

RECEIVED

APR 29 2016

Department of Environment and Natural Resources  
Minerals and Mining Program  
Joe Foss Building  
523 East Capitol Avenue  
Pierre, South Dakota 57501-3182  
Telephone: (605) 773-4201 Fax: (605) 773-5286

MINERALS & MINING PROGRAM

APPLICATION FOR  
SMALL SCALE MINING PERMIT

Pursuant to SDCL 45-6B:  
Relating to Mineral Extraction in  
Operations Affecting Less Than  
10 Acres Per Year & Removing  
Less Than 25,000 Tons Per Year

Operator's Name: Dakota Granite Co.

Mailing address:

PO Box 1351  
Milbank, SD 57252

Telephone:

(605) 432-5580

Physical address:

48391 150th St.  
Milbank, SD 57252

Telephone:

(605) 432-5580

Fax:

(605) 432-6155

Name and address of surface owner: (Enter additional owners on last page)

Dakota Granite Co  
48381 150th St.  
Milbank, SD 57252

Name and address of mineral owner: (Enter additional owners on last page)

Dakota Granite Co  
48381 150th St.  
Milbank, SD 57252

Legal description of affected land:

Portions of SW 1/4 Section 7; T120N-R47W,  
Portions of NE 1/4 Section 13; T120N-R48W

Name and address of operator's resident agent (if operator is an out-of-state corporation):

County: Grant

Minerals to be mined:

Granite

Proposed starting date:

as soon as permit is granted

Size of affected land (acres):

7.57

Proposed completion date:

1/1/2090

Estimated acres disturbed per year:

7.57

Estimated working days per year:

52

Estimated tonnage mined per year: 24000

Estimated duration of operation (years): 75

Estimated tons of ore per year: 20000

Reclamation type:

Overburden/waste tons per year: 4000

Wildlife Habitat

**INSTRUCTIONS** (Reference SDCL 45-6B)

This application must be accompanied by:

1. A narrative description of the type of mining operation proposed and how it will be conducted pursuant to Section 54 (7). This should include a description of the initial work to develop the operation and a description of the workings during the operation.
2. A narrative description of the measures to be taken to comply with the operating and reclamation requirements of SDCL 45-6B-37 through 45-6B-46 pursuant to Section 54 (9).
3. A map showing information sufficient to locate the affected land, including existing and proposed roads or access routes to be used in connection with the mining pursuant to Section 54 (5).
4. A wildlife survey pursuant to Section 54 (8).
5. A fee of \$100.00 pursuant to Section 55.
6. A list of the names and addresses of the land-owners of the affected land.

Before a hearing on the permit may be conducted by the SD Board of Minerals and Environment, the applicant must submit the following materials:

1. Certified mail receipts confirming mailing of notice to all surface owners and lessees pursuant to Section 17.
2. A copy of the affidavit of publication of notice pursuant to Section 16.
3. Proof of filing a copy of the application with the Register of Deeds pursuant to Section 15.
4. A surety in an amount to be determined by the department pursuant to Section 20 and 55.
5. A copy of instruments of consultation from all surface landowners, if different than the owner of the minerals, including written receipt of the operating and reclamation plans pursuant to Section 12 and 13.

STATE OF South Dakota

COUNTY OF Grant

On this \_\_\_\_\_ day of \_\_\_\_\_,

20 16, before me personally appeared

Rick Dilts who

acknowledged himself to be the CEO  
(Title)

for Dakota Granite and that  
(Operator)

he is authorized to execute the Application for Small Scale Mining Permit for the purposes contained therein.

Alesia Christensen  
Notary Public

My Commission Expires Feb. 12, 2022



**FOR DEPARTMENT USE ONLY**

DATE APPROVED: \_\_\_\_\_ BOND AMOUNT: \_\_\_\_\_ PERMIT NUMBER: \_\_\_\_\_

Applicant hereby affirms that the mining will be conducted pursuant to SDCL 45-6B, or any regulations promulgated thereunder; that he will grant access to the Board of Minerals and Environment or its agents to the area under application from the date of the application and during the life of the permit as is necessary to assure compliance with SDCL 45-6B.

*I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examined by me, and to the best of my knowledge and belief, is in all things true and correct.*

Rick Dilts  
Signature

CEO / Pres  
Title

4-26-16  
Date

\_\_\_\_\_  
Chairman, SD Board of Minerals & Environment



**DEPARTMENT OF GAME, FISH, AND PARKS**

Division of Wildlife – Regional Office  
4130 Adventure Trail  
Rapid City, South Dakota 57702-0303

RECEIVED

APR 29 2016

MINERALS & MINING PROGRAM

January 22, 2016

Dakota Granite  
Attn. Jason Redmond  
48391 150th Street  
PO Box 1351  
Milbank, SD 57252

Coldspring  
Attn. Steven R. Chouanard  
17482 Granite West Road  
Cold Spring, MN 56320-4578

**Subject: Dakota Granit, Cold Spring Granite Mine Permit Applications**

Gentlemen:

This letter is in response to your requests for information on fulfilling both large and small scale permit application requirements for wildlife surveys: SDCL 45-6B-54(8). Your permit application submittals result from Cold Spring Granite and Dakota Granite exchanges of previously permitted parcels in Grant County. Both parcels have GFP preliminary wildlife survey data from initial permits efforts. GFP review of that data indicates existing surveys are still pertinent for the new permitting effort. Mine permitting also requires description of critical resource as found in SDCL 45-6B-92(1). This section of your permit application may need updating. Since the initial permitting effort, the United States Fish and Wildlife Service has listed the Dakota skippers (*Hesperia dacotae*) and Poweshiek skipperling (*Oarisma poweshiek*) as threatened under the Endangered Species Act of 1973. Additionally, the Fish and Wildlife Service has designated about 19,900 acres of critical habitat in Minnesota, North Dakota and South Dakota. Species occurrence data is not available for your specific project area but potential habitat exists in native prairie in Grant County. Please make this addition to your company's permit applications. Please be free to contact me with any wildlife related questions regarding your mining operations. Thank you and good luck.

Sincerely,

Stan Michals  
Energy and Minerals Coordinator

Cc: E. Holm (SD/DENR)



Yellow - Top Soil  
Purple - Active Grant Pile  
Red - Test Seeding Plot  
Green - Burn Pit

RECEIVED  
APR 29 2016  
MINERALS & MINING PROGRAM

ACUTE HEALTH, FIRE HAZARD, SUDDEN RELEASE OF PRESSURE

SECTION 313 TOXIC CHEMICALS:

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO SARA TITLE III

SECTION 313 REPORTING REQUIREMENTS: NONE

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (TPQ): NONE

EPA TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS:

ALL OF THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

VOC REGULATIONS:

THIS PRODUCT COMPLIES WITH THE CONSUMER PRODUCT VOC LIMITS OF THE US EPA AND STATES ADOPTING THE OTC VOC RULES BUT DOES NOT COMPLY WITH CARB.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):

THIS PRODUCT DOES NOT CONTAIN CHEMICALS REGULATED UNDER CALIFORNIA PROPOSITION 65.

CANADIAN ENVIRONMENTAL PROTECTION ACT:

ONE OF THE COMPONENTS IS LISTED ON THE NDSL. ALL OF THE OTHER INGREDIENTS ARE LISTED ON THE CANADIAN DOMESTIC SUBSTANCES LIST OR EXEMPT FROM NOTIFICATION.

CANADIAN WHMIS CLASSIFICATION:

CLASS A (COMPRESSED GAS), CLASS B-5 (FLAMMABLE AEROSOL) THIS MSDS HAS BEEN PREPARED ACCORDING TO THE CRITERIA OF THE CONTROLLED PRODUCTS REGULATION (CPR) AND THE MSDS CONTAINS ALL OF THE INFORMATION REQUIRED BY THE CPR.

-----16 - OTHER INFORMATION -----

HMIS HAZARD RATING:

HEALTH 1 (SLIGHT HAZARD)  
FIRE HAZARD 4 (SEVERE HAZARD)  
REACTIVITY 0 (MINIMAL HAZARD)

