'
APPROXIMATE SCALE

N

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POTENTIOMETRIC MAP 02/2024

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 21, 2025

KPRG Project No. 12313.0 | ATTACHMENT 1

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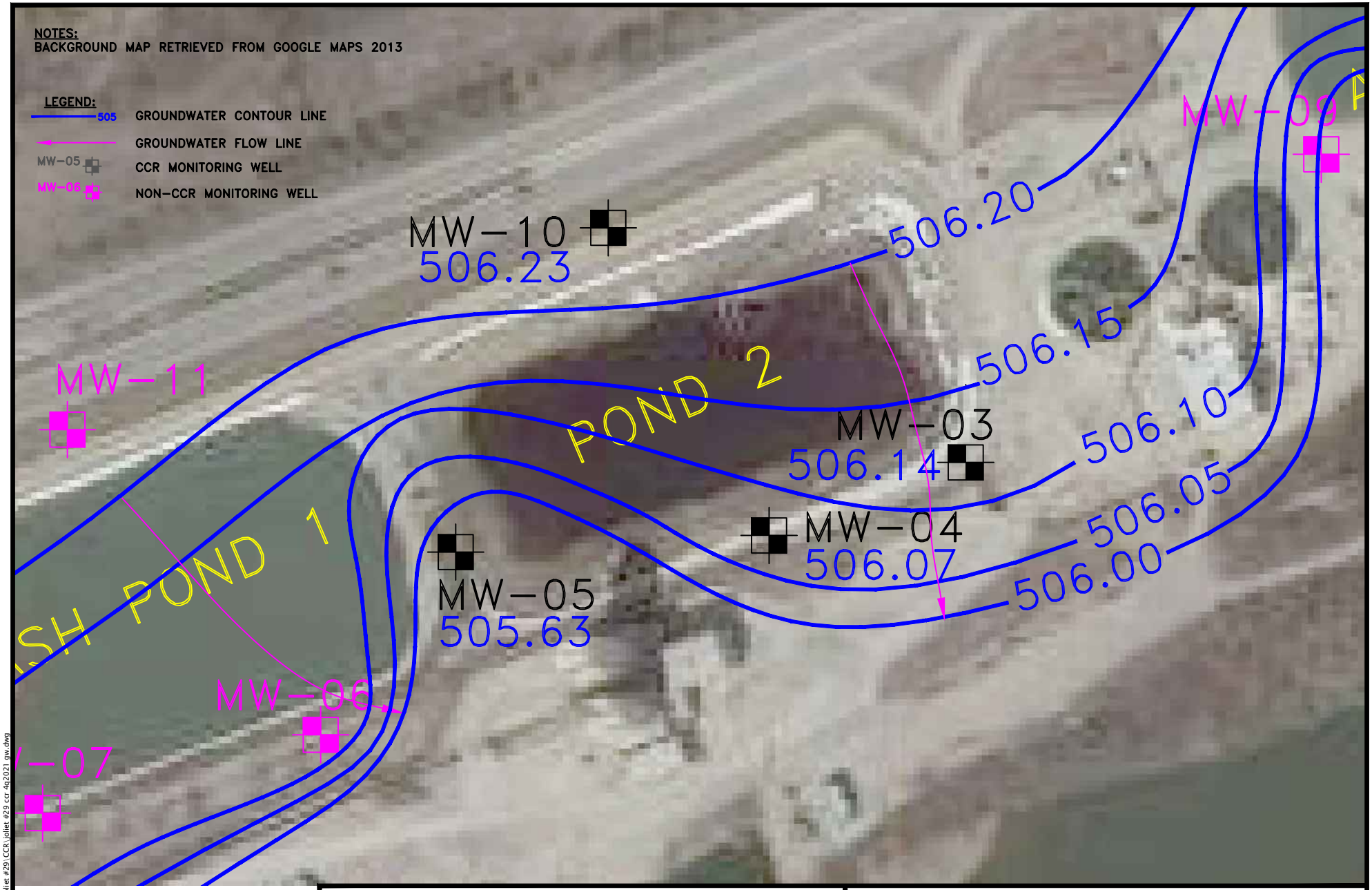

