

**Sent via Electronic Mail**

Brian L. Rath, P.E.  
Environmental Engineer Senior  
Land Quality Bureau  
Iowa Department of Natural Resources  
6200 Park Ave., Ste. 200  
Des Moines, IA 50321  
brian.rath@dnr.iowa.gov

**Re: Third Quarter 2026 Leachate Control System Status Report  
Davenport Plant Cement Kiln Dust (CKD) Landfill  
301 E Front St, Buffalo, IA  
Permit No. 82-SDP-16-97P  
Continental Cement Company, LLC**

October 15, 2026

Ramboll  
333 West Wacker Drive  
Suite 1050  
Chicago, IL 60606  
USA

Dear Mr. Rath:

On behalf the Continental Cement Company, LLC (Continental), Ramboll Americas Engineering Solutions, Inc. (Ramboll) is pleased to submit to you the Third Quarter 2026 Leachate Control System Status Report for the Davenport Plant CKD Landfill site in Buffalo, Iowa.

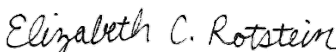
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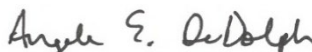
If you have any questions or comments regarding the above, please feel free to contact us.

Sincerely,

Ramboll Americas Engineering Solutions, Inc.

  
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Senior Managing Consultant

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cc: Bill Hilger, Environmental – Public Affairs Manager, Continental Cement  
Claire Wilson, Plant Manager, Continental Cement  
Kristin Stein, Director, Environmental, Quikrete

**Enclosures:**

*Third Quarter 2026 Leachate Control System Status Report, Davenport Plant CKD Landfill (301 E Front St, Buffalo, IA), Permit No. 82-SDP-16-97P, Continental Cement Company, LLC*

**THIRD QUARTER 2026 LEACHATE CONTROL SYSTEM STATUS REPORT  
DAVENPORT PLANT CKD LANDFILL (301 E FRONT ST, BUFFALO, IA)  
PERMIT NO. 82-SDP-16-97P  
CONTINENTAL CEMENT COMPANY, LLC**

## 1. INTRODUCTION AND BACKGROUND

### 1.1 Introduction

On behalf the Continental Cement Company, LLC (Continental), Ramboll Americas Engineering Solutions, Inc. (Ramboll) has prepared this *Third Quarter 2026 Leachate Control System Status Report* (LCSSR) for the Davenport Plant Cement Kiln Dust (CKD) Landfill site in Buffalo, Iowa. This report is submitted to fulfill the quarterly reporting requirement instituted by the Iowa Department of Natural Resources (IDNR) in their correspondence dated May 14, 2026 (IDNR Document No. 117124). This report covers the time period of July 1, 2026 through September 30, 2026 and includes an update on the status of the action items from the July 15, 2026 Leachate Collection System Action Plan (IDNR Document No. 117605), as well as leachate levels; leachate control system maintenance performed; and quantity of leachate removed and disposed of, if applicable.

### 1.2 Background

Continental operates a permitted limestone quarry and Portland cement manufacturing plant located at 301 East Front Street in Buffalo, Iowa (see Figure 1). As part of their Portland cement manufacturing process, Continental disposes of CKD in a monofill located in a formerly quarried area in the southeastern section of their property.

The CKD monofill area consists of three disposal areas, known as the Original CKD Disposal Area, the Phase I Cell, and the active Phase II Cell (see Figure 2). The Original CKD Disposal Area consists of an approximately 28-acre portion of the formerly quarried area;<sup>1</sup> the southern half of this area was capped and closed in 2000.<sup>2</sup> The Phase I Cell was constructed between 1998 and 1999 on top of a portion of the northern half of the Original CKD Disposal Area,<sup>3</sup> and was capped and closed in 2003 and 2004.<sup>4</sup> The Phase II Cell was constructed sometime around 2002 on top of the northernmost portion of the Original CKD Disposal Area.<sup>5</sup> The Phase I and Phase II Cells are lined.

A series of leachate monitoring locations consisting of wells, lysimeters, and a leachate sump have been installed in the Phase II Cell and the Phase I Cell. Leachate fluid levels are measured at these locations to evaluate the performance of the leachate control system and to meet Permit No. 82-SDP-16-97P ("Permit") Special Provisions 2b and 2i. The leachate monitoring locations are also sampled in accordance with the Permit.

## 2. LEACHATE LEVEL MONITORING

As noted above, Continental's CKD landfill consists of disposal areas: the closed and capped Original CKD Disposal Area, the closed and capped Phase I Cell, and the active Phase II Cell. Each cell has distinct

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<sup>1</sup> Lafarge Corporate Technical Services (CTS), 1997. "Cement Kiln Dust Closure and Development Plan, Lafarge Davenport Plant, Revision 1," Report prepared by Lafarge Corporation (Jean-Guy Levaque, Director, Lafarge; Brian Gasiorowski, PE, Lafarge; and Gordon J. Johnson, Civil Engineer), Komex International Ltd. (Komex) and submitted to the IDNR in January 1997. IDNR Document Numbers 44898, 44824; and Lafarge CTS, 1997. "Supplemental to Cement Kiln Dust Closure and Development Plan, Lafarge Davenport Plant," Report prepared for Lafarge Corporation (J. Brian Gsiorowski, P.E., Lafarge; and Gordon J. Johnson, M. Sc., Komex Ltd.) and submitted to IDNR on June 30, 1997. IDNR Document Numbers 44895-44896.

<sup>2</sup> Shive-Hattery, 2000. "RE: Cement Kiln Dust (CKD) Pile Closure Status," Transmittal prepared for Lafarge Corporation (Todd J. Kinney, P.E.) and submitted to IDNR on January 6, 2000. IDNR Document Number 44817.

<sup>3</sup> Shive-Hattery, 1999. Transmittal of Records and Drawings for Phase I CKD Cell. Submitted to IDNR on May 24, 1999. IDNR Document Numbers 44912-44916.

<sup>4</sup> Terracon, 2005. "Construction Compliance Report, Cell No. 1 Cap, Lafarge Cement Kiln Dust Landfill, Buffalo, Iowa," Report prepared for Lafarge North America (John F. Brimeyer, P.E., Senior Project Manager; Gerald T. Hentges, P.G., Senior Project Manager) and submitted to IDNR on October 25, 2005. IDNR Document Number 44903.

<sup>5</sup> Shive-Hattery, 2002. CKD Monofill Phase II Plans. Submitted to IDNR on November 11, 2002. IDNR Document Numbers: 44905-44910.

monitoring systems and leachate controls.<sup>6</sup> Table 1 summarizes the location and design characteristics of the leachate monitoring points and identifies the section of the monofill that they monitor.

Leachate levels have been continuously monitored at each of the monitoring points identified in Table 1 through the third quarter 2026, with the exception of brief periods of down time due to depleted batteries and/or equipment malfunction. Monitoring is performed using pressure transducers installed at each monitoring point that are configured to record at 30-minute intervals. The leachate fluid column and leachate surface elevations in the wells are computed from manual depth to leachate measurements collected during the field sampling and inspection efforts in conjunction with the surveyed measuring point elevations listed in Table 1.

As of September 30, 2026, four sets of manual leachate level measurements have been collected in 2026: March, May, June, and August.

The year-to-date monthly average values for both the leachate fluid column and leachate surface elevations are presented in Table 2. Table 2 also includes the number of days in which the transducers were operational, the number of days the location was dry, and the max fluid column. Time series plots showing the year-to-date daily average leachate fluid column are presented in Attachment 1.<sup>7</sup> Time series plots showing the year-to-date daily average leachate surface elevations are presented in Attachment 2.

### 3. LEACHATE CONTROL SYSTEM MAINTENANCE

No maintenance activities were performed during the third quarter 2026. No leachate was removed and disposed of offsite during the third quarter 2026.

### 4. ACTION PLAN STATUS UPDATE

#### 4.1 Action Items

The following tasks were presented in the July 15, 2026 Leachate Collection System Action Plan. Status updates are provided as of September 30, 2026.

- **Task 1:** *Pump out the lower leachate collection zone via one or more of the lower leachate collection zone monitoring wells to maintain maximum downward hydraulic gradients between the upper and lower leachate collection zones and better understand the source of the constituents of concern (COCs) measured in the lower leachate collection zone monitoring wells.*

**STATUS:** Continental is developing a work plan to drain the lower drainage layer and monitor recharge over time to determine whether operational modifications may be required. The work plan is currently under review and will be provided with or before submission of the next LCSSR on January 15, 2027.

