

**GOOD MINING COMPANY, LLC**  
**PERMIT PT-624, 2014-2015 ANNUAL REPORT**  
*Summary Information*

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1. (a) Permittee: *Brian Good*  
(b) Address & Phone: *3796 Lane 32½, Greybull, WY, 82426, (307) 765-2875*  
(c) Permit: *WDEQ/LQD Permit PT-624*  
(d) Permit Issue Date: *June 27, 1989*  
(e) Mineral mined: *Bentonite*  
(f) State and/or Federal Lease number(s): *N/A*
  
2. **Report period:** *June 28, 2014 to June 27, 2015*
  
3. **Mining Summary for the Report Period:**
  - (a) Number of acres disturbed during the report period: *5.0*
  - (b) Number of acres disturbed to date: *107.42*
  - (c) Topsoil stockpile volumes: *50,973.74*
  - (d) Out-of-Pit Spoil Volume: *0*
  - (e) Bentonite quantity mined: *115,028*
  - (f) New Construction during the report period: *N/A*
  - (g) Describe any environmental problems: *N/A*
  
4. **Reclamation**
  - (a) Number of acres reclaimed during the report period: *Contour map: 24.35*
  - (b) Acreage reclaimed: *Reclamation procedures utilized during the report period: Backfilled, topsoiled and broadcast seeded*
  - (c) Results of previous reclamation efforts: *successful*
  - (d) Reclamation costs incurred during the report:  
*This cost is mixed into the mining costs and cannot be accurately determined*
  
5. **Discuss in detail mining plans for the coming year:**  
*Continued Mining on the East side of Bear Creek. The Brown Bentonite piles will be combined to reduce footprint.*
  
6. **Discuss in detail reclamation plans for the coming year:**  
*Reclamation will be completed on the west side of the haul road. the Brown Bentonite piles, B4, B5 & B6 will be combined into pile B3 and the area they surrounding the Camp will be reclaimed completely*
  
7. **Discuss in detail all monitoring conducted during the report period:** *N/A*

8. Reclamation performance bond estimate. *Attached*

9. Additional information as required by the WDEQ/LQD: *N/A*

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10. Abandon Drill Hole Information: *N/A*

11. Map: *Attached*

*Note: The format of the map matches the format of the previous maps for the small mine permit*

12. Company information:

1. General Manager:  
*Brian Good:*  
*3796 Lane 32½, Greybull, WY, 82426*

*Office – 307-765-2875*  
*Cell – 307-272-7495*

2. Party To Receive Notice:  
*Brian Good*  
*3796 Lane 32½, Greybull, WY, 82426*

**Names /Address and Phone numbers of Officers:**

*Lacey Good*  
*Opperations*  
*3796 Lane 32½, Greybull, WY, 82426*

*Office -307-765-2875*  
*Cell - 307-272-7386*

REPORT PREPARED BY: \_\_\_\_\_

Signature

\_\_\_\_\_ Date

\_\_\_\_\_  
Name and Title



0  
250  
500  
1000  
SCALE: 1" = 500  
FEET

**BENTONITE PILES**

B1: 4310 CY    B6: 5375 CY  
 B2: 25319 CY    B7: 15281 CY  
 B3: 18177 CY    B8: 9782 CY  
 B4: 3593 CY    B9: 26184 CY  
 B5: 10887 CY

**TOPSOIL PILES**

T1: 3088 CY    T6: 3681 CY  
 T2: 754 CY    T8: 1144 CY  
 T3: 10888 CY    T7: 16074 CY  
 T4: 31400 CY

**SUBSOIL PILES**

SUB1: 65659 CY  
 SUB2: 10882 CY

**POND AREAS**  
 2314 ACRES

**WHOLE DISTURBED AREA**  
 68,317 ACRES

**RECLAIMED AREA**  
 41,131 ACRES

**AREAS CURRENTLY BEING MINED**  
 5,247 ACRES

<b>X0#</b>	NO.	DATE	DESCRIPTION	BY	CHK

**BRIAN GOOD PERMIT #624(S)**  
**PERMIT AMENDMENT AUGUST 12, 2015**  
**BIG HORN COUNTY, WYOMING**  
**Township 53N, Range 93W**

