



WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
LAND QUALITY DIVISION

REQUIRED ANNUAL REPORT INFORMATION
FOR SMALL MINING PERMITS

(Please use additional sheets if necessary.)

1. Name of Permittee: Good Bentonite Company, LLC
 Name of Operator, if different from Permittee: Brian (Pablo) Good
 Mailing Address of Permittee: 3796 lane 32 1/2
Greybull, WY. 82426
 Telephone Number of Permittee: 307-765-2875
 Surface Landowner: Brian Good
2. Permit Number: #533 County: Big Horn
3. Time period covered by this report: From 7/20/16 through 7/1/17.
 The report period begins the day of permit approval and ends twelve (12) months after. Each report period lasts one year, beginning on the anniversary of permit approval.
4. Topsoil
 - A. Volume of topsoil removed during the past 12 months: 0 cubic yards.
 - B. Volume of topsoil currently stockpiled, including the past 12 months: 4,800 cubic yards.
5. Overburden
 - A. Volume of overburden removed during the past 12 months: 0 cubic yards.
 - B. Volume of overburden currently stockpiled, including the past 12 months: 13,750 cubic yards.
6. Mineral
 - A. Quantity of mineral mined during the last 12 months: 0 cubic yards or 0 tons.
7. Acres Disturbed
 - A. Acres newly disturbed in the last 12 months: 0 acres.
 - B. Acres disturbed since mining began, including last 12 months: 40 acres.
 - C. Additional acres projected to be disturbed during the next 12 months: 0 acres.
8. Reclamation
 - A. Number of acres that were reclaimed: 0 acres.
 (backfilled, graded, topsoiled & seeded) during the last 12 months:
 - B. Acres reclaimed (backfilled, graded, topsoiled & seeded) since mining began:
 (including the acres reclaimed during the time period covered by this report): 27 acres.
 - 1) Average Thickness of topsoil applied to lands listed above: 6 inches.
 - 2) Date(s) of seeding: 9-14-2012
 - 3) Seeding rate in pounds/acre: 22
 - 4) Plant species seeded (seed mixture): Crested Wheat Grass



5) Seed applied by the following method(s) (drill or broadcast) Broadcast

6) Type of mulch applied N/A; 7) Rate of mulch applied in pounds/acre N/A

8) Mulch was applied by the following method N/A

9. Describe any facilities (e.g., roads, ponds, buildings, ditches, disposal sites, etc.) constructed during the past 12 months. N/A

10. Describe water usage and/or water discharge, including quantities. The WDEQ-Water Quality Division NPDES Permit Number, if applicable, is N/A

11. Future Mining
A. Please give a brief description of your proposed operations for the next 12 months (including the number of acres to be mined and the number of acres to be reclaimed):
N/A

12. Please attach a map or maps clearly showing the following information:

- A. Permit area boundary
- B. Title block that includes the
 - 1. Name and Address of Permittee (see No. 1 above)
 - 2. Permit Number and the County the permit is located (see No. 2 above)
 - 3. Location of mine by section, township, and range
 - 4. Annual Report Time Period (see No. 3 above)
- C. North Arrow, scale, contour interval, date
- D. Legend showing and identifying all map symbols
- E. Location and area of the newly disturbed lands (see No. 7.A. above)
- F. Location and area of all disturbed lands since mining began (see No. 7.B. above)
- G. Location and area of lands which were backfilled, graded, topsoiled, and seeded (see No. 8.A. above) during the past 12 months.
- J. Location and area of all reclaimed lands (see No. 8.B. above) with the year in which each area was reclaimed (seeded) indicated for each area.
- K. Location of newly constructed facilities (see No. 9 above)

An enlargement of a portion of a USGS 7.5 minute topographic map with a scale of 1 inch equals 200 to 400 feet is preferred. If another type of map is used, section corners and section lines must be included on the map.

14. Reclamation Bond Estimate
An itemized cost estimate for reclamation of the permit is required by W.S. §35-11-417(c)(ii). The cost estimate should be itemized to reflect the costs of reclaiming all affected lands and those lands to be newly affected during the next report period. Bonding items include (but are not limited to) removal of buildings and roads, backfilling of pits, spreading of topsoil, and seeding of affected lands in accordance with the approved reclamation plan. All affected lands require bonding until bond release is approved by the LQD. Please include the existing disturbance and the disturbance that is planned for the next report period.

Please attach this information to this report and submit to the appropriate District Office.

