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January 15, 2026

Colorado Springs Utilities  
1521 Hancock Expressway  
Colorado Springs, Colorado 80903

**Attn:** Mr. Michael Spain

**RE:** Coal Combustion Residual (CCR) Landfill Annual (2025) Inspection  
Clear Spring Ranch  
El Paso County, Colorado  
Terracon Project No. 23155030

Dear Mr. Spain:

Terracon Consultants, Inc. (Terracon) is pleased to present this report of the Coal Combustion Residual (CCR) Landfill Annual (2025) Inspection services provided for the Clear Spring Ranch CCR landfill. Our services were provided in general accordance with the Colorado Springs Utilities (UTILITIES) Purchase Order 202518174 received September 22, 2025.

## 1.0 Project Information

### 1.1 Site Location

| Item   | Description  |
|--|--|
| <b>Location</b>  | The CCR Landfill at Clear Spring Ranch in El Paso County, Colorado   |
| <b>Existing Improvements</b>                                   | An existing and active landfill containing non-volatile fly ash, bottom ash, waste salt / fly ash mixture, spent sandblasting media, flue gas desulfurization waste, sediment from the Martin Drake Power Plant's Storm Water Ponds, and ash derived from the co-combustion of biosolids, woody biomass, or other related solid fuels. The total capacity of the 75-acre landfill is 5,220,600 cubic yards (CY). As of December 2, 2025, there is a net volume of 3,894,592 CY contained within the Landfill. This includes an estimated 556,818 CY of bottom ash and about 3,337,774 CY of fly ash currently in the landfill. |
| <b>Import/Export Activity for 2025 (Provided by UTILITIES)</b> | Fly Ash and Bottom Ash Imported in 2025: <ul style="list-style-type: none"><li>■ Nixon Fly Ash: 41,454 cubic yards</li><li>■ Nixon Bottom Ash: 3,388 cubic yards</li></ul>   |

| Item                       | Description   |
|----------------------------|---|
| <b>Existing Topography</b> | The active landfill has a relatively flat top with side slopes of about 3H:1V (Horizontal:Vertical) or flatter. |

## 1.2 Background

The Clear Spring Ranch CCR Landfill is subject to the Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals (CCR) from Electric Utilities rule published by the Environmental Protection Agency in the Code of Federal Regulations - 40 CFR Parts 257 and 261, dated April 17, 2015.

In accordance with these regulations, UTILITIES must inspect the CCR landfill in accordance with the following requirements:

**257.84 (b) Annual inspections by a qualified professional engineer.**

*(1) Existing and new CCR landfills and any lateral expansion of a CCR landfill must be inspected on a periodic basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include:*

- (i) A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., the results of inspections by a qualified person, and results of previous annual inspections); and*
- (ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit.*

*(2) Inspection report. The qualified professional engineer must prepare a report following each inspection that addresses the following:*

- (i) Any changes in geometry of the structure since the previous annual inspection;*
- (ii) The approximate volume of CCR contained in the unit at the time of the inspection;*
- (iii) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit; and*
- (iv) Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.*

The source of materials approved for placement in the CCR landfill include:

- Non-volatile fly ash, bottom ash, waste salt / fly ash mixture, spent sandblasting media, flue gas desulfurization (scrubber) waste, sediment from the Martin Drake Power Plant's Storm Water and Process Water Ponds, and ash derived from the co-combustion of biosolids, woody biomass, or other related solids fuels

We understand that the disposal of these materials at the CCR landfill are currently approved by El Paso County and the Colorado Department of Public Health and Environment (CDPHE).

## 2.0 Scope of Services

The following sections provide an overview of the work scope performed by Terracon.

### 2.1 Annual Inspection

Terracon's previous annual inspections of the CCR landfill included a review of available information regarding the status and condition of the CCR landfill and files provided by UTILITIES including results of previous inspections, land surveys, and CCR production and sales. Although not specifically required in Section 257.84b, previous geotechnical studies of the CCR landfill, performed by others, included subsurface explorations, laboratory testing, and slope stability analyses.

For our 2025 annual inspection, we performed our services in accordance with Section 257.84b and included the following activities:

- Visual observations of the CCR unit by a professional geotechnical engineer to identify signs of distress or malfunction of the CCR unit.
- Observations of existing or potential structural weakness associated with the slope stability or erosion of the CCR unit in addition to existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit.
- Noted changes in geometry of the CCR structure since the 2024 annual inspection.
- Estimate the approximate volume of CCR at the time of the inspection based on surface information provided by UTILITIES, delivery quantities and sales.
- Review the CSR CCR Landfill weekly inspection Checklists dated between January 1, 2025 and December 31, 2025.

