



STATE OF  
COLORADO

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

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## CDRMS Permit C-1981-022 second quarter Pond Inspection and Coal Mine Refuse Pile Inspection Reports

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Doug Smith <Doug.Smith@oxbow.com>

Mon, Jul 1, 2019 at 12:09 PM

To: "leigh.simmons@state.co.us" <leigh.simmons@state.co.us>

Cc: Mike Ludlow <Mike.Ludlow@oxbow.com>

Leigh,

Please find the attached pdf copy of the 2<sup>nd</sup> quarter reports for the Elk Creek Mine Pond and Refuse Pile Inspections.

Thanks,

Doug Smith

Oxbow Mining, LLC

(970) 929-6034



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**2019 ECM QTR 2 POND AND REFUSE PILE REPORT.pdf**  
2203K

# OXBOW MINING, LLC



3737 Hwy 133 P.O. Box 535 Somerset, Colorado 81434 USA Tel (970)929-5122 Fax (970)929-5177

July 1, 2019

Mr. Leigh Simmons  
Environmental Protection Specialist  
Colorado Division of Reclamation, Mining and Safety  
1313 Sherman Street, Room 215  
Denver, Colorado 80203

**Re: Oxbow Mining, LLC., CDRMS Permit C-1981-022,  
2nd Quarter 2019 Pond Inspection Report and 2nd Quarter 2019 Coal Mine Refuse  
Pile Inspection Report.**

Dear Mr. Simmons:

Enclosed are copies of the 2nd Quarter 2019 Pond Inspection Report, and the 2nd Quarter 2019 Coal Mine Refuse Report for the Division's records. Note that the reports indicate no issues or major concerns with these regulated facilities.

Please also note that the West Valley and II West Refuse piles were both completed in connection with our continuing reclamation activities. The refuse piles were capped with topsoil, drainages were completed and the disturbed areas were seeded during third quarter of 2018.

Please call me at 970-929-6034 if you have any comments or questions.

Sincerely,

Doug A. Smith  
Chief Engineer

Attachments

Xc: Mike Ludlow (OMLLC)  
Files



## SECOND QUARTER 2019 POND INSPECTION REPORT

Pond Inspection Date: June 21, 2019

OPERATOR: Oxbow Mining, LLC.  
MINE: Elk Creek Mine and Surface Facilities

POND IDENTIFICATION:	<u>Hubbard</u>	<u>Substation #3</u>	<u>Pond D</u>
CDPS NUMBER:	007	013	016
TYPE OF POND:	Sediment	Sediment	Sediment
APPROXIMATE WATER LEVEL:	0.0'	0.0'	Pond Removed
SEDIMENT (% total storage):	<5%	<5%	<5%
OUTFLOW:	None	None	None

FEATURES	PROBLEM	PROBLEM	PROBLEM
<b>EROSIONAL</b>			
Rills & Gullies	No	No	No
Inadequate Vegetation	No	No	No
Outlet Channel Erosion	No	No	No
Burrows	No	No	No
Other	No	No	No
<b>STRUCTURAL</b>			
Differential Settling	No	No	No
Cracks or Slides	No	No	No
Seepage	No	No	No
Other	No	No	No
<b>APPURTENANT STRUCTURES</b>			
Defective Spillways	No	No	No
Dewatering Devices Clogged	No	No	No
Faulty Gates, Etc.	No	No	No
Other	No	No	No

MAINTENANCE REQUIRED No No No

REFERENCE DRAWINGS: 2.05-M5E 2.05-M5F 2.05-M5D  
2.05-M6

Inspected By: \_\_\_\_\_

  
Doug A. Smith



## SECOND QUARTER 2019 POND INSPECTION REPORT

Pond Inspection Date: June 21, 2019

OPERATOR: Oxbow Mining, LLC.  
MINE: Elk Creek Mine and Surface Facilities

POND IDENTIFICATION:	<u>Pond A1</u>	<u>Pond B</u>	<u>Pond C</u>	<u>East Yard</u>
CDPS NUMBER	009	012	014	010
TYPE OF POND:	Sediment	Sediment	Sediment	Sediment
APPROXIMATE WATER LEVEL:	0.0'	1.0'(6061')	0.0'	0.0'
SEDIMENT (% total storage):	<5%	<5%	<5%	<5%
OUTFLOW:	None	None	None	None