ECI ENGINEERS, LLC  
 6000 N. GARDEN BLVD. SUITE 100  
 CHEYENNE, WY 82001  
 (307) 632-1111  
 www.eci-engineers.com





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**Surface Report**

**Project Name:** Z:\\_Active\100022\_Good Mining Permits\Lower Bear Creek\CAD\100022\_Quantities\_081115.dwg  
**Report Date:** 8/13/2015 4:01:06 PM

**Client:** Good Mining

**Project Description:**

**Prepared by:** Cody O'Bryan

**Linear Units:** USSurveyFoot

**Area Units:** [REDACTED]

**Volume Units:** cubicYard

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**Volume Surface: BENTONITE 2**

Description: Description

Volume Cut: 0.039

Volume Fill: 25519.092

Volume Total: 25519.052

Compare Surface: B2 PILE

Base Surface: B2 BASE

Area: [REDACTED]

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**Volume Surface: BENTONITE 3**

Description: Description

Volume Cut: 0.231

Volume Fill: 18177.300

Volume Total: 18177.068

Compare Surface: B3 PILE

Base Surface: B3 BASE

Area: [REDACTED]

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**Volume Surface: BENTONITE 4**

Description: Description

Volume Cut: 5.558

Volume Fill: 3598.479

Volume Total: 3592.921

Compare Surface: B4 PILE

Base Surface: B4 BASE

Area: [REDACTED]

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**Volume Surface: BENTONITE 5**

Description: Description

Volume Cut: 0.000

Volume Fill: 10866.861

Volume Total: 10866.861

Compare Surface: B5 PILE

Base Surface: B5 BASE

Area: [REDACTED]

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**Volume Surface: BENTONITE 6**

Description: Description

Volume Cut: 0.402

Volume Fill: 5375.560

Volume Total: 5375.158

Compare Surface: B6 PILE

Base Surface: B6 BASE

Area: [REDACTED]

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**Volume Surface: BENTONITE 7**

Description: Description

Volume Cut: 0.838

Volume Fill: 15261.849

Volume Total: 15261.012

Compare Surface: B7 PILE

Area: **██████████**Base Surface: B7 BASE

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**Volume Surface: BENTONITE 8**

Description: Description

Volume Cut: 2.482

Volume Fill: 6764.720

Volume Total: 6762.239

Compare Surface: B8 PILE

Area: **██████████**Base Surface: B8 BASE

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**Volume Surface: BENTONITE 9**

Description: Description

Volume Cut: 0.000

Volume Fill: 25164.073

Volume Total: 25164.073

Compare Surface: B9 PILE

Area: **██████████**Base Surface: B9 BASE

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**Volume Surface: SUBSOIL 1**

Description: Description

Volume Cut: 0.876

Volume Fill: 65600.010

Volume Total: 65599.133

Compare Surface: T4 PILE

Area: **██████████**Base Surface: T4 BASE

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**Volume Surface: SUBSOIL 2**

Description: Description

Volume Cut: 0.847

Volume Fill: 10993.254

Volume Total: 10992.407

Compare Surface: T7 PILE

Area: **██████████**Base Surface: T7 BASE

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**Volume Surface: TOPSOIL 1**

Description: Description

Volume Cut: 0.002

Volume Fill: 3089.337

Volume Total: 3089.335

Compare Surface: T1 PILE

Area: **██████████**Base Surface: T1 BASE

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**Volume Surface: TOPSOIL 2**

Description: Description

Volume Cut: 0.000

Volume Fill: 753.753

Volume Total: 753.753

Compare Surface: T2 PILE

Area: **██████████**

Base Surface: T2 BASE

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**Volume Surface: TOPSOIL 3**

Description: Description

Volume Cut: 0.141

Volume Fill: 10888.972

Volume Total: 10888.831

Compare Surface: T3 PILE

Area: [REDACTED]

Base Surface: T3 BASE

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**Volume Surface: TOPSOIL 4**

Description: Description

Volume Cut: 0.840

Volume Fill: 31400.202

Volume Total: 31399.361

Compare Surface: SUB1 PILE

Area: [REDACTED]

Base Surface: SUB1 BASE

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**Volume Surface: TOPSOIL 5**

Description: Description

Volume Cut: 4.101

Volume Fill: 3684.691

Volume Total: 3680.590

Compare Surface: T5 PILE

Area: [REDACTED]