REVISION DATE: JULY 20, 2014

SUPERSEDES: MAY 23, 2014

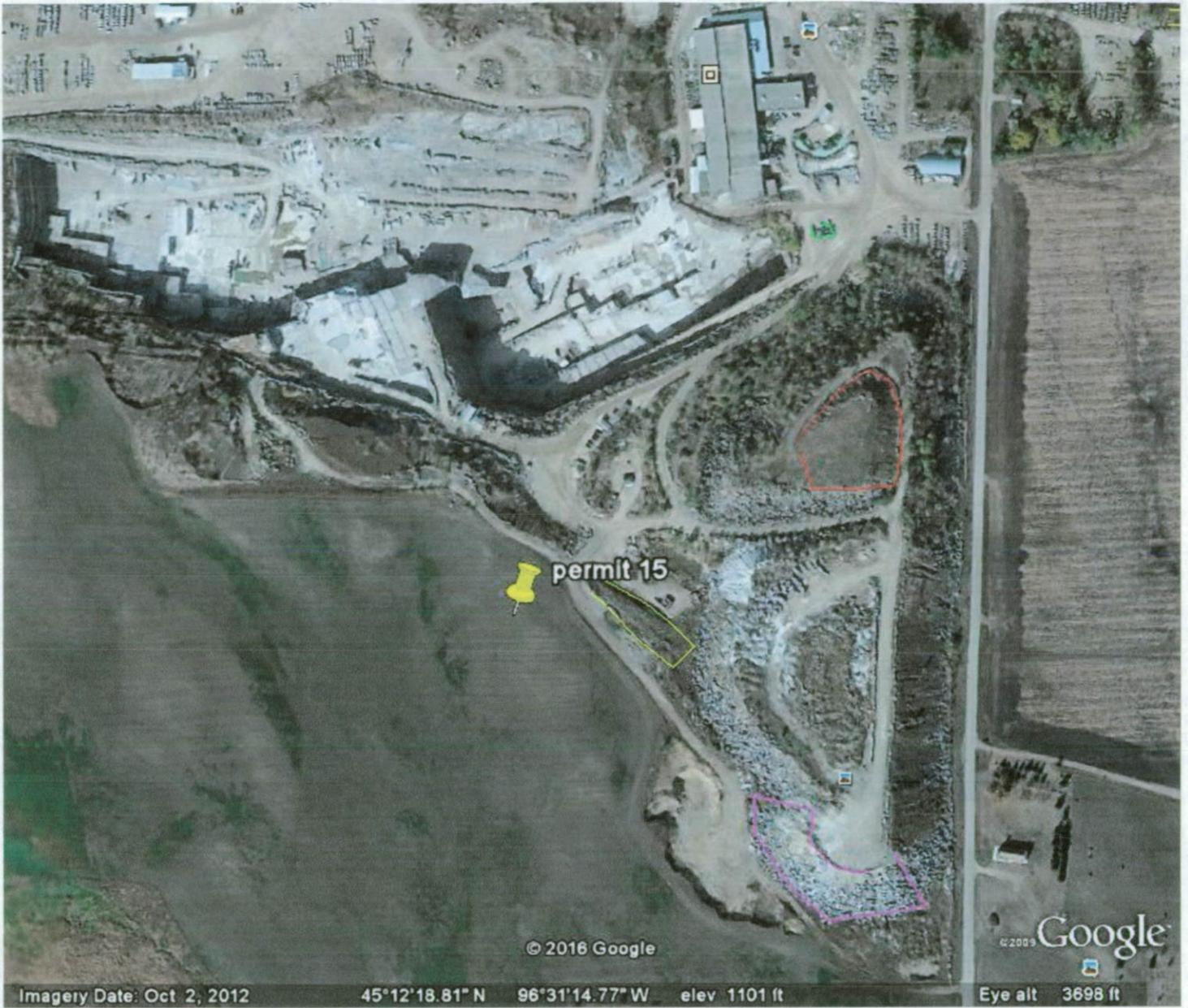
REVISION SUMMARY: CONVERT TO HAZCOM 2012. CHANGES IN ALL SECTIONS.

PREPARED BY: INDUSTRIAL HEALTH & SAFETY CONSULTANTS, INC. SHELTON, CT, USA

APPROVED BY: I. KOWALSKI

REGULATORY AFFAIRS DEPT.

5049000/NO.0015205



Yellow - Top Soil  
Purple - Active Grout Pile  
Red - Test Seeding Plot  
Green - Burn Pit

RECEIVED  
APR 29 2016  
MINERALS & MINING PROGRAM

PERSISTENCE AND DEGRADABILITY: COMPONENT ARE READILY BIODEGRADABLE.

BIOACCUMULATIVE POTENTIAL:

BIOACCUMULATION IS NOT EXPECTED BASED ON AN ASSESSMENT OF THE INGREDIENTS.

MOBILITY IN SOIL: NO DATA AVAILABLE

OTHER ADVERSE EFFECTS: NONE KNOWN

-----13 - DISPOSAL CONSIDERATIONS -----

IF THIS PRODUCT BECOMES A WASTE, IT WOULD BE EXPECTED TO MEET THE CRITERIA OF A RCRA IGNITABLE HAZARDOUS WASTE (D001). HOWEVER, IT IS THE RESPONSIBILITY OF THE GENERATOR TO DETERMINE AT THE TIME OF DISPOSAL THE PROPER CLASSIFICATION AND METHOD OF DISPOSAL. DO NOT PUNCTURE OR INCINERATE CONTAINERS, EVEN EMPTY. DISPOSE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

-----14 - TRANSPORTATION INFORMATION -----

DOT SURFACE SHIPPING DESCRIPTION:  
UN1950, AEROSOLS, 2.1 LTD. QTY

NOTE:

SHIPPING PAPERS ARE NOT REQUIRED FOR LIMITED QUANTITIES UNLESS TRANSPORTED BY AIR OR VESSEL - EACH PACKAGE MUST BE MARKED WITH THE LIMITED QUANTITY MARK

IMDG SHIPPING DESCRIPTION: UN1950, AEROSOLS, 2.1, LTD QTY

ICAO SHIPPING DESCRIPTION: UN1950, AEROSOLS, FLAMMABLE, 2.1

NOTE:

WD-40 DOES NOT TEST AEROSOL CANS TO ASSURE THAT THEY MEET THE PRESSURE AND OTHER REQUIREMENTS FOR TRANSPORT BY AIR. WE DO NOT RECOMMEND THAT OUR AEROSOL PRODUCTS BE TRANSPORTED BY AIR.

-----15 - REGULATORY INFORMATION -----

U.S. FEDERAL REGULATIONS:

CERCLA 103 REPORTABLE QUANTITY:

THIS PRODUCT IS NOT SUBJECT TO CERCLA REPORTING REQUIREMENTS, HOWEVER, OIL SPILLS ARE REPORTABLE TO THE NATIONAL RESPONSE CENTER UNDER THE CLEAN WATER ACT AND MANY STATES HAVE MORE STRINGENT RELEASE REPORTING REQUIREMENTS. REPORT SPILLS REQUIRED UNDER FEDERAL, STATE AND LOCAL REGULATIONS.

SARA TITLE III:

HAZARD CATEGORY FOR SECTION 311/312:

South Dakota  
Department of  
Game, Fish and Parks

Division of Parks & Recreation

RECEIVED  
APR 29 2016  
MINERALS & MINING PROGRAM

August 21, 1989

Mr. Don Sieger  
Cold Spring Granite Company  
202 South Third Avenue  
Cold Spring, MN 56320

Dear Don:

The following information covers the requirements of wildlife habitat as the post-mining land use for your three granite quarry sites near Milbank, SD. These quarries are located more specifically as follows:

Carnelian No. 1 located on a portion of the North 1/2 of Section 17, T120N, R47W and the SW 1/4 of Section 8, T120N, R47W.

Carnelian No. 2 located on a portion of the South 1/2 of Section 7, T120N, R47W.

Carnelian No. 3 located on a portion of the North 1/2 of Section 13, T120N, R48W.

The wildlife species present on these lands and surrounding lands include whitetail deer, pheasant, partridge, cottontail rabbit, jack rabbit, red fox, raccoon, mink, and a variety of birds including robins, blue jays, blackbirds, crows, and swallows.

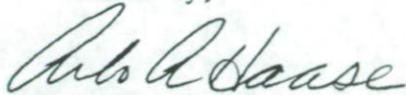
The Company plan to create a habitat suitable for the species noted above is realistic. Since the overall land area is relatively small, these species will naturally populate the affected areas without a stocking program.

Cold Spring Granite Company's plan to vegetate the disturbed land area with a mixture of alfalfa, wheat grass and sweet clover is acceptable. Trees of red pine, black locust, and popple shall be planted on a 10' X 10' staggered spacing. Local shrubs and forbs will invade the lands from the surrounding area and establish a natural density.

The vegetation plan noted above shall be applied to all nearly horizontal land areas that have been disturbed excluding the sides of the grout piles. These sides may be left as broken granite rock without soil, sand, or gravel on them. The size fraction of the final surface should be made of blocks ranging in size from 1 to 3 feet.

I see no endangerment of these species of wildlife by a quarry operation,  
nor do I see any problem in the future with a quarry type of operation.

Sincerely,



Arlo A. Haase  
Wildlife Conservation Officer  
Department of Game, Fish & Parks  
PO Box 404  
Milbank, SD 57252



GRANT COUNTY



SOUTH DAKOTA

PLANNING AND ZONING OFFICE

210 East 5<sup>th</sup> Avenue  
Milbank, SD 57252-2499  
Phone: 605-432-7580  
Fax: 605-432-7515

RECEIVED  
APR 29 2016  
MINERALS & MINING PROGRAM

January 11, 2016

Dakota Granite  
RE: Plat Inspection

Dear Sirs:

Based upon the information provided for review, it appears that the Dakota Granite is in compliance with Grant County Zoning Regulations.

1. Taxes were paid on the entire parcel and the plat brought to Planning and Zoning Office.
2. Engineer's information was included:  
Proprietor's Certificate, Treasurer's Certificate, Surveyor's Certificate, Director of Equalization Certificate, Grant County Planning and Zoning Certificate, Grant County Commission Resolution, Register of Deed's Certificate- mylar, Plat Map Siting
3. The plat will be placed on the agenda of the next meeting of the Planning and Zoning Board. The meeting was held on December 7, 2015.
4. After P&Z approval, the plat is placed on the agenda of the next meeting of the Grant County Commissioner's. County Commissioners the meeting was held on December 15, 2015 by resolution 2015-37.
5. Plat Recording was completed in the Register of Deeds Office on 12-15-2015

All paperwork appears to be in order to complete the process and no further information is needed by Planning & Zoning in Grant County.

