



STATE OF  
COLORADO

Simmons - DNR, Leigh <leigh.simmons@state.co.us>

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## 1st Quarter 2019 Subsidence Summary

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Welt, Kathy <KWelt@archcoal.com>

Thu, Apr 25, 2019 at 10:42 AM

To: "Simmons - DNR, Leigh" <leigh.simmons@state.co.us>

Cc: "Daniel E Gray (degray@fs.fed.us)" <degray@fs.fed.us>, "Poulos, John" <JPoulos@archcoal.com>, "Munz, Robert" <RMunz@archcoal.com>

Please see the attached 1st Quarter 2019 subsidence summary.

*Kathy Welt,*

Environmental Engineer III

Mountain Coal Company, LLC

West Elk Mine

5174 Highway 133

Somerset, CO 81434

Phone (970) 929-2238

Cell (970) 433-1022

Fax (970) 929-5050

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### 2 attachments



**1st Q 2019 Subsidence Summary.pdf**

54K



**Q1 2019 - Inspection Forms.pdf**

385K

April 25, 2019

Mr. Leigh D. Simmons  
Colorado Division of Reclamation, Mining and Safety  
Office of Mined Land Reclamation  
1313 Sherman Street, Room 215  
Denver, Colorado 80203

**Re: Mountain Coal Company, LLC, West Elk Mine; Permit No. C-1980-007;  
Quarterly Summary of Subsidence Observations; 1<sup>st</sup> Quarter 2019**

Dear Mr. Simmons:

Mountain Coal Company, LLC (MCC) began longwall mining the E-Seam in December 2008. MCC has completed longwall mining of longwall panels E1 through E7 and continued mining of longwall panel E8 during the 1<sup>st</sup> Quarter of 2019. At the end of the 1<sup>st</sup> Quarter, MCC had mined out longwall panel E8 up to cross-cut 21.

There were no stock ponds within twice the angle-of-draw of the mined area during this quarter, and mining was not within a mile of Monument Dam. Winter weather and ground conditions did not permit inspections this quarter. All inspections will continue when weather and ground conditions allow. Routine inspection reports for Monument Dam, Forest Service Roads and Stock Ponds are included with this letter report.

Please don't hesitate to contact me at (970) 929-2238 or by e-mail should you have questions regarding this submittal.

Sincerely,



Kathleen G. Welt  
Environmental Engineer III

Enclosures: Monument Dam Inspections – First Quarter 2019  
US Forest Service Road Inspections – First Quarter 2019  
Stock Pond Inspections – First Quarter 2019

cc: D. Gray - USFS  
R. Munz – MCC  
J. Poulos – MCC  
Availability of Records File

**Forest Service Roads**  
**Inspection Form**

Date: 1/31/19

Time: 11:00 AM.

Name of Inspector: Mike Peacock

Current Panel and XC Being Mined: E8 Panel

Road(s) Being Inspected: Dry Fork

Yes    No

☐☒

Is the Forest Service road within the projected angle of draw of subsidence? If yes, which road(s):

☐☐

Are there visible surface cracks on the road? If yes, describe (location, width, length, etc.):

☐☐

Is there any recent evidence of potential subsidence induced slope failure? If yes, describe:

☐☒

Are there any other potentially damaging, subsidence induced features on or near the road? If yes, describe:

☐☒

is mitigation needed? If yes, list suggestions:

Notes:

Roads inaccessible due to snow

Signature of Inspector:

*Mike Peacock*

\* If any potential subsidence induced features are observed that could cause harm to the public or operations, notify Mike Peacock or Kathy Welt immediately.

**Forest Service Roads**  
**Inspection Form**

Date: 2/19/19

Time: ~~Mike~~ 10:15am

Name of Inspector: Mike Peacock

Current Panel and XC Being Mined: E8 Panel, 50XC (TG)

Road(s) Being Inspected: Dry Fork

Yes    No

☐    ☒ Is the Forest Service road within the projected angle of draw of subsidence? If yes, which road(s):

☐    ☐ Are there visible surface cracks on the road? If yes, describe (location, width, length, etc.):

☐    ☐ Is there any recent evidence of potential subsidence induced slope failure? If yes, describe:

☐    ☐ Are there any other potentially damaging, subsidence induced features on or near the road? If yes, describe:

☐    ☐ Is mitigation needed? If yes, list suggestions:

Notes:

INACCESSIBLE due to SNOW AND ROAD  
CONDITIONS

Signature of Inspector:



\* If any potential subsidence induced features are observed that could cause harm to the public or operations, notify Mike Peacock or Kathy Welt immediately.