Base Surface: T5 BASE

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**Volume Surface: TOPSOIL 6**

Description: Description

Volume Cut: 0.000

Volume Fill: 1143.564

Volume Total: 1143.564

Compare Surface: T6 PILE

Area: [REDACTED]

Base Surface: T6 BASE

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**Volume Surface: TOPSOIL 7**

Description: Description

Volume Cut: 0.120

Volume Fill: 16073.817

Volume Total: 16073.697

Compare Surface: T8 PILE

Area: [REDACTED]

Base Surface: T8 BASE

## 2014 – 2015 Permit 624 Annual Report Bond Estimate

The disturbance associated with WDEQ/LQD Permit 624 operations was mapped on August 7<sup>th</sup>, 2015. The attached map reflects the outcome of that effort.

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The Disturbance was divided into the following groups:

- a. Reclaimed ≈ 41.1 acres of which liability is associated with 8.9 acres (reduction do to covering of prelaw spoil that was not reaffected other than use as an equipment camp area).
- b. Topsoiled (not seeded) ≈ 0
- c. Disturbance ≈ 25.2 acres
- d. Pit area ≈ 5.2 acres
- e. Topsoil Stockpiles ≈ 4.7 acres
- f. Subsoil Stockpiles ≈ 3.1 acres
- g. Overburden Stockpile ≈ 0 acres
- h. Bentonite Stockpiles ≈ 12.0 acres
- i. Pond Effected Area 2.3 acres
- j. Pond Water Area 1.2 acres

The total affected over the life of the operation to date is approximately 107.4 acres.

The WDEQ/LQD's Bond Estimate for the operation is the following:

Retainage – 8.9 acres @ \$350.00/ac = \$3,115

Pit Backfill – [Assume required fill is 20,000 yd<sup>3</sup>/ac] 104,000 yd<sup>3</sup> x \$0.72/yd<sup>3</sup> = \$74,880

Pickup and dispose of 0.5 of ashy material underlying Bentonite stockpiles – 12.0 acres x 0.5' = 9,680 yd<sup>3</sup>  
9,680 yd<sup>3</sup> x 0.89/yd<sup>3</sup> (Cat 637 at 1,000' haul) = \$8,615

Site grading – 27.3 acres x \$71.62/ac (Cat 140 patrol blade) = \$1,955

Soil (respread on all affected areas except for topsoil and subsoil piles) – 17.4 acres x 0.5' = 14,036 yd<sup>3</sup>  
14,036 yd<sup>3</sup> x \$0.89/yd<sup>3</sup> (Cat 637 at 1,000' haul) = \$12,492

Scarification of all areas not seeded - 65.1 acres x \$62.80/ac (Cat 140 patrol blade) = \$4,088

Seed [(seed + application) (existing disturbance)] – 65.1 acres @ \$200.00/ac = \$13,020  
(Seed price is bid on proposed mix +10% delivery + \$120/ac application)

**Subtotal = \$118,165**

**Contingency Fee = \$35,450**

**Total Estimate = \$153,615 > \$154,000 (rounded)**

**Existing Bond Held = \$165,000.00**

**Total Excess = \$11,000**

## **RECLAMATION PLAN FOR GOOD MINING PERMIT 624(S)**

**TO ACCOMPANY MINE PLAN CONVERSION REQUEST NOVEMBER 25, 2013**

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### **POST MINING LAND USES**

Livestock grazing and wildlife habitats are the post-mining land uses for lands affected by mining activities on the amendment area.

There is a 1.2 Acre totally encapsulated pond that is being permitted for dust control now that is intended to be left as a stock watering pond when reclamation is complete.

### **CONTOURING PLAN**

All mining features will be graded and contoured in such a manner that the approximate original topographic contours will be reestablished or lessened to accommodate dryland pasture use. Post mining slopes will approximate the pre-mining slopes in terms of magnitude, aspect and shape and will not exceed 4(H):1(V) unless required to blend with an adjacent native or previously reclaimed slope. The operation is designed to work under the auspices of cast back mining with the majority overburden (spoil) being returned to mined-out pits. However, material swell will necessitate the creation of overburden stockpiles, which remain as permanent reclamation features. These features will be established within the limits of prior mined-out pits, of which most of this disturbed area is considered prelaw disturbance by the WDEQ/LQD. The reclaimed spoil pile will be blended into the surrounding area, consisting of a combination of prelaw disturbance and reclaimed ground associated with current operations. Maximum height of the reclaimed spoil pile(s) is anticipated to be on the order of ten feet and the slopes will be graded to 4(H):1(V) or less prior to topsoil application and seeding.

