

## Exhibit 2

EQC Docket 10-2803  
Judith Bush

**Croell Redi-Mix AP 9645 various documentation  
includes information AQD had from LQD**

includes: **original application received July 6, 2009** pages 1 - 2

- \* location is NWNE Section 25 T 52N R 62 W plus 600.07 acres designated as minesite by DEQ LQD in Table C-1  
Table C-1 contains 600.07 acres - total size of minesite  
Table C-1 does not include the NWNE Section 25

(note - Appendix C-1 and Table C-1 are unsigned)

- \* The legal description on the Permit is inconsistent with information provided to AQD from LQD

### **Appendix C-1 and Table C-1 Table C - 1**

(land description) (unsigned)

page 3

- \* Legal description from LQD for 600.07 acre minesite does not include NWNE Sec 25  
(note - copy of this document is unsigned.)

### **Dec 2008 Mine Plan ( from LQD application)**

pages 4 - 19

### **aerial map**

page 21 & 25

- \* shows old haul road, Rifle Pit Road and Hwy 14  
shows minesite and adjacent Bush Ranch acreage

### **Facility Location Map - Appendix A**

pages 23 - 14

### **Emission Estimates - Appendix B**

pages 26 - 30

- \* acreage exposed to wind erosion is estimated at 5 acres  
This is ludicrous. Emission estimates are based on this figure.  
(page 28)
- \* TSP blasting emissions based on 12 blasts per year  
information provided by applicant - unreasonably low  
low for operation of this size. Emission estimates are base  
on this figure. (page 28)

**Permit application Analysis**

pages 31-34

- \* 12 blasts per year appears to be low (page 31)
- \* location incorrect -  
not included in 600.07 acre LMO minesite (page 31)
- \* NWNE Section 25 T 52N R 62W not owned by Roger Croell
- \* Permit will supersede CT 4526 (page 34)

All previous AQD permits for operations at Rogers Pit were issued under Croell Redi-Mix AQD Permit CT-4526 a ten acre minesite with max annual production of 100,000 tons

**Public Notice**

pages 35 - 36 and 38

- \* legal description of minesite is incorrect
- \* distance from Sundance is incorrect
- \* designation of 40 acres (NWNE Sec 25) implies 40 acre minesite misleading public notice - mine site over 600 acres
- \* Minesite is not located 5 miles from Sundance

**Letter from AQD to Croell Redi-Mix Approving Permit**

pages 39 -41

- \* legal description of NWNE of Section 25 Permit MD 9645 is issued with respect to incorrect location
- \* records of product hauled from site to continue for at least 5 years, however mining operations to continue until longer

page 40

page 7

**DEQ AQD Decision**

pages 43 - 64

- \* acknowledges error of failing to give public accurate information regarding scope of mining operation

**Public Notice of December 14, 2009 Public Hearing**

pages 65 - 67

- \* Legal description designated 40 acres misleading - this is a 600.07 acre minesite public not informed of scope of operation
- \* incorrect legal description
- \* NWNE Section 25 not a part of LQD designated 600.07 minesite
- \* minesite is not located 5 miles east of Sundance

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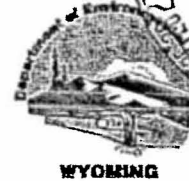
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STATE OF WYOMING  
Department of Environmental Quality  
Air Quality Division

WAQS&R Chapter 6, Section 2 Permit Application  
Mining/Quarry Operations - Non Coal  
Permit Application Form



WYOMING

Please submit three (3) copies of the complete application



COMPANY: Croell Peds MIV Inc.  
Contact: Julie Ewing Title: Safety Director  
Mailing Address: PO BOX 1352  
City: Sundance State: WY Zip: 82729  
Phone: 307-283-2221 Fax: 307-283-1450 E-Mail: julie.ewing@croell.com

MINE/QUARRY NAME: Rogers Rock Pit  
New Mine/Quarry:  Modification to existing Mine/Quarry:   
Size of Mine/Quarry: 400.07 Acres  
Legal Description: NW 1/4 NE 1/4 Section 25 T 52 N R 102 W 4 S *See attachment for further legal description*  
Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
County: CROOK  
Number of residences within 1 mile radius: 1 Distance to nearest residence: 1 mile

TYPE OF MATERIAL MINED: (This form is Not for Coal Mines) Limestone  
Total Material Available: Est. 10 million tons Max. Annual Production: 500,000 tons/yr  
Max. Hourly Production: 400 tons/hr Avg. Hourly Production: 300 tons/hr  
Max. Hours of Operation: 10 hours/day 5 days/week 20 weeks/year

EQUIPMENT/OPERATION PLANNED AT THIS SITE:  
(mark all that apply) Crushing\*  Screening\*  Hot Mix Asphalt Plant\*  Stockpiling\*  Blasting\*  Concrete Batch Plant\*   
\*Operation of crushers, screens, stock piling, blasting, hot mix asphalt plants or concrete batch plants at the quarry will only be allowed if so designated on this application.  
\*All crushers, screens, hot mix asphalt plants, or concrete batch plants must have a separate, valid air quality permit to operate at this mine/quarry.



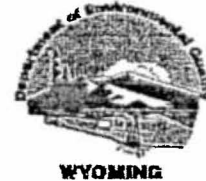
This application must include:  
1. Documentation that the proposed site is located in accordance with proper land use planning as determined by the appropriate state or local agency charged with such responsibility (local planning and zoning department, county commissioners, etc) (Per Chapter 6, Section 2(c)(iv) of the WAQS&R).  
2. A map identifying the site location and mining activities (for operations 10 acres or less) or a mine plan (for operations more than 10 acres). (The mine plan from the Land Quality Division (LQD) Application [Item 9 on LQD Form 1(s)] may be used; a reclamation plan is not required.)

I, Julie Ewing, Health + Safety Director  
Responsible Official (Please print or type) Title  
state that I have knowledge of the facts herein set forth and that the same are true and correct to the best of my knowledge and belief. I further certify that the maximum production rate listed in this application reflects the maximum anticipated production rate at this mine/quarry. The facility will operate in compliance with all Wyoming Air Quality Standards and Regulations.  
Signature: Julie Ewing Date: 6/30/09





STATE OF WYOMING  
 Department of Environmental Quality  
 Air Quality Division  
 WAQS&R Chapter 6, Section 2 Permit Application  
 Mining/Quarry Operations - Non Coal  
 Mined Material Information 2



**ACCESS & HAUL ROADS \***

Maximum Distance Material will be Hauled until Reaching Pavement: 1 miles

Fugitive Particulate Control Method: Water Truck

Type of Dust Suppressant Used: CaCl

Control Application Frequency: As Needed

\* The application **MUST** include a map identifying all haul roads, including county roads, other unpaved roads, and the first paved road associated with the mining activities.

**HAUL TRUCKS (Trucks that Transport Product from the Quarry)**

Truck Type 1 (Description): Articulated

No of Trucks: 5 Capacity (tons): 40 TON Empty Weight (lbs): 40,000

Truck Type 2 (Description): \_\_\_\_\_

No of Trucks: \_\_\_\_\_ Capacity (tons): \_\_\_\_\_ Empty Weight (lbs): \_\_\_\_\_

Truck Type 3 (Description): \_\_\_\_\_

No of Trucks: \_\_\_\_\_ Capacity (tons): \_\_\_\_\_ Empty Weight (lbs): \_\_\_\_\_

Truck Type 4 (Description): \_\_\_\_\_

No of Trucks: \_\_\_\_\_ Capacity (tons): \_\_\_\_\_ Empty Weight (lbs): \_\_\_\_\_

**CRUSHING/SCREENING/HOT MIX ASPHALT PLANT/CONCRETE BATCH PLANT:**

If crushing or screening equipment, a hot mix asphalt plant, or concrete batch plant will be operating at the mine and does not have a valid air quality permit or relocation permit, the appropriate application form (Forms AQD-CS1-4, AQD-HM1-4, or AQD-CB1-3) must be submitted for the equipment.

**OTHER**

Other Emission Sources and Control: \_\_\_\_\_

**Appendix C-1**

This Appendix "C" represents the location of lands by legal subdivision, section, township, range, county, and municipal corporation, if any, (W.S. 35-11-406, (a), (vi)) and the number of acres in each description. No mining activity may take place on land for which there is not in effect a valid mining permit (W.S. 35-11-405). To include additional lands within a permit area it is necessary to amend the permit (W.S. 35-11-406, (a), (xii)), so care should be taken to include all lands necessary to the mining and reclamation operation as defined in W.S. 35-11-103, (e), (vii). All acreage figures should be obtained from official survey documents or recent surveys if available. An original U.S.G.S. topographic map with the permit area clearly outlined should accompany each permit application.

**TABLE C-1  
Roger's PIT - LAND DESCRIPTION**

A tract of land located in the SE1/4NW/4, that portion of SW/4NW/4 located east of Interstate 90 Right-Of-Way, SW1/4 and SW/4SE/4 of Section 25; that portion of SE/4NE/4 located east of Interstate 90 R-O-W, that portion of SE/4 located east of Interstate 90 R-O-W, and that portion of SE/4SW/4 located east of Interstate 90 R-O-W of Section 26; E/2NE/4, NW/4NE/4, that portion of the N/2NW/4 located east of Interstate 90 R-O-W and the NE/4SE/4 of Section 35, T52N R62W of the Sixth Principal Meridian, Crook County, Wyoming.

Said tract of land contains 600.07 acres, more or less, subject to all rights, restrictions, reservations and/or easements of sight and record.

