

February 10, 2017

## RESPONSE TO COMMENTS DATED FEBRUARY 1, 2017 FOR: Arkins Park Quarries; DRMS File No. M-1985-212; Adequacy Review No. 2 (AM03)

Original comments are incorporated into the response.

#### 6.4.6 Exhibit F – Reclamation Plan Map

The Reclamation Plan Map contains labels and outlines which pertain to the Mining Plan. The purpose
of the Reclamation Plan Map is to show the expected physical appearance of the reclaimed lands.
Please revise the Reclamation Plan Map so that any labels or outlines which are related to the Mining
Plan have been removed.

RESPONSE: The Reclamation Plan Map has been revised to remove labels and outlines that pertain to the Mining Plan.

#### 6.4.12 Exhibit L – Reclamation Costs

 The Division has determined the financial warranty amount required to complete reclamation at the Arkins Park Quarries is \$216,534.00. This is \$14,951.00 above the reclamation cost estimate provided by the Operator. Please review the enclosed reclamation cost estimate and notify the Division of any errors.

**RESPONSE:** Comment acknowledged.

## 6.5 Geotechnical Stability Exhibit

3. In order to satisfy the requirements of Rule 6.5(4), the Division requests the Operator commit to completing a blasting report for each shot. The report must be retained by the Operator for at least 3 years and be available for inspection by the Division on demand. The record shall contain the following data:

a) Location, date and time of blast;

b) Name, signature, and license number of blaster-in-charge;

c) Identification, direction and distance in feet, from the nearest blast hole to the nearest potentially affected structure, such as any dwelling, school, church, or community or institutional building either:

- i. Not located in permit area; or
- ii. Not owned nor leased by the person who conducts the mining operations.
- d) Weather conditions, including temperature, wind direction, and approximate velocity;
- e) Type of material blasted;
- f) Sketches of the blast pattern including number of holes, burden, spacing, and delay pattern. Sketches shall also show decking, if holes are decked to achieve different delay times within a hole;
- g) Diameter and depth of holes;h) Types of explosives used;

i) Total weight of explosives used per hole and maximum weight of explosives per 8-millisecond period;

j) Initiation system;

k) Type and length of stemming;

I) Mats or other protections used;

m) Type of delay detonator and delay periods used;

n) Number of persons in the blasting crew; and

o) Seismographic records, including:

i. Type of instrument, sensitivity, and the calibration signal of the gain setting or certification an annual calibration;

ii. Exact location of instrument and the date, time and its distance from the blast;

iii. Name of the person taking the reading;

iv. Name of the person and firm analyzing the seismographic record;

v. The vibration level recorded.

RESPONSE: Please refer to the letter from Arkins Park Stone Corporation, regarding this item.

To: Michael A. Cunningham

**Environmental Protection Specialist** 

Re: Geotechnical Stability Exhibit; DRMS File No. M-1985-212; Adequacy Review No. 2 (AM03)

Dear Mr. Cunningham,

We are proposing the following conditions that Arkins Park Stone Corporation will meet to maintain compliance with the various subsections of Rule 6.5(4). We currently keep track of all blasts performed on our site in compliance with both the Colorado Division of Oil and Public Safety as well as the ATF. We have records of each blast which address subsections a-n. We can provide copies of these records if needed, or you can feel free to inspect them at our office location. We are in full compliance with both agencies listed above.

Regarding subsection o) i.-v., we are proposing that we have someone come out and do seismic testing on a total of 5 blasts annually. This would be approximately 10% of all blasts that we perform annually. We could either do a random test sampling of blasts throughout the year, or test 1 small blast (usually 8 holes), 1 large blast (usually 25 holes), and three random blasts. This should provide adequate data as all blasts that are performed would be within the range of those tested.

We look forward to your response on this subject and hope that our proposal meets the compliance requirements.

Sincerely David Sprague

CEO Arkins Park Stone Corporation

Dewey Chandler/

**CFO Arkins Park Stone Corporation** 



ORIGINAL PERMIT BOUND/ (PER PERMIT #M-1985-2 AMENDED PERMIT BOUND AFFECTED AREA (SEE NOTE 4) PARCEL LINE ARKIN'S PARK PROPERTY BOUNDARY EXISTING CONTOUR FLOW ARROW EXISTING OVERHEAD POW POLE AND LINE

# NOTES:

1. EXISTING VEGETATION CONSISTS OF BIG AND LITTLE BLUESTEM, BLUE GRAMA, SIDE-OATS GRAMA GRASSES, AND PONDEROSA PINE, AND SHRUBS

2. STRIPPED TOPSOIL AND CRUSHER FINES TAKEN FROM THE ACTIVE WORKING DECKS WILL BE STORED IN THE DESIGNATED AREA UNTIL IT IS NEEDED FOR RECLAMATION. IT WILL BE PROTECTED WITH "J" DAMS AROUND THE PERIMETER. IF THE TOPSOIL IS NOT NEEDED FOR RECLAMATION WITHIN A YEAR OF ITS PLACEMENT, IT WILL BE RE-SEEDED WITH THE APPROVED "HIGH PLAINS/FOOTHILLS GRASS MIX" TO HELP PREVENT FROM EROSION.

3. THE ACCESS ROAD IS USED FOR THE HARMON RESIDENCE ONLY, NO MINING OPERATIONS TO BE CONDUCTED ALONG THE PORTION OF THIS ROAD TO THE WEST, THIS ACCESS ROAD WILL REMAIN IN PLACE AFTER THE FINAL MINING AND RECLAMATION PROCESS IS COMPLETE.

4. AFFECTED AREA IS AN OUTLINE DRAWN AROUND THE AREAS INDICATED ON THE MAP, WITHIN THE AMENDED PERMIT BOUNDARY.



Arkin's Park Stone

Masonville, Colorado