REPORT PREPARED BY Loree Williams 6-28-17
Signature Date

Loree Williams Sr. Vice president
Name and Title (printed or typed) Good Bentonite Company, LLC



Permit to Mine #533
 2016-2017 Annual Mining Report
 WDEQ/LQD District II

Cycles per Hour	20
Bank Cubic Yards per Cycle	16.2
Bank Cubic Yards per Hour	324
Cost Per Bank Cubic Yards of Topsoil	\$.08013

Cost of Final Grading and Contouring using Caterpillar 14H Motor Grader

Speed	3.3
Width of Grading per Pass	8 feet
Feet per Mile	5,280
Square Feet per Acre	43,560
Operating Efficiency Factor	83%
3.3 MPH x 5,280 x 8	139392 ft ² /hour
139,392 ft ² /hour ÷ 43560 ft ² /acre	3.2 acres/hour
3.2 acres/hour x 0.83 efficiency factor	2.66 acres/hour
\$98.38/hour ÷ 2.66 acres/hour	\$36.99/acre

Hourly Operating Cost for Disking Topsoil using John Deere 8440 Tractor

	Cost/Hour
Tractor owning and operating cost	\$25.00
Disk owning and operating cost	\$6.00
Operator	\$15.00
Supervision	\$2.50
Supervisor Transportation	\$0.47
Total	\$48.97

Hourly Operating Costs for Seeding Topsoil with John Deere 8440 Tractor

	Cost/Hour
Tractor owning and operating cost	\$25.00
Disk owning and operating cost	\$8.00
Operator	\$15.00
Supervision	\$2.50
Supervisor Transportation	\$0.47
Total	\$50.97

Production Rates & Costs for Disking Topsoil with John Deere 8440 Tractor

Speed	2.5 MPH
Width of disk per pass	12 feet
Feet per mile	5,280
Square Feet Per acre	43,560
Operating efficiency factor	90%
2.5 MPH x 5,280' x 12'	158,400 ft ² /hr
158,400 ft ² /hour ÷ 43,560 ft ² /acre	3.6 acres/hour
3.6 acres/hour x 0.90 efficiency factor	3.2 acres/hour
Cost per acre for disking with 8440 tractor	
\$48.97/hour ÷ 3.2 acres/hour	\$15.30/acre

Production Rates and Costs for Seeding Topsoil with 8440 Tractor

Speed	4.3 MPH
Width of drill per pass	10 feet
Feet per Mile	5,280
Square feet per acre	43,560
Operating efficiency factor	90%
4.3 MPH x 5,280' x 10'	227,040 ft ² /hour
227,040 ft ² /hour ÷ 43,560 ft ² /acre	5.2 acres/hour
5.2 acres/hour x 0.90 efficiency factor	4.7 acres/hour
Costs per acre for seeding with 8440 tractor	
\$50.97/hour ÷ 4.7 acres/hour	\$10.84 acre

Total seeding cost per acre 302.00/acre

Grading topsoil @ \$37.00/acre + Disking @ \$15.00/acre + Seeding @ \$11.00/acre + Seed @
\$238.11/acre

Average cycle times are based on time and production studies conducted by Good Bentonite Company, LLC under a variety of working conditions on similar bentonite mining operations, and are based on Cat Performance Handbook production rates. Cycles per hour are based on 60 minutes per hour multiplied by a job efficiency factor of 0.83 from Cat Performance Handbook, Edition 21.

Cubic yards moved per cycle are based on Cat Performance Handbook payload data for 627F push-pull scrapers. Payload is rated at 20.0 bank cubic yards multiplied by a load factor of 0.83 for shale (overburden) and a load factor of 0.83 for topsoil.

Bank cubic yards per hour is determined by multiplying the cycles per hour by the cubic yards moved per cycle.

Cost per bank cubic yards of overburden is determined by the following formula: 627F p-p cost/hour + D8Rdozer cost/hour ÷ the four scrapers it supports + 14H blade cost/hour ÷ the four scrapers it supports, all ÷ bank cubic yards of overburden per hour.

Cost per bank cubic yards of topsoil is determined by the following formula 627F p-p scraper cost per hour + 14H blade cost per hour ÷ the four scrapers that it supports, all ÷ the bank cubic yards of topsoil per hour.

Owning and operating costs for the John Deere 8440 tractor are based on Good Bentonite Company, LLC data and the average rates for a tractor of this size.

Contingency Costs

A contingency cost factor of 25% has been applied to the estimated reclamation costs for the permit. The 25% factor is based on the following items.

Project Management	2%	Site Maintenance	2%	Engineering	4%
Mobilization	2%	Profit	8%	Bid Preparation	2%
Unknowns	5%				

Reclamation Bond Estimate

The estimated reclamation cost and bonding requirements for the permit area are presented below:

Reclamation Liabilities for Existing Disturbances

Topsoil Replacement Costs

Existing Mining Activities:
 18,011 cubic yards @ 0.8013 per cubic yard = \$14,432.21

Seeding
 5.0 acres @ \$302.00 per acre = \$1,510.00

Seeding Reserves
 12.8 acres @ 302.00 per acre = \$3,865.60

Subtotal = \$19,807.81

25% contingency cost = \$4,951.95

Total Reclamation Liability = \$24,759.76



1. Any additional information as requested by the Division related to:

- Notice of Violations: None
- Orders: None
- Permit Stipulations: None
- Other Special Conditions: None

All drill holes used for the immediate developmental expansion of advancing pits shall be tabulated by location and depth and shown on the mining plan map: No drilling or mining has been conducted on the permit area during the report period.

MI SWACO a Schlumberger Company has a road on this permit, there is approximately three (3) acres affected by MI that has yet to be reclaimed.

Annual Report for Permit # 533 prepared by:



Lacey Williams, Sr. Vice President @ Good Bentonite Company, LLC

6-28-17

Date