## 3.0 CCR Landfill Inspection Results

The results of our 2025 annual inspection are discussed below. Selected photographs taken during the inspection and follow up inspection are included in the attached photograph log. Our services included a desktop review of the 2025 Volumetric Survey provided by UTILITIES, as well as site observations.

### 3.1 2025 Annual Observation of the CCR Landfill Structure Geometry

#### Historical Information

The CCR landfill has been active since the late 1970's and is currently being used for disposal of relatively dry ash. We were provided with the design drawing, "East Expansion of Ash Landfill", dated March 29, 2008 that indicates the intended final geometry of the landfill (height and slope gradients). The acceptable slope gradients of 3H:1V are also based on the stability analyses presented in the November 17, 2009, Ash Landfill Slope Stability Investigation for the Clear Spring Ranch Facility, prepared by Kleinfelder.

Based on the Ash Landfill 2025 Volumetric Survey conducted on December 2, 2025, the landfill varies from about 20 to 40 feet above the surrounding ground surface within the Bottom Ash area to the west and about 46 to 82 feet high at the eastern terminus. The lowest elevation at the toe of the landfill slope appears to be at the southeast corner at El. 5446. The highest elevation at the crest of the landfill also appears to be at the eastern portion of the landfill at El. 5526. The side slopes are generally at a gradient of about 3H:1V.

#### Site Observations

Terracon visited the site on October 22, 2025 for our annual observations of the CCR landfill surface features. The purpose of our visit included observations for erosion control measures for slopes and the perimeter road, isolated or surficial slope instability, proper soil cap thicknesses and competency, as well as understanding landfill earthwork and grading activities.

The current majority of the top of the landfill was relatively flat and sloped gently down gradient to the west (300 H:1V). The surface reportedly consisted of an approximate 1-foot-thick interim cover. The landfill has the capacity to increase approximately 11 feet in height. The far eastern end of the landfill is the only area approaching the final waste grade. Overall, the landfill ground surface was covered with a sparse to moderate amount of native vegetation.

The side slopes of the landfill also had an approximate 1-foot-thick soil cap. Most of the perimeter sloped surfaces were sparse to moderately vegetated with dried-out, 6-inch to 3-foot-high vegetation.

During our initial site visit on October 22, 2025, rills of about 4 to 6 inches in depths were observed at discrete locations along the south and southeast portions of the Fly Ash Landfill (see Photo Nos. 7 and 14 in the attached Photo Location Diagram and Photography Log) as well as the western section of the Bottom Ash Landfill (see Photo Nos. 17 through 20 in the attached Photo Location Diagram and Photography Log). The containment berms were observed to be intact and approximately 12 to 18 inches in height. In addition, the two culverts at the northern end of the landfill were observed to be clear and free of obstructions (see Photo Nos. 32, 33, and 37 in the attached Photo Location Diagram and Photography Log).

In our subsequent inspection performed on November 19, 2025, we observed that the erosion rills noted above had been repaired, see Section 3.5 for details.

### **3.2 Approximate Volume of the Clear Spring Ranch CCR Landfill**

Based on the provided Volumetric Surveys, the provided annual Net Volumes of the CCR Landfill are:

- 2013: 3,535,900 cubic yards
- 2014: 3,539,100 cubic yards
- 2015: 3,563,000 cubic yards
- 2016: 3,578,600 cubic yards
- 2017: 3,679,600 cubic yards
- 2018: 3,690,200 cubic yards
- 2019: 3,769,700 cubic yards
- 2020: 3,737,000 cubic yards
- 2021: 3,802,500 cubic yards
- 2022: 3,824,000 cubic yards
- 2023: 3,824,100 cubic yards
- 2024: 3,849,750 cubic yards
- 2025: 3,894,592 cubic yards

### **3.3 Observations of Existing or Potential Structural Weakness**

Visual evidence of apparent existing and potential structural weaknesses was not observed.

