J. E. STOVER & ASSOCIATES, INC.

2352 NORTH 7TH STREET, UNIT B
GRAND JUNCTION, COLORADO 81501
PHONE: (970) 245-4101, FAX: (970) 242-7908

MINE ENGINEERING
MINE RECLAMATION
CIVIL ENGINEERING
CONST. MANAGEMENT

Via Electronic Transmittal

April 17, 2019

Janet Binns
Division of Reclamation, Mining & Safety
1313 Sherman St., Room 215
Denver, CO 80203

Re: Bowie Resources, LLC, Bowie No. 2 Mine
Coal Mine Waste Banks & Instrumentation Monitoring
Pond Quarterly Inspections
Permit C-1996-083

Dear Ms. Binns:

Enclosed please find the referenced reports for the 1st quarter of 2019.

Please call if you have any questions.

Sincerely,

Tamme Bishop

Tamme Bishop, P.E.
Project Engineer

cc: Basil Bear

QUARTERLY POND INSPECTION REPORT

Operator:	Bowie Resources LLC	Quarter:	First 2019
Mine:	Bowie No. 2 Mine - C-1996-083	Inspection Date:	28-Mar-19

Pond Identification	B	C	D - Gob Pile	F - New Gob	J UTL East	K UTL West
Type of Pond	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Status During Inspection:						
Approximate Water Level	5943	5992	Puddle	5952	5852	Wet
Sediment (% remaining)	90%	90%	85%	80%	90%	80%
Outflow (cfs)	0	0	0	0	0	0
Features	Problem Yes/No	Problem Yes/No	Problem Yes/No	Problem Yes/No	Problem Yes/No	Problem Yes/No
Erosional						
Rills & Gulleys	No	No	No	No	No	No
Inadequate Vegetation	No	No	No	No	No	No
Outlet Channel Erosion	No	No	No	No	No	No
Burrows	No	No	No	No	No	No
Other	No	No	No	No	No	No
Structural						
Differential Settling	No	No	No	No	No	No
Cracks or Slides	No	No	No	No	No	No
Seepage	No	No	No	No	No	No
Other	No	No	No	No	No	No
Appurtenant Structures						
Defective Spillways	No	No	No	No	No	No
Dewatering Devices Clogged	No	No	No	No	No	No
Faulty Gates, Etc.	No	No	No	No	No	No
Other	No	No	No	No	No	No

Additional Comments

Design depth measured from pond bottom to invert of emergency spillway:
Pond B=10, C=10, D=10, J=10, K=3, F=10' TD
Pond Bottom Elevations B=5942, C=5990, D=5970, J=5846, F=5944, K=5819
Pond B about a foot of water and was below the primary spillway.
Pond C held about 2' of water and was below the primary spillway.
Pond D was held less than a foot of water and was below the primary spillway.
Pond J held between 4-5' of water.
Pond K was wet with no standing water visible.
Pond F held about 6' of water.

SWMP components evaluated as part of this inspection. No corrections necessary at this time.

Name of Inspector: Tamme Bishop

COLORADO LICENSED TAMMERIN KAE STOVER-BISHOP PROFESSIONAL ENGINEER

43402
Tamme Bishop
Colorado P. E. 43402 Date

BOWIE RESOURCES, LLC
BOWIE NO. 2 MINE

2019 IMPOUNDMENT YEARLY INSPECTION

In accordance with Rule 4.05.9(14), all impoundments shall be inspected at least yearly to determine if the impoundment has been maintained as designed, and in accordance with the approved plan and the applicable regulations. This yearly inspection is for the impoundments located at the Bowie No. 2 Mine.

On March 28, 2019, I performed the required yearly inspection. I, Tamme Bishop, have a wide variety experience in the design and construction of earth fill embankments. Nothing was observed during the inspection that would indicate the ponds have a potential for failure. There was no appearance of erosion, instability, structural weakness or other hazardous conditions. There are no required monitoring procedures or instrumentation other than monthly and yearly inspections. There are no aspects which might affect stability. None of the ponds were discharging during the inspection. However, the winter of 2018-2019 was very wet for the mine site, so all of the ponds contained water.

Pond B held water about a foot below the primary spillway, with water at approximate elevation of 5943. Pond B has approximately 90% of its sediment capacity remaining.

Pond C held about 2 feet of water at an approximate elevation of 5992. Pond C was cleaned out during 2017 and has about 90% of its sediment capacity remaining.

Pond D held a puddle of water. Estimate 15% sediment build up.

Pond F held about 6 feet of water, at approximate elevation 5952. There is a large sediment delta where ditch F4 enters the pond and it will need to be cleaned out during 2019.

Pond J held approximately 4-5 feet of water and an elevation between 5850-5852. Pond J has at least 90% sediment storage capacity.

Pond K was wet but no standing water, with an estimated sediment build up of 20%.

There are no mud pits open.

The impoundments have the following estimated capacities:

IMPOUNDMENT CAPACITIES - ACRE FEET			
	Water	Sediment *	Total
Pond B	4.10	0.55 (90% 0.62)	4.65
Pond C	3.47	0.41 (90% 0.46)	3.90
Pond D	0.48	0.08 (85% 0.10)	0.56
Pond F	3.82	0.14 (80% 0.18)	3.96
Pond J (expanded)	3.93	0.52 (90% 0.58)	4.45
Pond K	0.49	0.18 (80% 0.22)	0.67

Notes:

1. The capacity of Ponds B and C are shown on Maps 22-B and 22-C respectively.
2. The capacity of Pond D was certified by Jim Stover on 12-30-97.
3. The capacity of Pond K was certified by Jim Stover on May 29, 2002.
4. The capacity of Pond J was certified by Tammerin K. Stover-Bishop on July 20, 2017.
5. The capacity of Pond F was certified by Tammerin K. Stover-Bishop on September 17, 2012.

*The percentage amount shown in parenthesis above indicates the percent of sediment storage currently available. The number on the outside of the parenthesis indicates the volume of sediment storage currently available. The number in the total column indicates the total water and sediment storage volume currently available.

To the best of my knowledge and belief, the impoundments have been maintained as designed and in accordance with the approved plan and applicable regulations. As noted above, spring maintenance is required in the form of dewatering and sediment removal.

COLORADO LICENSED TAMMERIN KAE STOVER-BISHOP PROFESSIONAL ENGINEER

Tammerin Kae Stover-Bishop
Tammie Bishop
Colorado Professional Engineer
Registration No. 43402

4.17.19
Date