**Forest Service Roads**  
**Inspection Form**

Date: 3/31/2019

Time: 1 P.M.

Name of Inspector: Robert Munz

Current Panel and XC Being Mined: LWES - Approx. 21XC in E8 H6

Road(s) Being Inspected: Dry Fork

Yes    No

☐    ☒ Is the Forest Service road within the projected angle of draw of subsidence? If yes, which road(s):

\_\_\_\_\_

☐    ☐ Are there visible surface cracks on the road? If yes, describe (location, width, length, etc.):

\_\_\_\_\_

\_\_\_\_\_

☐    ☐ Is there any recent evidence of potential subsidence induced slope failure? If yes, describe:

\_\_\_\_\_

☐    ☐ Are there any other potentially damaging, subsidence induced features on or near the road? If yes, describe:

\_\_\_\_\_

☐    ☐ Is mitigation needed? If yes, list suggestions:

\_\_\_\_\_

Notes: Roads inaccessible due to snow

Signature of Inspector:                                         

\* If any potential subsidence induced features are observed that could cause harm to the public or operations, notify John Poulos or Kathy Welt immediately.

Stock Pond  
Inspection Form

Date: 1/31/19

Time: 1:30 pm

Name of Inspector: Mike Peacock

Current Panel and XC Being Mined: E8 Panel

Stock Pond(s) Being Inspected: DF30

Yes No

☐ ☒ Is the stock pond within twice the projected angle of draw of subsidence? If yes, which pond(s):

☐ ☐ Are there visible surface cracks in or near the stock pond? If yes, describe (location, width, length, etc.):

☐ ☐ Is there any evidence of potential subsidence induced water loss? If yes, describe:

☐ ☐ Is there water in the pond? If yes, describe:

☐ ☐ Is mitigation needed? If yes, list suggestions:

Notes:

Ponds inaccessible due to snow

Signature of Inspector:

Mike Peacock

\* If any potential subsidence induced features are observed that could cause harm to the pond, notify Mike Peacock or Kathy Welt immediately.

**Stock Pond**  
**Inspection Form**

Date: 2/19/19

Time: 10:00 am

Name of Inspector: Mike Peacock

Current Panel and XC Being Mined: E 8 Panel, XC 50 (CTG)

Stock Pond(s) Being Inspected: DF 30

Yes    No

☐    ☒ Is the stock pond within twice the projected angle of draw of  
subsidence? If yes, which pond(s):

☐    ☐ Are there visible surface cracks in or near the stock pond? If yes,  
describe (location, width, length, etc.):

☐    ☐ Is there any evidence of potential subsidence induced water loss? If  
yes, describe:

☐    ☐ Is there water in the pond? If yes, describe:

☐    ☐ Is mitigation needed? If yes, list suggestions:

Notes:

INACCESSIBLE DUE TO SNOW

Signature of Inspector: \_\_\_\_\_

\* If any potential subsidence induced features are observed that could cause harm  
to the pond, notify Mike Peacock or Kathy Welt immediately.

## Stock Pond Inspection Form

Date: 3/31/2019

Time: 1 P.M.

Name of Inspector: Robert Munz

Current Panel and XC Being Mined: **LWE8 - Approx. 21 XC in EB HG**

Stock Pond(s) Being Inspected: **DF 30**

Yes      No

☐ ☒ Is the stock pond within twice the projected angle of draw of subsidence? If yes, which pond(s):

☐ ☐ Are there visible surface cracks in or near the stock pond? If yes, describe (location, width, length, etc.):

☐ ☐ Is there any evidence of potential subsidence induced water loss? If yes, describe:

☐ ☐ Is there water in the pond? If yes, describe:

☐ ☐ Is mitigation needed? If yes, list suggestions:

Notes: Ponds Inaccessible due to snow

**Signature of Inspector:**

**\* If any potential subsidence induced features are observed that could cause harm to the pond, notify John Poulos or Kathy Welt immediately.**



# Monument Dam Inspection Form

Date: 1/31/19  
Time: 1:45 pm  
Name of Inspector: M. Peacock  
Current Panel Being Mined: E 8 Panel  
☐ Weekly Inspection ☒ Monthly Inspection

Yes No

- ☐ ☒ Is mining within 1 mile of Monument Dam?
- ☐ ☐ Are there visible surface cracks on the dam?  
If yes, indicate length and size of crack. \_\_\_\_\_
- ☐ ☐ Is there evidence of subsided areas on or around the dam?  
If yes, indicate where and degree. \_\_\_\_\_
- ☐ ☐ Are there bulges on the dam?  
If yes, indicate where and degree. \_\_\_\_\_
- ☐ ☐ Are there signs of seeps on the dam?  
If yes, indicate where and estimated flow. \_\_\_\_\_
- ☐ ☐ Are there any other potentially damaging features on the dam?  
If yes, describe. \_\_\_\_\_
- ☐ ☐ Are there any recent evidences of slope failure on the landside south of the dam (perform visual inspection and data analysis of inclinometers)?  
If yes, describe. \_\_\_\_\_

Notes:

IN Accessible, due to snow

Signature of Inspector: Mike Peacock

*Inspections are performed under the direction of Mike Peacock, P.E.*

If cracks or other potentially damaging features occur, notify Mike Peacock or Kathy Welt immediately.

# Monument Dam Inspection Form

Date: 2/19/19

Time: 10:00am

Name of Inspector: Mike Peacock

Current Panel Being Mined: E8 Panel

☐ Weekly Inspection ☒ Monthly Inspection

Yes No

☐ ☒ Is mining within 1 mile of Monument Dam?

☐ ☐ Are there visible surface cracks on the dam?  
If yes, indicate length and size of crack. \_\_\_\_\_

☐ ☐ Is there evidence of subsided areas on or around the dam?  
If yes, indicate where and degree. \_\_\_\_\_

☐ ☐ Are there bulges on the dam?  
If yes, indicate where and degree. \_\_\_\_\_

☐ ☐ Are there signs of seeps on the dam?  
If yes, indicate where and estimated flow. \_\_\_\_\_

☐ ☐ Are there any other potentially damaging features on the dam?  
If yes, describe. \_\_\_\_\_

☐ ☐ Are there any recent evidences of slope failure on the landside south of the dam (perform visual inspection and data analysis of inclinometers)?  
If yes, describe. \_\_\_\_\_

Notes:

*Inaccessible due to snow and road conditions*

Signature of Inspector: *Mike Peacock*

*Inspections are performed under the direction of Mike Peacock, P.E.*

If cracks or other potentially damaging features occur, notify Mike Peacock or Kathy Welt immediately.

# Monument Dam Inspection Form

Date: 3/31/2019

Time: 1 P.M.

Name of Inspector: Robert Munz

Current Panel Being Mined: LWES

☐ Weekly Inspection ☒ Monthly Inspection

Yes No

- ☐ ☒ Is mining within 1 mile of Monument Dam?
- ☐ ☐ Are there visible surface cracks on the dam?  
If yes, indicate length and size of crack. \_\_\_\_\_.
- ☐ ☐ Is there evidence of subsided areas on or around the dam?  
If yes, indicate where and degree. \_\_\_\_\_.
- ☐ ☐ Are there bulges on the dam?  
If yes, indicate where and degree. \_\_\_\_\_.
- ☐ ☐ Are there signs of seeps on the dam?  
If yes, indicate where and estimated flow. \_\_\_\_\_.
- ☐ ☐ Are there any other potentially damaging features on the dam?  
If yes, describe. \_\_\_\_\_.
- ☐ ☐ Are there any recent evidences of slope failure on the landside south of the dam (perform visual inspection and data analysis of inclinometers)?  
If yes, describe. \_\_\_\_\_.

Notes: Inaccessible due to snow

Signature of Inspector: RM

*Inspections are performed under the direction of John Poulos, P.E.*

If cracks or other potentially damaging features occur, notify John Poulos or Kathy Welt immediately.