0 125'
APPROXIMATE SCALE

N

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POTENTIOMETRIC MAP 03/2024

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 3, 2025

KPRG Project No. 12313.0 | ATTACHMENT 1

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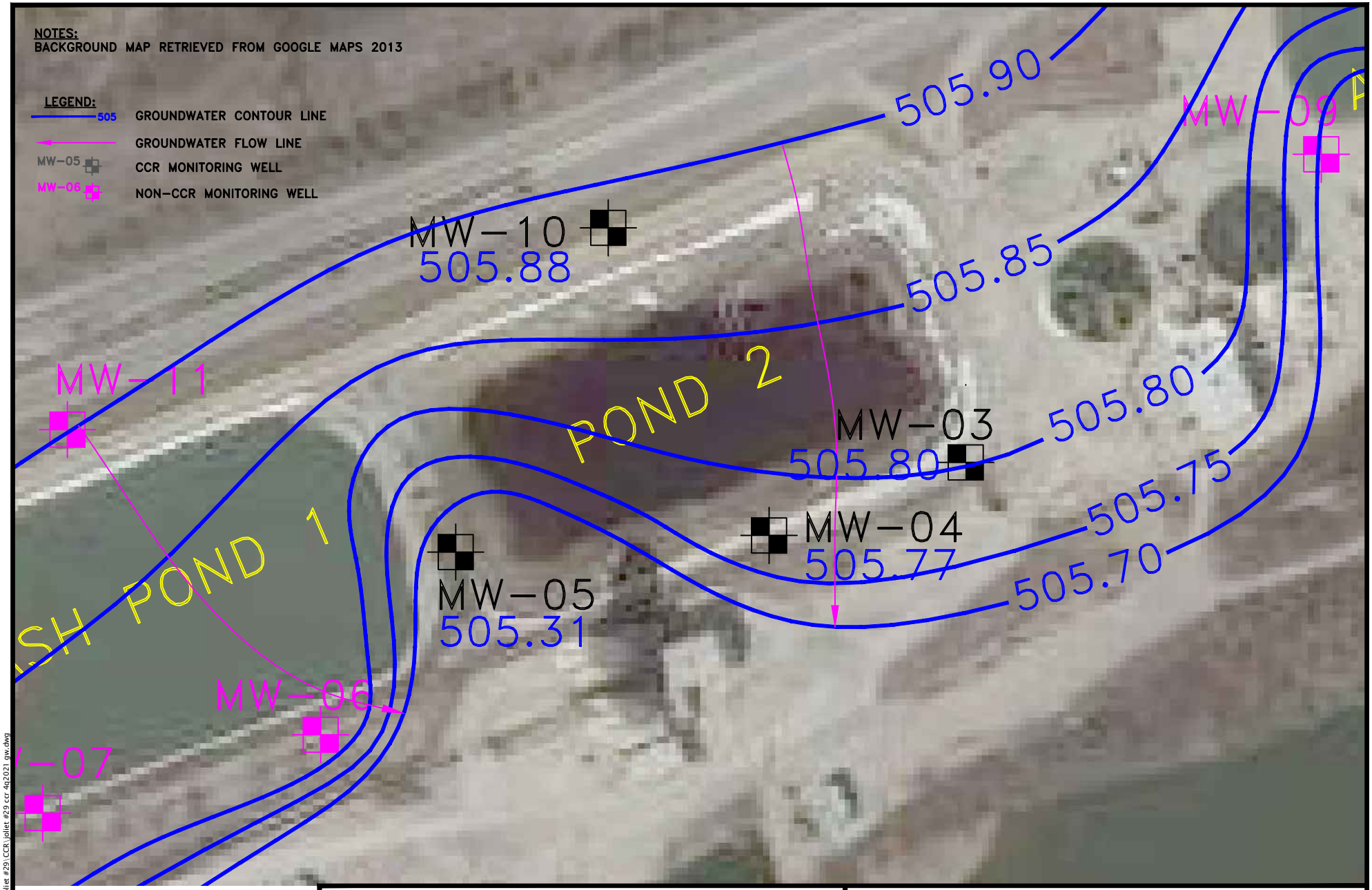

0 125'
APPROXIMATE SCALE

N

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POTENTIOMETRIC MAP 04/2024

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125'	Date: January 3, 2025
KPRG Project No. 12313.0	ATTACHMENT 1

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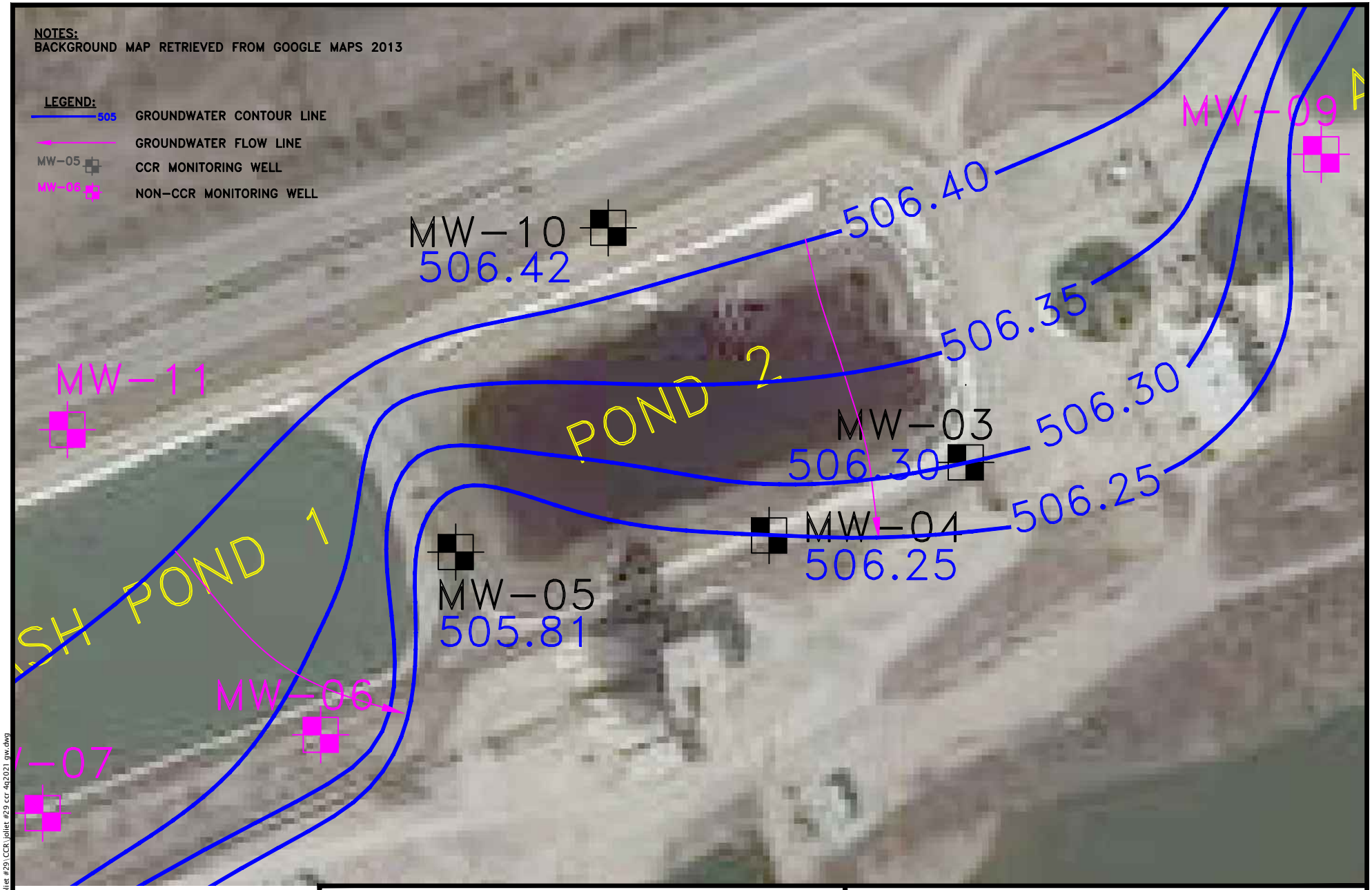

