

SEP 23 2022

Himes Consulting LLC

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September 20, 2022  
Reference No. 21-51

Arizona State Mine Inspector  
Amanda Lothner, Reclamation Specialist  
1700 W. Washington, Suite 403  
Phoenix, AZ 85007-2805

Re: Reclamation Plan Amendment Black Rock Material Source, Navajo County, AZ.

Dear Ms. Lothner:

Four technical comments were received on September 7, 2022 for the Black Rock Material Source. The text of the Plan has been corrected as follows:

1. In Sections 2.1 and 2.4, the term "Quarry" has been replaced with "Material Source".
2. In Section 3.4, the term "geotechnical" has been removed.
3. In the Table of Contents, the title of Appendix 1 has been changed to "Reclamation Cost Estimate". On the Appendix 1 divider sheet, the term "Construction" has been replaced with "Cost".
4. In the title of the Cost Estimate sheet, the term "Mineral" has been replaced with "Material".

Two copies of these corrected pages are attached. In addition, a new cover page (with an updated date) is also attached.

Please feel free to contact me in regards to any questions.

Sincerely,

A handwritten signature in cursive script that reads "Jill A. Himes".

HIMES CONSULTING, LLC  
Jill A. Himes  
Biologist

cc: Matt Click, Cutting Edge Grading, LLC

# RECLAMATION AND CLOSURE PLAN

CUTTING EDGE GRADING, LLC  
BLACK ROCK MATERIAL SOURCE

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**SUBMITTED TO THE STATE MINE  
INSPECTOR'S OFFICE FOR REVIEW AND  
APPROVAL IN ACCORDANCE WITH  
ARIZONA REVISED STATUTE  
TITLE 27 - CHAPTER 6  
STATE MINE INSPECTOR AGGREGATE  
MINED LAND RECLAMATION**

SEPTEMBER 2022

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## 2.0 INTRODUCTION

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### 2.1 PURPOSE AND SCOPE

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Cutting Edge Grading, LLC (Cutting Edge) proposes to conduct aggregate mining and processing at the existing material source north of Joseph City in Navajo County, Arizona. The existing Black Rock Material Source is located within a portion of the NW ¼ of Section 11 in Township 20 North, Range 19 East, Gila & Salt River Meridian.

The purpose of this Mine Reclamation and Closure Plan (MRCP) is to present the details of rehabilitation of the Black Rock Material Source in Navajo County, Arizona concurrent with or after mining operations have ceased in accordance with the Arizona Aggregate Mined Lands Act (AAMLRA) (Arizona Revised Statutes[A.R.S.] § 27-1201 as authorized by A.R.S. § 27-1204. This plan has been developed pursuant to the format and content prescribed in the Arizona Aggregate Mined Lands Reclamation Rules (Arizona Administrative Code {A.A.C}, R11-3-101, et seq.). The MRCP addresses environmental, technical and operational issues that are identified in those documents.

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### 2.2 RECLAMATION STATEMENT OF RESPONSIBILITY

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Cutting Edge Grading, LLC assumes responsibility for the reclamation of surface disturbances that are attributable to the aggregate mining unit consistent with A.R.S §. 27-1201 and A.C.C. R11-3-501 pursuant to that chapter. All areas that have been disturbed at the site will be reclaimed to a safe and stable condition when mine operations conclude.

  
\_\_\_\_\_

9-20-22

Signature

Date

Owner \_\_\_\_\_

Title

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### 2.3 RECLAMATION APPROACH

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Cutting Edge will reclaim areas surrounding and within the excavated areas necessary to accomplish the post-mining land use of open space. The goals of the mine plan and reclamation measures are to provide for a safe, stable, and sustainable site once mining has ceased. Reclamation will take place concurrently to the degree possible, but no later than the cessation of mining activities.