- **Task 2:** *Continue more frequent jetting of the upper leachate collection zone drain pipes on an as-needed basis to better maintain water levels in the upper leachate collection zone below the 1-foot threshold.*

**STATUS:** During the third quarter 2026, significant rainfall in the area resulted in saturated ground conditions that restricted access for the heavy equipment necessary to perform jetting of the leachate collection system drainage pipes. Additional jetting events are planned for the

<sup>6</sup> Lafarge CTS, 1997; Shive-Hattery, 1999; Shive-Hattery, 2002; and Blackstone Environmental, 2022. "UL Replacement CQA Certification Report", Report prepared for Continental Cement (Eric Sonsthagen, P.E., Senior Project Engineer) and submitted to IDNR on October 24, 2022. IDNR Document Number 104643.

<sup>7</sup> Note that the leachate fluid column at LL-3 was incorrectly calculated in the second quarter LCSSR dated July 1, 2026 (IDNR Document Number 117460). The corrected year-to-date calculations are presented in this report.

site once the access roads are stable enough to support the equipment. However, access to the area is weather dependent and additional jetting may be limited during the winter months.

- **Task 3:** *Continue high frequency groundwater monitoring of all monitoring locations. This high frequency groundwater monitoring will aid in developing an understanding of groundwater and, therefore, contaminant transport pathways.*

**STATUS:** Monitoring is ongoing. Time series plots of daily average leachate elevations and leachate fluid columns are included in this report as Attachments 1 and 2, respectively.

- **Task 4:** *Prepare more detailed and frequent mapping of groundwater flow patterns across the site within the three groundwater bearing zones (GBZs) by capitalizing on the automated depth to groundwater measurements collected from the transducers installed in 2025 to better understand the hydrogeologic conditions resulting from dewatering at the Quarry Sump, evapotranspiration from the Quarry Pond, Continental's pumping from the Deep Well, and, if possible, pumping activities at the Linwood operation.*

**STATUS:** This work is ongoing. Groundwater potentiometric surface maps for the middle and lower groundwater zones will be submitted with the Annual Water Quality Report, which addresses the Site groundwater.

- **Task 5:** *Repair the well at BMW-24-03 such that groundwater levels and groundwater quality can be measured between the Original CKD Disposal Area and the Stope.*

**STATUS:** Completed in May 2026. Relevant activities were presented in the July 15, 2026 Leachate Collection System Action Plan (IDNR Document Number 117605). This location (now identified as BMW-26-03) was successfully gauged and sampled during the September groundwater monitoring event.

- **Task 6:** *Developing a hydrostratigraphic model that will synthesize the available geologic, hydrologic, and contaminant data into a single internally consistent representation of the site conditions from which more effective mitigation and remediation strategies can be developed.*

**STATUS:** This work is ongoing.

- **Task 7:** *Eliminate ponding at the base of the Active Phase II Cell.*

**STATUS:** Continental has prepared the Phase II CKD Landfill Toe of Slope Water Management Plan, which is included as Attachment 3 to this LCSSR.

- **Task 8:** *Evaluate areas of active face that may need to be covered with an interim layer of soil to minimize erosion and infiltration.*

**STATUS:** Continental is developing a work plan to temporarily cap parts of the active face to minimize erosion and infiltration. Several options are being considered and are under internal review. A work plan will be provided with the January 15, 2027 LCSSR.

## ATTACHMENTS

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| Attachment 3 | Phase II CKD Landfill Toe of Slope Water Management Plan |

**TABLES**

**TABLE 1**  
**Leachate Monitoring Location Information**  
**Davenport Plant CKD Landfill**  
**Continental Cement Company**  
**Buffalo, Iowa**

| Monitoring Point Locations <sup>a</sup> |                   |                   |                    |                                | Elevations (Feet AMSL) <sup>a</sup> |                                 |                     | Total Depth<br>BMP (Feet) |
|-----------------------------------------|-------------------|-------------------|--------------------|--------------------------------|-------------------------------------|---------------------------------|---------------------|---------------------------|
| ID                                      | Monofill Cell     | Easting<br>(Feet) | Northing<br>(Feet) | Casing<br>Diameter<br>(Inches) | Ground<br>Surface                   | Measuring<br>Point <sup>b</sup> | Bottom of<br>Well   |                           |
| L-SUMP                                  | Phase I, Phase II | 2408956.670       | 545742.240         | N/A                            | 536.436 <sup>c</sup>                | 536.659 <sup>d</sup>            | 522.86 <sup>e</sup> | 13.8 <sup>e</sup>         |
| UL-1                                    | Phase I           | 2409013.990       | 545798.216         | 2                              | 549.905                             | 553.706                         | 544.106             | 9.6                       |
| LL-1                                    | Phase I           | 2409019.624       | 545789.271         | 2                              | 550.021                             | 553.146                         | 528.446             | 24.7                      |
| UL-2R                                   | Phase II          | 2408883.201       | 545932.283         | 6                              | 541.186                             | 545.807                         | 535.507             | 10.3                      |
| LL-2                                    | Phase II          | 2408868.940       | 545935.972         | 2                              | 538.762                             | 540.586                         | 529.686             | 10.9                      |
| UL-3R                                   | Phase II          | 2408811.931       | 546033.391         | 6                              | 542.448                             | 546.503                         | 536.103             | 10.4                      |
| LL-3                                    | Phase II          | 2408810.304       | 546020.884         | 2                              | 539.495                             | 541.018                         | 530.218             | 10.8                      |

**Notes**

AMSL = above mean sea level

BMP = below measuring point

<sup>a</sup> Location and elevation data are from the July 2026 well survey conducted by Abbitt Survey & Development. Elevations are referenced to the North American Vertical Datum of 1988 (NAVD 88) and Geoid Model of 2018 (GEOID 18).

<sup>b</sup> Unless otherwise noted the measuring point at each location is the top of casing.

<sup>c</sup> Represents the "centerline concrete structure" of the sump, as measured by the surveyor.

<sup>d</sup> Represents the west rim of the manhole cover of the sump, as measured by the surveyor.

<sup>e</sup> As measured by Ramboll during the September 2026 monitoring event.

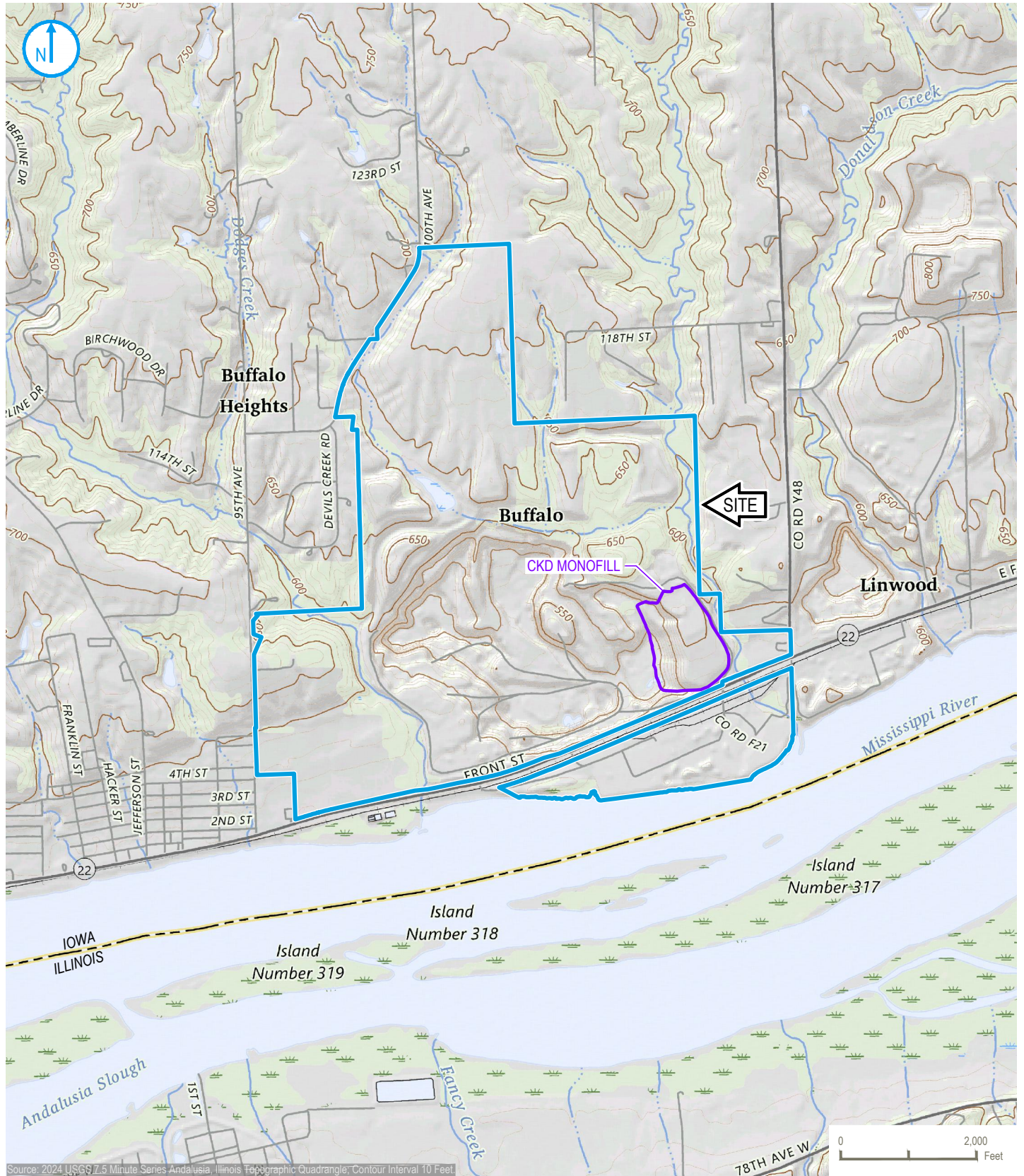
TABLE 2  
Leachate Levels - 2026  
Davenport Plant CKD Landfill  
Continental Cement Company  
Buffalo, Iowa