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0 125'
APPROXIMATE SCALE

N

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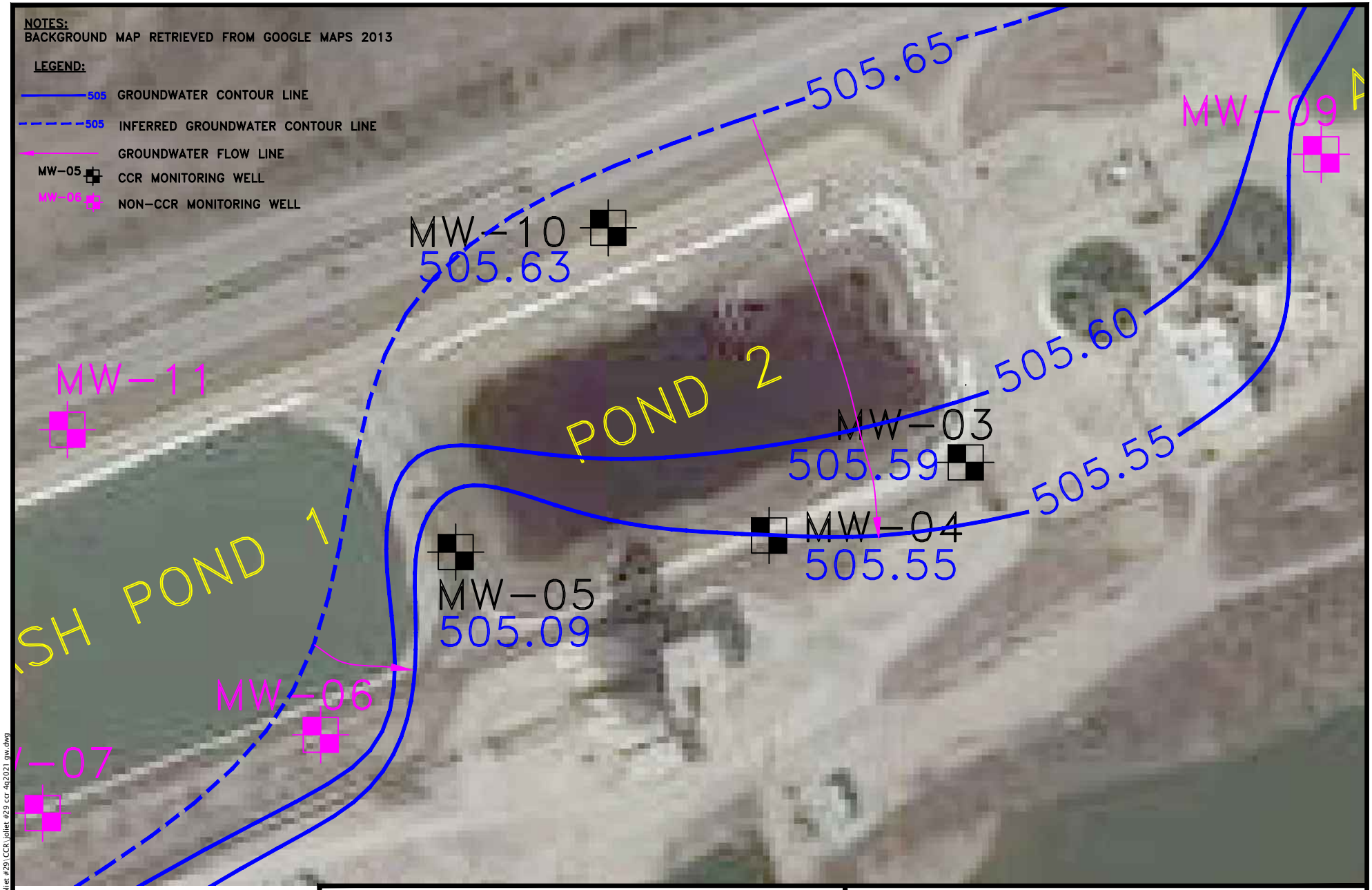
POTENTIOMETRIC MAP 05/2024