If you have questions, please call: 605-432-7580

Sincerely,

Krista Atyeo-Gortmaker  
Grant County Planning & Zoning Officer

RECEIVED  
APR 29 2016  
MINERALS & MINING PROGRAM

## Small Permit Application

**SDCL 45-6B-54(7) A narrative description of the type of mining operation and how it will be conducted.**

This mining permit application is about a parcel of land exchanged on Maps 1 and 2, Plat Map. This property line has been in dispute for years and this exchange was a way to clear up the misconception of the property line. Dakota Granite is transferring 7.5 acres to Cold Springs Granite. Dakota Granite Company is adding 7.57 acres to the current mining operation. Dakota Granite Company will quarry a maximum of 20,000 tons of granite per year from this area. It is unlikely that we will produce the maximum amount each year because all other areas under the current mine Permit area 15 will also be active at the same time. All conditions for that permit will be used to cover this new 7.57 acres.

The equipment used in the quarry hole covered by Permit 15 is a loader, drill rig, and a couple of wire saws. The process for extraction of granite is basic and does not contain much blasting. The holes are drilled with the drill rig; wire is fed through the holes and hooked to the wire saw. The wire saw cuts the block of granite loose. The loader then comes in and removes the block. The drill rig is a support vehicle.

Due to the land exchange, the permit boundary is being expanded and modified per the requirements of **ARSD 74.29.03.02(2)**

**SDCL 45-6B-54(8) A preliminary wildlife survey will be conducted.** Dakota Granite requested a survey by the local Game, Fish and Parks officer, Stan Michals. He reviewed the area and the initial wildlife survey. Mr. Michals stated that the original surveys are still pertinent for the new permitting effort. He did state that new endangered species might have critical habitat in the area. There is no species occurrence data available for the location of the expansion letter. The letter from Mr. Michals follows in the attachments.

**ARSD 74.29.03.02 (2). New permit application required. A new permit application is required for major modifications. Major modifications include the following:**

- (1) The addition of proposed affected land not within the approved permits area.** The new land in the exchange is outside of the permit boundary.
- (2) The expansion of the boundaries of the permit area.** The boundary of the permit will be expanded in areas and lessened in others do to the land exchange with Cold Springs Granite.

**(3) A change in the overall post mining land use of the affected land.** No change will happen in the post mining land use.

**(4) A change in the permit which may adversely affect surface or groundwater** No change in the permit will adversely affect surface of ground water.

**(5) The initiation of milling capabilities, excluding crushers.** No milling capabilities will be initiated in this new area

#### **ARSD 74:29:07:02. Minimizing of Adverse impacts**

- 1) The mine operation facilities are already in place.
- 2) Most of the new area has been stripped down to the stone already under the previous mine permit.
- 3) The area of the new permit already has visual screening because it already is in an existing mine permit area.
- 4) This permit expansion area will have no more impact on surface and ground water. The expansion area is already near permit area 15 that has no effect on surface and ground water.
- 5) Dakota Granite has fences and gates for the existing quarry and Cold Springs Granite has the same set up for their side of the affected area.
- 6) No impacts on wildlife will be felt because this expansion area is in an active quarry where no wildlife is present. Stan Michals, from the Department of Game, Fish and Parks, in a 1-22-16 letter indicated the surveys for the initial permitting areas are still pertinent. Since the time of the first permit two species have been added to the Endangered Species Act of 1973. The Dakota Skipper and Poweshiek skipperling are endangered species that may be located in this area of Grant County. No species occurrence data is available for the expansion area
- 7) All locations of waste dumps, spoil piles, topsoil stockpiles will be included on Map 1 and 2, site map. All waste will be controlled the same as they are for the larger quarry area.
- 8) Some mine waste and spoil will be produced in this area when we begin the quarry process.
- 9) The integration of the mine operations planning with the reclamation plan will be easily done on the 7.57 acres. The expansion area will be covered for reclamation by large scale permit 15.

#### **ARSD 74:29:07:17 and SDCL 45-6B-9 Underground mines**

There are no underground mining areas connected to the granite quarry

## **SDCL 45-6B-8 previously mined lands**

The locations of such mining activity existed prior to July 1, 1971.

**SDCL 45-6B-32 Grant of permit if application in compliance with law—grounds for denial. The Board of Minerals and Environment shall grant a permit to an operator if the application complies with the requirements of this chapter and all applicable local, state and federal laws. The board may not deny a permit, except for one or more of the following:**

**1. The application is incomplete or the surety has not been posted**

The surety is set up for Permit 15 for \$347,400.00. That should cover the new boundary area set up by this permit

**2. The applicant has not paid the required fee;**

The fee is included in with the mine permit application.

**3. Any part of the proposed mining operation, the reclamation program, or the proposed future use is contrary to the laws or regulations of this state or the united States:**

Dakota Granite has designed this quarry operation to comply with the laws and regulations of the state of South Dakota and the United States.

**4. The mining operation will adversely affect the stability of any significant, valuable and permanent man-made structures located within 200 ft. of the affected land, except where there is an agreement between the operator and the persons having an interest in the structure that damage to the structure is to be compensated for by the operator:**

The only significant, valuable, and permanent man-made structures located within 200 ft. of the affected area, belong to Dakota Granite. An understanding exists between Dakota Granite and Cold Spring Granite that should Dakota Granite cause any damage to Cold Spring Granite's equipment or structures; Dakota Granite will compensate Cold Spring Granite for such damage.

**5. The mining operation would be in violation of any county zoning or subdivision regulations**

Dakota Granite, at the time when they applied for a large mining permit 15, requested and received a letter from Grant County Commissioners stating that to the best of their knowledge, we are in compliance with all county ordinances' and requirements. On January 11, 2016 Grant County Planning and Zoning office sent a letter to Dakota Granite stating that Dakota Granite Company is in compliance with Grant County Zoning Regulations. It also stated that the Plat Recording was completed in the Register of Deeds Office on 12-15-2015 for the land exchange between Dakota Granite and Cold Spring Granite.

**6. The proposed mining operation and reclamation cannot be carried out in conformance with the requirement of 45-6B-35**

The proposed mining operation and reclamation can be carried out in the land exchange area with the conformance requirements because the existing permit covers the area and meet the requirements. The expansion area can be reclaimed in conformance with the requirements.

**7. The Operator is currently found to be in violation of the provisions of this chapter with respect to any mining operation in this state.**

Dakota Granite has no current violation of the provisions of this chapter with respect to any of its operation in South Dakota.

**8. The land is unsuitable for a mining operation, as determined pursuant 45-6B-33:**

**SDCL 45-6B-33. As pursuant to ARSD 74:29:02:01, each section of this statute needs to be addressed.**

**SDCL 45-6B-33 Unsuitable land – No permit issued. No permit may be issued for the mining operation proposed on unsuitable land. Land is unsuitable if the following conditions cannot be satisfactory mitigated:**

The land in the land exchange area are suitable for mining operation since they have already been used for mining operations in other permits.

**1. Reclamation of the affected land pursuant to the requirements of this chapter is not physically or economically feasible:**

The land around this site can and will be reclaimed, along with the rest of the quarry covered under permit 15.

**2. Substantial disposition of sediment in stream or lake beds, landslides, or water pollution cannot feasibly be prevented;**

If granite is removed from this area the spoils and sludge from the wire saws will be removed and placed on the Grout pile for the reclamation plan. All water used in sawing flows to a holding area and is pumped to holding ponds to let sediment settle out of the water.

**3. The adverse effects of the proposed mining operation on the historic archeological aspects of affected or surrounding land outweigh the benefits of the proposed mining operation:**

Under **ARSD 74:29:10:01**: since the 7.57 acre expansion area is already within the permit boundaries of Cold Springs Granites mine permit 373, it is exempt from special, exceptional, critical, or unique lands determination requirements.

There are no known historic or archaeological aspects on the affected or surrounding land. On the Large Mine Permit 15 Mr. Robert J. Stahl of Aberdeen, SD had conducted a search of the property to identify any potential historic or archeological sites and he found none. A copy of the study was submitted with the permit 15. Since this site is in between two quarries that were in use at the time of the study. The area in question was researched and cleared.

**4. The proposed mining operation will result in the loss or reduction of long-range productivity of aquifer, public and domestic water wells, watershed lands, aquifer recharge areas or significant agricultural areas.**

Operations have been ongoing in this area for some 90 years with no adverse affects to any water supplies. The little area added for this permit will not add anymore water use to the site. When the operation stops in 100 years, the quarry hole will fill with water from natural precipitation and will become a reservoir of water in the area. The post mining land use will have the potential to benefit the surrounding area during periods of drought.

**5. The biological productivity of the land is such that the loss would threatened or endangered species of wildlife indigenous to the area:**

Mr. Arlo Haase, the conservation officer of the area, in a letter from 1/4/1983 stated he saw no endangered species in the area and saw no problems with future quarry operations for Dakota Granite permit 15. Being this area is next to two quarries, no forms of wildlife live there anymore. In the 1989 Cold Springs permit 373 Mr. Arlo Haase, makes a statement to this in his letter which is in Cold Springs Permit 373. He makes no comment of any endangered or threatened species in the area. The local wildlife that surrounds this area and could possibly travel through the expansion area includes whitetail deer, pheasant, partridge, cottontail rabbits, jack rabbits, red fox, raccoon, and mink.

In a 1-22-16 letter from Stan Michals of the South Dakota Department of Game, Fish, and Parks, Stan agrees with the initial permit survey. He does however state that two new endangered species could have critical habitat in Grant County. Species occurrence data is not available for the expansion area. With the expansion area being next to two quarries for many years there is no chance that these endangered species use this area as critical habitat.