### **3.4 Slope Stability Analysis**

Slope stability analyses was beyond the scope of our services. Kleinfelder performed slope stability analyses as part of a November 17, 2009 study. The lowest presented slope stability analyses factor of safety was 2.6. The January 29, 2009 State of Colorado letter indicated the slope stability analysis was acceptable. Furthermore, the State of Colorado letter indicated "in its present condition as well as proposed final configuration, the ash landfill is at a low risk to be impacted by slope stability issues." No apparent signs of global slope instability were observed during our site visit.

### **3.5 Recommendations**

Based on our October 22<sup>nd</sup> and November 19<sup>th</sup>, 2025 observations, we recommended to UTILITIES representatives the following mitigation of slopes and berms.

- Two areas along the south facing slope portion of the Fly Ash Landfill and one area along the western portion of the Bottom Ash Landfill developed localized areas with rills extending up to about 6 inches through the 12-inch soil cap. These areas should be regraded to establish a uniform 12-inch soil cap.

On November 19, 2025, Terracon completed a second site visit and observed the identified portions of the southern and western slopes had been regraded to fill gullies (see Photo Nos. 39 to 49 in the attached Photo Location Diagram and Photography Log).

Throughout the course of 2025, the Weekly Inspection Checklists were authored by three separate Qualified Inspectors. In general, the Weekly Inspection Checklists were performed every seven days. The Weekly Inspection Checklists indicated deficiencies of erosion rills on the south, east, and north slope face, sediment clogged culverts, and breached primary containment berms. In subsequent weekly checklists repairs were noted.

Continued observations of the landfill should occur by UTILITIES throughout the year, with particular attention to the erosion features along the slopes. Routine maintenance should be conducted, when necessary, to maintain the soil cover. We understand the grading activities are typically accomplished by tracking a bulldozer up and down the slopes. In addition, we recommend for continuity the soil berms adjacent to the roadway and at the crest of the slope be maintained and be repaired, as necessary.

## 4.0 General Comments

The observations and recommendations presented in this letter are based upon the data and information discussed in this report. This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety and excavation support are the responsibility of others.

In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the recommendations contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing.

Sincerely,  
**Terracon**



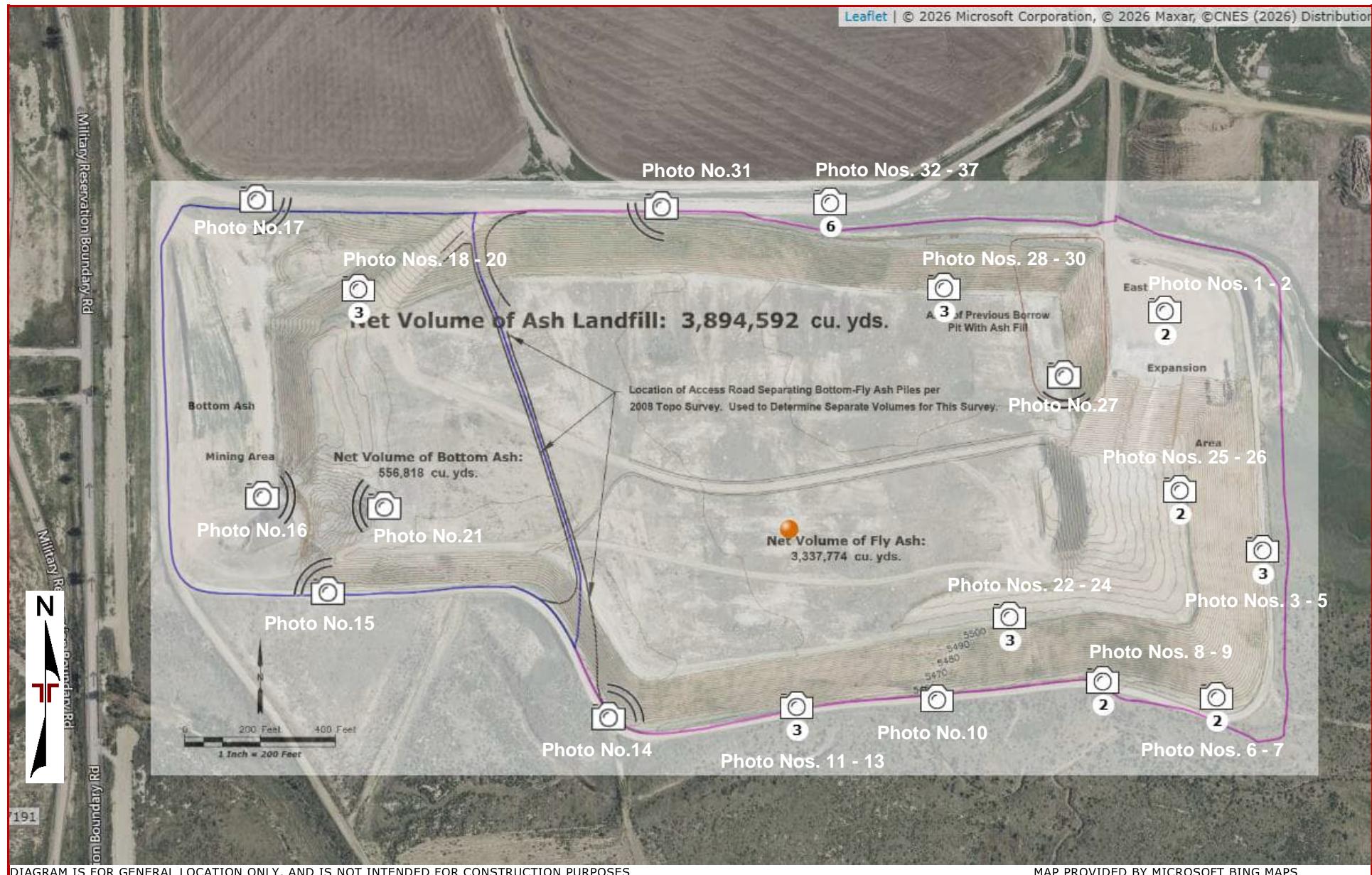
Nick M. Novotny, P.G., C.E.G.  
Geotechnical Department Manager