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 3, 2025

KPRG Project No. 12313.0 | ATTACHMENT 1



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POTENTIOMETRIC MAP 06/2024

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 21, 2025

KPRG Project No. 12313.0 | ATTACHMENT 1

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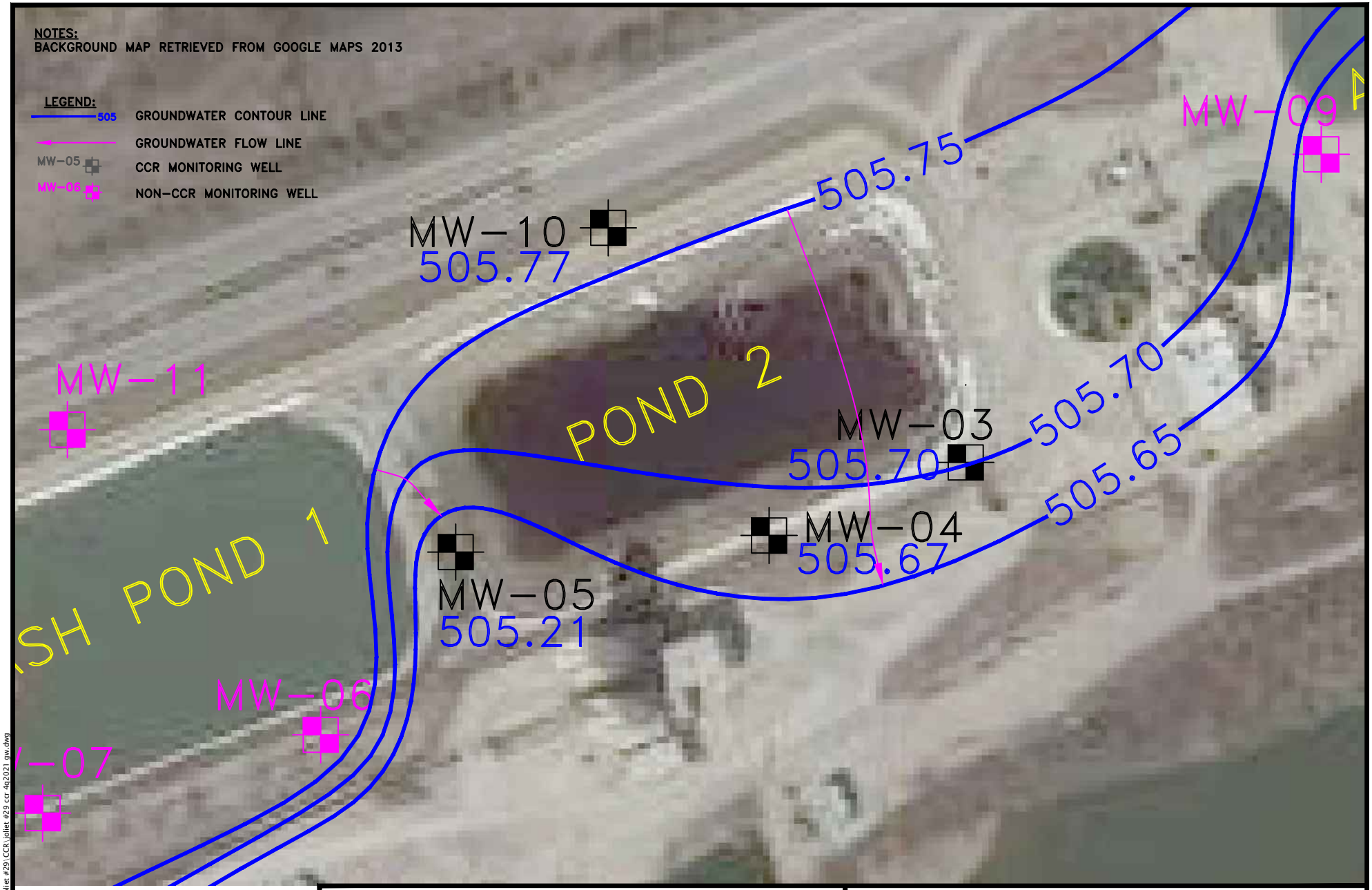