**6. The Board finds that any probable adverse socioeconomic impacts of the proposed mining operation outweigh the probable beneficial impacts of the operation.**

Small scale operations are exempt from socioeconomic requirements as provided under **SDCL 45-6B-33.2**. The quarry operation has been around for 90 years and has greatly benefited the surrounding communities.

**SDCL 45-6B-35, Mining operations –Applicable law. Every operator to whom a permit is issued pursuant to the provisions of this chapter may engage in the mining operation upon the affected lands described in the permit. Upon the performance of the subject to SS 45-6B-36 to 45-6B-46, inclusive with respect to such lands.**

**A Narrative description of the measures to be taken to comply with the operating and reclamation requirements of SDCL 45-6B-37 through 45-6B-46, ARSD 74:29:02, and ARSD 74:29:06 through ARSD 74:29:08.**

**Grading: SDCL 45-6B-37, ARSD 74:29:07:03, and ARSD 74:29:07:04**

**ARSD 74:29:07:03 grading and Backfilling—Necessity**

- 1) Public Safety and welfare;** the expansion area will be incorporated into the reclamation plan of permit area 15. The area will be reclaimed as a wildlife

area and allowed to naturally fill the rain water. The area around the quarry hole will be protected by the placement of a barricade of granite blocks. This is designed to alert everyone entering the area that a hazard exists. Fencing is already in place around the existing quarry area. Since most of the expansion area is inside the existing quarry it is already fenced in, all areas that are not fenced will be prior to operations. Barricades of granite will be placed by the edge of the expansion area.

- 2) **Technical and economic feasibility;** It would not be technically feasible to backfill an area when the areas around it are going to be filled with water.
- 3) **Surface and Mineral Ownership;** Dakota Granite Company will continue ownership throughout the reclamation process
- 4) **Land use requirements;** the expansion area does not have special land requirements.
- 5) **Pollution potential;** the expansion area will be reclaimed as a wildlife area and will add a source of clean water to the area. No pollution potential exists with this reclamation plan.
- 6) **Mineral resources value;** Dakota Granite will continue to mine until it is not economically feasible to mine. At that point the mineral value will be so low so the reclaimed wildlife area will be more valuable.

#### ARSD 74:29:07:04. Grading and backfilling, criteria.

- 1) **All reclaimed Slopes and slope combinations must meet the Following requirements:**
  - a. **Be visually and functionally compatible with the configuration of the surrounding area;** the edge of the quarry near the expansion area will be covered with topsoil and grasses planted. When the quarry fills with water the wildlife area will be a desirable contrast to the farmland in the area.
  - b. **Be suitable for the Post mining Use;** the intended post mining land use will be a wildlife habitat area. Since the edges will be planted and have a granite barrier for safety, the area will provide wonderful habitat for fish, waterfowl and other water animals.
  - c. **Be structurally stable;** Being that the quarry walls are solid granite and there is very little slope towards the quarry it is extremely structurally sound. The granite barrier will also prevent edges collapsing into the quarry hole.
  - d. **For fill slopes or other slopes composed of unconsolidated material, not exceed the angles of repose;** there will be no slopes in the expansion area. The grout mined out of this area has a natural angle

of repose of approximately 1:1 or 45 degrees. The grout pile has a natural slope on the sides.

- 2) **All grading, backfilling, and topographic reconstruction must control erosion and sedimentation, protect areas outside the affected land from slides or other damage, and minimize the need for long-term maintenance. Erosion control measures must be implemented during all phases of construction, operation, reclamation, and closure. Detailed plans indicating dimensions, location, spacing, and design of erosion control techniques are required;**

The expansion area will not cause any more erosion or sedimentation. The erosion control measures are already in place and the detailed plans are covered by permit area 15. The expansion area will have granite blocks along the edge to reduce erosion.

- 3) **All grading, backfilling, and topographic reconstruction must be completed as soon as feasible after mining ceases. The operator shall establish reasonable timetables consistent with good mining and reclamation practices;** the reclamation process is ongoing during the mining process and will begin in the expansion area at the same time as in Permit area 15. The reclamation timetable states that reclamation will begin as soon as the quarry has been exhausted of all usable granite. At this time it is not feasible to identify any date for this work to be done. When it starts it will be a 3 year process of reclamation. The first year will be building removal and grading of quarry edge then seeding of quarry edge. It will be closely monitored for the next 2 years then trees will be planted. It will be yearly checked after that for 30 years.
- 4) **Depressions for the accumulation of water are not allowed unless they are consistent with the approved post mining land use;** The post mining land use will be a wildlife habitat area and the water will be allowed to fill up the existing quarry and expansion area.
- 5) **Original drainage must be preserved as much as possible. Alternative drainage may be approved by the board if it is functionally compatible with and complements the prevailing hydrologic balance of the surrounding area;** the original drainage in the area has not been changed. The new expansion area or the original quarry area has not affected the original drainage.
- 6) **When high wall reduction or elimination is not proposed, the applicant must provide justification demonstrating that such reduction or elimination is impossible, impractical, or aesthetically undesirable. If they are not eliminated, all high walls must be stabilized;** the high wall cannot be reduced because it is part of the natural ground and trying to reduce it would only

destabilize a larger area than just the quarry. Being that the expansion area within the quarry is going to be a wildlife habitat area the high wall will not be a factor. The quarry will fill with water and will not be seen. Also the granite barrier along the edge will work as a natural guard from going over the high wall.

**74:29:06:01. Presubmission conference -- Determination of post mining land use.** In the area of the expansion the reclamation will be covered by permit 15. The expansion area edge will be graded and covered with topsoil then planted with native seeds in the spring. The larger part of the expansion area will be under water in the wildlife habitat area.

**74:29:06:02. General requirements for determination of reclamation type.** For all reclamation types the applicant must present a management plan for the purpose of determining the reclamation type that does the following:

**(1) Demonstrates that the affected land has the capability of meeting reclamation criteria in chapter 74:29:07.** The expansion area is small and will easily meet reclamation criteria

**(2) Demonstrates that the post mining land use is compatible with surrounding land uses.** Since the expansion area is surrounded by other quarries that are going to be made into Wildlife habitat area it only makes sense that it does too. Farmland is what surrounds the quarries at this time and a wildlife habitat area will be good for wildlife and also supplies an emergency source of water if needed by local farmers.

**(3) Details support and maintenance activities required for successful implementation.** Test reclamation plots were set up and have been growing for 20 years. They can be found below in **Revegetation ARSD 74:29:07:06 section 3.**

**(4) Includes assurance that the proposed post mining land use meets the following requirements:**

**(a) Is obtainable according to data on expected need and market.** The quarry will not shutdown as long as there is a market for the product and it is feasible to extract it.

**(b) Is supported by commitments from public agencies where appropriate.** Local wildlife conservation officer gave support for the reclamation plan. He committed on the wildlife that would benefit from the wildlife habitat area.

**(c) Is practicable on the basis of private financial capability for completion of the proposed operation.** Dakota Granite Company has put up bond that demonstrates its ability to take on the financial responsibility of the reclamation.

**(d) Is planned pursuant to a schedule attached to the reclamation plan that integrates the mining operation and reclamation with the post mining land use.** No reclamation plan can be scheduled for the expansion area. The area is located in a quarry that could run for 100 more years.

**(e) Is consistent with existing state and local land use plans and programs.** The state and county government agencies understand the reclamation plan for the expansion area.

**(f) Is of a beneficial use.** A wildlife area is more than just beneficial to wildlife. It is a place of recreation for locals and can be used as an emergency source of water for local farmers and residents.

**74:29:06:03 Economic study required for determination of future mineral exploration and development as reclamation type.** The economical impact of these 7.57 acres cannot determine the future reclamation plan. The amount of usable granite throughout the quarry site cannot be determined at this time because it is not feasible giving the size of the granite deposit.

**74:29:06:04 Alternative post mining land use.** The only post mining land use considered for this property is wildlife habitat area, so this does not apply to the expansion area.

**Disposal of Refuse: SDCL 45-6B-38, ARSD 74:29:07:05, and ARSD 74:29:07:13.**

The non-usable granite, called grout, will be hauled over to the Grout pile by Permit 15 or crushed by Fishers Sand and Gravel. The disposal of trash and other waste materials will be handled with the waste materials accumulated from the large scale permit area 15 that is adjacent to the expansion area. The trash disposal facilities for the expansion area will be located near the office on the north side of the Permit area 15 near 150<sup>th</sup> street. This area can be seen on Maps 1 and 2, site map.

**Revegetation: SDCL 45-6B-39, ARSD 74:29:02:10, ARSD 74:29:07:06**

**ARSD 74:29:07:06. Revegetation. Revegetation must meet the following general requirements.**

- 1) **Vegetative species and composition must be appropriate for the post mining land use. The species of vegetation to be used must be described in the**

reclamation plan, indicating the composition of seed mixtures and plant types and the seeding and planting rates per acre. Vegetative species and composition must be selected in consultation with the local conservation district, the landowner, and the department of game, fish, and parks if wildlife habitat is included as a post mining land use. Introduced, naturalized, or nonnative plant species may be used only if they are suitable for the post mining land use and are approved by the board; The expansion area is at the edge of the quarry and will have very little area to revegetate. The edge of the quarry near the expansion area will have native grasses planted. Most of the expansion area will be under water as the quarry fills with water to make a wildlife habitat area. This area will also be covered by permit area 15.

In permit 15 the area Soil Conservation Service Agent, Mr. Dale Johnson, had examined the plan and made recommendations for plant selection, seed mixtures and planting rates per acre.