FEATURES	PROBLEM	PROBLEM	PROBLEM	PROBLEM
<b>EROSIONAL</b>				
Rills & Gullies	No	No	No	No
Inadequate Vegetation	No	No	No	No
Outlet Channel Erosion	No	No	No	No
Burrows	No	No	No	No
Other	No	No	No	No
<b>STRUCTURAL</b>				
Differential Settling	No	No	No	No
Cracks or Slides	No	No	No	No
Seepage	No	No	No	No
Other	No	No	No	No
<b>APPURTENANT STRUCTURES</b>				
Defective Spillways	No	No	No	No
Dewatering Devices Clogged	No	No	No	No
Faulty Gates, Etc.	No	No	No	No
Other	No	No	No	No
<b>MAINTENANCE REQUIRED</b>	No	No	No	No
<b>REFERENCE DRAWINGS:</b>	2.05-M5A	2.05-M5B	2.05-M5C	2.05-M5E

Inspected By: \_\_\_\_\_

*Doug A. Smith*  
Doug A. Smith





## SECOND QUARTER 2019 POND INSPECTION REPORT

Pond Inspection Date: June 21, 2019

OPERATOR: Oxbow Mining, LLC.  
MINE: Elk Creek Mine and Surface Facilities

POND IDENTIFICATION:	<u>Pond E</u>	<u>Pond F</u>
CDPS NUMBER	017	019
TYPE OF POND:	Sediment	Sediment
APPROXIMATE WATER LEVEL:	0.0'	0.0'
SEDIMENT (% total storage):	<5%	<5%
OUTFLOW:	None	None

FEATURES	PROBLEM	PROBLEM
EROSIONAL		
Rills & Gullies	No	No
Inadequate Vegetation	No	No
Outlet Channel Erosion	No	No
Burrows	No	No
Other	No	No
STRUCTURAL		
Differential Settling	No	No
Cracks or Slides	No	No
Seepage	No	No
Other	No	No
APPURTENANT STRUCTURES		
Defective Spillways	No	No
Dewatering Devices Clogged	No	No
Faulty Gates, Etc.	No	No
Other	No	No

MAINTENANCE REQUIRED No No

REFERENCE DRAWINGS: 2.05-M5I 2.05-M5J

Inspected By: \_\_\_\_\_

  
Doug A. Smith



## SECOND QUARTER 2019 POND INSPECTION REPORT

Pond Inspection Date: June 21, 2019

### Miscellaneous Comments:

1. The SWMP control devices were inspected and all SWMP control devices were found to be in fair condition. Routine quarterly maintenance to sumps was conducted.
2. Sediment and Water Level Determination – When sediment enters a pond, it is deposited unevenly, usually collecting at the inlets rather than evenly across the bottom of the pond. Reported sediment levels are based upon the inspector's observations made throughout the quarter during routine inspections in combination with knowledge of the pond structure. The reported pond water level is also determined by observations relative to the various landmarks in the pond (depth to bottom, primary riser, etc.)
3. Pond D was necessarily removed due to ongoing reclamation activities per the permit. Best Management Practices have been installed to protect stream flows.

Notwithstanding comments above, ponds have been maintained as designed and in accordance with the approved plan.