0 125'
APPROXIMATE SCALE

N

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POTENTIOMETRIC MAP 07/2024

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 3, 2025

KPRG Project No. 12313.0 | ATTACHMENT 1

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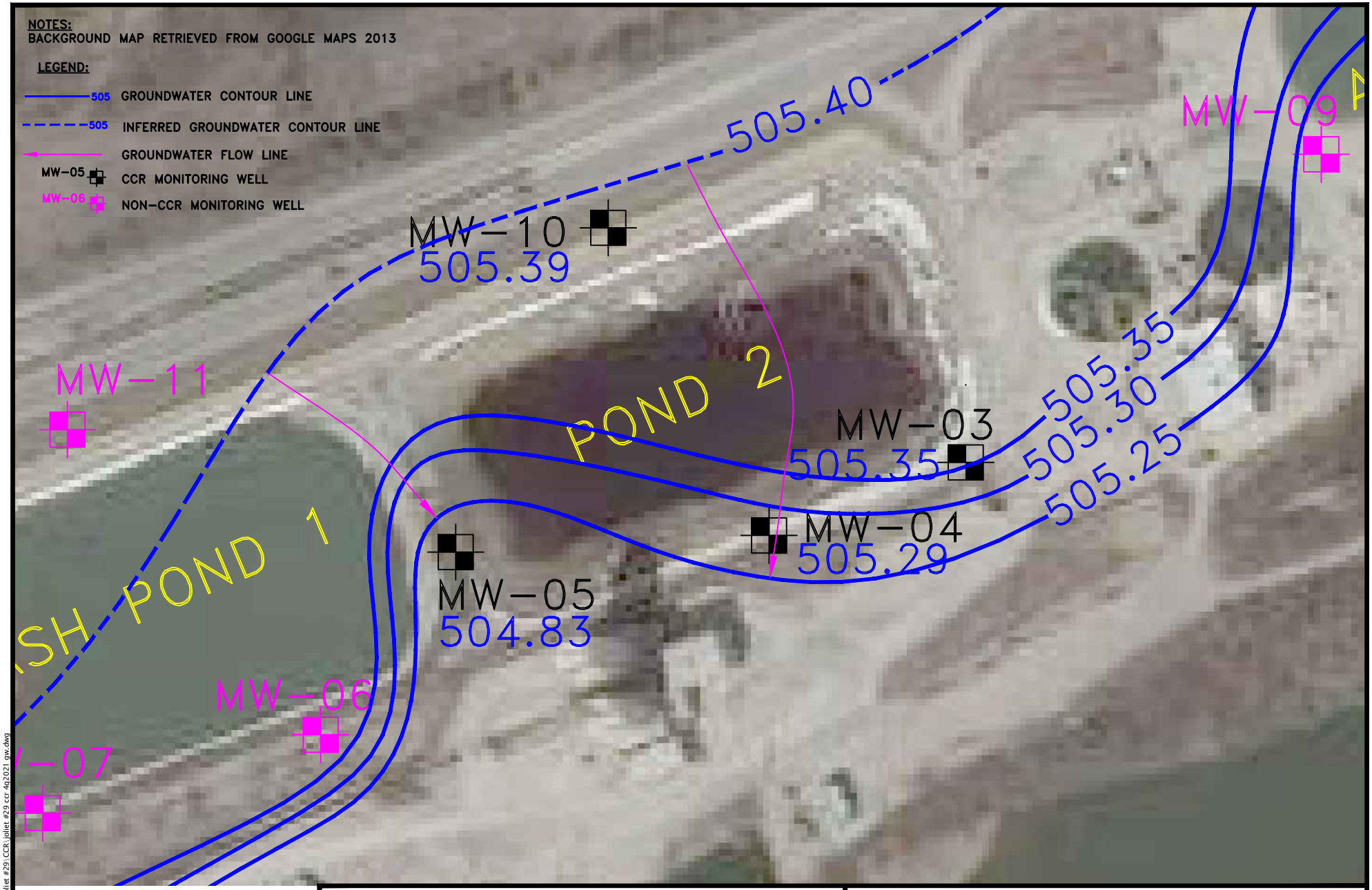

0 125'
APPROXIMATE SCALE

N

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POTENTIOMETRIC MAP 08/2024

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 21, 2025

KPRG Project No. 12313.0 | ATTACHMENT 1

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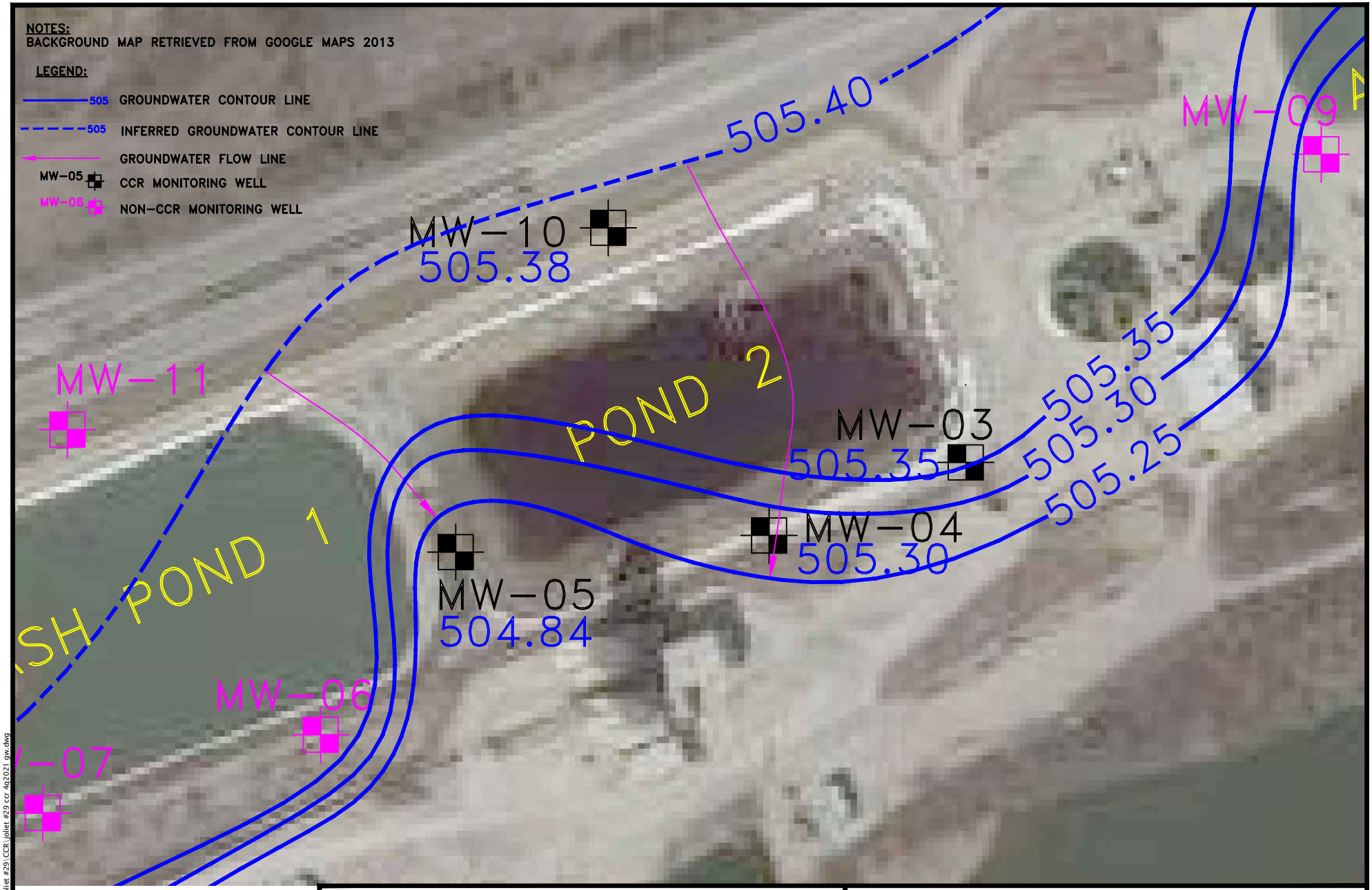