Based on recommendations by Mr. Johnson in 1990, a native grass seeding mixture will be Alfalfa 15 lbs. psl/acre, Western Wheatgrass 4 lbs. pls/acre, Intermediate Wheatgrass 4 lbs. pls/acre, Green Needle grass 2lbs. pls acre, Sideoats Grama 2 lbs. pls/acre, Sand or Big Bluestem 3 lbs. pls/acre and Switch grass 2 lbs. pls/acre.

The area Conservation Officer, Mr. Arlo Haase, also examined the plan and provided a letter of recommendation available later in this small permit application.

Dakota Granite Company is the only owner of this land.

- 2) **The applicant must develop methods and procedures for revegetation which incorporate reference areas, baseline data comparisons, or other procedures to determine post reclamation revegetation success.** Very little revegetation will take place in the expansion area. The vegetation that will happen will be done like the reference areas described in the next section (3). Dakota Granite Company set up test reference area near Quarry 920 during the permit process for permit 15 that will cover the expansion area.
- 3) **A reference area may serve as a basis for comparatively measuring reclamation success. Reference areas must meet the following requirements:**
  - a. **Be large enough to make comparisons.** The area that was set up for the test plot was 100 feet by 100 feet and served as the test plot for all three quarries and the expansion area.
  - b. **Be located in areas where they will not be affected by future mining while serving their designated use.** The test plot is on top of a small grout pile to the South side of Quarry No. 920 that has been set aside for 20 years for this purpose.

- c. **Be managed in a way that will not cause significant changes in the cover, productivity, species diversity, and composition of the vegetation.** The test plot was not disturbed for 20 years other than in June to monitor the growth.
  - d. **Be representative of the post mining land use.** The test plot has been constructed and vegetated in accordance with the standard reclamation plan of the application for permit 15 and the expansion area.
- 4) **Seeding and planting must be done in accordance with accepted agricultural practices. Affected lands shall be seeded during the first normal period of favorable planting conditions after final topsoil preparation, unless an alternative plan is approved. Any rills or gullies that would preclude successful establishment of vegetation or achievement of the post mining land use must be removed or stabilized.** As areas become available for final reclamation, the seedbed will be prepared and planted in the spring of the year. The trees will be planted after the grasses have had two growing seasons to become established. Hills and gullies will be removed before revegetation begins.

**Topsoil Salvage: SDCL 45-6B-40 and 74:29:07:07.**

**74:29:07:07. Topsoil management.** In addition to the requirements of SDCL 45-6B-40, topsoil must be managed as follows:

- 1) **All salvageable topsoil or other suitable material must be removed from the areas of affected land before the land is disturbed. The board may authorize topsoil to remain on areas where minor disturbances associated with construction and installation activities will occur, such as light-use roads, signs, utility lines, fences, and monitoring stations, provided that the minor disturbances will not adversely affect the soil resource.** Most of the new area has already been stripped down to the granite. The topsoil from the expansion area will be stockpiled before the sand, gravel and clay is removed. The topsoil that can be salvaged from the 7.57 acre expansion area would be stored on the current piles on maps 1 and 2, Site Map.
- 2) **Where long-term disturbances will occur, the board may authorize the temporary distribution of a portion of stockpiled topsoil or other suitable material to enhance stabilization of affected lands during periods of interim reclamation and temporary cessation of operations under the following conditions.** The area of expansion is in a quarry that runs year round and does not have temporary cessation of operations.

- a. **The topsoil or subsoil capacity and productive capabilities are not diminished by the distribution or can be restored.** Topsoil piles are not distributed in this area because it is under operation.
  - b. **The topsoil is protected from erosion.** Topsoil used in the expansion area will be protected from erosion by the granite barrier.
  - c. **The topsoil will be available for final reclamation.** Topsoil from the expansion area will be stored at the same location near permit area 15. The location of topsoil stockpile will be at maps 1 and 2, Site map.
- 3) **The board may require topsoil or other suitable material to be analyzed by the operator prior to replacement to determine if fertilizer or other soil amendments are necessary to establish and sustain the required vegetation.** The initial removal of topsoil will go into a long term stockpile for final reclamation. Should the board determine a need to analyze this soil prior to final use, the process will be done.
- 4) **Topsoil stockpiles must be marked with legible signs containing letters not less than six inches high in sufficient locations to clearly identify stockpiles. Such signs must be in place from the time stockpiling begins.** The stockpile from the expansion area would be minor if any. The topsoil would be added to the pile for permit 15. A metal sign and letters six inches high will be placed on all four sides of the topsoil pile. The piles are expected to be approximately; pile # 1 = 300 feet long by 40 feet wide and 20 feet high, pile # 2 = 300 feet long by 50 feet wide by 20 feet high and pile # 3 will be 140 feet long by 40 feet wide by 20 feet high. The blocks and metal signs will be durable to withstand the 50 to 100 year duration of these operations. Stockpile location will be shown on maps 1 and 2, site map.
- 5) **Topsoil or other suitable material shall be distributed as necessary to establish and sustain the required vegetation. The reclamation plan must contain an estimate of topsoil necessary to complete reclamation.** The topsoil needed for the expansion area is an estimate based on the current quarry ledge. This may change based on quarry expansion. The current edge is 500 feet long with a 10 foot buffer would be 5000 square feet. With 6 inches of topsoil it would be 2500 cubic feet of topsoil. All topsoil estimates are in the large scale permit 15.
- 6) **If excess topsoil is present, the board may approve the use of the excess for reclamation purposes elsewhere.** Based on the numbers from Permit 15, there will be excess topsoil available. No excess topsoil will be available from the expansion area.

- 7) **Trees, large rocks, and other waste material which may hinder redistribution of topsoil must be separated from the topsoil before stockpiling;** All Trees, large rocks, and other waste material will be removed before the topsoil is stockpiled for future reclamation. Very little soil will come from the expansion area.
- 8) **If the amount of topsoil necessary for reclamation does not exist on the affected land, other suitable material such as subsoil may be used as a topsoil substitute if it can be demonstrated that the material is capable of establishing and sustaining the required vegetation. If other suitable materials are used in lieu of topsoil, they must be managed in accordance with all topsoil requirements in this section and with the following:**
  - a. **Topsoil substitute stockpiles must be segregated from topsoil stockpiles and signed as substitute topsoil stockpiles.** Based on the estimates of topsoil available and need, no substitute material will be needed.
  - b. **In addition to soil analyses, the board may require test plots to determine the suitability of topsoil substitutes as a plant-growing medium.** No substitute soils will be needed, abundant amount of topsoil available.

**Hydrologic Balance: SDCL 45-6B-41, ARSD 74:29:02:11, ARSD 74:29:07:08 through ARSD 74:29:07:12, and ARSD 74:29:07:27.**

Since this area was previously mined in would have no new affect on the water in the area. Mining in the expansion area will have no affect on the hydrological balance.

**Sides, Subsidence or Damage Protection: SDCL 45-6B-42 and ARSD 74:29:07:16.**

Since this expansion area is connected to our present quarry areas this is covered. Dakota Granite Company has chain link or barbed wire fence and a gate located in place along the township road with signs warning people to stay out, "Danger". Granite blocks were also placed around the perimeter of the quarry to form a barricade. Signs will be posted every 500 feet warning people to "Keep Out". As Far as the Cold Springs Granite side of the area, it should be covered by Cold Springs Granites permit.

**Spoil Piles, Weeds: SDCL 45-6B-43, ARSD 74:29:07:14, and ARSD 74:29:07:15.**

The expansion area will be within an existing Dakota Granite quarry that currently controls two noxious weeds. The same weed control method will be used for the expansion area as it is for the original quarry area. The two noxious weeds are identified

as Canadian Thistle and Leafy Spurge. Any infestation of either of these weeds will be controlled by spraying with an appropriate chemical during the spring emergence. Additional chemical control will be applied during the late summer as needed to control late growth.

**Landowner Consultation, reclamation Type Development: SDCL 45-6B-44 and ARSD 74:29:06.**

The proposed reclamation plan for this area is a natural wildlife area that will fill with water. The reclamation plan for Permit 15 will be used for this 7.57 acre area. All adjacent landowners were contacted and it was approved with permit 15. Cold Springs Granite will be sent a copy of the small permit application before it is submitted; a certified mail return receipt will be submitted.

**Reclamation Choices, Operators Requirements: SDCL 45-6B-45, ARSD 74:29:07:18 through ARSD 74:29:07:26 and ARSD 74:29:07:01.**

The choice of reclamation for the expansion area is wildlife habitat area. All operator requirements for this permit area will be covered by Dakota Granite Company. The expansion area will be reclaimed at the same time as the large mine permit 15 area.

**Reclamation Timetable, Planting not required under certain conditions, Concurrent Reclamation: SDCL 45-6B-46 and ARSD 74:29:08.**

This area is not scheduled for reclamation in the next year and a half. The area is many years away from being in a position for any reclamation to be completed. At this time it is not feasible to identify any date for this work to be done.

**74:29:08:01. Requirements for concurrent reclamation.** The expansion area is connected to our present quarry so no reclamation can be conducted before the larger quarry is shut down and ready for reclamation.

**74:29:08:02. Requirements for interim reclamation.** The expansion area is connected to our present quarry so no reclamation can be conducted before the larger quarry is shut down and ready for reclamation.

**74:29:08:03. Requirements for final reclamation.** The expansion area cannot have final reclamation done until the other quarry is ready to have final reclamation. Reclaiming the expansion area first would have an adverse affect on other mining operations.

**74:29:08:04. Disturbance to avoid requirements -- Board order.** Since the expansion area is within the existing quarry boundary, this does not apply.