Small ephemeral drainages which may be removed during the course of mining activities and will be reestablished at a density and gradient that mimics pre-mined conditions during the backfilling of pits and by grading and contouring. One permanent impoundment will be left as a post-mined feature near the southeast end of the permit area. In the near term, the pond will provide sediment control for the reclaimed area. Long-term, the intent of this feature is to act as a water supply source for cattle and wildlife. All reclaimed drainages will flow into this impoundment with an overflow that drains into Bear Creek.

### **SURFACE PREPARATION FOR TOPSOIL APPLICATION**

During mining, care has been taken to salvage all suitable material between the topsoil/subsoil and unsuitable overburden. This material is stockpiled separately from the topsoil and stockpiles will be identified as either "subsoil" or "suitable" in the field. Suitable material will be spread via push-pull scrapers as the upper layer of overburden/pit backfill.

### **TOPSOIL REPLACEMENT**



Stockpiled topsoil will be applied to the backfilled and contoured overburden with push-pull scrapers. Topsoil will be reapplied to approximately the original topsoil depth, but not less than 6". If the Topsoil resource proves to be insufficient to provide a minimum six-inch cover over the entire reclaimed surface, suitable material will be used as the final cover.

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A portion of the area that has been affected by the post-transfer mining activity is located on pre-law spoil for which there was no topsoil present. Activities on these spoils primarily consist of stockpiling various materials and staging of equipment used in the operation. Aside from covering and seeding any regraded spoil generated by post transfer operations and place on prelaw spoil, Good Mining assumes no liability for the revegetation of these prelaw spoil areas. If sufficient cover/suitable material exists, Good Mining will attempt to revegetate a portion of these prelaw lands to improve the final condition of the parcel. If there is not enough cover/suitable available, it is recognized that there will be areas where reclamation directly abuts prelaw spoil.

Topsoiled surfaces, or surfaces in final cover, will be ripped along the contour. In order to avoid contamination with underlying material, the ripping depth will be confined to the depth of the topsoil or final cover. Topsoil will be applied to the affected areas as soon as possible, although the replacement schedule for topsoil application is dependent upon the mining and backfilling schedule. Topsoil application is generally conducted during the late summer or early fall, in advance of the fall planting of the permanent seed mixture.

#### **POSTMINE SEDIMENT AND EROSION CONTROL**

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*During reclamation* sediment control will be provided using a combination of Best Management Practices (BMP's) and ASCM's. Following final contouring and topsoiling of a reclaimed area it will be ripped along the contour, which will serve to reduce any compaction present as well as create furrows that will minimize runoff potential. For reclaimed drainage channels, if determined to be necessary, straw bale check dams will be placed within the post-mined drainage to serve as energy dissipaters/sediment filters. The channel at each dam location will be slightly sub-excavated and the bales will be staked into placed such that flow is forced to remain along the centerline of the reclaimed drainage. These check dams will remain in the drainage until revegetation has been established.

If through time erosional features, such as headcuts, develop within a reclaimed channel one of several remediation measures will be implemented, depending on the conditions present. These mitigation measures include, but are not limited to: (1) armoring problematic channel reach with rock; (2) installation of rock check dams or gabion baskets keyed into the channel bed and banks to create drop structures that will reduce channel gradient, or (3) construction of point berms to force the channel to develop a more sinuous path, lessening channel gradient. (See Good Mining SWPPP for BMP typical)

The impoundment that was created by earlier mining activity will remain as a permanent feature and serve as a stormwater detention pond.

## **REVEGETATION PRACTICES**

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### **Cover Crops and Mulch**

If a fall seeding is not possible on a topsoiled area due to weather or other circumstances, the area will be seeded with a small grain such as barley, winter wheat or millet the following spring in order to establish a cover crop. Barley and winter wheat will be drill seeded at a rate of fifty (50) pounds per acre and millet will be applied at a drill seeding rate of fifteen (15) pound per acre. Lands seeded with a cover crop will be inter-seeded with the permanent seed mixture in the autumn of the same year.