| Month     | UL-1          |          |                   |                       |                  | LL-1          |          |                   |                       |                  | UL-2R         |          |                   |                       |                  | LL-2          |          |                   |                       |                  |
|-----------|---------------|----------|-------------------|-----------------------|------------------|---------------|----------|-------------------|-----------------------|------------------|---------------|----------|-------------------|-----------------------|------------------|---------------|----------|-------------------|-----------------------|------------------|
|           | Days Measured | Days Dry | Average Elevation | Avgerage Fluid Column | Max Fluid Column | Days Measured | Days Dry | Average Elevation | Avgerage Fluid Column | Max Fluid Column | Days Measured | Days Dry | Average Elevation | Avgerage Fluid Column | Max Fluid Column | Days Measured | Days Dry | Average Elevation | Avgerage Fluid Column | Max Fluid Column |
| January   | 31            | 31       | Dry               | Dry                   | Dry              | 31            | 0        | 532.10            | 3.96                  | 4.35             | 31            | 0        | 538.75            | 3.13                  | 3.44             | 31            | 0        | 533.34            | 3.68                  | 4.09             |
| February  | 28            | 28       | Dry               | Dry                   | Dry              | 28            | 0        | 531.75            | 3.61                  | 3.93             | 28            | 0        | 538.68            | 3.07                  | 3.30             | 28            | 0        | 533.23            | 3.57                  | 4.01             |
| March     | 31            | 31       | Dry               | Dry                   | Dry              | 31            | 0        | 531.94            | 3.80                  | 4.19             | 31            | 0        | 539.22            | 3.60                  | 3.79             | 31            | 0        | 533.05            | 3.40                  | 3.90             |
| April     | 30            | 15       | 544.17            | 0.24                  | 0.38             | 30            | 0        | 532.38            | 4.24                  | 4.68             | 30            | 0        | 539.65            | 4.04                  | 4.18             | 30            | 0        | 532.99            | 3.34                  | 3.64             |
| May       | 31            | 30       | 544.06            | 0.13                  | 0.13             | 31            | 0        | 531.96            | 3.48                  | 4.08             | 31            | 0        | 539.43            | 3.70                  | 4.05             | 31            | 0        | 532.95            | 3.16                  | 3.56             |
| June      | 30            | 16       | 544.30            | 0.37                  | 0.59             | 30            | 0        | 532.74            | 4.21                  | 5.09             | 30            | 0        | 539.81            | 4.19                  | 4.88             | 30            | 0        | 533.39            | 3.68                  | 5.09             |
| July      | 31            | 31       | Dry               | Dry                   | Dry              | 31            | 0        | 532.76            | 4.32                  | 4.72             | 16            | 0        | 539.23            | 3.72                  | 4.22             | 31            | 0        | 533.15            | 3.46                  | 3.69             |
| August    | 31            | 7        | 544.94            | 0.83                  | 1.36             | 31            | 0        | 533.20            | 4.76                  | 5.43             | 0             | NM       | NM                | NM                    | NM               | 31            | 0        | 532.94            | 3.26                  | 3.62             |
| September | 25            | 0        | 545.38            | 1.27                  | 2.07             | 14            | 0        | 534.37            | 5.92                  | 6.76             | 14            | 0        | 539.90            | 4.40                  | 4.71             | 30            | 0        | 532.95            | 3.26                  | 3.53             |

| Month     | UL-3R         |          |                   |                       |                  | LL-3          |          |                   |                       |                  | L-SUMP        |          |                   |                       |                  |
|-----------|---------------|----------|-------------------|-----------------------|------------------|---------------|----------|-------------------|-----------------------|------------------|---------------|----------|-------------------|-----------------------|------------------|
|           | Days Measured | Days Dry | Average Elevation | Avgerage Fluid Column | Max Fluid Column | Days Measured | Days Dry | Average Elevation | Avgerage Fluid Column | Max Fluid Column | Days Measured | Days Dry | Average Elevation | Avgerage Fluid Column | Max Fluid Column |
| January   | 31            | 0        | 538.42            | 2.32                  | 3.03             | 31            | 0        | 532.82            | 2.60                  | 3.11             | 31            | 4        | 529.97            | 6.98                  | 11.97            |
| February  | 28            | 0        | 538.26            | 2.16                  | 2.79             | 28            | 0        | 532.79            | 2.58                  | 3.18             | 28            | 4        | 528.53            | 5.85                  | 13.34            |
| March     | 31            | 0        | 539.29            | 3.19                  | 3.41             | 31            | 0        | 532.73            | 2.51                  | 3.08             | 31            | 0        | 527.44            | 4.77                  | 9.06             |
| April     | 30            | 0        | 539.73            | 3.63                  | 3.78             | 30            | 0        | 532.69            | 2.47                  | 2.88             | 30            | 0        | 525.76            | 3.09                  | 6.87             |
| May       | 31            | 0        | 539.41            | 3.16                  | 2.59             | 31            | 0        | 532.64            | 2.42                  | 2.74             | 31            | 0        | 524.61            | 1.93                  | 2.01             |
| June      | 30            | 0        | 539.88            | 3.71                  | 4.45             | 30            | 0        | 532.80            | 2.58                  | 3.26             | 30            | 0        | 525.74            | 3.06                  | 11.93            |
| July      | 31            | 0        | 538.70            | 2.60                  | 3.95             | 31            | 0        | 532.64            | 2.42                  | 2.62             | 31            | 0        | 526.07            | 3.21                  | 10.27            |
| August    | 31            | 0        | 538.70            | 2.60                  | 3.64             | 31            | 0        | 532.49            | 2.27                  | 2.57             | 31            | 0        | 525.51            | 2.65                  | 5.43             |
| September | 30            | 0        | 538.62            | 2.52                  | 4.14             | 30            | 0        | 532.33            | 2.12                  | 2.46             | 16            | 0        | 528.44            | 5.58                  | 13.58            |

**Notes**  
NM = not measured  
Survey data used to calculate max and average values are from the July 2026 well survey conducted by Abbitt Survey & Development.  
Elevations are in feet above mean sea level (AMSL) and are referenced to the North American Vertical Datum of 1988 (NAVD 88) and Geoid Model of 2018 (GEOID 18).