COUNTY of <u>Crook</u>	Description Acres	<u>600.07</u>
Municipal Corporation <u>Sundance</u>	Total Permit (Amendment) Acres	<u>600.07</u>

\_\_\_\_\_  
Applicant Signature

\_\_\_\_\_  
Date

Permit No.

## MINE PLAN

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MINE PLAN

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MP-1	Mine Progressions

MP.2

## MINE PLAN

### MP 1 GENERAL DESCRIPTION OF MINING OPERATION

The Rogers Pit is an open pit limestone mine with crushing operations. Croell Redi-Mix has been mining the area under Limited Mining Operation (LMO) 1396 ET and is now expanding the area to a regular mine permit. The following sections present the methods of operation and the procedures used to meet the environmental protection performance standards of Chapter 3 of the WDEQ/LQD Noncoal Rules and Regulations dated June 2000. The crushed limestone gravel from the mine has and will continue to be used as concrete aggregate and to construct and maintain public roads and private roads in the area.

#### MP 1.1 Mining Method

The mine is an open pit surface mine currently operating in one pit. The mine operates in shallow limestone deposits that are fairly consistent in depth and extent. Based on the drilling program conducted for the LMO the limestone deposits are variable in depth with maximum depths of approximately 25 feet. Topsoil is limited and ranges from 0 to six inches. Where topsoil is lacking, a thin layer of 0 to 12 inches of weathered limestone and silt generally overlay the limestone. If multiple pits are developed, crushing will normally be conducted in one pit at a time. The crushing and screening equipment will be moved from one pit to another and generally located at different locations as the pits progress. The only permanent or stationary facilities at the pit site at this time are the scale house and scales. Powder River Energy Corporation has provided electrical power to the site. If other structures are proposed, Croell will address them with WDEQ/LQD prior to construction.

Mining is conducted by blasting the limestone and then moving the material to the crusher facility with dozers and front-end loaders. Earthmoving begins with topsoil and suitable subsoil salvaging from the initial bench. Where topsoil depths are shallow, topsoil will generally be dozed or bladed into a berm and then picked up with scrapers or truck and loaders and stockpiled. Overburden material is also very thin in most places and will be handled in the same method. The limestone deposit is mined, the high walls are knocked down and available overburden and topsoil are replaced as the highwall progresses. If the limestone deposits are not contiguous, a new pit area

will be developed as mining is completed in the previous area. High wall heights will vary but generally not exceed 25 feet.

The lower topsoil and subsoil profiles generally contain high coarse fragment content. Operators will be trained to recognize color and soil structure differences between suitable topsoil, subsoil and the overburden. The salvaged topsoil and subsoil from the initial access road and crusher site will be stockpiled for future use. As mining progresses, topsoil may be removed and applied directly to backfilled and graded areas of the mined-out pit. Topsoil and suitable subsoil salvage is a seasonal operation, dependent upon weather. Where topsoil is limited, some of the overburden material will be used to reclaim the mined out areas.

#### **MP 1.2 Life of Mine**

Limestone mining has occurred since late 2007 under LMO 1396 ET. Mining is proposed to continue through at least 2020 with reclamation to follow as soon as possible. Actual mine life will depend on market conditions. Removal of the crushed and screened material and final reclamation may continue for one or two years after extraction is completed.

Changes in operating, marketing, and/or transportation conditions, may cause fluctuations in projected tonnages that could result in a change in the mine plan. The planning process is continual, and many changes may occur during the life of the mine.

The present life-of-mine progressions are shown on Map MP-1. Current production estimates are presented in Table MP 1. Croell Redi-Mix, Inc, proposes producing 30,000 ton each year at full capacity. Actual production will depend on market conditions. Actual production will be reported in the annual report.

#### **MP 1.3 Mine Equipment**

The major pieces of mining equipment used at the Rogers Pit are listed in Table MP 2. This table shows the number of units by type and size class presently used on site. If multiple pits are established, crushing equipment will generally be transported from one pit to another as operations require. Equipment numbers are not expected to vary but may increase in future years as sales increase. Other equipment at the mine not specifically itemized includes supervisor's pick-up trucks, maintenance service trucks, and other various support equipment. Future mining equipment

may vary from that listed in Table MP 2. Changes in mining and hauling methods will be reviewed throughout the mining process in an effort to increase efficiency and minimize environmental impacts.

Reclamation equipment for overburden grading and topsoil replacement will consist of scrapers, crawler tractors, motor graders, and front-end loaders. Scrapers will be used to haul topsoil and subsoil for reclamation of the pit areas, abandoned access roads and crusher locations. These are supplemented with the necessary support equipment for haul road maintenance and dust suppression. Seedbed preparation is performed with normal farming implements pulled by farm tractors. Seeding is done with drills and broadcast seeders. Revegetation activities will be conducted by private contractors. Therefore, the equipment is not included on the equipment list for the mine.

#### **MP 1.4 Affected Area Boundaries**

Map MP-1 shows the boundaries of areas proposed to be affected for various activities for the life of the mine. The map shows the maximum area that may be affected by all mining, reclamation, and support activities over the life of the mine. The line includes all lands where disturbance could occur; this does not mean that all areas within this boundary will be disturbed. The intent is to allow sufficient area to develop the pits and conduct support activities such as constructing roads, sediment control structures, and temporary stockpiles. Federal minerals in the NWSW of Section 25, T52N, R62W are not included in the initial progressions but could be included in the future. BLM mineral sales contracts are issued for 5-year periods so one will not be obtained until they area is mined.

#### **MP 1.5 Relations to Existing Structures**

Physical obstacles to mining are minimal within the permit area. The only power line within the affected area provides service to the mine facilities. Rifle Pit Road is a Crook County public road that crosses through the northern limits of the permit area and serves as the access route from the mine to Highway 14 that then provides access to Interstate 90. There are no ranch buildings or other structures located within the proposed mining limits.

**MP 2 MINE FACILITIES****MP 2.1 Structures**

The only structures proposed at the time of start-up are the scale house and scale. All activities will be confined to the pit area and the access/haul road. Portable fuel storage structures and sanitation facilities have been placed in the pit area.

Entrance Road The entrance road will be the same as the main haul road for hauling material from the property. The road will be a graveled road from the pit to Highway 14. *REPEAT RD?*

Water Supply Initial water for dust abatement will be hauled into the property from an outside source. A water well may be drilled at a later time. *HAS MUCH H<sub>2</sub>O? IMPACT OUR WELL?*

**MP 2.2 Power**

Electrical power to the scale house area has been provide by Powder River Energy Corporation.

**MP 2.3 Sedimentation and Treatment Ponds**

As the pit area is developed, drainage from disturbed areas will be directed into the pit area through the use of berms and ditches.

For overburden and topsoil stockpiles, a drainage berm will be constructed around the toe of each stockpile. Overburden material will be used to construct berms around overburden stockpiles and to control runoff within the pit area. Berms around topsoil stockpiles will constructed with topsoil. Initial sediment control will be provided by alternate sediment control measures such as; silt fences, berms, pits, hay bales, or other alternate sediment control measures. Following pit development, ultimate sediment control will be provided by the pit area. No sediment ponds are proposed at any of the pit areas. Operations will be restricted to the upland areas with no activities proposed within drainages.

**MP 2.4 Solid Waste Disposal**

The operation will haul all solid wastes, including petroleum wastes and any other toxic materials, off site for disposal in an approved facility.

**MP 2.5 Storage and/or Stockpile Sites**

MP.6



There are three standard types of stockpiles at the mine: gravel, overburden, and topsoil.

#### Aggregate

Aggregate stockpiles will be located within the pit area. These stockpiles will be active most of the time and volumes will vary. Croell will crush enough material to last for several months. The stockpiles will be reduced by gravel sales. Multiple sizes of crushed materials can be produced and each will require separate stockpiles. Primary products will be concrete aggregate and road base material of variable sizes. Other sizes of aggregate are possible as markets are established.

#### Overburden

The locations and volumes of all existing stockpiles will be given in the most current Annual Report. When possible, overburden will be directly placed in mined out areas.

#### Topsoil

The location and size of stockpiles will be presented yearly in the Annual Report. Annual additions or subtractions from stockpiles will be included therein.

### **MP 2.6 Access Control**

Additional fences are not expected to be necessary. The gravel pits are shallow and high-walls are minimal so danger to people and animals is limited. Most of the permit area consists of haylands. If livestock grazing is implemented, then the active pit and stockpiling areas can be fenced to prevent livestock from accessing the revegetated areas. Since fencing can be detrimental to wildlife in some situations, especially to pronghorn, fences are designed to accomplish their intended purpose yet reduce any negative impacts on wildlife. Where necessary, four-strand barbed wire (WDEQ-LQD Guideline 10 Type III) fences will be used. These fences will be constructed with the lowest strand approximately 15 inches off the ground, the second strand approximately 23 inches off the ground, third strand approximately 31 inches off the ground, and the highest strand approximately 42 inches off the ground, i.e., in increments of 15, 8, 8, and 11 inches. These will be used for livestock control on lands within the disturbed area.

Public access to the mine is controlled and restricted by the private landowners.

### **MP 2.7 Auger Mining**

No auger mining is planned at this time.

MP.7

**MP 2.8 Underground Mining**

No underground mining is planned under this permit. No underground mines exist within the permit area.

**MP 3 TRANSPORTATION SYSTEMS**

Transportation requirements are limited to one access/haul road from the pit area to an existing gravel road. All mine related roads will be constructed within the permit boundary. Reclamation of the transportation system is discussed in the Reclamation Plan. Topsoil handling prior to construction of transportation systems is discussed in Section MP 4.