No mulch will be applied in conjunction with the reclamation activities conducted on the amendment area.

### **Permanent Seed Mixtures**

The permanent seed mixture will be planted in the fall, generally beginning during the month of October. Seed will be planted utilizing a standard grain drill or a no-till drill. The seed will be planted approximately one-quarter to one-half inch in depth.

Species contained in the permanent seed mixture for the amendment area have been selected based on the following criteria:

- Adaptability to existing soil conditions
- Forage potential and palatability to livestock
- Forage, cover and habitat potential for wildlife
- Pre-mining presence as documented by vegetation inventory
- Reclamation success proven by previous revegetation efforts
- Contribution to species and structural diversity
- Ability to remain self-sustaining
- Commercial availability

The components of this seed mixture are listed below:

<b><u>Species</u></b>	<b><u>Pounds of pure live seed per acre</u></b>
Gardner Saltbush	4.0 lb/ac
Blue Grama	0.5 lb/ac
Bottlebrush Squirreltail	1.0 lb/ac
<b><u>Species</u></b>	<b><u>Pounds of pure live seed per acre</u></b>
Slender Wheatgrass	2.0 lb/ac
Crested Wheatgrass	3.0 lb/ac

Russian Wildrye	2.0 lb/ac
Rocky Mountain Beeplant	1.5 lb/ac
<hr/>	
<u>Falcata</u>	<u>2.0 lb/ac</u>
Total	16.00

### Temporary Seed Mixtures

No temporary seed mixtures will be used on the amendment area other than annual small grains previous discussed.

### Protection of Seeded Areas

If necessary, newly reclaimed (seeded) areas will be fenced to protect these areas from grazing by livestock. If fences are constructed, they will be constructed to allow the egress and ingress of wildlife species.

## RECLAMATION EVALUATION PROCEDURES

### Reclamation Goals

All lands affected under this amendment will be reclaimed in such a manner that forage for domestic livestock grazing, wildlife forage, and wildlife habitats, will be reestablished to a condition equal to or greater than pre-mining conditions on the affected lands.

Revegetation of lands affected under Permit to Mine No. 624(s) will be considered complete and eligible for full bond release when the following criteria are met:

- 1) The vegetation species of the reclaimed land are self-renewing under natural conditions prevailing at the site;
- 2) The total vegetation cover of perennial species, (excluding noxious weed species) and any species in the approved seed mix is at least equal to the total vegetation cover of perennial species (excluding noxious weed species) on the area before mining.
- 3) The species diversity and composition are suitable for the approved post-mining land use; and
- 4) The requirements in 1), 2) and 3), are achieved during one growing season, no earlier than the fifth full growing season on the reclaimed lands.

## **Evaluation of Reclamation Success**

Reclamation success will be evaluated by onsite inspections with WDEQ/LQD personnel and the landowner.

Good Mining personnel will make the preliminary decision on the timing of any full bond release request, based in part upon comparison of annual observations of reclamation success and progress. In general, Good Mining anticipates that 2-3 years of accumulated reclamation may be combined in a single final bond release request. Per W.S. § 35-11-423, it is understood that the vegetation retainer portion of the bond will, in general, be held for a minimum of five years after reclamation is complete. However, should the revegetation appear to be doing exceptionally well, Good Mining may request release earlier, the approval of which is dependent concurrent acceptance by the WDEQ/LQD. In each request package, Good Mining will also provide a written statement that the reclamation is satisfactory to the surface owner.

## **Reclamation Schedule**

A pit series requires a progression of cuts before adequate space is developed to provide room to disperse the overburden from the first cut, for the management of reclamation materials and product, and for the effective mobilization of equipment. Live cast back of materials will begin as soon as adequate room for reclamation develops behind the active pit.

With the above consideration in mind, reclamation has been initiated and will continue until completion of mining operations within four years of the date that the land was first affected by mining subsequent to the Permit transfer and the current conversion (on areas where field drying is to take place, reclamation will begin within three years, and completed within five years, of the date that the land is first affected). Access and haul roads will be reclaimed, with culverts removed, as they are abandoned.