**Post closure Plan: SDCL 45-6B-91**

The post closure plan for this area would be incorporated with the post closure plan for permit area 15. Since this area is smaller and connects to permit 15 all reclamation would be done whenever permit area 15 is done. The post closure plan for Area 15 is Wildlife Habitat area and will be planted and monitored like the test plots mentioned above in Section **ARSD74:29:07:06**.

- 1) **Treatment of Tailings.** This does not apply to this site
- 2) **Operation of monitoring systems.** Dakota Granite will fence or berm the area and allow vegetation to become established. Revegetation will be monitored and followed like the test plots for Permit 15 in Section O) above. Any erosion problems or lack of vegetation efforts will be to stabilize the erosion and reseed the area to help with vegetation growth.
- 3) **Inspection and Maintenance activities to ensure compliance with all applicable reclamation, design, and operating criteria.** Dakota Granite will monitor revegetation success and any erosion concerns while the reclamation is taking place.
- 4) **Procedures for maintaining the final cover and controlling erosion and fugitive dust.** Erosion and none vegetative areas will be monitored and corrected throughout the reclamation process.

**Critical Resources: SDCL 45-6B-92**

Since the area in question has been mined between two different mining companies for over 50 years, there are no new critical resources that would be affected.

1. **Wildlife:** No wildlife living in expansion area. It has been mentioned in other areas that two endangered species might have critical habitat in Grant County. No data shows they are in the expansion area and with current mining operations it is unlikely any wildlife live in the expansion area.
2. **Aquatic Resources:** No water flows naturally into the area.

3. Vegetation: Plant life living in the expansion area is very minimal and the endangered species are not known to be present in the expansion area.
4. Water: No drinking water is affected by this area.
5. Visual Resources: The area is in a quarry hole so it does not cause any visual constraint
6. Soils: Most of the soil from this area was removed many years before this permit.
7. Cultural Resources: Nothing is of any historical or cultural significance.
8. Air Quality: There are no homes or recreational areas near the quarry. There are only more quarries and farm fields.
9. Noise: There are no homes or recreational areas near the quarry. There are only more quarries and farm fields.
10. Land designated as special, exceptional, critical, or unique: This expansion area borders permit area 15 and that had no special land designations.

**74:29:07:01. General requirements for all reclamation types. All mining operations must comply with the general requirements in §§ 74:29:07:02 to 74:29:07:17, inclusive, and with the following requirements:**

**(1) Reclamation must rehabilitate the affected land to a condition that meets the selected post mining land use.** The post mining land use for the expansion area is wildlife habitat. The edge of the expansion area will be planted with native plants and monitored for years.

**(2) All reclamation activities are subject to the concurrent, interim, and final reclamation requirements of chapter 74:29:08.** The location of the expansion area makes so that there will be no interim reclamation.

**(3) All reclamation required by the approved reclamation plan must be completed prior to final and full bond release.** All reclamation will be completed soon after the quarry is closed.

**74:29:07:08. Hydrologic balance -- Water quality. To minimize disturbances to the prevailing hydrologic balance of the affected land and adverse effects on the quality and quantity of surface water and groundwater, both during and after the mining operation and during reclamation, the following requirements must be met:**

**(1) South Dakota water rights laws and regulations must be complied with.** The expansion area complies with all water rights laws as do the other permit areas

**(2) South Dakota water quality laws and regulations must be complied with.** The expansion area will comply with all water quality laws as do the other permit areas.

**(3) Dredge and fill laws in sections 401 and 404 of the Federal Clean Water Act as they existed on February 1, 1987, must be complied with.** No dredging or filling will take place in the expansion area.

**(4) Temporary or large sedimentation, erosion, or drainage control structures must be removed after affected lands have been vegetated and stabilized, if required by the reclamation plan.** All man-made erosion control measures will be removed from the expansion area as soon as it reaches full reclamation.

**(5) Permanent diversion structures must be designed not to erode during the passage of the approved design precipitation event.** The large granite barriers used in the expansion area to control erosion will not erode do to any precipitation event.

**(6) Unchannelized surface water must be diverted around the operation as necessary to minimize pollution and erosion and to protect the operation and downstream water users who have prior water rights.** No surface water is close enough to the expansion area to cause any pollution downstream.

**74:29:07:09. Surface runoff diversions. Surface runoff diversions must meet the following general requirements:**

**(1) In soils or other unconsolidated material, the sides of diversion ditches may be no steeper than two horizontal to one vertical. The sides and, in ditches carrying intermittent discharges, the bottom must be stabilized by seeding with grasses or other methods specified in the reclamation plan as soon as practicable.** There are no diversion ditches near the expansion area.

**(2) In rock, the sides of diversion ditches must be stable.** There are no diversion ditches near the expansion area.

**(3) Rock riprap, concrete, geosynthetic liners, geosynthetic filter media, soil cement, or other methods must be used where necessary to prevent erosion.** Erosion control in the expansion area is controlled by granite barriers.

**(4) Culverts or bridges must be installed where necessary to allow access.** No culverts or bridges are needed in the expansion area.

**(5) Diversion ditches must be constructed to minimize hazards to humans, wildlife, or livestock.** There are no diversion ditches near the expansion area.

**(6) Surface runoff diversions around milling or processing facilities using potentially toxic chemicals or materials must be capable of carrying the flow from the six-hour probable maximum precipitation event without causing erosion.** There are no diversion ditches near the expansion area and no milling or toxic chemicals.

**(7) All other surface water diversions must be capable of carrying a minimum of the two-year six-hour precipitation event without causing erosion.** There are no diversion ditches near the expansion area.

**(8) Diversion ditches may not discharge on topsoil storage areas, spoil, or other unconsolidated material such as newly reclaimed affected lands.** There are no diversion ditches or topsoil storage areas in the expansion area. There are no storage areas in the expansion area.

**74:29:07:10. Diversions of intermittent and perennial streams. Permanent or temporary diversions of intermittent and perennial streams on affected lands must meet the following general requirements:**

**(1) Spoil, topsoil, or other unconsolidated materials may not be pushed into or placed within 10 feet of the banks of a perennial or intermittent stream or in a location which may subject them to bank full flooding except during the construction of the diversion as approved in the permit.** There are no perennial or intermittent streams located in or near the expansion area.

**(2) The banks of a diverted perennial or intermittent stream must be stabilized and vegetated with approved species as soon as practicable.** There are no perennial or intermittent streams located in or near the expansion area.

**(3) The banks and channel of a diverted perennial or intermittent stream must be protected where necessary by rock, geosynthetic liners, geosynthetic filter media, riprap, or similar measures to minimize erosion and degradation of water quality. Permanent diversions must be designed and constructed to prevent erosion and to carry flow consistent with the flow produced by stream's original**

**width, depth, shape, and gradient.** There are no perennial or intermittent streams located in or near the expansion area.

**(4) The board may not permit mining on the flood plain of a perennial or intermittent stream if it would cause the uncontrolled diversion of the stream during bank full periods.** There are no perennial or intermittent streams located in or near the expansion area.

**(5) Channel and flood plain diversions must be designed to prevent erosion during the passage of the approved design precipitation event. Cross-sections and other hydrologic data for the existing stream above, below, and within the diversion area must be used to determine the flow capacities, channel configuration, and shape of the diversion. Such design information must be included in the reclamation plan.** The expansion area is not in a channel and flood plain. No diversions happen in or near the expansion area.

**(6) The water quality of a diverted intermittent or perennial stream must meet surface water quality standards in chapter 74:51:01.** There are no perennial or intermittent streams located in or near the expansion area.

**74:29:07:12. Roads and railroad spurs. Constructed or upgraded roads and railroad spurs are affected land from the location where they provide exclusive service to the mining operation and must be covered by the reclamation bond. They must meet the following general requirements:**

**(1) When feasible, roads and railroad spurs must not be constructed within riparian zones.** No roads or railroad spurs were built for the expansion area. All roads were constructed before the expansion area was purchased.

**(2) Roads within riparian zones must be constructed so that negative effects on streams are minimized;** No roads or railroad spurs were built for the expansion area. All roads were constructed before the expansion area was purchased. No streams are located near the access roads to the expansion area.

**(3) Roads or railroad spurs within the riparian zone of a coldwater permanent fishery designated pursuant to chapter 74:51:02 or 74:51:03 may be subject to the requirements of §§ 74:29:07:29 to 74:29:07:32, inclusive.** No roads or railroad spurs were built for the expansion area. This does not apply to the expansion area.

**(4) Streams must be crossed at or near right angles unless contouring down to the stream bed will result in less potential stream bank erosion. Ford entrances and exits must be constructed to minimize erosion and prevent water from flowing down the roadway.** No roads or railroad spurs were built for the expansion area. This does not apply to the expansion area.

**(5) Drainage control structures must be used as necessary to control runoff and to minimize erosion, sedimentation and flooding. When used, drainage control structures must be installed as road construction progresses.** No roads or railroad spurs were built for the expansion area. This does not apply to the expansion area.

**(6) Culverts must be installed at prominent drainage ways. Culverts must be protected from erosion by rock, concrete, riprap, or other approved means. Culverts and drainage pipes must be constructed and maintained to avoid plugging, collapsing, or erosion at inlets and outlets.** No roads or railroad spurs were built for the expansion area. This does not apply to the expansion area.

**(7) Trees and vegetation may be cleared only to the width necessary to maintain slope stability and to serve traffic needs.** No roads or railroad spurs were built for the expansion area. This does not apply to the expansion area.