0 125'
APPROXIMATE SCALE

N

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POTENTIOMETRIC MAP 09/2024

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 21, 2025

KPRG Project No. 12313.0 | ATTACHMENT 1

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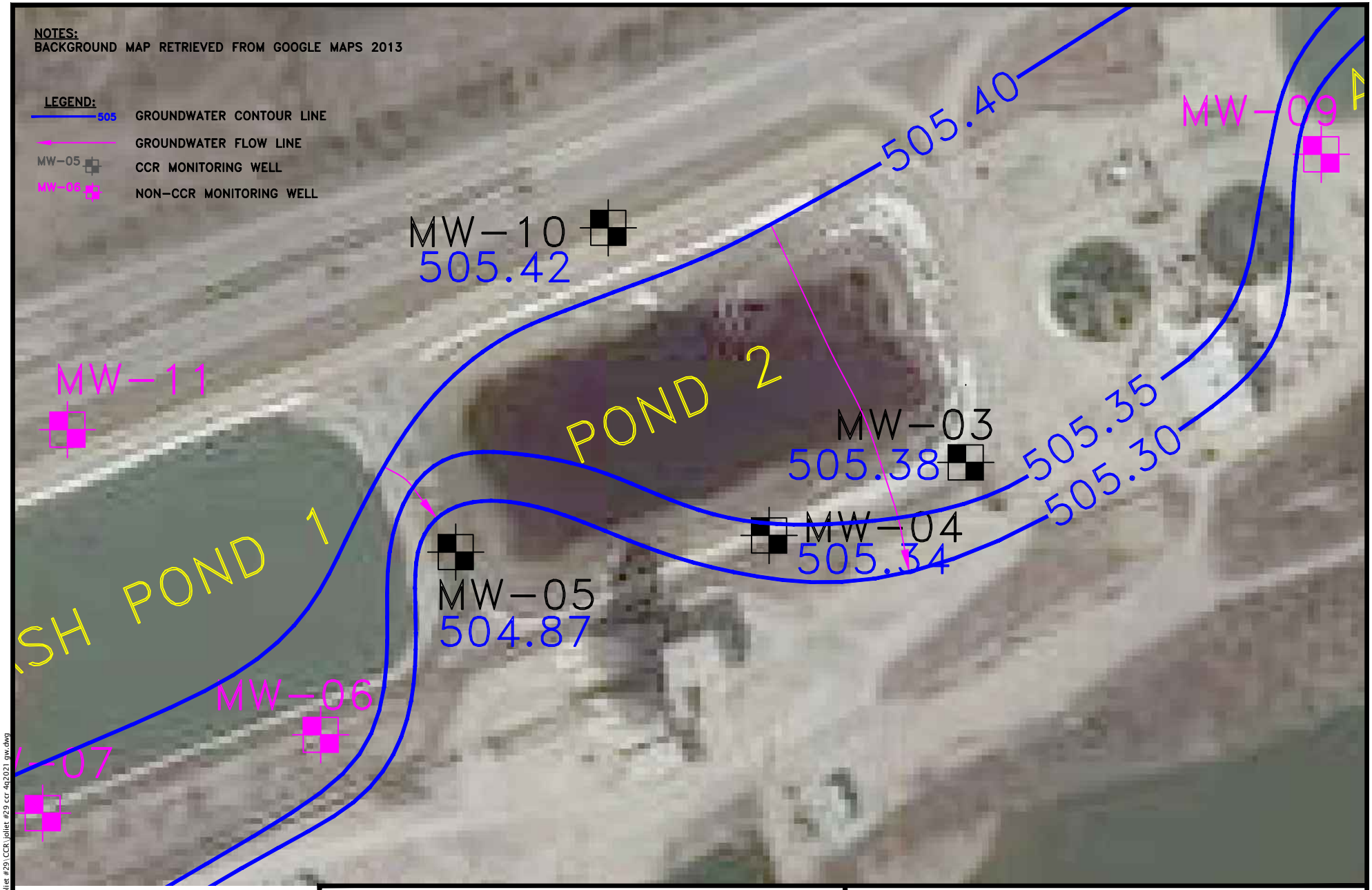

