



June 14, 2022  
Project No.: 19125

2750 S. Wadsworth Blvd, Suite D-200  
Lakewood, Colorado 80227  
303.625.9502  
[www.LithosEng.com](http://www.LithosEng.com)

Aggregate Industries – WCR, Inc  
1687 Cole Boulevard, Suite 300  
Golden, CO 80401

Attention: Wyatt Webster & Neil Whitmer  
Environmental and Land Managers

Regarding: Daniels Sand Pit 2, Permit No. M-1973-007-SG  
Slope Stability Monthly Monitoring Report

Mr. Webster and Mr. Whitmer,

Lithos Engineering (Lithos) has been retained by Aggregate Industries to implement a slope stability monitoring plan for the Fountain Mutual Ditch within Daniels Sand Pit 2. Monthly monitoring will occur for the first year after construction completion. Lithos Engineering (Lithos) visited the site on June 14, 2022. The ditch and the condition of the buttress slope are stable. Site notes and photographs are presented below:

- Weather: 54-87°, sunny, winds 10-20 mph
- Visual observation of the Fountain Mutual Ditch:
  - No tension cracks
  - No toe erosion that was visible
  - Vegetation growing on banks
  - Dry, no water flowing in the ditch
  - No sloughed slope surfaces
  - Several broken branches near crest
  - The condition of the ditch is stable



Photo 1. Fountain Mutual Ditch looking east





Photo 2. Fountain Mutual Ditch looking west





Photo 3. Fountain Mutual Ditch invert looking north (note vegetation)





Photo 4. Fountain Mutual Ditch looking north

- Construction sequence
  - The buttress slope varies from 3H:1V to 4H:1V
  - The remaining stockpile material has been placed on the buttress (final lift)
  - The majority of the fallen tree has been removed from the access road and buttress (a few branches remain)
  - The final lift needs to be regraded on the eastern side of the buttress
  - Vegetation (mainly weeds) are growing through the final lift on the western side of the buttress
  - Evidence of previous ponding water near the toe of the buttress
  - On the western side of the buttress, evidence of surface water runoff
  - Crew planning vegetation on slope per reclamation plan





Photo 5. Buttress slope, access road and ditch (looking west)



Photo 6. Buttress slope looking east from crest





Photo 7. Buttress slope looking east from toe





Photo 8. Buttress slope looking north, evidence of surface water drainage





Photo 9. Butress slope looking south, area needs regrading





Photo 10. Buttress slope looking north, weeds and potential trees growing





Photo 11. Evidence of previous ponding water near toe of buttress

If you have any questions regarding the contents of this report, please contact Aggregate Industries or Lithos Engineering.

Sincerely,

**Lithos Engineering**



Steve Kuehr, PE  
Senior Consultant

Sarah Myers, EIT  
Project Engineer