**MP 3.1 Out-of-Pit Access/Haul Roads**

Roads located within the pit are not anticipated and are not subject to design and environmental performance standards. The main access/haul road located outside the pit will be constructed primarily on undisturbed lands but it is possible as mining progresses that subsequent portions may be built on backfilled areas crossing reclaimed land.

All mining and road construction activities will be conducted outside of the lowlands and drainage bottoms. If culverts are necessary, they will be designed, installed, and maintained according to the requirements of Chapter 3, WDEQ-LQD Noncoal Rules and Regulations. If used, all culverts will be a minimum diameter of 18 inches and will also be designed using LQD Guideline No. 8 criteria.

Haul roads will be surfaced with a gravel to maintain suitable running surfaces. Maintenance of these roads will include filling potholes, blading, and watering for dust suppression. Drainage structures, including culverts will be maintained and kept free of debris. Water bars, cutouts and other measures will be used to keep accumulated road drainage out of natural waterways.

**MP 3.2 Other Haul Roads**

Out-of-pit haul roads that are primarily established for the purpose of hauling topsoil or overburden through reclaimed or undisturbed areas will be of minimal length generally not exceeding 600 feet in length and used short term, usually for periods of less than one week. If topsoil is present, it will be removed and stockpiled off to the side of the road for replacement during reclamation of the road. Topsoil haul roads that are established upon or within a topsoil stockpile site or upon, within, or through areas that are actively being reclaimed or stripped of topsoil will consist of a bladed

earthen surface only; such roadways are exempt from haul road performance standards. Topsoil haulage will primarily be accomplished with a scraper, blade and/or front-end loader.

#### **MP 3.3 Access Roads**

The current mine entrance access road to the pit area is limited in length and is the original access road to the hayfield from Rifle Pit Road. Other ranch roads are also located within the permit area and may be utilized by the mining operation in the future. All topsoil was salvaged and stockpiled for use in final reclamation of the road. Side ditches have been established along a portion of the access/haul road where it connects with Rifle Pit Road. The road has a gravel surface. The road functions both to provide site access as well as product haulage out of the permit area. As shown on Map MP-1, the alignment has been chosen to avoid drainages and minimize grades. Maintenance of the roadways will include filling potholes and occasionally mowing or spraying weeds.

#### **MP 3.4 Light-Use Roads**

Non-constructed light-use roads exist within the permit area. These two-wheel tracks are used by the ranch owner. The permit area is all private surface with limited access. Specific future needs for light use roads for mining purposes will be limited and cannot be predicted at this time. Such needs or uses will be identified in subsequent Annual Reports.

### **MP 4 MINING METHODS, SCHEDULES AND ASSESSMENTS**

#### **MP 4.1 Mining Sequence**

The mining progression is shown for the life of mine on Map MP-1. The map shows the projected advance of operations. The limestone will be mined using blasting, dozers, and front-end loaders. Topsoil and subsoil are variable and range in depths of 0 to six inches. Overburden is generally not present or very shallow. Topsoil will be removed by pushing it into a berm and picked up with scrapers or directly picked up with scrapers.

Disturbed areas will be revegetated as soon as practicable to minimize visual impacts. Signs will also be designed and located to comply with LQD regulations and minimize visual impacts.

The progressions presented on MP-1 are based on projected sales and will need to be adjusted for actual sales. Revisions will be documented through the annual reporting process.

## MP 4.2 Topsoil/Subsoil Handling

### Stripping and Handling Techniques

As discussed in D7 (Baseline Soil Survey), topsoil salvage operations will be limited to all topsoil and subsoil horizons down to the overburden or limestone deposit.

All topsoil and suitable subsoil material will be removed from all areas to be affected in the permit area by mining or mining-related activities prior to these areas being affected unless otherwise authorized by the LQD or restricted by equipment limitations. The LQD may authorize topsoil to remain on areas where minor disturbance will occur associated with construction and installation activities including, but not limited to, light-use roads, signs, utility lines, fences, monitoring stations, surveying, and drilling provided that the minor disturbance will not destroy the protective vegetative cover, increase erosion, nor adversely affect the soil resource. LQD will be contacted to determine if topsoil needs to be salvaged for all activities requiring minimal surface disturbance.

Complete removal of topsoil material is occasionally limited by the configuration of the landscape and limitations of the equipment. Standard earthmoving equipment, including scrapers, dozers, blades, and loaders, may be used to salvage, replace, stockpile, and transport topsoil.

Topsoil salvage operations will be supervised by a qualified person.

### Topsoil Replacement and Stockpile Schedule

Topsoil is replaced on mined lands as part of reclamation. Once the initial access road, facility area and initial pit are established, all topsoil from the pit advances will be directly replaced on areas to be reclaimed or stockpiled for later use. Topsoil materials will be salvaged and directly replaced on graded areas whenever possible. When all available graded areas are appropriately covered, topsoil materials remaining in the salvage area will be stripped and stockpiled until needed.

The depth of topsoil replacement is based on the volume expected to be salvaged. Topsoil salvage and replacement depths must be determined for each pit area. Topsoil replacement depths during the life of mine will vary depending on available material. Soils are shallow in the initial pit area but increase in future mine areas. A minimum of 6 inches will be replaced until mining progresses into deeper topsoil areas then the replacement depth will increase to 12 inches

or more. All overburden and subsoil above the gravel deposit will be salvaged and replaced below the topsoil prior to reclamation.

Annual topsoil removal areas will be evaluated qualitatively to determine topsoil availability.

Current stockpile information is presented each year in the Annual Report. Topsoil replacement sequences are shown on Map RP-1.

#### Topsoil Stockpile Construction and Maintenance

When stockpiling is necessary, topsoil/subsoil will primarily be stockpiled in long-term stockpiles having a projected life of more than six months. Topsoil/subsoil may infrequently be stockpiled in temporary stockpiles having a projected life of less than six months whenever long-term stockpiling is not necessary or operationally feasible. Topsoil may be mixed with the subsoil but will be segregated so as not to become mixed with spoil or overburden material.

Long-term topsoil/subsoil stockpiles will be assigned identification numbers. These stockpiles will normally be seeded with an approved seed mixture during the first normal period for favorable planting conditions according to the practices described in Section RP 5. Stockpile slopes will not exceed 3H:1V. Following additions or deletions of material, the stockpile will be re-contoured and reseeded during the first normal period for favorable planting conditions. Existing long-term stockpile locations and volumetric data will be reported in the Annual Report.

Temporary topsoil/subsoil stockpiles will not exist longer than six months and will not be seeded or have assigned identification numbers. Slopes will remain at the angle of repose or flatter throughout the life of the temporary pile. Stockpile surfaces will be left in a roughened condition to reduce wind and water erosion. Temporary stockpile volumetric data will be included in the Annual Report as needed for bond calculation purposes. Normally, topsoil/subsoil that is placed in and removed from these stockpiles is reported as spread or stockpiled in long-term stockpiles. Topsoil stockpiles will generally be configured as unconsolidated piles or heaps as a result of dozing or placement by scrapers. Small windrows or berms of topsoil created incidentally from and during active topsoil removal or topsoil replacement operations are not considered stockpiles.

All long-term and temporary topsoil/subsoil stockpiles will be located, constructed, and maintained

on stable areas and in such a manner so as to minimize wind and water erosion and unnecessary compaction. Stockpiles will not be constructed in drainages so as to impound water. Containment ditches will be constructed with topsoil around topsoil stockpiles wherever site conditions pose a potential for soil loss by water erosion. All stockpiles will be properly signed at the time stockpiling begins.

#### **MP 4.3 Overburden Excavation and Backfilling**

If present, overburden extraction follows the salvage of topsoil and suitable subsoil materials. Overburden removal may be conducted with blades, loaders, dozers and scrapers. The operator will take special care to avoid spilling overburden on to topsoil. Sufficient areas will be stripped for stockpiles to contain all sloughing that could occur during stockpiling activities.

#### Temporary Overburden Stockpiling Schedule

For the initial pit and when overburden quantities exceed available backfill space, it will be necessary to construct temporary overburden stockpiles. Due to the thin and variable overburden conditions these stockpiles are expected to be very small.

#### Temporary Overburden Stockpile Construction and Maintenance

When stockpiling is necessary, overburden will be stockpiled in long-term temporary stockpiles having a projected life of more than six months. Overburden may infrequently be stockpiled in temporary stockpiles having a projected life of less than six months whenever long-term stockpiling is not necessary or operationally feasible.

Topsoil will be salvaged from all overburden stockpile locations prior to overburden placement.

Long-term temporary overburden stockpiles will be assigned identification numbers. Stockpile slopes will not exceed 2H:1V. Actual overburden stockpile locations and volumetric data will be reported in the Annual Report. Stockpile volumetric data will also be updated and provided in future permit renewals.

Short-term temporary overburden stockpiles will not exist longer than six months and will not be seeded or have assigned identification numbers. Slopes will remain at the angle of repose or flatter throughout the life of the short-term pile. Stockpile surfaces will be left in a roughened condition to

reduce wind and water erosion. Short-term stockpile volumetric data will be included in the Annual Report as needed for bond calculation purposes.

All overburden stockpiles will be located, constructed, and maintained on stable areas in such a manner so as to minimize wind and water erosion. Stockpiles will not be constructed in drainages so as to impound water. Containment ditches will be constructed around stockpiles whenever site conditions pose a potential for topsoil contamination. All stockpiles will be properly signed at the time stockpiling begins.