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0 125'
APPROXIMATE SCALE

N

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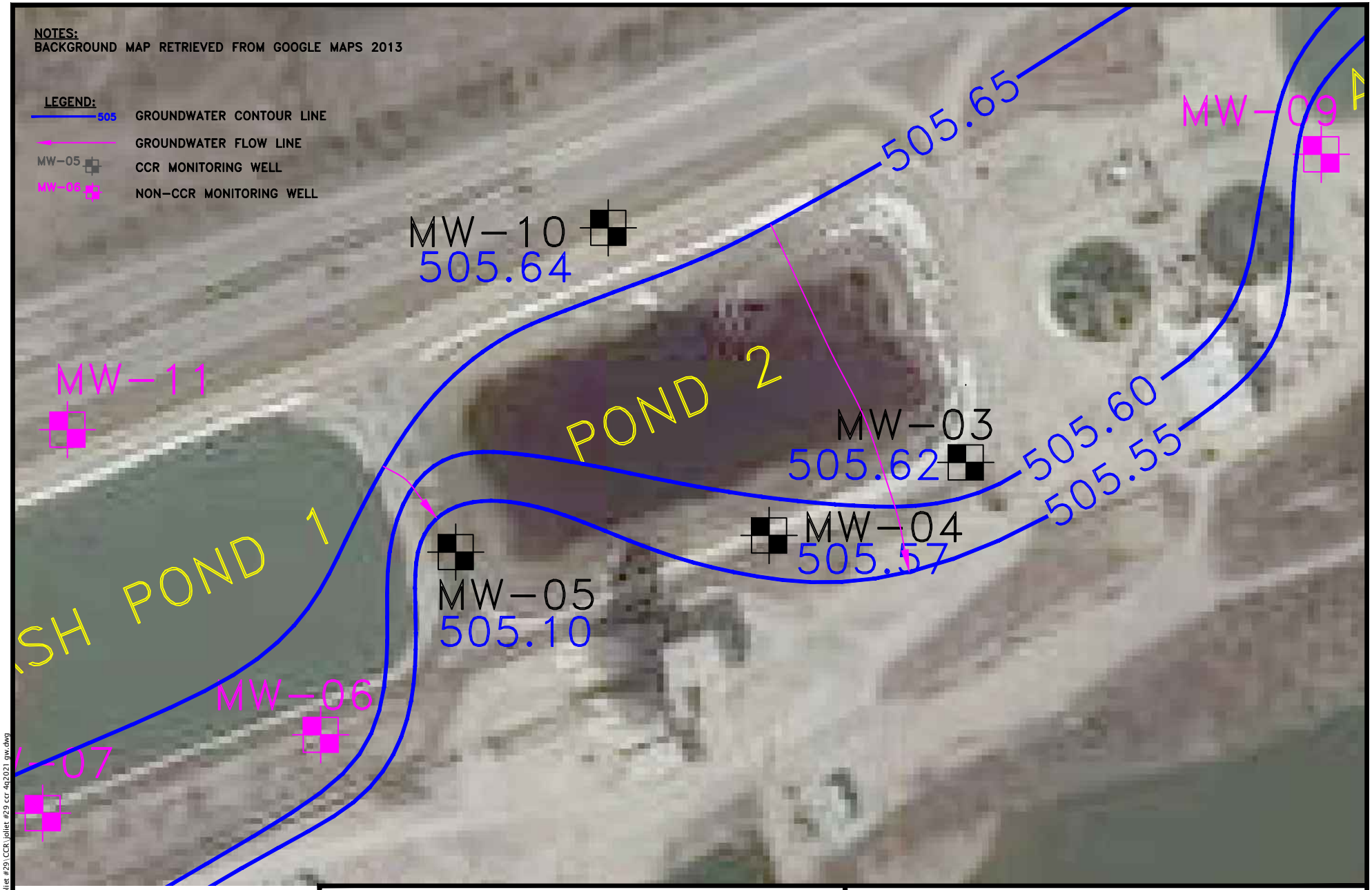
POTENTIOMETRIC MAP 10/2024

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 3, 2025

KPRG Project No. 12313.0 | ATTACHMENT 1



0 125'
APPROXIMATE SCALE

N

ENVIRONMENTAL CONSULTATION & REMEDIATION

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KPRG and Associates, inc.