Inspected By: \_\_\_\_\_

  
Doug A. Smith

Under Direction of: \_\_\_\_\_

  
Michael W. Ludlow

Colorado Registered Professional Engineer No. 24046





SECOND QUARTER 2019 ENGINEERING INSPECTION  
EAST YARD, WEST VALLEY FILL AND II WEST COAL MINE WASTE DISPOSAL PILES

The approved Oxbow Mining, LLC (OMLLC) Mine permit includes a requirement for quarterly inspections of coal mine waste piles for stability. The inspection is to be performed by a registered engineer or other qualified professional specialist, who is experienced in the construction of earth and rock fill embankments. Visual inspections were performed of the, West Valley Fill, II West and East Yard coal mine waste disposal areas on June 21, 2019.

EAST YARD - The East Yard disposal area has reached its design capacity, and no new waste material has been placed since June of 2001. The revegetated slope was inspected for signs of erosion or instability. No erosional features were noted on the slope. The covering of the waste pile is considered complete. Nothing was observed during the inspection that would indicate the pile has a potential for structural failure. Fill material from the reclamation activities on the Elk Creek Mine Middle Bench was placed at the base of the waste pile per the reclamation plan.

WEST VALLEY FILL - No waste material was hauled to the West Valley Fill area during this quarter. This refuse pile has been completed with topsoil and has been seeded.

On August 3 of 2018, compaction tests were completed on the West Valley fill. The area was then capped with a minimum of 4' of topsoil. Drainage courses were completed during September and the area was seeded. Compaction test results are included with this report.

The refuse pile was previously surveyed at the approximate 6228' elevation not including the addition of the topsoil. In the fourth quarter of 2018, the final elevation was surveyed to be 6,233' and the area is gently sloped toward the drainages. As built maps will be provided as they become available. The active waste storage area is no longer available as an interim storage area for wet refuse re-handled later to II West and as a staging area for miscellaneous projects and material storage.

During the third quarter of 2015, a burning coal odor, dead vegetation and a warm surface indicated a zone of spontaneous combustion under the reclaimed surface located on the west end of the second bench at the approximate 6200' elevation. An MSHA remediation plan was submitted and approved. The work was completed on 10/15/2015 and was reseeded 10/27/2015. No heating was detected this quarter. Vegetation has covered the area well.

The revegetated out slope was inspected for signs of erosion and instability. No erosional features were noted on the slope. The third bench (approximate 6220' elevation) setback remains established for the ramp constructed on the waste pile to provide access to the II West Coal Refuse Facility light use road. This road continued to be utilized during the quarter. No springs or seeps were noted. Surface drainage control features are performing according to the plan. Nothing was observed during the inspection that would indicate the West Valley Fill has a potential for structural failure.

All reclaimed areas were seeded in third quarter of 2018.

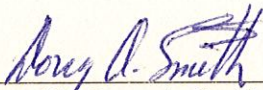


II WEST – The II West disposal area received no new coal mine waste material during the quarter, but was completed with topsoil and was seeded during the third quarter of 2018.

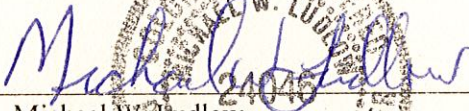
On August 3 of 2018, compaction tests were completed on the West Valley fill. The area was then capped with a minimum of 4' of topsoil. Drainage courses were completed during September and the area was seeded. Compaction test results are included with this report.

II West waste was previously surveyed at the approximate 6141' elevation, not including the addition of the topsoil. In the fourth quarter of 2018, the final elevation was surveyed to be 6,148' and the area is gently sloped toward the drainages. As built maps will be provided as they become available.

The 2013 regraded out slope area seeded on November 7, 2013 remains stable. Older seeded areas continue to perform according to the plan. All reclaimed areas have been seeded as of third quarter of 2018. No springs or seeps were noted. Surface drainage control features are performing according to the plan. Nothing was observed during the inspection that would indicate the II West Valley Fill has a potential for structural failure.



Inspected by Doug A. Smith



Michael W. Ludlow

Date

Colorado Licensed Professional Engineer No. 24046