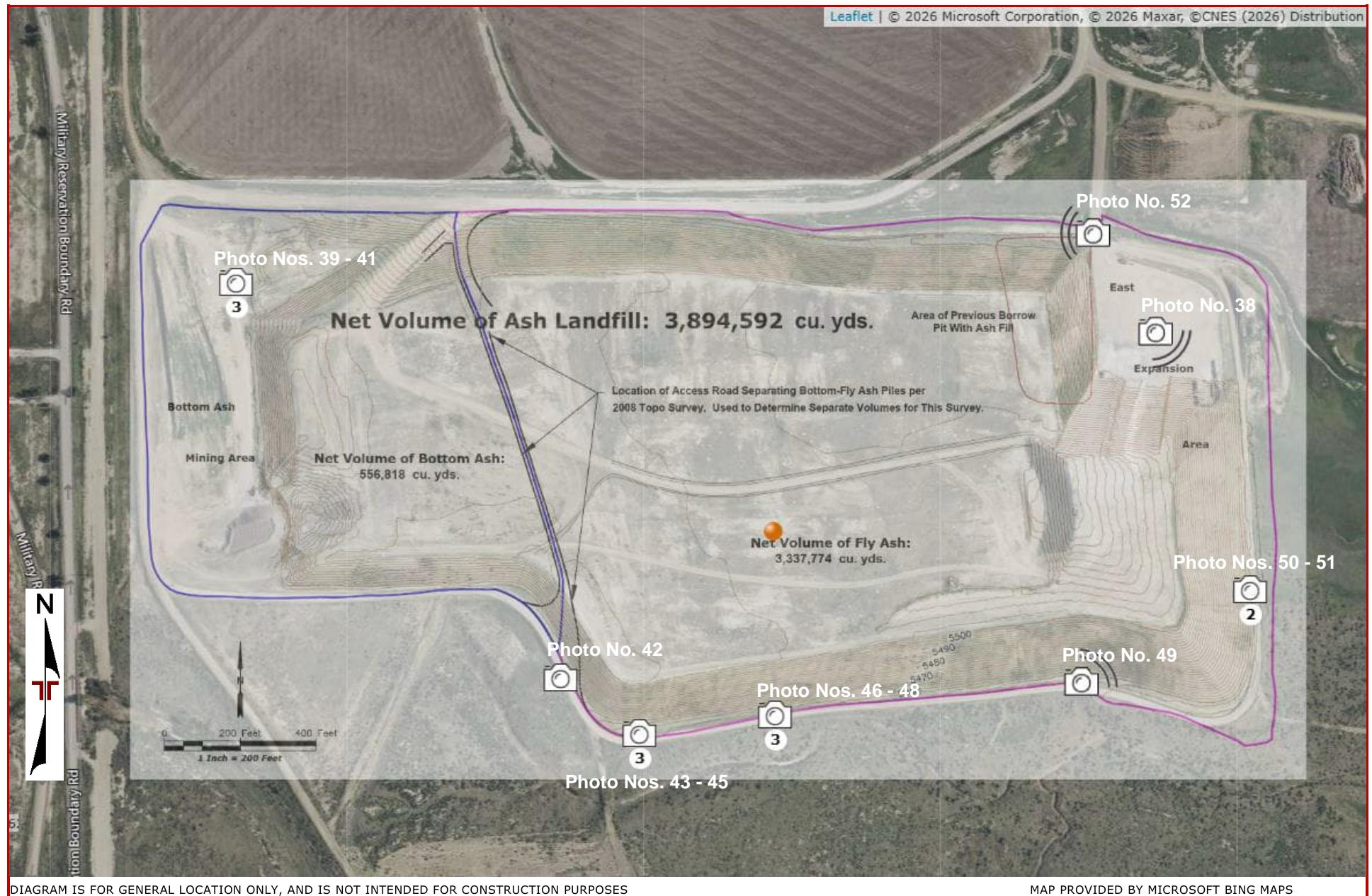
Ryan W. Feist, P.E.  
Senior Principal

Attachments:    Photograph Location Diagram 10.22.25  
                  Photograph Location Diagram 11.19.25  
                  Photography Log 10.22.25  
                  Photography Log 11.19.25

## Photo Location Diagram for 10.22.2025



## Photo Location Diagram for 11.19.2025



## Photography Log 10.22.25



Photo No. 1, 10.22.2025 Observations



Photo No. 2, 10.22.2025 Observations



Photo No. 3, 10.22.2025 Observations



Photo No. 4, 10.22.2025 Observations



Photo No. 5, 10.22.2025 Observations



Photo No. 6, 10.22.2025 Observations



Photo No. 7, 10.22.2025 Observations



Photo No. 8, 10.22.2025 Observations



Photo No. 9, 10.22.2025 Observations



Photo No. 10, 10.22.2025 Observations



Photo No. 11, 10.22.2025 Observations



Photo No. 12, 10.22.2025 Observations



Photo No. 13, 10.22.2025 Observations



Photo No. 14, 10.22.2025 Observations



Photo No. 15, 10.22.2025 Observations



Photo No. 16, 10.22.2025 Observations



Photo No. 17, 10.22.2025 Observations



Photo No. 18, 10.22.2025 Observations



Photo No. 19, 10.22.2025 Observations



Photo No. 20, 10.22.2025 Observations



Photo No. 21, 10.22.2025 Observations



Photo No. 22, 10.22.2025 Observations