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## 2.4 CURRENT OWNERSHIP AND LAND USE INCLUDED IN THE AGGREGATE MINING UNIT

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Cutting Edge is conducting aggregate mining and processing operations for commercial use at the Black Rock Material Source. The existing pit was originally mined in the 1960's. Approximately 4.5 acres of the site is previously disturbed as shown in Figure 3. The extraction/processing operation consists of mining to remove aggregate material as described in A.R.S. § 27-441. At the Black Rock Material Source, the process includes the use of a screen and other mobile equipment for the support of production, and other construction material related operations. Simple operations currently consist of excavation, screening, stockpiling, loading, and hauling. Access is directly off of Black Rock Road, a county-maintained road. Land use is currently mining and open space. The mining boundary includes 80 acres, as shown in Table 1 below. Cutting Edge has estimated the removal of up to 1.078 million cubic yards over a period of 20 years.

The project vicinity lies within the Great Basin Desertscrub vegetation community as described by Brown (1994). Vegetation observed in the project vicinity includes snakeweed (*Gutierrezia sarothrae*), rabbitbrush (*Ericameria nauseosa*), Russian thistle (*Salsola kali*), silverleaf nightshade (*Solanum elaeagnifolia*), four wing saltbush (*Atriplex canescens*), and grasses. The project site is located within Arizona Game and Fish Department (AGFD) Game Management Unit 4B. This unit is managed for antelope (*Antilocapra americana*), black bear (*Ursus americanus*), elk (*Cervus canadensis*), mule deer (*Odocoileus hemionus*), mountain lion (*Puma concolor*), Merriam's turkey (*Meleagris gallopavo*), and tree squirrel (*Sciurus arizonensis*).

**Table 1**  
**Existing Surface Disturbance**

<b>Feature</b>	<b>Acres</b>
Mining Area	4
Processing Area	0.5
Access Road (County)	1.4
<b>Subtotal Disturbed Area</b>	<b>5.9</b>
Undisturbed	74.1
<b>Total</b>	<b>80</b>

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## 2.5 PROPOSED POSTAGGREGATE MINING LAND USE

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Proposed post-aggregate mining land use of the site is open space. Current nearby use is open space, grazing, and agriculture.

### **3.0 RECLAMATION**

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#### **3.1 EQUIPMENT AND STRUCTURE REMOVAL**

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All equipment on this site is mobile and can be re-located at will throughout the mining process. All mobile equipment will be removed from the site. There are no buildings or structures proposed to be located on the site.

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#### **3.2 ROADS, POWER LINES, WATERLINES AND FENCES**

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Black Rock Road is a county-maintained road and will remain unchanged. The access road to the eastern area will be removed by final grading and scarifying during reclamation as shown in Figure 5. There are no powerlines that occur within the site. There are no waterlines within the site. Mobile generators are used on an as-needed basis for the mining equipment which will be removed post-mining. During operations or at closure, the accessible western mining area would be fenced and gated.

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#### **3.3 AREA PREPARATION**

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Post-mining, the site interior will be re-graded and scarified to promote natural revegetation, as shown in Figure 5.

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#### **3.4 SLOPE STABILIZATION**

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Mining incorporates 3:1 (horizontal:vertical) slopes or flatter to result in stability for the area. No additional physical stabilization will be necessary after mining.

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#### **3.5 SOIL CONSERVATION**

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Natural revegetation on previously disturbed areas has been successful on the southern side of the existing mining area. Natural revegetation of the disturbed areas is therefore reasonably expected to be successful without soil amendments.

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#### **3.6 REVEGETATION**

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To promote natural revegetation, scarification will be conducted within the disturbed areas to support the open space land use of the site. Since these areas are not proposed to support grazing, fish or wildlife habitat, forestry or recreation post-mining land uses, proposed measures to encourage fish and wildlife habitat are not required to be described further in accordance with A.R.S. §27-1271 (B)(9d).