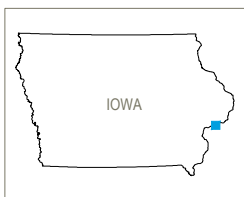
## FIGURES



Map Scale: 1:24,000 | Map Center: 41°27'56.72", -90°42'11.82"

## SITE LOCATION MAP

FIGURE 01

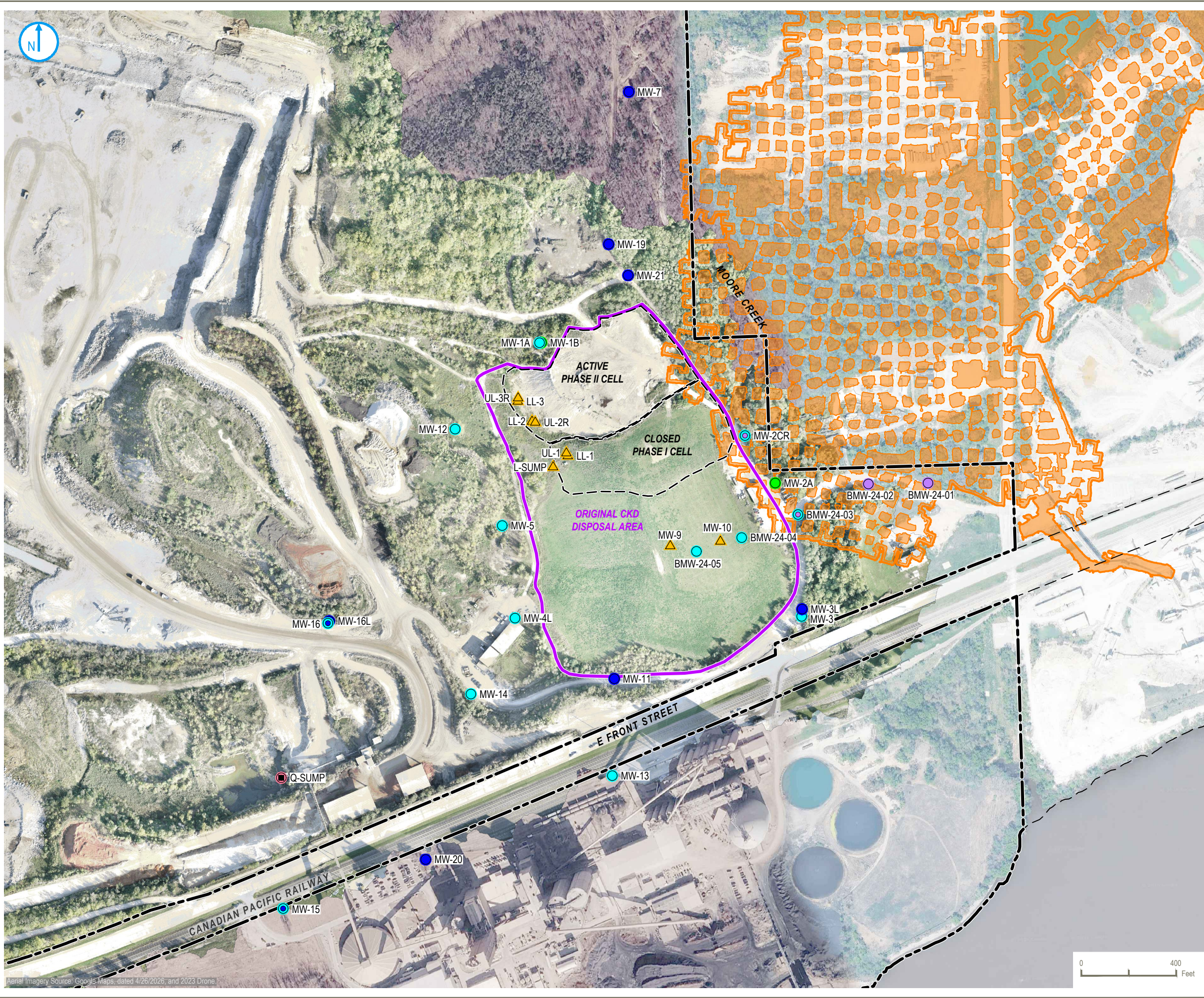


KEY MAP

CONTINENTAL CEMENT COMPANY, LLC  
301 FRONT STREET  
BUFFALO, IOWA

RAMBOLL AMERICAS  
ENGINEERING SOLUTIONS, INC.  
A RAMBOLL COMPANY

RAMBOLL



- PROPERTY BOUNDARY (APPROXIMATE)
- DISPOSAL AREA BOUNDARY (APPROXIMATE)
- PHASE I AND PHASE II CELL BOUNDARIES (APPROXIMATE)
- LINWOOD STOPE (APPROXIMATE)
- UPPER GROUNDWATER BEARING ZONE (UGBZ) MONITORING LOCATION
- MIDDLE GROUNDWATER BEARING ZONE (MGBZ) MONITORING LOCATION
- LOWER GROUNDWATER BEARING ZONE (LGBZ) MONITORING LOCATION
- STOPE MONITORING LOCATION
- MGBZ/STOPE MONITORING LOCATION
- MGBZ/LGBZ MONITORING LOCATION
- QUARRY SUMP MONITORING LOCATION
- ▲ LEACHATE MONITORING LOCATION