#### Mine Pit Backfilling

Backfill materials are stabilized during the backfilling operation. The spoil will be backfilled with dozers, scrapers, and loaders. On each lift, the equipment running on the dumps cause settling and measurable compaction in the backfill. This results in stable backfill benches.

#### Special Handling Plan

No special handling of the overburden material is anticipated.

#### **MP 4.4 Principal Commodity to be Mined**

Limestone aggregate is the only mineral to be mined. Front-end loaders and dozers will be used to mine the gravel to maximize recovery of the smaller deposits.

The formation being mined is the Minnekahta Limestone. This formation is easily blasted due to the laminations and micro fractures in the rock structure. It is typically fifteen (15) to twenty two (22) feet in thickness and lies on top of a reddish sandy shale material.

#### BLASTING DETAILS

A 5 1/4" hole is drilled through the limestone formation on a 12 ft. x 12 ft. pattern. Normally, 100 to 200 holes are drilled and blasted per shot. The pattern is configured to provide the necessary relief toward an open face.

The holes are loaded with ANFO (ammonium nitrate and fuel oil) at a density of eight (8) pounds per foot. A 3/4 lb. booster is used in each hole. A bulk explosive blending truck is utilized to load the holes. The holes are then stemmed with crushed stone. This stemming length is from 7 ft. to 10 ft. This loading produces a powder factor (pounds of explosives per cubic yard) of 1.0 to 1.15.

After the holes are loaded, the non-electric initiation system is clipped together to provide a sequential timed blast. This is typically 25ms between holes in a row and 42ms to 84ms between rows. No more than two holes per 8 millisecond delay period are propagated. The nearest structure is an underpass on I-90. This structure is in excess of 1,500 ft away from the blasting area and typically the vibrations levels are less than 0.08 ips.

On days of blasting, signs are placed on all access roads to the blasting area. Before any blasting is performed, communication with the quarry foreman and the blaster takes place and a visual inspection of the surrounding area is also done to ensure that no person is in harms way.

After the blast, an inspection of the blast site is done by the blaster in charge to ensure that all of the explosives propagated. Only after this inspection, are workers allowed to return to the area.

Buckley Powder Company provides the blasting service at this location. They have been in the explosive industry for more than 87 years. Their blasters are well deposits trained and licensed in the State of Wyoming.

#### Bonding and Reporting

Bonding and reporting will be done in the Annual Report.

#### **MP 4.5 Developmental Drilling**

Developmental drilling was completed as part of the LMO 1396 ET planning process..

#### **MP 4.6 Signs and Markers**

All signs will be constructed and located in accordance with the performance standards outlined in.



Chapter 3 of the WDEQ/LQD Noncoal Rules and Regulations. A mine identification sign will be placed at the mine entrance to each pit. The sign will contain the mine name, mine permit number, operator's name, contact person, address and phone number. If blasting is implemented, the necessary signs will be posted at all permit area access points. Other signs and markers will include topsoil and overburden stockpile signs posted at access points to the stockpiles prior to initiating material placement.

**MP 4.7 Groundwater Protection**

Groundwater within this area is more than 20 feet below the lowest proposed pit bottom elevation. With disturbance limited to a depth of approximately 20 feet, no direct impacts to groundwater are expected. In addition, all on-site fuel storage tanks or vessels will be contained within underlined earthen containment structures. All petroleum contaminated soil will be properly removed so that it poses no threat to shallow ground water resources. Any significant flows of groundwater that are encountered during mining in any stratigraphic horizon will be reported to WDEQ/LQD Immediately.

TABLE MP 1

Production Summary, 2007 – 20XX  
For Each Pit

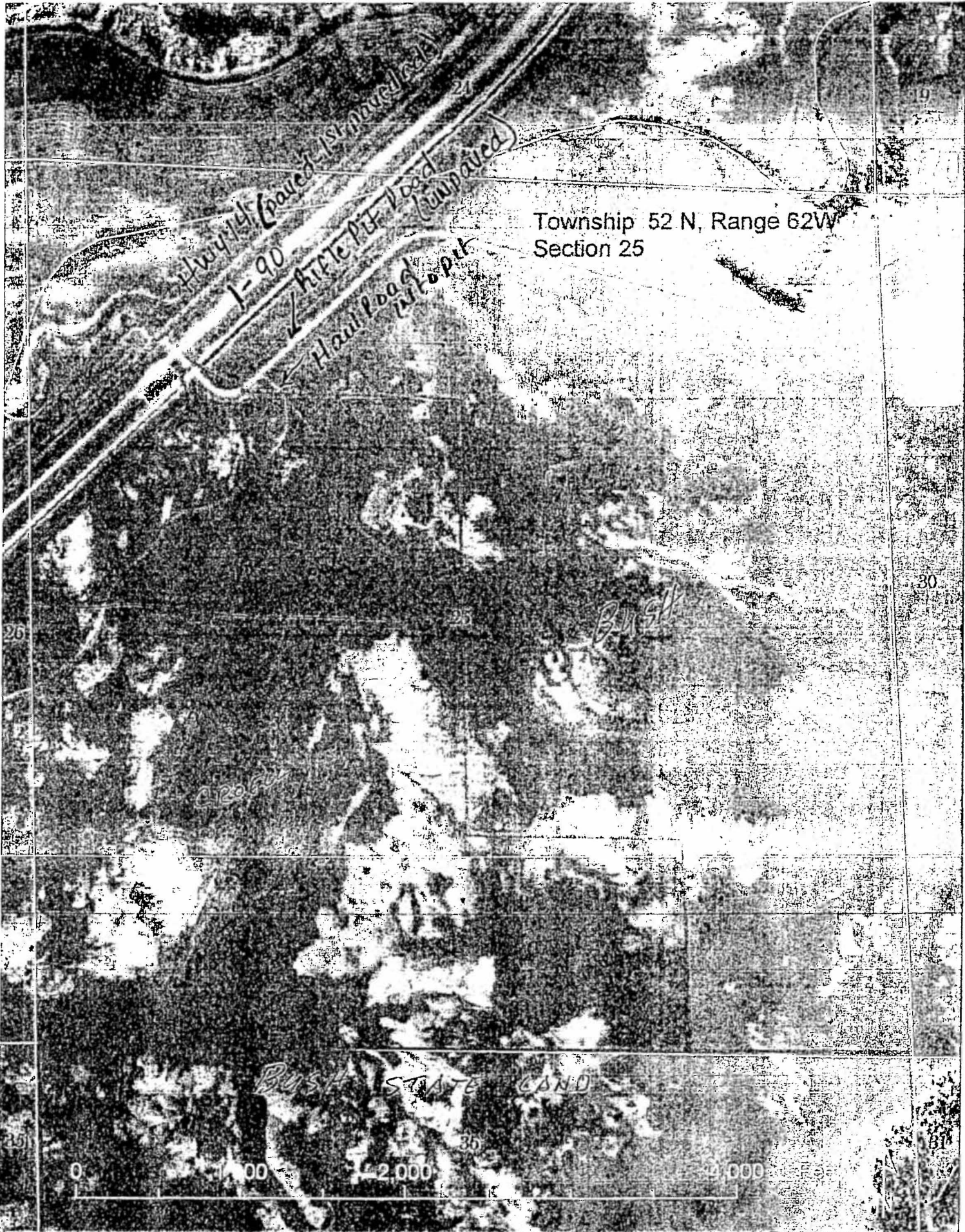
YEAR	GRAVEL PRODUCTION (Tons)	OVERBURDEN PRODUCTION (CY*1000)
2007	30,000	10
200	30,000	10
2009	30,000	10
2010	30,000	10
2011	30,000	10
2012	30,000	10
TOTAL	180,000	60,000

Note: Aggregate production is estimated to be 30,000 tons per year at each of the three pits. Overburden production quantities shown are estimates only and would vary significantly depending on pit development plans and future gravel sales.

## TABLE MP 2

## Equipment List

Equipment	Model	Start Up Number
Water Trucks	Variable	1
Graders	Caterpillar 140H	1
Track Dozers	Caterpillar D8N	1
Hydraulic Excavator	Case CX 330	1
Scraper	Caterpillar 627E	1
Front End Loader	Caterpillar 980C	2
	Caterpillar 966D	
Crusher	133 X 115 CEC	2
	Cedar Rapids Cone/5X16 Triple Deck	
Fuel/Lube Truck	Variable	1



Township 52 N, Range 62W  
Section 25

Hwy 14 (paved - 1st paved rd)  
1-90  
RTE 141 (paved)  
Haul Road 2010 ptk

CROSS

BUSH STATE SAND

BUSH

0 1,000 2,000 4,000

led  
Cayser  
P.



JS

# Department of Environmental Quality



To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Dave Freudenthal, Governor

John Corra, Director

July 8, 2009

Ms. Julie Ewing  
Health & Safety Director  
Croell Redi-Mix  
PO Box 1352  
Sundance, WY 82729



Permit Application Receipt Notice  
Application No. AP-9645

Dear Ms. Ewing:

This is to confirm the receipt of your permit application for the Rogers Rock Pit located in Crook County, Wyoming. The application was received on July 6, 2009. Please refer to Application Number, AP-9645, in any future correspondence regarding this application.

For your information, a permit to construct or modify must be issued prior to any work beginning on the facility. The Division defines earthwork, pouring of foundations, etc. to be work on the facility and therefore a violation of Chapter 6, Section 2(a)(1) requirements, when conducted without a permit.