Photo No. 23, 10.22.2025 Observations



Photo No. 24, 10.22.2025 Observations



Photo No. 25, 10.22.2025 Observations



Photo No. 26, 10.22.2025 Observations



Photo No. 27, 10.22.2025 Observations



Photo No. 28, 10.22.2025 Observations



Photo No. 29, 10.22.2025 Observations



Photo No. 30, 10.22.2025 Observations



Photo No. 31, 10.22.2025 Observations



Photo No. 32, 10.22.2025 Observations



Photo No. 33, 10.22.2025 Observations



Photo No. 34, 10.22.2025 Observations



Photo No. 35, 10.22.2025 Observations



Photo No. 36, 10.22.2025 Observations

**CCR Landfill Annual Inspection, 2025**

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Photo No. 37, 10.22.2025 Observations

## Photography Log 11.19.2025



Photo No. 38, 11.19.25 Observations



Photo No. 39, 11.19.25 Observations



Photo No. 40, 11.19.25 Observations



Photo No. 41, 11.19.25 Observations



Photo No. 42, 11.19.25 Observations



Photo No. 43, 11.19.25 Observations



Photo No. 44, 11.19.25 Observations



Photo No. 45, 11.19.25 Observations



Photo No. 46, 11.19.25 Observations



Photo No. 47, 11.19.25 Observations



Photo No. 48, 11.19.25 Observations



Photo No. 49, 11.19.25 Observations



Photo No. 50, 11.19.25 Observations



Photo No. 51, 11.19.25 Observations



Photo No. 52, 11.19.25 Observations