14665 West Lisbon Road, Suite 1A Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

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POTENTIOMETRIC MAP 11/2024

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 3, 2025

KPRG Project No. 12313.0 | ATTACHMENT 1

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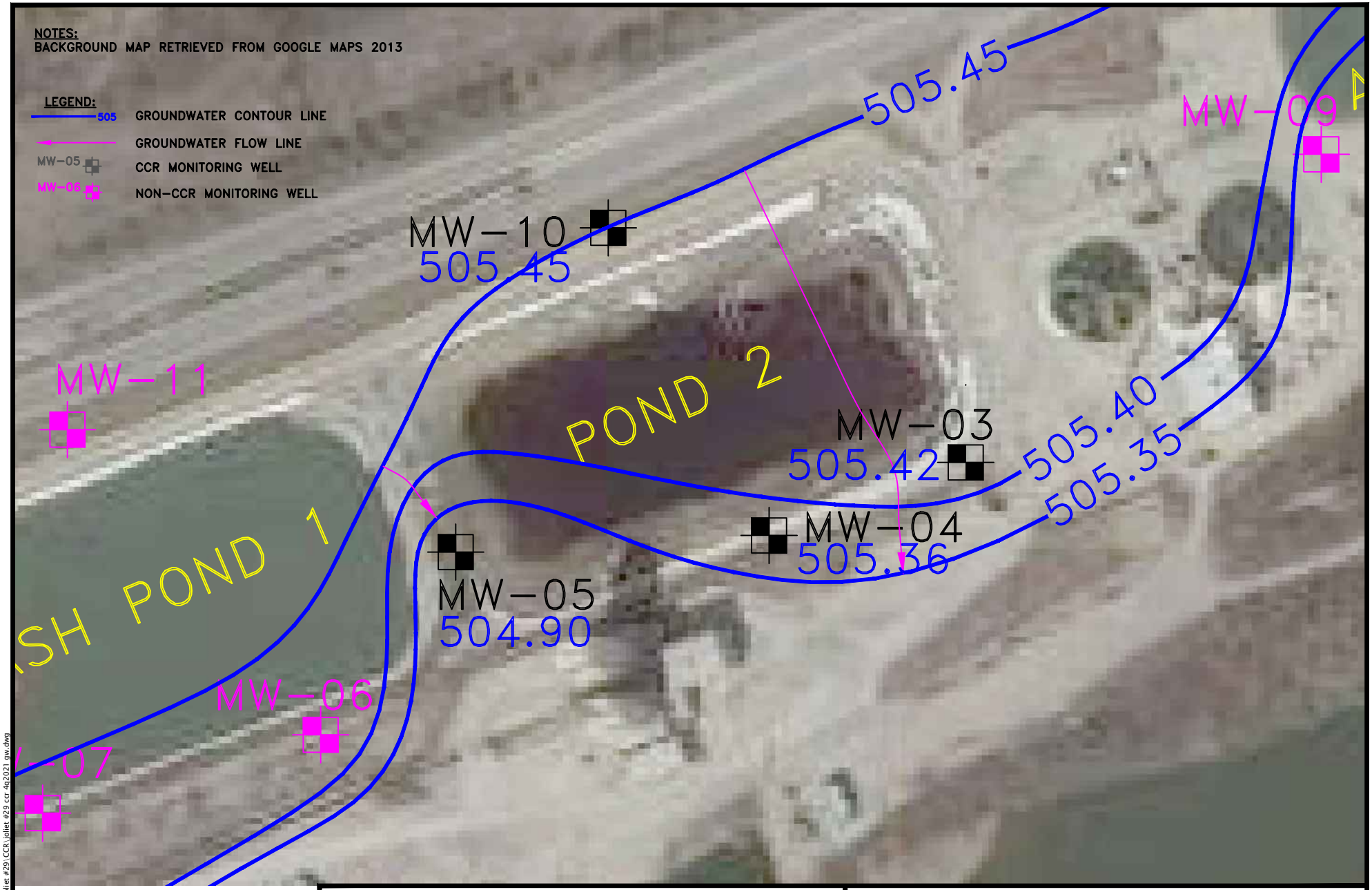

0 125'
APPROXIMATE SCALE

N

ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG

KPRG and Associates, inc.

14665 West Lisbon Road, Suite 1A Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

414 Plaza Drive, Suite 106 Westmont, Illinois 60559 Telephone 630-325-1300 Facsimile 630-325-1593

POTENTIOMETRIC MAP 12/2024

JOLIET #29 GENERATING STATION
JOLIET, ILLINOIS

Scale: 1" = 125' | Date: January 3, 2025

KPRG Project No. 12313.0 | ATTACHMENT 1

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ATTACHMENT D
2024 MONTHLY SURFACE IMPOUNDMENT WATER ELEVATIONS

Monthly Surface Impoundment Water Elevations
Midwest Generation, LLC - Joliet 29 Station, Joliet, IL

Well ID	Date	Basin Gauge Level (ft)	Basin Surface Elevation (ft above MSL)
Pond 2	2/16/2022	3.6	521.1
	3/6/2022	3.8	521.3
	4/5/2022	4.2	521.7
	5/23/2022	4.7	522.2
	6/30/2022	4.3	521.8
	7/19/2022	4.4	521.9
	8/30/2022	4.7	522.2
	9/20/2022	4.6	522.1
	10/13/2022	4.4	521.9
	11/8/2022	4.5	522.0
	12/20/2022	4.9	522.4
	1/26/2023	5.0	522.5
	2/21/2023	6.4	523.9
	3/15/2023	5.5	523.0
	4/20/2023	5.6	523.1
	5/19/2023	6.5	524
	6/8/2023	6.2	523.7
	7/19/2023	6.1	523.6
	8/29/2023	6.0	523.5
	9/21/2023	6.4	523.9
	10/25/2023	6.6	524.1
	11/14/2023	6.5	524.0
	12/7/2023	6.6	524.0
	1/23/2024	7.8	523.5
	2/20/2024	7.0	524.5
	3/13/2024	7.2	524.7
	4/19/2024	7.5	525.0
	5/21/2024	8.2	525.7
	6/19/2024	6.3	523.8
	7/29/2024	1.8	519.3
	8/22/2024	1.9	519.4
	9/23/2024	1.6	519.1
	10/28/2024	1.7	519.2
	11/7/2024	1.8	519.3
	12/17/2024	1.9	519.4