## CKD DISPOSAL AREA MONITORING LOCATIONS

CONTINENTAL CEMENT COMPANY, LLC  
301 FRONT STREET  
BUFFALO, IOWA

FIGURE 02

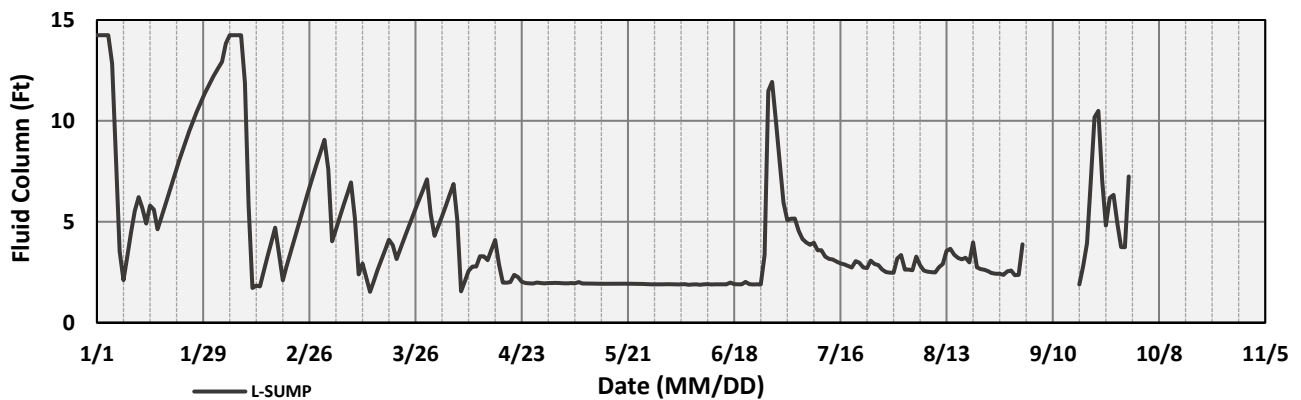
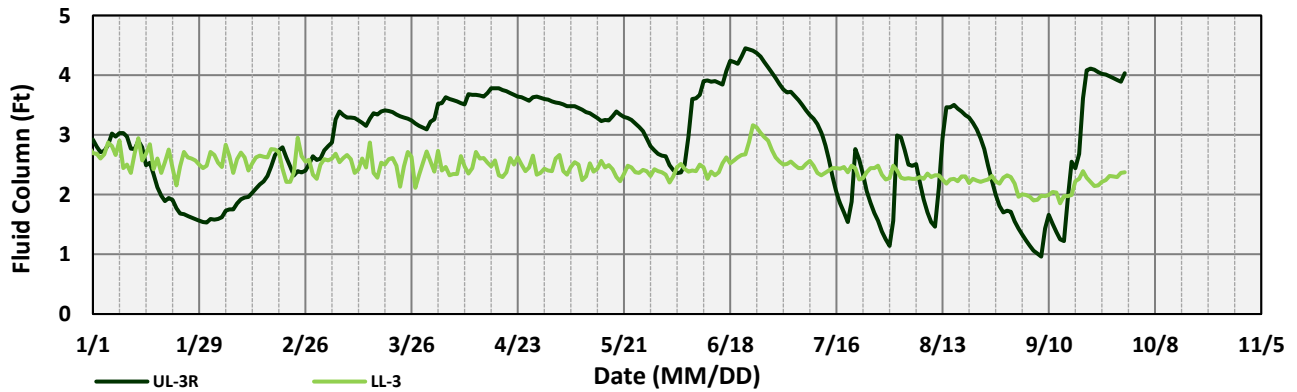
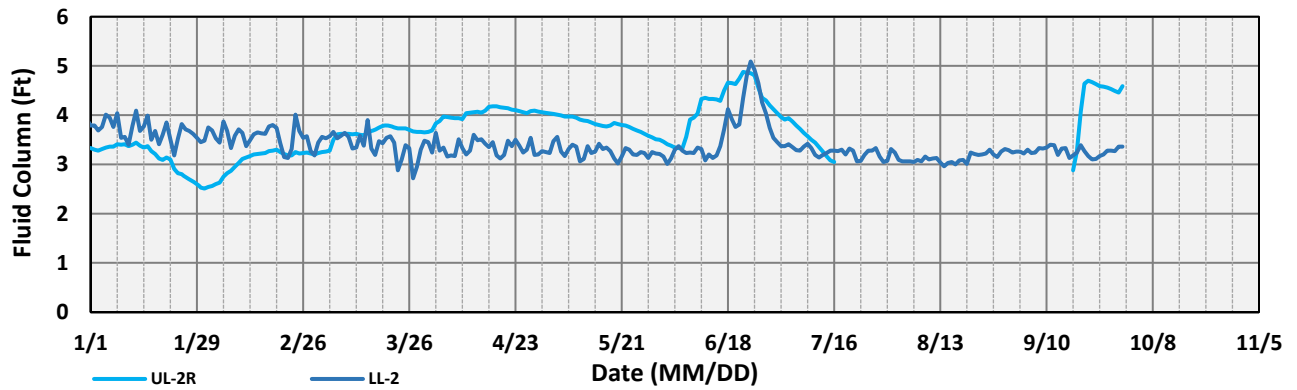
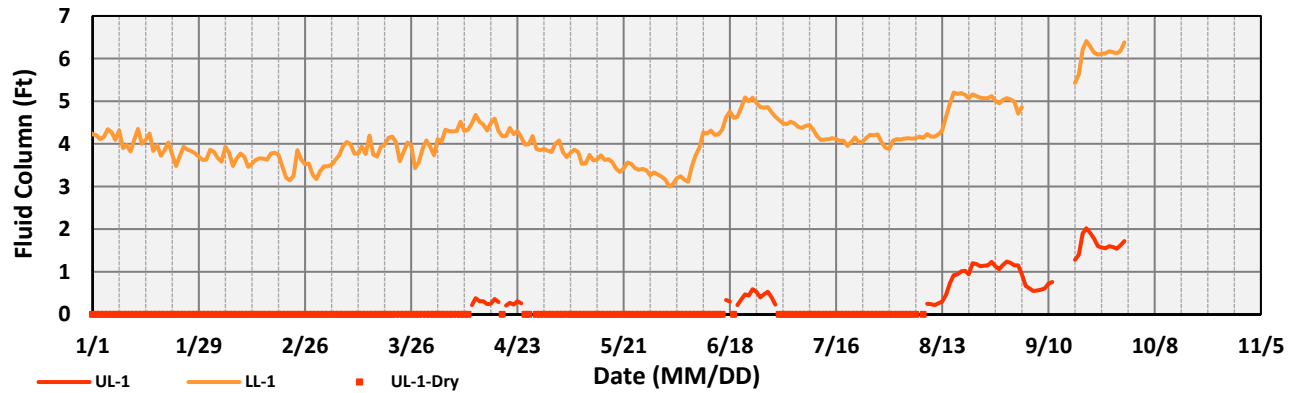
RAMBOLL AMERICAS  
ENGINEERING SOLUTIONS, INC.  
A RAMBOLL COMPANY



## **ATTACHMENT 1**

### **LEACHATE FLUID COLUMN TIME SERIES PLOTS - 2026**

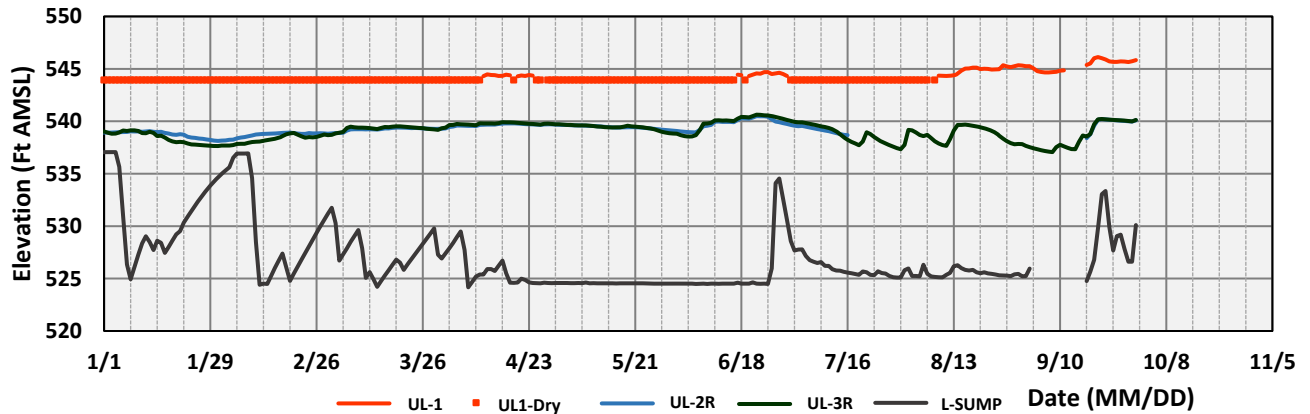
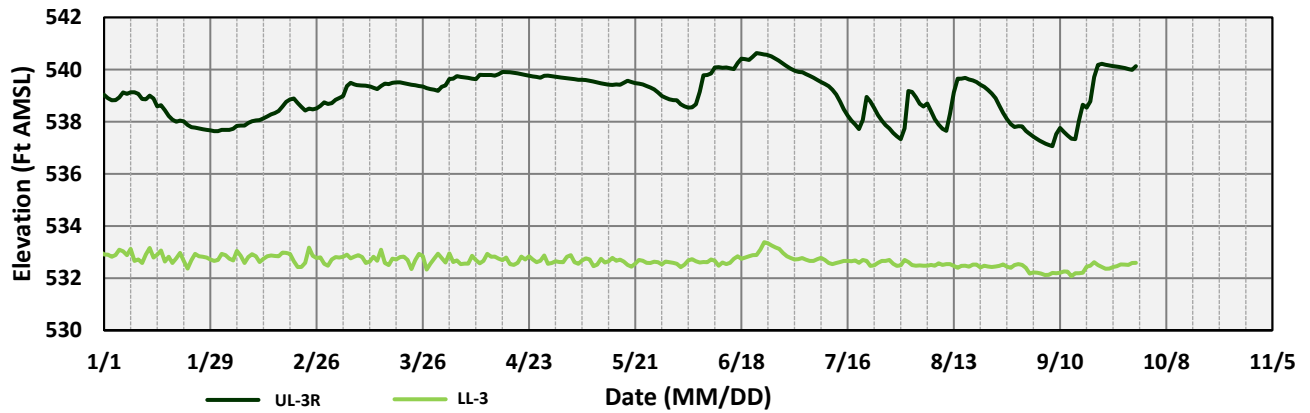
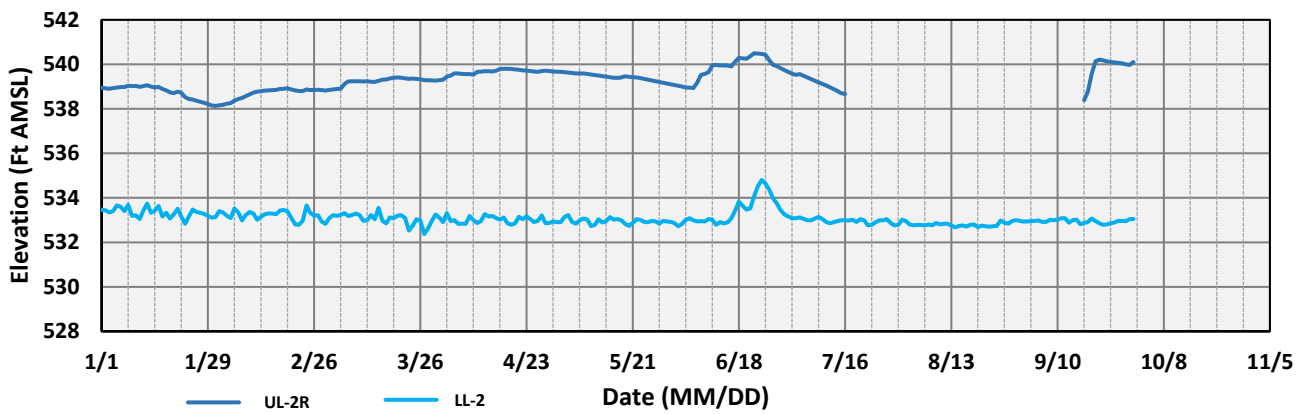
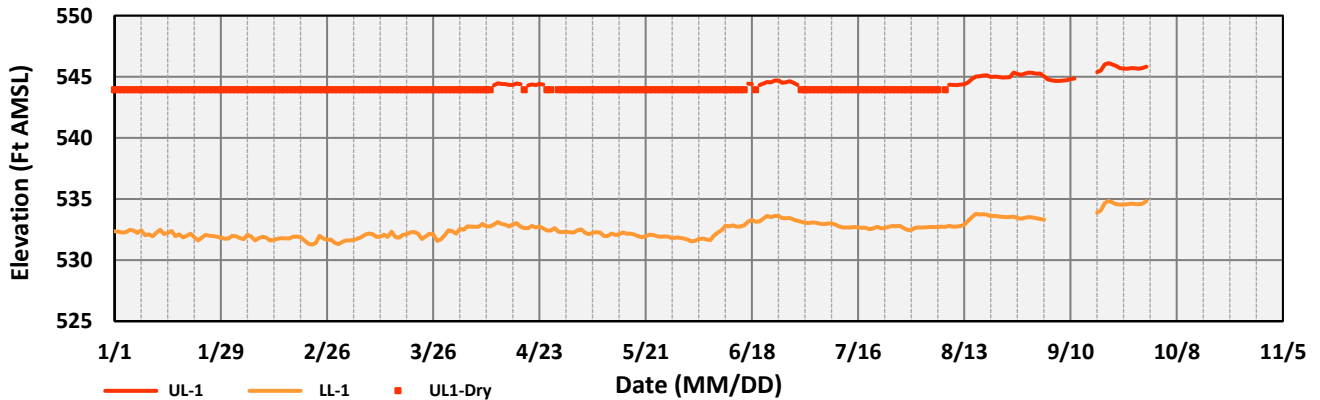
Attachment 1  
Leachate Fluid Column Time Series Plots - 2026  
Davenport Plant CKD Landfill  
Continental Cement Company  
Buffalo, Iowa



