

Governor

Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Todd Parfitt Director

January 24, 2017

Mr. Brian Good 3796 Lane 321/2 Greybull, WY 82426

RE: Permits 533, Annual Inspection

Dear Mr. Good:

On November 7, 2016 Craig Smith and I met you and Lacee for the purpose of conducting inspections of Permit 533 and Limited Mining Operation 1534. There has been no activity at the Permit 533 site since completing reclamation adjacent to Bear Creek.

This Report documents the inspection observations at Permit 533 and also contains a bond estimate based on information provided in the Annual Report and field observations. There is a \$9,400.00 decrease in the bond estimate from the current required amount of \$53,000.00 per the Director's Bond Letter of December 16, 2015. The decrease is primarily due to a reduction in fuel prices. Currently the State holds bonding in the amount of \$13,000.00; the outstanding bond shortfall is \$30,600.00.

Please review the enclosed report carefully and if you have any questions about the contents or find something in error, please respond within 30 days of the date of this letter.

Sincerely,

Brian R. Wood

District II Assistant Supervisor

w/ enclosure - 2016 Annual Inspection Report for Permit 533

WDEQ/LQD Chevenne Office - Permit 533 Inspection File Mancy Williams > WDEQ/LQD Lander Office Permit 533 Inspection File Alan Edwards, WDEQ Deputy Director (ec) Andrew Kuhlmann, Attorney General's Office (ec) Brian Wood, Chron File

Exhibit DEQ 3

NOVEMBER 2016 INSPECTION REPORT

MINE: Good Bentonite Company (GBC) – North Bear Creek, Permit 533

INSPECTION DATE: November 7, 2016

REPORT DATE: January 23, 2017

PARTICIPANTS: Craig Smith, WDEQ/LQD District 2 Program Principle

Brian Wood, WDEQ/LQD District 2 Assistant Supervisor

PREPARED BY: Brian Wood, WDEQ/LQD District 2 Assistant Supervisor

INTRODUCTION

Permit 533 was originally permitted by Runnels Minerals (RM) in June 1982 and was transferred to Milwhite Company (MC) in November 1984. While under control of these two companies mining was performed by Mr. Ken Tanner. In July 1989 the permit was transferred to Kaycee Bentonite Partnership / Black Hills Bentonite (BHB). BHB completed reclamation of the entire disturbed area in 1994. The disturbance was interseeded again in 1999, 2008, and 2011. Mining activities conducted by GBC occurred during late June 2011 where approximately 14.25 acres of ground were disturbed, which included the re-disturbance of some land previously reclaimed by BHB. During the Summer / Fall of 2012, GBC reclaimed approximately 2.2 acres (area mapped as part of this inspection) of disturbance adjacent to Bear Creek. There has been no other known activity at the site since this time.

SITE INSPECTION

The site inspection focused on areas that have been affected by GBC operations. Given the timing of the inspection, no attempt was made to evaluate the reclamation of the area disturbed by RM / MC / BHB, shown as Pre-2010 Disturbance on the attached map. During the inspection the foot print of four topsoil stockpiles, two overburden piles and the GBC reclamation adjacent to Bear Creek (encompasses ≈2.2 acres) was mapped with a Trimble GeoXM datalogger.

Topsoil [the term as used in this report is under the guise of the Wyoming Environmental Quality Act definition found under W.S. § 35-11-103 (e)(xiv)] has been consolidated into six piles. **Photos 3 and 5** show two of the stockpiles. None of the piles have been signed. No attempt was made to "survey" stockpile volumes as the GPS units used for mapping do not provide the vertical accuracy required. As described above the footprint of four of the six topsoil stockpiles was mapped. Prior mapping was used to determine the footprint area of the other two piles. For each pile an estimate of average height was made in the field. Based on this a volumetric estimate was determined for each stockpile.

Topsoil Pile 1: 0.583 acres x 4 feet ≈ 3,800 cubic yards

Topsoil Pile 2: 0.264 acres x 7 feet \approx 3,000 cubic yards Topsoil Pile 3: 0.754 acres x 9 feet \approx 11,000 cubic yards Topsoil Pile 4: 0.185 acres x 6 feet \approx 1,800 cubic yards Topsoil Pile 5: 0.092 acres x 4 feet \approx 600 cubic yards Topsoil Pile 6: 0.043 acres x 3 feet \approx 200 cubic yards Total Topsoil stockpiled \approx 20,400 cubic yards

There are two overburden stockpiles on-site; **Photos 1 and 3** provide images of the stockpiles. The base of each pile was mapped and a field estimate of the pile height was made. Given the approximate shape of the piles the formula for the volume of a cone was used to estimate the stockpile volumes. It was estimated that approximately 2,100 cubic yards is stored in the pile due north of the pit (SP-1) and approximately 900 cubic yards in the small pile to the east (SP-2). The contents of SP-1 appear to be dominantly ashy overburden, which stratagraphically would have lied just above the bentonite seam. SP-2 is comprised of earthen material with some large rocks as shown in **Photo 3**.