The application will be reviewed within thirty (30) days of receipt, and you will be notified as to whether or not the application is complete. If the application is complete, a decision will be made to either approve or disapprove your request within sixty (60) days of the determination that the application is complete. Once the decision to approve your request is made, a thirty (30) day public comment period is required, after such time a permit will be issued. If the decision is made to disapprove your request, you will be so notified and provided with the reason(s) for denial.

Per Chapter 6, Section 2(o), fees will be assessed on an hourly basis for the time incurred in processing the application. As of July 1, 2008, the hourly rate is \$58 per hour.

If you should have any questions concerning this matter, please feel free to contact this office.

Sincerely,

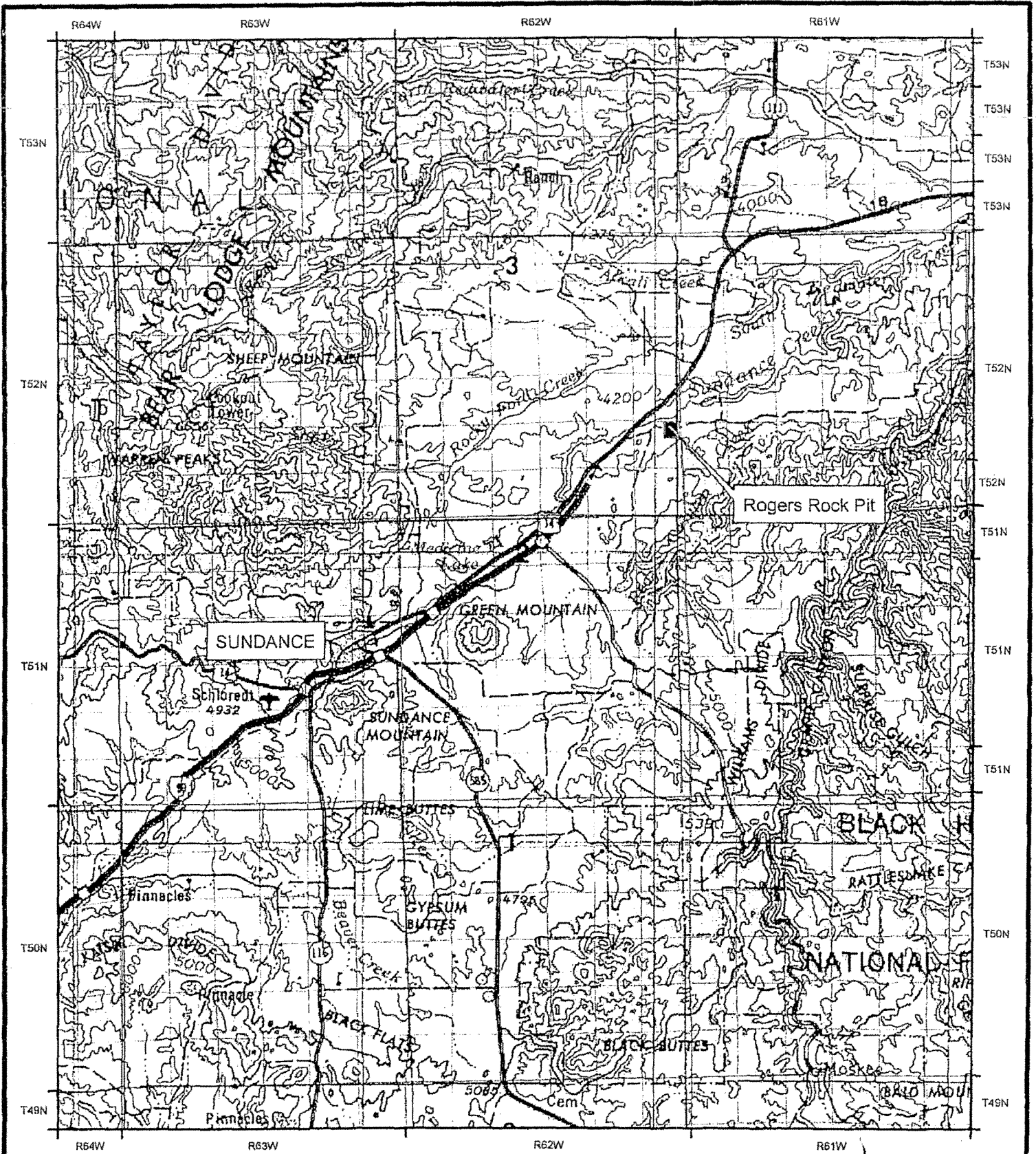
Darla J. Potter  
NSR Program Supervisor  
Air Quality Division

cc: Tanner Shatto  
Nick Meeker

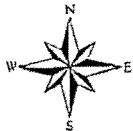


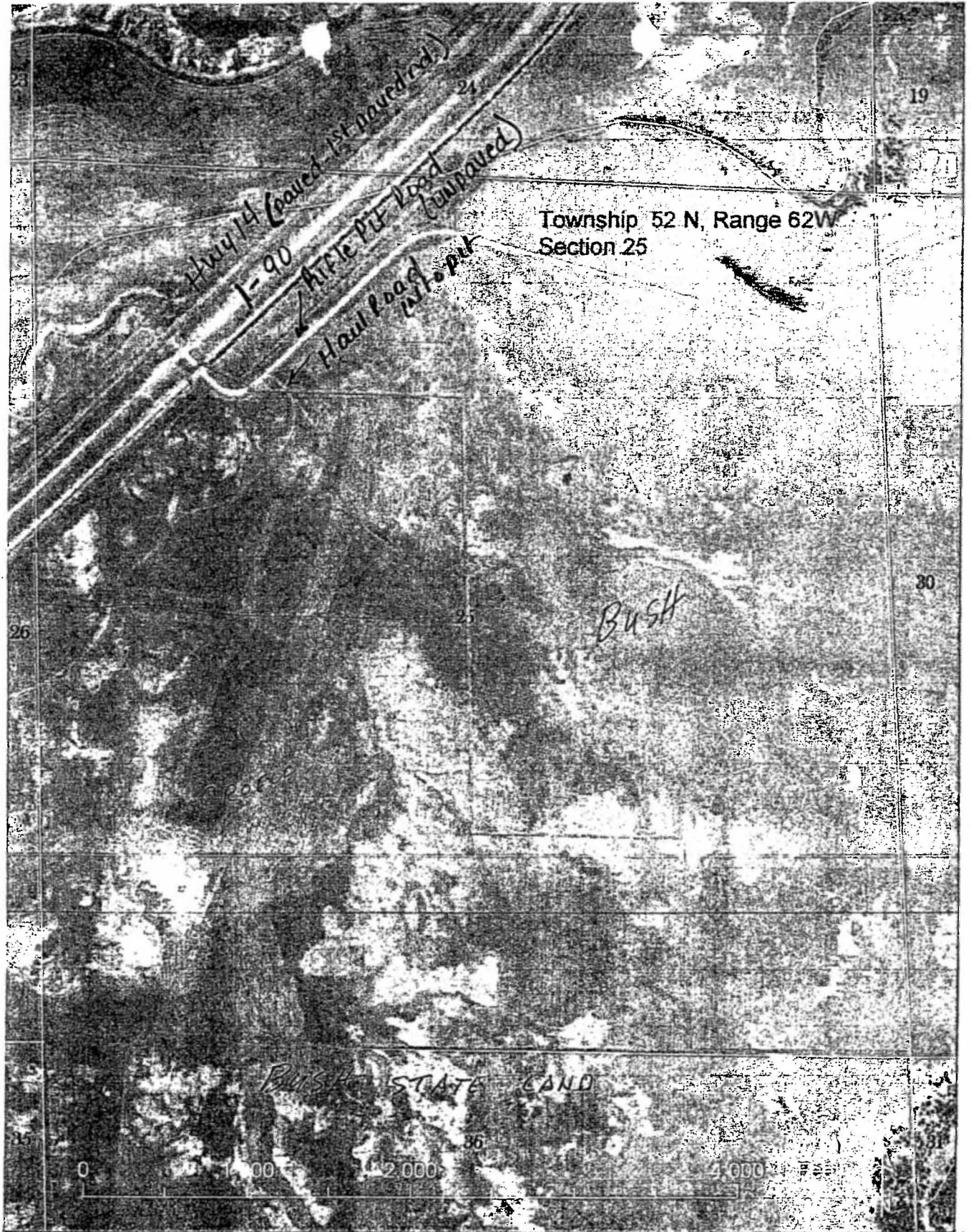
**APPENDIX A**  
Facility Location Map





**Croell Redi-Mix**  
**Rogers Rock Pit**  
 NW1/4NE1/4 of Section 25, T52N, R62W  
**Crook County**





led  
Coyote  
P...