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**APPENDIX 1**  
**RECLAMATION COST ESTIMATE**

# BLACK ROCK MATERIAL SOURCE

## Reclamation Cost Estimate

9/20/2022

Black Rock Material Source - portions of Section 11, T.20N., R.19E., G&SRM, Navajo County, Arizona

Excavation Areas are approximately 42.3 acres which will be graded

There are no concrete pads or infrastructure at the site, no removals will be needed.

Unit Price estimates provided by **Desert Construction, Inc.**

### Proposed Reclamation Cost Estimation Summary - Worksheet

Reclamation Item	Units	Description	Suggested Cost	Number of Units	Reclamation Cost
<b>Processing and Stockpile Area</b>					
	Acre	Re-Grading & Leveling	\$ 500.00	42.3	\$ 21,150
	Acre	Revegetation Cost (Disc)	\$ 607	0.0	\$ -
	Acre	Revegetation Cost (Hydro-seed)	\$ 1,175		\$ -
	Each	Containerized Trees and Shrubs	\$ 10	0.0	\$ -
<b>Roads (Access)</b>					
(Roads with Side Slope < 30%)	Linear Ft.	Re-Grading and Topsoiling Costs	\$ 1.70	0.0	\$ -
(Roads with Side Slope >30%)	Linear Ft.	Re-Grading and Topsoiling Costs	\$ 2.60		\$ -
	Acre	Regrading - Ripping	\$ 607	29.5	\$ 17,900
	Acre	Revegetation Cost (Hydro-seed)	\$ 1,175		\$ -
<b>Structures</b>					
(Break-up and bury Slab)	Sq. Ft.	Demolition & Removal - Metal Building	\$ 3.40		\$ -
(Break-up and bury Slab)	Sq. Ft.	Demolition & Removal - Masonry Block Building	\$ 3.50		\$ -
(Break-up and bury Slab)	Sq. Ft.	Demolition & Removal - Concrete Building	\$ 15.86		\$ -
	Linear Mile	Powerline Removal (Single Pole Utility)	\$ 10,000		\$ -
	each	Transformer Removal	\$ 5,000		\$ -
	Linear Ft.	Demolition - Chain Link Fencing	\$ 3.47		\$ -
	Linear Ft.	Demolition - Barb Wire Fencing (3 strand)	\$ 1.94		\$ -
	Linear Ft.	Removal - 15" Culvert	\$ 10.29		\$ -
	Linear Ft.	Removal - 36" Culvert	\$ 17.15		\$ -
(Break-up and remove)	Each	Processing Equipment Removal	10,000	1.0	\$ 10,000
<b>Construction</b>					
	Linear Ft.	Construction - Barb Wire Fencing (3 strand)	\$ 8.00	4500.0	\$ 36,000
	Sq. Yard	Install Rip Rap Erosion Lining	\$ 23.75		\$ -
<b>Material Haulage for Backfill</b>					
Miscellaneous Leveling	Cu. Yard	Truck and Loader - 2000Ft. One Way	\$ 1.03		\$ -
	Cu. Yard	Dozer and Scraper - 1000Ft. One Way	\$ 0.72		\$ -
<b>Care and Maintenance</b>					
	Each	Processing Area Cleanup	\$ 2,000.00	3.0	\$ 6,000
	Annual	Site Monitor and Reporting	\$ 500	2.0	\$ 1,000

<b>Estimated Reclamation Operating and Material</b>	<b>\$ 92,100</b>
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<b>Administrative Costs</b>					
	% of O&M Cost	Contingency	10%		\$ 1,620
	% of O&M Cost	General Mobilization / De-Mobilization	4%		\$ 648
	% of O&M Cost	Indirect costs	2%		\$ 324
	% of O&M Cost	Contractor Profit	10%		\$ 1,620
	% of O&M Cost	Contract Administration	10%		\$ 1,620

<b>Total Estimated Financial Assurance</b>	<b>\$ 97,932</b>
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PREPARED BY: Raymond W. Stadler, P.E.