Photo 2 provides a view of the small pit that was excavated by GBC in 2011 adjacent to the escarpment. No material was noted to be pushed over the edge, though the mining activity is close. The Greybull – Lovell area has seen a substantial amount of precipitation during September and October, totaling approximately four inches based on data collected at the Greybull Airport. It appears that a fair amount of water collected in the pit, but the berm was not breached. The area of the pit encompasses approximately 0.3 acres.

Photo 4 looks generally southwest at a portion of the area reclaimed by GBC adjacent to Bear Creek. The area had a fairly dense green grass cover, however, given the plant stage it was virtually impossible to determine species present. Some of the grasses present may have been cheatgrass as there is normally a "Fall green-up" associated with this species. However, many of the plants had wide blades which is generally not indicative of cheatgrass. That said, much of the Fall "green-up" may have just been associated with the topographic location of the reclaimed parcel as well as the amount of moisture received during September and October. Along the fringe of the reclamation some shrubs, primarily sagebrush, were noted.

Overall the site was in good condition. No erosion problems were noted. Berms appear to have controlled any runoff from disturbed lands reaching adjacent native lands. While there is not an issue at this time as the area is inactive, at some point the six Topsoil stockpiles should be signed. GBC should continue with periodic inspections of the site to ensure that berms are intact and stormwater runoff does not become an issue.

BONDING

The Annual Report (AR) was received on July 28, 2016. The AR indicates that there is 4,800 cubic yards of topsoil and 13,770 cubic yards of overburden stockpiles on site. As there are no signs on the various piles, it is unclear which piles are being considered overburden and which are being considered topsoil. No bond estimate was provided with the report. The following bond

estimate was developed using the information as presented on the attached map and material volume estimates for the various piles.

2016 Bond Estimate for Permit 533			
		Unit	
	Unit	Cost	Total
Highwall Reduction 500' @ average height of 15' w/ D8 dozer	500	\$0.82	\$410.00
Pit Backfill (spoil) (2) (downhill push with a D8)	3,000	\$0.52	\$1,551.00
Ashy Material Disposal [cu-yds, 1.25 ac @ 0.5' deep] (1)	1,000	\$0.97	\$970.00
Site Grading (ac) (3 passes with a D8 estimated at \$261.27/ac)	2	\$174.18	\$348.36
Soil Respread [cu-yds, 10.1 * 1.25'] (3) (627 scraper)	20,400	\$0.69	\$14,076.00
Scarification of all areas not seeded (4)	12.1	\$57.80	\$699.38
Seed [Guideline 12A]	12.1	\$300.00	\$3,630.00
Sub-Total			\$21,684.74
Contingency Fee (6)			\$9,758.13
Retainage [ac] (5)	24.3	\$500.00	\$12,150.00
Total			\$43,592.87
Rounded Bond			\$43,600.00
Existing Bond Amount held by the State Of Wyoming			\$13,000.00
Shortfall			\$30,600.00

Notes

- (1) Guideline 12A 627 scraper assume a 1,400' haul
- (2) Estimate of 3,000 cu-yds in two piles (2,100 cu-yds @ 180' and 900 cu-yds @ 300')
- (3) Available soil to cover disturbance, pit, spoil and bentonite stockpile areas/ Avg. Distance = 400'. The available volume was calculated by taking the total disturbance area (14.25 acres) and subtracting the area encompassed by Good Reclamation (2.2 acres) and the footprint of the soil piles (1.92 acres) and multiplying by 15 inches.
- (4) Unit scarification cost Guideline 12A (Cat 140)
- (5) See Guideline 12A, Section IV. (22.1 acres BHB and 2.2 acres GBC)
- (6) Contingency Fee per sliding scale described in Guidelines 12 and 12A

2016 Permit 533 Inspection Photo Addendum



Photo 1 (above) looks generally north and shows the western spoil pile composed primarily of ashy overburden. **Photo 2 (below)** looks generally southwest and shows the 2011 pit area. Any runoff appears to have been contained within the pit, however periodic inspections should be conducted to ensure the integrity of the berm is maintained.





Photo 3 (above) looks generally north and shows the eastern spoil (overburden) pile and the adjacent topsoil pile. **Photo 4 (below)** looks generally southwest and shows a portion of the area adjacent to Bear Creek reclaimed by GBC encompassing approximately 2.2 acres. The grass cover appeared to be fairly dense, however, it was difficult to tell the species and if cheatgrass was a significant component. Some shrubs were noted along fringe of the reclaimed area.





Photo 5 (above) looks south and the large topsoil stockpile located at the southern end of the stripped area.