**APPENDIX B**  
Emission Estimates

### CRUSHING EMISSIONS:

Based on 500,000 TPY production rate, TSP and PM<sub>10</sub> emissions associated with crushing operations were estimated as follows:

Crushing: 0.0054 lb/ton TSP, 0.0024 lb/ton PM<sub>10</sub>  
AP-42 Table 11.19.2-2 8/04

$$\text{TSP Emissions} = \frac{500,000 \frac{\text{ton}}{\text{year}} \times 0.0054 \frac{\text{lb}}{\text{ton}} \times (1 - 0.50)}{2,000 \frac{\text{lb}}{\text{ton}}} = 0.68 \frac{\text{ton}}{\text{year}} \text{ (50\% control)}$$

$$\text{PM}_{10} \text{ Emissions} = \frac{500,000 \frac{\text{ton}}{\text{year}} \times 0.0024 \frac{\text{lb}}{\text{ton}} \times (1 - 0.50)}{2,000 \frac{\text{lb}}{\text{ton}}} = 0.30 \frac{\text{ton}}{\text{year}} \text{ (50\% control)}$$

### SCREENING EMISSIONS:

Based on 500,000 tpy maximum production rate, TSP and PM<sub>10</sub> emissions associated with screening operations were estimated as follows:

Screening: 0.025 lb/ton TSP, 0.0087 lb/ton PM<sub>10</sub>  
AP-42 Table 11.19.2-2 8/04

$$\text{TSP Emissions} = \frac{500,000 \frac{\text{ton}}{\text{year}} \times 0.025 \frac{\text{lb}}{\text{ton}} \times (1 - 0.50)}{2,000 \frac{\text{lb}}{\text{ton}}} = 3.13 \frac{\text{ton}}{\text{year}} \text{ (50\% control)}$$

$$\text{PM}_{10} \text{ Emissions} = \frac{500,000 \frac{\text{ton}}{\text{year}} \times 0.0087 \frac{\text{lb}}{\text{ton}} \times (1 - 0.50)}{2,000 \frac{\text{lb}}{\text{ton}}} = 1.09 \frac{\text{ton}}{\text{year}} \text{ (50\% control)}$$

## BLASTING EMISSIONS:

Emissions from blasting operations were calculated using AP-42 Table 13.3-1 and Table 11.9-1.

Emission Factors:

NO<sub>x</sub>: 17 lb/ton  
CO: 67 lb/ton  
SO<sub>2</sub>: 2 lb/ton  
TSP: 0.000014 (A)<sup>1.5</sup> lb/blast  
A = Horizontal area (ft<sup>2</sup>) = 369,460 ft<sup>2</sup>

Amount of Blasting Agent used:

180,000 lb/year = 90 TPY

$$\text{NO}_x \text{ Emissions} = 17 \frac{\text{lb}}{\text{ton}} \times 90 \frac{\text{ton}}{\text{year}} = 1,530 \frac{\text{lb}}{\text{year}} \times \frac{\text{ton}}{2,000\text{lb}} = 0.77 \frac{\text{ton}}{\text{year}}$$

$$\text{CO Emissions} = 67 \frac{\text{lb}}{\text{ton}} \times 90 \frac{\text{ton}}{\text{year}} = 6,030 \frac{\text{lb}}{\text{year}} \times \frac{\text{ton}}{2,000\text{lb}} = 3.02 \frac{\text{ton}}{\text{year}}$$

$$\text{SO}_2 \text{ Emissions} = 2 \frac{\text{lb}}{\text{ton}} \times 90 \frac{\text{ton}}{\text{year}} = 180 \frac{\text{lb}}{\text{year}} \times \frac{\text{ton}}{2,000\text{lb}} = 0.09 \frac{\text{ton}}{\text{year}}$$

TSP Emissions:

$$0.000014(A)^{1.5} \text{ lb/blast} = 0.000014(369,460)^{1.5} \text{ lb/blast} = 3,144 \text{ lb/blast}$$

$$\text{TSP Emissions} = 3,144 \frac{\text{lb}}{\text{blast}} \times 12 \frac{\text{blasts}}{\text{year}} = 37,728 \frac{\text{lb}}{\text{year}} \times \frac{\text{ton}}{2,000\text{lb}} = 18.86 \frac{\text{ton}}{\text{year}}$$

## ESPOSED ACREAGE:

Based on 5 acres exposed to wind erosion annually, TSP and PM<sub>10</sub> emissions were estimated as follows:

Exposed Acreage: TSP: 0.38 tons/acre/year, PM<sub>10</sub>: 0.11 tons/acre/year  
AP-42 Table 11.9-4, PM<sub>10</sub> = TSP x 0.3

$$\text{TSP Emissions} = 5 \text{ acres} \times 0.38 \text{ tons/acre/year} \times (1-0.50) = 0.95 \text{ TPY (50\% control)}$$

$$\text{PM}_{10} \text{ Emissions} = 5 \text{ acres} \times 0.11 \text{ tons/acre/year} \times (1-0.50) = 0.28 \text{ TPY (50\% control)}$$

**TRUCK LOADING AND STOCKPILING EMISSIONS:**

Based on 500,000 TPY of mined material, 500,000 TPY of stockpiled material, 135,000 TPY of topsoil and 20,000 TPY of overburden, TSP and PM<sub>10</sub> emissions associated with stockpiling operations were estimated as follows, using AP-42 13.2.4 Equation 1:

$$E = k(0.0032) \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}$$

Where:

k=particle size multiplier

U=average wind speed, mph

M=material moisture content, %

TSP:

k=0.74

U= 11.0 mph (average wind speed for Sundance, WY)

M=0.7%

$$E = 0.74(0.0032) \frac{\left(\frac{11.0}{5}\right)^{1.3}}{\left(\frac{0.7}{2}\right)^{1.4}} = 0.0287 \frac{lb}{ton}$$

$$\text{TSP Emissions} = \frac{1,155,000 \frac{ton}{year} \times 0.0287 \frac{lb}{ton} \times (1 - 0.50)}{2,000 \frac{lb}{ton}} = 8.3 \frac{ton}{year} \times 2 \frac{drops}{trip} = 16.6 \frac{ton}{year} \text{ (50\% control)}$$

PM<sub>10</sub>:

k=0.35

U= 11.0 mph (average wind speed for Sundance, WY)

M=0.7%

$$E = 0.35(0.0032) \frac{\left(\frac{11.0}{5}\right)^{1.3}}{\left(\frac{0.7}{2}\right)^{1.4}} = 0.0136 \frac{lb}{ton}$$

$$\text{PM}_{10} \text{ Emissions} = \frac{1,155,000 \frac{ton}{year} \times 0.0136 \frac{lb}{ton} \times (1 - 0.50)}{2,000 \frac{lb}{ton}} = 3.9 \frac{ton}{year} \times 2 \frac{drops}{trip} = 7.8 \frac{ton}{year} \text{ (50\% control)}$$

## HAUL ROAD ACTIVITY EMISSIONS:

Fugitive TSP and PM<sub>10</sub> emissions per Vehicle Mile Traveled (VMT) associated with haul roads are estimated using AP-42 Chapter 13.2.2, equation (1a) as follows:

$$E = k \left( \frac{s}{12} \right)^a \left( \frac{W}{3} \right)^b$$

Where:

k=empirical constant  
s=surface material silt content, %  
a=empirical constant  
W=mean vehicular weight  
b=empirical constant

TSP:

k=4.9  
s=8.3  
a=0.7  
W=80.0 tons  
b=0.45

$$E = 4.9 \left( \frac{8.3}{12} \right)^{0.7} \left( \frac{80.0}{3} \right)^{0.45} = 16.6 \frac{lb}{VMT}$$

$$\text{Amount of trips per year} = 500,000 \frac{ton}{year} \times \frac{1 \text{ trip}}{40 \text{ ton}} = 12,500 \frac{trip}{year}$$

$$\text{TSP Emissions} = 12,500 \frac{trip}{year} \times 2.0 \frac{mile}{trip} \times 16.6 \frac{lb}{VMT} \times \frac{ton}{2,000lb} \times (1 - 0.50) = 103.8 \frac{ton}{year} \text{ (50\% control)}$$

PM<sub>10</sub>:

k=1.5  
s=8.3  
a=0.9  
W=40 tons  
b=0.45

$$E = 1.5 \left( \frac{8.3}{12} \right)^{0.9} \left( \frac{80.0}{3} \right)^{0.45} = 4.7 \frac{lb}{VMT}$$

$$\text{Amount of trips per year} = 500,000 \frac{ton}{year} \times \frac{1 \text{ trip}}{40 \text{ ton}} = 12,500 \frac{trip}{year}$$

$$\text{PM}_{10} \text{ Emissions} = 12,500 \frac{trip}{year} \times 2.0 \frac{mile}{trip} \times 4.7 \frac{lb}{VMT} \times \frac{ton}{2,000lb} \times (1 - 0.50) = 29.4 \frac{ton}{year} \text{ (50\% control)}$$

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION

Permit Application Analysis  
AP-9645

September 8, 2009

NAME OF FIRM: Croell Redi-Mix  
NAME OF MINE: Rogers Rock Pit  
LOCATION OF MINE: NW¼NE¼ of Section 25, T52N, R62W  
Crook County, Wyoming  
TYPE OF OPERATION: Limestone  
RESPONSIBLE OFFICIAL: Julie Ewing, Safety Director  
MAILING ADDRESS: PO Box 1352  
Sundance, WY 82729  
TELEPHONE: (307) 283-2221  
REVIEWING ENGINEER: Nick Meeker, Air Quality Engineer

**PURPOSE OF APPLICATION:**

On July 6, 2009, the Division of Air Quality received an application from Croell Redi-Mix to modify the Rogers Rock Pit, which will include limestone crushing, screening, blasting, exposed acreage, stockpiling, haul activity, a hot mix asphalt plant and a concrete batch plant, located in the NW¼NE¼ of Section 25, T52N, R62W, approximately five (5) miles northeast of Sundance, in Crook County, Wyoming. The applicant estimates an annual production rate of 500,000 tons.

A facility location map is included in Appendix A.

**REPORTED MINE INFORMATION:**

Annual Production Rate:	500,000 tons
Material Mined:	Limestone
Size of Mine:	600.07 acres
# of Blasts per Year:	12
Crushing and Screening Proposed:	Yes
Distance to Nearest Residence:	1.0 mile
Number of Residences within 1 miles radius:	1
Distance Material Hauled Until Reaching Pavement:	1.0 mile
Proper Land Use Documentation Submitted:	Yes

**PERMIT HISTORY:**

Air Quality Permit CT-4526 was issued to Croell Redi-Mix on February 13, 2007 to establish the Rogers Rock Pit as a limestone mine. Croell Redi-Mix initially permitted the Rogers Rock Pit with the maximum annual production of 100,000 tons per year and as a ten (10) acre mine.