**(8) Access and haul road drainage structures must be routinely maintained.** No roads were built for the expansion area. All existing roads are maintained for use in the main quarry site.

**(9) Other transport facilities and utilities must be constructed and maintained to control degradation of water quality and quantity.** No transport facilities and utilities were constructed for the expansion area.

**(10) An applicant may request in writing to the board that a road or railroad spur be permitted to remain unclaimed if the surface landowner or a local, state, or federal agency has requested that the road or spur remain unreclaimed and agrees to be responsible for future maintenance. The operator must furnish proof of such a request. No surety is required for reclamation of such a road or spur and reclamation of the road or spur is not required if the request is approved by the board.** . No roads or railroad spurs were built for the expansion area. This does not apply to the expansion area.

**74:29:07:13. Buildings and structures. All buildings and structures constructed, used, or improved by the operator must be dismantled and removed unless it**

can be demonstrated to the board's satisfaction that they will be consistent with the approved post mining land use. There are no buildings in the expansion area and none will be built. This does not apply to the expansion area.

**74:29:07:14. Spoil. Spoil on all affected land must meet the following general requirements:**

(1) Except where diversions are approved by the board, all spoil must be located to avoid blocking intermittent or perennial drainages. Ephemeral drainages may be blocked if the engineering and environmental methods used for dealing with runoff control and sedimentation is approved by the board. There are no drainages in the expansion area and all grout will be removed by dump truck and hauled to the grout pile or over to Fishers Sand and Gravel to be crushed.

(2) If permanent spoil dumps are approved by the board, the board may require the operator to demonstrate the long-term stability of the dumps through geotechnical stability analyses conducted by a registered professional engineer competent in the field of geotechnical analysis. No spoil dumps will be located in or near the expansion area.

(3) The board may require the operator to analyze spoil material to determine if it will be a source of water pollution. If the spoil material may be such a source the operator must describe proposed procedures for mitigating the condition. No spoil dumps will be located in or near the expansion area.

(4) All spoil material that is determined to be toxic or acid-forming or that will prevent reestablishment of vegetation on the reclaimed land surface must be properly disposed of during the mining operation unless such materials occur naturally on the land surface. No spoil dumps will be located in or near the expansion area.

**74:29:07:18. Requirements for specific types of reclamation. The requirements in §§ 74:29:07:19 to 74:29:07:27, inclusive, apply to the specific type or types of reclamation selected pursuant to SDCL 45-6B-45. These requirements are to be used to develop, when practicable, a multiple-use reclamation plan.**

The individual who develops the reclamation plan must be competent in the management and planning of the specific type or types of reclamation selected. The expansion area will be a wildlife habitat area. The 500 feet of quarry edge will be graded and planted with native grasses and trees. It will be

monitored for 30 years along with the existing permit area 15. The individual who developed the reclamation plan used the help of the South Dakota, Game, Fish and Parks officer and the local Soil Conservation Service Agent, Mr. Dale Johnson. With their help and the test plots study area, the Dakota Granite employee was able to develop the reclamation plan.

**74:29:07:22. Wildlife habitat. The following requirements apply to wildlife habitat as an approved post mining land use:**

**(1) Reclamation shall be directed toward optimizing habitat diversity for game and nongame species. The surrounding unaffected land must be considered in determining habitat diversity goals.** The local South Dakota Conservation Officer, Mr. Stan Michals was consulted on wildlife species. Mr. Michals agreed with the original survey that was done on the larger permit area. He added that two endangered species might have critical habitat in Grant County. These species were not considered for the reclamation plan. As for plant diversity in 1990 Mr. Dale Johnson was consulted from the Soil Conservation District. He provided the seed mixture for the reclamation found above in section **ARSD 74:29:07:06.**

**(2) The applicant must identify the wildlife species to benefit from the proposed reclamation.** The local wildlife that surrounds this area and could benefit from the reclamation of the expansion area includes whitetail deer, pheasant, partridge, cottontail rabbits, jack rabbits, red fox, raccoon, mink and a variety of birds including robins, blue jays, blackbirds, crows and swallows. Stan Michals also indicated that the Dakota skippers and Poweshiek skippering are two endangered species that might have habitat in Grant County. These species might benefit from the reclamation of the expansion area.

**(3) The affected land must be revegetated with native trees, shrubs, forbs, grasses, or other approved alternative vegetation. Revegetation composition, spacing, and arrangement must be based on consultation with the department of game, fish and parks or on an approved reference area. Woody species and understory vegetation shall be planted at rates which can reasonably be expected to yield densities appropriate for the designated wildlife species.** Mr. Dale Johnson was consulted from the Soil Conservation District. He provided the seed mixture for the reclamation found above in section **ARSD 74:29:07:06.** The native grasses will be planted first then after 3 years of growth trees and scrubs will be planted.

**(4) Alternative wildlife habitat reclamation objectives shall be developed in consultation with the department of game, fish and parks and approved by the board.** The size of the expansion area is so small it makes it so alternative wildlife habitat reclamation objectives are not needed.

**(5) Sites to be reclaimed for recreational fisheries must provide suitable habitat for the selected fish species.** The site will not be designated as specifically a recreational fishery

**(6) Surface impoundments to be reclaimed for recreational fisheries must have at least 25 percent of the bottom at a minimum depth of 20 feet to ensure sufficient water during drought, limit growth of undesirable weeds, and reduce the potential for winterkill.** The site of the expansion area will not be designated as specifically a recreational fishery.

**(7) Streams to be reclaimed for recreational fisheries must have a baseline study prepared by an individual who is competent in the field of fisheries management which addresses faunal, floral, and channel characteristics and is approved by the department of game, fish, and parks.** Streams to be reclaimed for recreational fisheries must be reconstructed so that they provide suitable habitat for the selected fish species. Reclamation must achieve to the extent possible the premining pool to riffle ratio, width-to-depth ratio, and stream bed particle sizing and sorting ratio, unless modifications to enhance the stream habitat are approved by the department of game, fish and parks and the department. Reclamation techniques such as stream bank stabilization and revegetation, construction of wing deflectors, k-dams, or other management techniques may be incorporated into the reclamation plan and must have the approval of the department, the department of game, fish and parks, and the board. No streams in the expansion area so this does not apply.

**(8) Sites to be reclaimed for recreational fisheries must have safe bank access.** The site will not be designated as specifically a recreational fishery

**(9) Reclamation is complete when the following conditions are met:**

**(a) The surviving vegetation species composition is capable of supporting the wildlife species identified as those to benefit from the proposed reclamation.** The local wildlife authorities were consulted to make sure the reclamation plan benefits native species.

**(b) The understory cover is adequate to control erosion.** Grasses will be planted as described in section (3) above.

**(c) Stream fisheries approximate or exceed the baseline condition of the stream or that of the approved reference area.** The site will not be designated as specifically a recreational fishery

**(6) Surface impoundment fisheries meet the post mining land use as described in the approved reclamation plan.** The site will not be designated as specifically a recreational fishery

**74:29:07:27. Permanent surface impoundment. The following requirements apply to a permanent surface impoundment as an approved post mining land use:**

**(1) Dams must be designed to contain and, if necessary, pass the design precipitation event. All dam designs must be reviewed and approved by the division of water rights.** The expansion area is not considered a dam and neither does the permit area next to it. This does not apply.

**(2) If necessary to prevent failure, dams must contain an overflow notch and spillway. Overflow notches and spillways must be riprapped with rock, concrete, or other suitable materials to prevent erosion.** The expansion area is not considered a dam and neither does the permit area next to it. This does not apply.

**(3) Slopes around surface impoundments, unless otherwise approved by the board, may not exceed two to one, except from five to ten feet below the expected water line where slopes may not exceed three to one. If a swimming area is proposed, the slope, unless otherwise approved by the board, may be no steeper than five to one throughout the area proposed for swimming. All slopes around surface impoundments must be graded and contoured to minimize hazards to humans, livestock, and wildlife.** The slopes around the expansion area will be graded before final reclamation. The edges will have granite barriers to prevent accidental falls by people or wildlife.

**(4) The board may require the operator to determine if sources of water contamination within the impoundment exist. Such sources must be treated to prevent contamination of the impounded water.** The source of water for the expansion area will be ground water or rain water and should not contain any contamination.

**(5) Surface impoundments intended for use as recreational fisheries or recreation areas must meet the applicable requirements of § 74:29:07:23. The site will not be designated as specifically a recreational fishery.**

**(6) Reclamation is complete when the intended use of the surface impoundment has been attained and all other requirements of the reclamation plan have been met.** Reclamation will start immediately after shutdown and will be completed within 3 years of shutdown.

PLAT OF  
LOTS 1, 2 AND 3 OF COLD SPRING-DAKOTA GRANITE SECOND ADDITION.  
LOCATED IN OUTLOTS A, 3, 4, 5 AND 7 OF SECTION 13, TOWNSHIP 120 NORTH,  
RANGE 48 WEST OF THE 5TH P.M., GRANT COUNTY, SOUTH DAKOTA

**VACATION NOTICE**  
THIS PLAT SHALL VACATE A PART OF LOTS 3, 4, 5 AND 7 OF THE  
PLAT OF OUTLOTS 3, 4, 5, 6, 7 IN THE NE 1/4 OF SECTION 13,  
TOWNSHIP 120 NORTH, RANGE 48 WEST OF THE 5TH P.M., GRANT  
COUNTY, SOUTH DAKOTA, FILED IN PLAT BOOK 8, PLAT NUMBER 51  
AND  
SHALL VACATE A PART OF OUTLOT A OF THE PLAT OF PROPERTY  
OF DAKOTA GRANITE COMPANY IN NE 1/4, SECTION 13, TOWNSHIP  
120 NORTH, RANGE 48 WEST OF THE 5TH P.M., GRANT COUNTY,  
SOUTH DAKOTA, FILED IN PLAT ENVELOPES, PLAT NUMBER 280.