## **ATTACHMENT 2**

### **LEACHATE SURFACE ELEVATION TIME SERIES PLOTS - 2026**

Attachment 2  
Leachate Surface Elevation Time Series Plots - 2026  
Davenport Plant CKD Landfill  
Continental Cement Company  
Buffalo, Iowa



**ATTACHMENT 3**

**PHASE II CKD LANDFILL TOE OF SLOPE WATER MANAGEMENT PLAN**

# PHASE II CKD LANDFILL TOE OF SLOPE WATER MANAGEMENT PLAN

**CONTINENTAL CEMENT COMPANY  
CEMENT KILN DUST MONOFILL  
BUFFALO, SCOTT COUNTY, IOWA**

Prepared for:  
**Continental Cement Company, LLC  
Buffalo, Iowa**

Prepared By:  
**Ramboll Americas Engineering Solutions, Inc.  
Princeton, New Jersey**

Date:  
**October 15, 2026**

IDNR Permit:  
**82-SDP-16-97P**

Project Number:  
**1940117262**

|                                                                                               |                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><br>SEAL | <p>I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.</p> |
|                                                                                               | <p><u>Steven L. McGinnis</u> <u>10/15/26</u></p>                                                                                                                                                           |
|                                                                                               | <p>(signature) (date)</p>                                                                                                                                                                                  |
|                                                                                               | <p>Printed or typed name</p>                                                                                                                                                                               |
|                                                                                               | <p>License number <u>19329</u></p>                                                                                                                                                                         |
|                                                                                               | <p>My license renewal date is December 31, <u>2026</u>.</p>                                                                                                                                                |
|                                                                                               | <p>Pages or sheets covered by this seal: <u>Pages 1 - 3</u></p>                                                                                                                                            |
|                                                                                               | <p>_____</p>                                                                                                                                                                                               |
|                                                                                               | <p>_____</p>                                                                                                                                                                                               |
|                                                                                               | <p>_____</p>                                                                                                                                                                                               |

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## ATTACHMENTS

Drawing C-101      Phase II CKD Landfill Toe of Slope Water Management Plan

## 1. INTRODUCTION

The Continental Cement Company, L.L.C. (Continental) plant (Plant) is located at 301 East Front Street in Buffalo, Scott County, Iowa. On the north side of East Front Street and across the road from the Plant is an approximately 28-acre Cement Kiln Dust (CKD) landfill (Site). The Site consists of three disposal areas: (a) the closed original CKD Disposal Area, (b) the closed Phase I CKD Landfill (Phase I), and (c) the active Phase II CKD Landfill (Phase II). The original CKD Disposal Area was unlined but is capped. Phases I and II were constructed over the closed original CKD Disposal Area. Phase I was lined, has a leachate collection system (LCS) and was capped (Shive-Hattery, 1998; Terracon, 2005; Shive-Hattery, 2000). Phase II was lined and has a leachate collection system (LCS) (Shive-Hattery, 2002), but is uncapped as it still receives CKD.

As indicated by Continental (Stinson, 2026), intermittent ponding has been observed at the base of the Active Phase II Cell. This condition is primarily the result of storm water flowing or falling directly into the “pool” created by the berm at the limit of the landfill area and the current landfill toe of slope. Per landfill permit 82-SDP-16-97P special provision X.2c (IDNR, 2024), surface drainage is to be provided at the toe of the working area.

As requested by IDNR (IDNR, 2026) and outlined in Task 7 in the July 2026 LCS Action Plan (Stinson, 2026), Continental assessed options for eliminating ponding at the base of the Active Phase II Cell. Following this evaluation, Continental proposes to implement a water management system at the base of the landfill to prevent ponding in the active phase of the landfill.

## 2. PROPOSED PHASE II WATER MANAGEMENT IMPROVEMENTS

To manage water intermittently ponding at the base of the Phase II CKD Landfill, an automated gravity fed water conveyance system is proposed at the base of the landfill, thereby eliminating the need for pumping. As shown in Drawing C-101, the system will convey water across the toe berm that defines the limit of the Phase II CKD disposal area and discharge to the leachate sump when storage capacity is available. The system will regulate discharge to the downgradient sump based on available storage capacity, allowing discharge only when sufficient capacity is present and stopping flow before the sump is at capacity. Specifically, the level sensor in the leachate sump will communicate with an electrically actuated valve at the influent end of the conveyance pipe. The valve will open when the water levels at the sump are low and close when the water level in the sump reaches a predetermined high level. An independent high-high-level float will provide backup shutoff protection. This controlled approach is intended to improve operational efficiency, reduce routine operator intervention, and prevent water from being conveyed to the sump at a rate or volume greater than the sump can accommodate.

Power for the proposed level-control system will be supplied through the existing solar-power configuration.

### 3. REPORTING

The activities performed and data generated will be detailed in technical memorandum to be included in the 2026 LCS Performance Evaluation Reports to be submitted to IDNR. The technical memorandum will summarize the water management system installation and operation, cumulative volumes removed, and maintenance activities.

### 4. REFERENCES

Iowa Department of Natural Resources, 2024. Continental Cement Davenport Plant Operating CKD Landfill Permit #82-SDP-16-97P. November 14, 2024. IDNR Document Number 111312.

Iowa Department of Natural Resources, 2026. IDNR email with Comments to the 2026 Spring Engineering Inspection Report dated May 14, 2026. IDNR Document Number 117132.