**ESTIMATED EMISSIONS:**

The pollutant of main concern at the Rogers Rock Pit will be fugitive particulate matter emitted primarily from limestone crushing, screening, blasting, exposed acreage, stockpiling and haul truck activity. The Division estimated emission based on EPA document, AP-42, Compilation of Emission Factors. Application of water during stockpiling operations is credited for 50% control efficiency. Table 1 lists the estimated emissions for crushing, screening, blasting, exposed acreage and stockpiling based on a maximum production rate of 500,000 TPY of mined material, 500,000 TPY of stockpiled material, 135,000 TPY of topsoil and 20,000 TPY of overburden. Exposed acreage is based on five (5) acres. Table 2 lists emissions from haul road activities based on a haul road length of two (2) miles (total miles to and from the pit). Emission calculations are detailed in Appendix B.

Source	NO <sub>x</sub>	CO	SO <sub>2</sub>	TSP	PM <sub>10</sub>
Crushing	--	--	--	0.7	0.3
Screening	--	--	--	3.1	1.1
Blasting	0.8	3.0	0.1	18.9	--
Exposed Acreage	--	--	--	1.0	0.3
Truck Loading & Stockpiling	--	--	--	16.6	7.8
<b>Total Emissions</b>	<b>0.8</b>	<b>3.0</b>	<b>0.1</b>	<b>40.3</b>	<b>9.5</b>

<sup>1</sup> Emissions estimated to nearest 0.1

Source	TSP	PM <sub>10</sub>
Haul Road	103.8	29.4

<sup>1</sup> Emissions estimated to nearest 0.1

**BEST AVAILABLE CONTROL TECHNOLOGY (BACT):**

The Division considers the use of two (2) applications of chemical dust suppressant to be applied annually in accordance with the manufacturer's recommendations on the work areas, access roads and haul roads to represent BACT for this type of operation.

BACT for crushing/screening operations shall consist of a wet suppression system to control fugitive emissions from the crushing/screening equipment and shall be operated to the extent necessary to limit visible emissions to twenty percent (20%) opacity, or limits set to comply with 40 CFR part 60, subpart 000.

**CHAPTER 6, SECTION 3 APPLICABILITY:**

The Rogers Rock Pit is not a "major source" as defined by Chapter 6, Section 3 of the Wyoming Air Quality Standards and Regulations (WAQSR). Point source emissions do not exceed the 100 tpy threshold of any regulated pollutant.

**PREVENTION OF SIGNIFICANT DETERIORATION (PSD):**

The Rogers Rock Pit is not a "major emitting facility" as defined by Chapter 6, Section 4 of the Wyoming Air Quality Standards and Regulations. Therefore, further analysis is not required under this section.

**AMBIENT AIR QUALITY:**

It is the Division's experience that ambient air quality standards will be maintained with the utilization of the control measures recognized as BACT for pit operations.

**PROPOSED PERMIT CONDITIONS:**

The Division is proposing to issue an Air Quality Permit to Croell Redi-Mix to modify the Rogers Rock Pit subject to the following conditions:

1. That authorized representatives of the Division of Air Quality be given permission to enter and inspect any property, premise or place on or at which an air pollution source is located or is being constructed or installed for the purpose of investigating actual or potential sources of air pollution and for determining compliance or non-compliance with any rules, standards, permits or orders.
2. That all substantive commitments and descriptions set forth in the application for this permit, unless superseded by a specific condition of this permit, are incorporated herein by this reference and are enforceable as conditions of this permit.
3. That all notifications, reports and correspondences associated with this permit shall be submitted to the Stationary Source Compliance Program Manager, Air Quality Division, 122 West 25<sup>th</sup> Street, Cheyenne, WY 82002 and a copy shall be submitted to the District Engineer, Air Quality Division, 1866 S. Sheridan Avenue, Sheridan, WY 82801.
4. The owner or operator shall furnish the Administrator written notification of: (i) the anticipated date of initial startup not more than sixty (60) days or less than thirty (30) days prior to such date, and; (ii) the actual date of initial start-up within fifteen (15) days after such date in accordance with Chapter 6, Section 2(i) of the WAQSR.
5. The date of commencement of construction shall be reported to the Administrator within thirty (30) days of such date. The permit shall become invalid if construction or modification is not commenced within twenty-four (24) months of the date of permit issuance or if construction is discontinued for a period of twenty-four (24) months or more in accordance with Chapter 6, Section 2(h) of the WAQSR. The Administrator may extend such time period(s) upon a satisfactory showing that an extension is justified.



6. Any crushing/screening equipment, hot mix asphalt plant and concrete batch plant shall have separate valid air quality permit(s) prior to locating/operating at this site.
7. That all work areas, disturbed areas and stockpiles shall be treated with water and/or chemical dust suppressants on a schedule sufficient to control fugitive dust.
8. All unpaved haul roads shall be treated with water and/or chemical dust suppressants on a schedule sufficient to control fugitive dust from vehicular traffic and wind erosion. At a minimum, two (2) applications of chemical dust suppressant shall be applied annually in accordance with the manufacturer's recommendations. The chemical dust suppressant shall be maintained continuously to the extent that it remains a viable control measure, which may require additional applications. All unpaved portions of haul roads shall receive an initial treatment of chemical dust suppressant prior to any hauling activities at the beginning of each construction season.
9. Croell Redi-Mix shall maintain a log book listing the dates, amount of dust suppressant applied, areas treated, water usage and operating hours of the water truck. The log shall be maintained on site for a period of at least five (5) years and shall be made available to the Division upon request.
10. This permit shall supersede Air Quality Permit CT-4526 for the Rogers Rock Pit.

STATE OF WYOMING

Department of Environmental Quality/Division of Air Quality

PUBLIC NOTICE

Chapter 6, Section 2(m) of the Wyoming Air Quality Standards and Regulations provides that prior to final determination on an application to modify an existing source, opportunity be given for public comment and/or public hearing on the information submitted by the owner or operator and on the analysis underlying the proposed approval or disapproval. The regulation further requires that such information be made available in at least one location in the affected air quality control region, and that the public be allowed a period of thirty (30) days in which to submit comments. A public hearing will be conducted only if in the opinion of the administrator sufficient interest is generated or if an aggrieved party so requests.

Notice is hereby given that the State of Wyoming, Department of Environmental Quality, Division of Air Quality, proposes to approve a request by the following applicant to modify an existing source in Crook County, Wyoming.

Croell Redi-Mix  
PO Box 1352  
Sundance, WY 82729

The applicant has requested permission to modify the Rogers Rock Pit, which will include limestone crushing, screening, blasting, exposed acreage, stockpiling, haul activity, a hot mix asphalt plant and a concrete batch plant, located in the NW1/4NE1/4 of Section 25, T52N, R62W, approximately five (5) miles northeast of Sundance, in Crook County, Wyoming. The applicant estimates an annual production rate of 500,000 tons. A copy of the permit application and the agency's analysis is available for public inspection at the

Crook County Clerk's Office, Sundance, Wyoming. In accordance with the Americans with Disabilities Act, special assistance or alternate formats will be made available upon request for individuals with disabilities.

Written comments may be directed to David A. Finley, Administrator, Division of Air Quality, Department of Environmental Quality, 122 W. 25<sup>th</sup> St., Cheyenne, Wyoming 82002. Please reference AP-9645 in your comment. Comments submitted by email will not be included in the public record. All comments received by 5:00 p.m., Monday, November 2, 2009 will be considered in the final determination on this application.



# Department of Environmental Quality



To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Dave Freudenthal, Governor

John Corra, Director

September 24, 2009

Ms. Julie Ewing  
Health & Safety Director  
Croell Redi-Mix  
PO Box 1352  
Sundance, WY 82729

### CERTIFIED – RETURN RECEIPT REQUESTED

Notice of Publication  
Permit Application AP-9645

Dear Ms. Ewing:

The Division of Air Quality has completed its initial evaluation of your permit application to modify the Rogers Rock Pit, which will include limestone crushing, screening, blasting, exposed acreage, stockpiling, haul activity, a hot mix asphalt plant and a concrete batch plant, located in the NW1/4NE1/4 of Section 25, T52N, R62W, approximately five (5) miles northeast of Sundance, in Crook County, Wyoming. The applicant estimates an annual production rate of 500,000 tons.

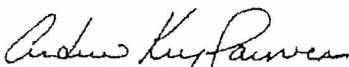
A copy of the public notice and of our evaluation is enclosed for your information. I would recommend that you review the proposed permit conditions associated with the Division's proposed approval. The Public Notice will appear in the October 1, 2009 issue of the Sundance Times, Sundance, Wyoming.

A copy of our evaluation and of your permit application will be kept on file for a thirty (30) day public inspection and comment period. At the end of this period, we will consider all comments made concerning your application and a final decision will be made on your application.

Per Chapter 6, Section 2(o) of the Wyoming Air Quality Standards & Regulations an initial billing is attached for the costs incurred by the Department in reviewing the application. Payment of the initial fee is required prior to permit issuance. An additional fee and any adjustments required to the initial fee shall be made upon permit issuance to cover any additional costs associated with final permit issuance, including costs of public notice, holding public hearings, reviewing public comments and final issuance of permit.