Present  
Quarry

New  
Quarry

150'

N 1/4 CORNER  
SEC. 13-120-48  
(FOUND REBAR)  
N=520706.36  
E=2883289.81

NE CORNER  
SEC. 13-120-48  
(FOUND RAILROAD  
SPIKE)  
N=520881.59  
E=2885914.80

- LAND TRANSFERRED TO COLD SPRING GRANITE
- LAND TRANSFERRED TO DAKOTA GRANITE
- Quarried Area
- Block Storage

Present  
Quarry

New  
Quarry

150'

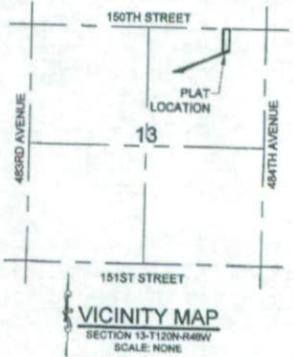
LOT 1 CONTAINS 1.8± ACRES OF WHICH  
0.1± ACRES BEING STATUTORY  
SECTION LINE R.O.W.  
LOT 2 CONTAINS 0.2± ACRES  
LOT 3 CONTAINS 0.5± ACRES

Document # \_\_\_\_\_  
STATE OF SOUTH DAKOTA COUNTY OF GRANT-ss  
Recorded this \_\_\_\_\_ day of \_\_\_\_\_, A.D., 20 \_\_\_\_\_  
at \_\_\_\_\_ o'clock \_\_\_\_\_ M., Plat Case \_\_\_\_\_ Plat No. \_\_\_\_\_  
Register of Deeds

SHEET 1 OF 2

- LEGEND**
- MONUMENT FOUND
  - MONUMENT SET THIS SURVEY  
(5/8" REBAR WITH STAMPED  
PLASTIC CAP #11307)
  - MONUMENT SET THIS SURVEY  
(PAINT MARK ON GRANITE)
  - × CORNER FALLS IN QUARRY PIT AND  
INACCESSIBLE AT THE TIME OF THIS  
SURVEY.

HORIZONTAL DATUM: NAD 83 (2007)  
PROJECTION:  
SOUTH DAKOTA STATE PLANE  
COORDINATES NORTH ZONE (4001)  
BASIS OF BEARING: GEODETIC NORTH  
ALL DIMENSIONS SHOWN ARE IN  
TERMS OF U.S. SURVEY FEET



PREPARED BY:  
BANNER ASSOCIATES, INC.  
MILBANK, SOUTH DAKOTA  
(855) 323-6342  
SEPTEMBER 2015

GEODETIC BEARING  
SCALE: 1" = 200'

Map 7

Rev. 1

RECEIVED  
APR 29 2016

PLAT OF  
LOTS 1, 2 AND 3 OF COLD SPRING-DAKOTA GRANITE ADDITION,  
LOCATED IN GOVERNMENT LOT 4 AND THE E1/2-SW1/4 OF SECTION 7, TOWNSHIP 120 NORTH,  
RANGE 47 WEST OF THE 5TH P.M., GRANT COUNTY, SOUTH DAKOTA

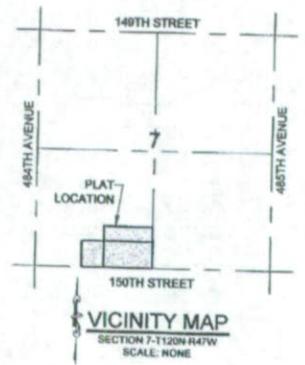
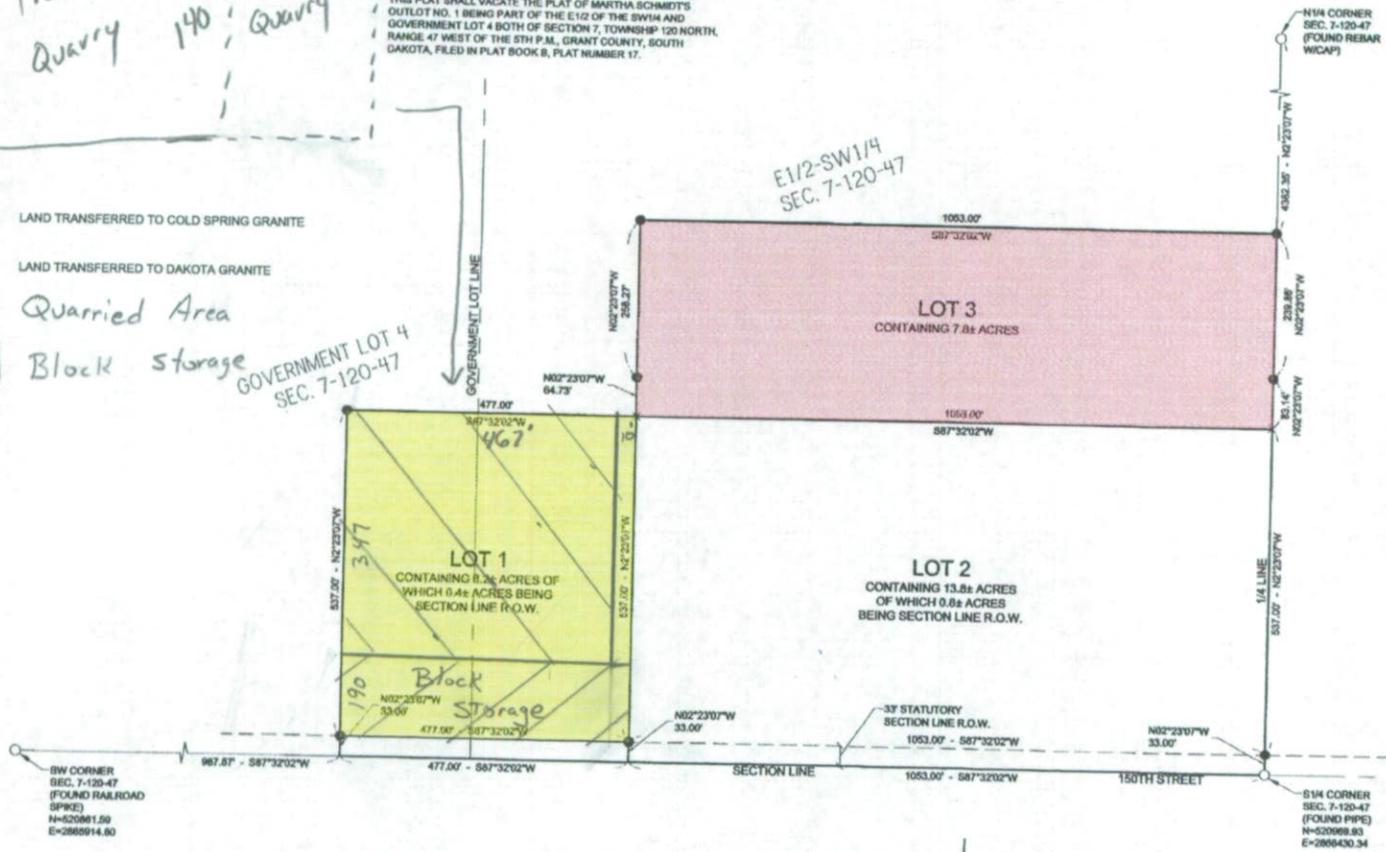
Present Quarry  
140'  
New Quarry

**VACATION NOTICE**  
THIS PLAT SHALL VACATE THE PLAT OF MARTHA SCHMIDT'S OUTLOT NO. 1 BEING PART OF THE E1/2 OF THE SW1/4 AND GOVERNMENT LOT 4 BOTH OF SECTION 7, TOWNSHIP 120 NORTH, RANGE 47 WEST OF THE 5TH P.M., GRANT COUNTY, SOUTH DAKOTA, FILED IN PLAT BOOK 8, PLAT NUMBER 17.

- LAND TRANSFERRED TO COLD SPRING GRANITE
- LAND TRANSFERRED TO DAKOTA GRANITE
- Quarried Area
- Block Storage

GOVERNMENT LOT 4  
SEC. 7-120-47

E1/2-SW1/4  
SEC. 7-120-47



**LEGEND**

- MONUMENT FOUND
- MONUMENT SET THIS SURVEY (5/8\"/>

HORIZONTAL DATUM: NAD 83 (2007)  
 PROJECTION: SOUTH DAKOTA STATE PLANE  
 COORDINATES NORTH ZONE (4001)  
 BASIS OF BEARING: GEODETIC NORTH  
 ALL DIMENSIONS SHOWN ARE IN TERMS OF U.S. SURVEY FEET

PREPARED BY:  
 BANNER ASSOCIATES, INC.  
 MILBANK, SOUTH DAKOTA  
 (855) 323-6342  
 NOVEMBER 2015

Document # \_\_\_\_\_  
 STATE OF SOUTH DAKOTA COUNTY OF GRANT-ss  
 Recorded this \_\_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_\_\_  
 at \_\_\_\_\_ o'clock \_\_\_\_\_ M., Plat Case \_\_\_\_\_ Plat No. \_\_\_\_\_  
 Register of Deeds

SHEET 1 OF 2

Map 2

RECEIVED

APR 29 2016

MINERALS & MINING PROGRAM