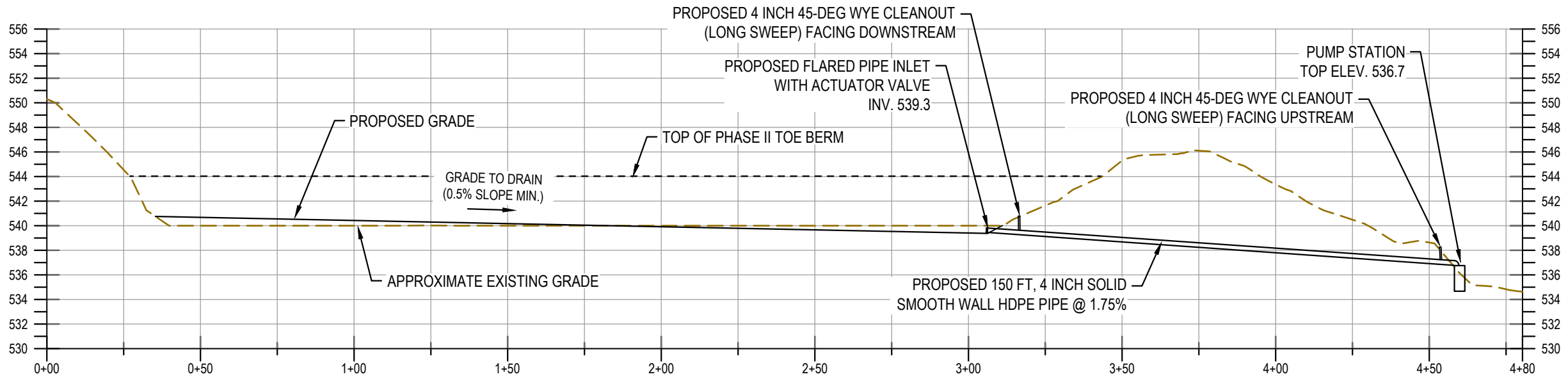
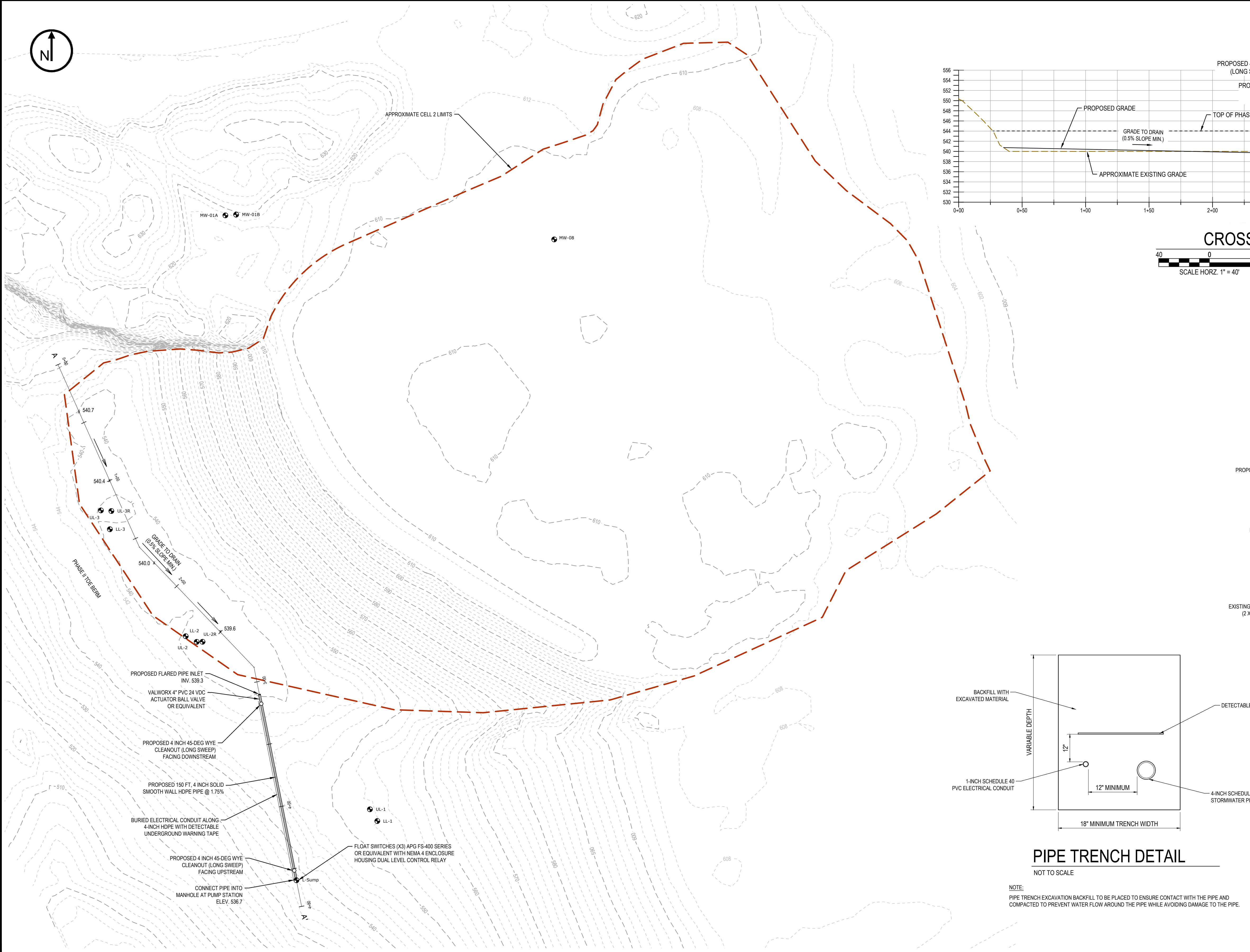
Shive-Hattery, 1998. CKD 1<sup>st</sup> Phase Development Plan Record Drawing C7.1 dated September 30, 1998. Submitted to IDNR on May 24, 1999. IDNR Document Number 44916.

Shive-Hattery, 2000. RE: Cement Kiln Dust (CKD) Pile Closure Status. Transmittal prepared for Lafarge Corporation and submitted to IDNR on January 6, 2000. IDNR Document Number 44817.

Shive-Hattery, 2002. CKD Monofill Phase II Plans. Submitted to IDNR on November 11, 2002. IDNR Document Numbers: 44905-44910.

Stinson LLP, 2026. Continental Cement Company, LLC's Responses to the IDNR's Comment Letter Dated May 14, 2026. Letter submitted to IDNR on July 15, 2026. IDNR Document Numbers 117601-117605.

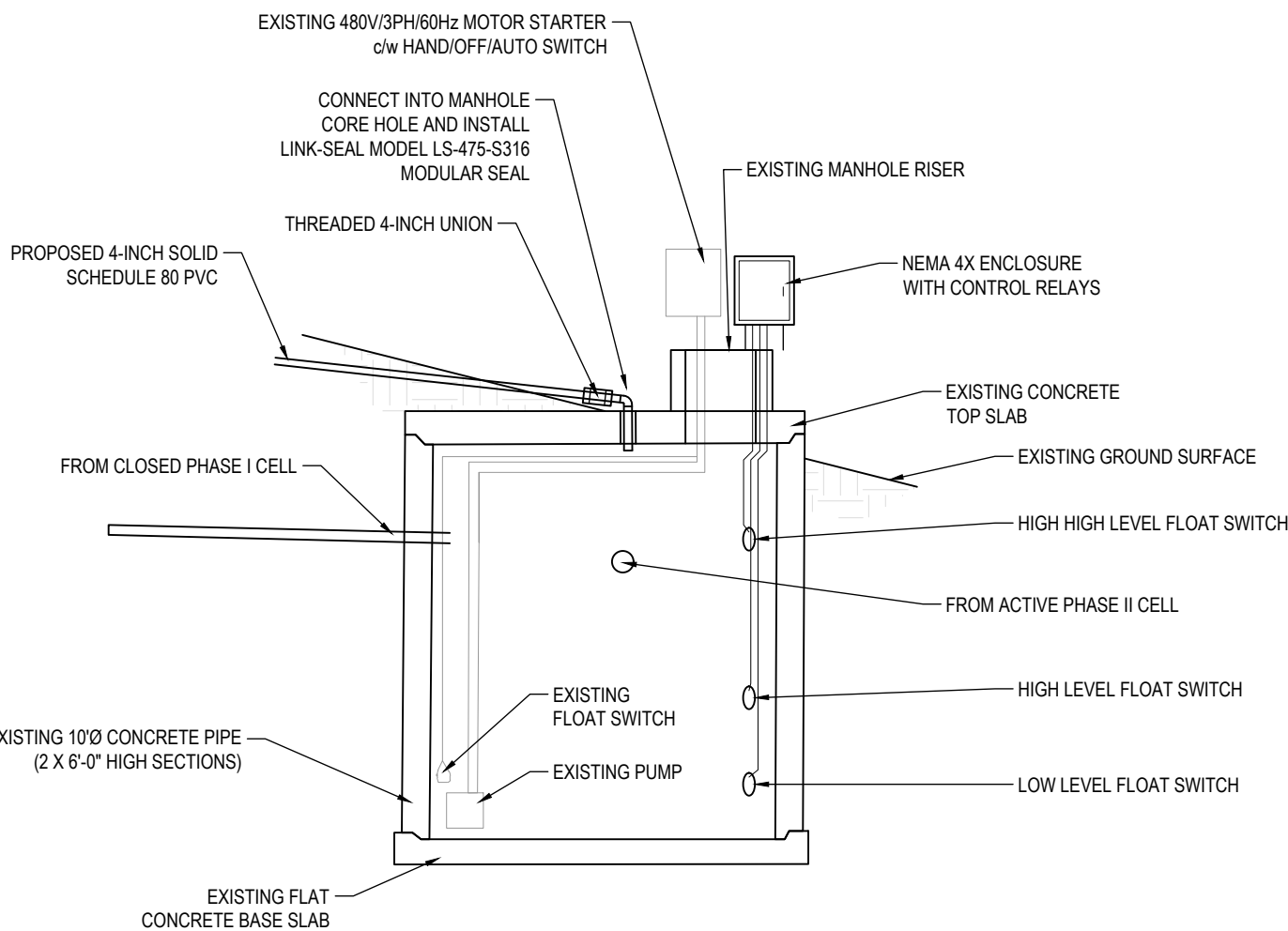
Terracon, 2005. Construction compliance Report, Cell No. 1 Cap, Lafarge Cement Kiln Dust Landfill, Buffalo, Iowa. Report prepared for Lafarge North America and submitted to IDNR on October 25, 2005. IDNR Document Number 44903.



CROSS SECTION A-A'

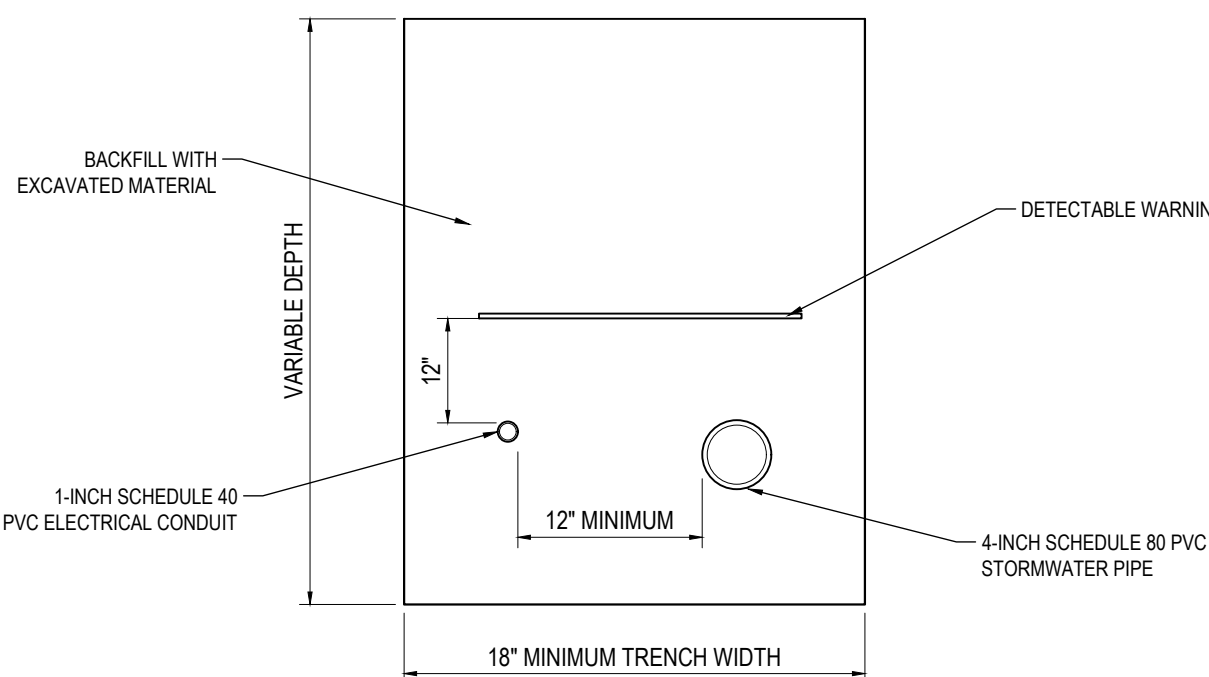
SCALE HORIZ. 1" = 40'

SCALE VERT. 1" = 10'



LEACHATE SUMP DETAIL

NOT TO SCALE



PIPE TRENCH DETAIL

NOT TO SCALE

NOTE:  
PIPE TRENCH EXCAVATION BACKFILL TO BE PLACED TO ENSURE CONTACT WITH THE PIPE AND COMPACTED TO PREVENT WATER FLOW AROUND THE PIPE WHILE AVOIDING DAMAGE TO THE PIPE.

- LEGEND:
- 600 --- EXISTING CONTOURS
  - - - - - APPROXIMATE CELL 2 LIMITS
  - 610 --- PROPOSED CONTOURS

SOURCE:  
Existing Contours: (Source: "DAVENPORT 2024.dwg" and supplemented with spot elevations from Exhibit by Abbit Survey & Development, PLLC. 8/24/2026.)  
CKD disposal limits: Figure 2 of the CKD Closure and Development Plan by LaFarge Corporation Corporate Technical Services, dated January 1997 (CONTINENTAL0000007008.pdf)



|                                                                                                                                                                                                                                                                                                                                                                                        |            |                                                                                         |    |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------|----|-------------|
| 0                                                                                                                                                                                                                                                                                                                                                                                      | 10/15/2026 | ISSUED FOR PERMITTING                                                                   |    | SM          |
| NO.                                                                                                                                                                                                                                                                                                                                                                                    | REV DATE   | REVISION                                                                                |    | INT.        |
| IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER, TO ALTER THIS DOCUMENT. THIS DRAWING WAS PREPARED AT THE SCALE INDICATED. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR TO DETERMINE THE ACTUAL SIZE. DRAWING IS NOT SCALABLE IF NO SCALE BAR IS PRESENT. |            |                                                                                         |    |             |
| Project Details                                                                                                                                                                                                                                                                                                                                                                        |            | Drawing Title                                                                           |    |             |
| CONTINENTAL CEMENT LANDFILL<br>DAVENPORT, IOWA                                                                                                                                                                                                                                                                                                                                         |            | PHASE II CKD LANDFILL TOE OF SLOPE<br>WATER MANAGEMENT PLAN                             |    |             |
| Location:                                                                                                                                                                                                                                                                                                                                                                              |            | Designer / Professional Engineer Responsible:<br>Steve McGinnis, Iowa Licence no. 19329 |    |             |
| Project Number                                                                                                                                                                                                                                                                                                                                                                         | 1940117248 | Designed by                                                                             | JS | Approved by |
| Project Status                                                                                                                                                                                                                                                                                                                                                                         |            | Drawn by                                                                                | MB | Scale       |
|                                                                                                                                                                                                                                                                                                                                                                                        |            | Checked by                                                                              | JS | AS NOTED    |
|                                                                                                                                                                                                                                                                                                                                                                                        |            | Drawn by                                                                                |    | 10/15/2026  |
|                                                                                                                                                                                                                                                                                                                                                                                        |            | Checked by                                                                              |    | SC          |
|                                                                                                                                                                                                                                                                                                                                                                                        |            | Drawn by                                                                                |    | Rev.        |
|                                                                                                                                                                                                                                                                                                                                                                                        |            | Checked by                                                                              |    | 0           |