If you should have any questions concerning this matter, please feel free to contact me.

Sincerely,

  
Andrew Keyfauber  
NSR Permit Engineer  
Air Quality Division

cc: Tanner Shatto  
Bob Gill



Herschler Building • 122 West 25th Street • Cheyenne, WY 82002 • <http://deq.state.wy.us>

ADMIN/OUTREACH (307) 777-7937 FAX 777-3610	ABANDONED MINES (307) 777-6145 FAX 777-6462	AIR QUALITY (307) 777-7391 FAX 777-5616	INDUSTRIAL SITING (307) 777-7369 FAX 777-5973	LAND QUALITY (307) 777-7756 FAX 777-5864	SOLID & HAZ. WASTE (307) 777-7752 FAX 777-5973	WATER QUALITY (307) 777-7781 FAX 777-7781
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PAGE 37



# Public Notices

Shirley; intent to advertise upon party in premior to the location, the Mort- lication of al sum consists of 2009.95, extended, charges of this

being best to Any search

Home Mort- of fore- ing at d at apply

Shirley in and for Crook County, Wyo- ming to the highest bidder for cash at 10:00 o'clock in the forenoon on Oc- tober 26, 2009 at the front door of the Crook County Courthouse located at 309 Cleveland, Sundance, WY, Crook County, for application on the above- described amounts secured by the Mortgage, said mortgaged property being described as follows, to-wit:

LOT 10 OF BLOCK 1 IN SUN- DANCE VIEW ESTATES, PHASE I, TO THE TOWN OF SUNDANCE, CROOK COUNTY, WYOMING ACCORDING TO THE PLAT THEREOF RECORDED MAY 8, 2005 AS INSTRUMENT NUMBER 574051

with an address of 1015 South 11th Street, Sundance, WY 82729.

Together with all improvements thereon situate and all fixtures and appurtenances thereto.

BAC Home Loans Servicing, L.P. By: Danette Baldaacci Castle, Meinhold & Stawierski Legal Services, LLC 330 S. Walsh Drive, Ste. 202 Casper, WY 82609-0000 (307) 333 5379

Publish: October 1, 8, 15 and 22, 2009



Phillips. The Seller claims \$1790 for cost of removal, preservation, custody storage and sale.

A 2000 Dodge Ram 1500, VIN # 3B7HF1325YG145382, WY license # 18-7843, titled in the name of Tim Carson. The Seller claims \$2300 for cost of removal, preservation, custody storage and sale.

A 1997 Ford Expedition, VIN # 1FMEU18W1VLB34185, WY license # 17-23LB, titled in the name of Steve and Shan Johnson. The Seller claims \$2420 for cost of removal, preservation, custody storage and sale.

A 1995 Buick Lesaber, VIN # 1G4HP52L1SH47898, WY license # 17-60KA, titled in the name of Steele and Nicholas Steele McGruder. The Seller claims \$1145 for cost of removal, preservation, custody storage and sale.

The vehicles will be sold to the highest bidder who pays in a form acceptable to the Seller.

Seller: Herb Robinson Repair and Towing P.O. Box 175 Sundance, WY 82729 (307) 281-0087

Publish: October 1 and 8, 2009



## STATE OF WYOMING

Department of Environmental Quality/Division of Air Quality

### PUBLIC NOTICE

Chapter 6, Section 2(m) of the Wyo- ming Air Quality Standards and Regu- lations provides that prior to final deter- mination on an application to modify an existing source, opportunity be given for public comment and/or public hearing on the information submitted by the owner or operator and on the analysis underlying the proposed ap- proval or disapproval. The regulation further requires that such information

be made available in at least one loca- tion in the affected air quality control region, and that the public be allowed a period of thirty (30) days in which to submit comments. A public hearing will be conducted only if in the opinion of the administrator sufficient interest is generated or if an aggrieved party so requests.

Notice is hereby given that the State of Wyoming, Department of Environ- mental Quality, Division of Air Quali- ty, proposes to approve a request by the following applicant to modify an existing source in Crook County, Wyoming.

Croell Red-Mix PO Box 1352 Sundance, WY 82729

The applicant has requested permis- sion to modify the Rogers Rock Pit, which will include limestone crushing, screening, blasting, exposed acreage, stockpiling, haul activity, a hot mix as- phalt plant and a concrete batch plant, located in the NW1/4NE1/4 of Section 26, T52N, R62W, approximately five (5) miles northeast of Sundance, in Crook County, Wyoming. The appli- cant estimates an annual production rate of 600,000 tons. A copy of the permit application and the agency's analysis is available for public inspec- tion at the Crook County Clerk's Office, Sundance, Wyoming. In accordance with the Americans with Disabilities Act, special assistance or alternate formats will be made available upon request for individuals with disabilities.

Written comments may be directed to David A. Finley, Administrator, Division of Air Quality, Department of Envi- ronmental Quality, 122 W. 25th St., Cheyenne, Wyoming 82002. Please reference AP-9645 in your comment. Comments submitted by email will not be included in the public record. All comments received by 5:00 p.m., Monday, November 2, 2009 will be considered in the final determination on this application.

Publish: October 1, 2009



Digitized by the public domain

The Public

Can't delete works may identify will be marked

## APPLICATION FOR A CROOK COUNTY RETAIL LIQUOR LICENSE

LOCATION OF PLACE AND PREMISES	DATE FILED
Corner in southwest corner of Lot 4, SE 1/4 of Section 10, T52N, R62W of the 6th p.m., Crook County, Wyoming.	09-01-09 10:15 A.M.

The issuance of this license will be heard at 10:00 a.m., October 1, 2009, in the Commissioner's Room at the State Capitol Building, Cheyenne, Wyoming.

October 1, 2009





# Department of Environmental Quality



To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Dave Freudenthal, Governor

John Corra, Director

March 17, 2010

Ms. Julie Ewing  
Health & Safety Director  
Croell Redi-Mix, Inc.  
PO Box 1352  
Sundance, WY 82729

Permit No. MD-9645

Dear Ms. Ewing:

The Division of Air Quality of the Wyoming Department of Environmental Quality has completed final review of Croell Redi-Mix, Incorporated's application to modify the Rogers Rock Pit, which will include limestone crushing, screening, blasting, exposed acreage, stockpiling, haul activity, a hot mix asphalt plant, a concrete batch plant and expanding the size to 600 acres, located in the NW1/4NE1/4 of Section 25, T52N, R62W, approximately five (5) miles northeast of Sundance, in Crook County, Wyoming.

Following this agency's proposed approval of the request as published October 1, 2009 and in accordance with Chapter 6, Section 2(m) of the Wyoming Air Quality Standards and Regulations, the public was afforded a thirty (30) day period in which to submit comments concerning the proposed modification, and an opportunity for a public hearing. Public comments were received during the comment period and public hearing held December 14, 2009 and have been considered in the final permit. Therefore, on the basis of the information provided to us, approval to modify the Rogers Rock Pit as described in the application is hereby granted pursuant to Chapter 6, Section 2 of the regulations with the following conditions:

1. That authorized representatives of the Division of Air Quality be given permission to enter and inspect any property, premise or place on or at which an air pollution source is located or is being constructed or installed for the purpose of investigating actual or potential sources of air pollution and for determining compliance or non-compliance with any rules, standards, permits or orders.
2. That all substantive commitments and descriptions set forth in the application for this permit, unless superseded by a specific condition of this permit, are incorporated herein by this reference and are enforceable as conditions of this permit.
3. That all notifications, reports and correspondences associated with this permit shall be submitted to the Stationary Source Compliance Program Manager, Air Quality Division, 122 West 25<sup>th</sup> Street, Cheyenne, WY 82002 and a copy shall be submitted to the District Engineer, Air Quality Division, 1866 S. Sheridan Avenue, Sheridan, WY 82801.
4. The owner or operator shall furnish the Administrator written notification of: (i) the anticipated date of initial startup not more than sixty (60) days or less than thirty (30) days prior to such date, and; (ii) the actual date of initial start-up within fifteen (15) days after such date in accordance with Chapter 6, Section 2(i) of the WAQSR.



5. The date of commencement of construction shall be reported to the Administrator within thirty (30) days of such date. The permit shall become invalid if construction or modification is not commenced within twenty-four (24) months of the date of permit issuance or if construction is discontinued for a period of twenty-four (24) months or more in accordance with Chapter 6, Section 2(h) of the WAQSR. The Administrator may extend such time period(s) upon a satisfactory showing that an extension is justified.
6. Any crushing/screening equipment, hot mix asphalt plant and concrete batch plant shall have separate valid air quality permit(s) prior to locating/operating at this site.
7. That all work areas, disturbed areas and stockpiles shall be treated with water and/or chemical dust suppressants on a schedule sufficient to control fugitive dust. At a minimum, two (2) applications of chemical dust suppressant shall be applied annually to all work areas in accordance with the manufacturer's recommendations. The chemical dust suppressant shall be maintained continuously to the extent that it remains a viable control measure, which may require additional applications. All work areas shall receive an initial treatment of chemical dust suppressant prior to any activities at the beginning of each construction season.
8. Croell Redi-Mix, Inc. shall stabilize the exposed areas against wind erosion at the quarry. Newly disturbed areas shall be treated within sixty (60) days of completion of stripping unless otherwise approved by the Division. Reclamation areas shall be stabilized against wind erosion within sixty (60) days of reaching the approved post mining topography, unless otherwise approved by the Division. Stabilization practices may consist of ripping or chiseling to create a roughened surface, seeding with a temporary vegetative cover or other practices which effectively stabilize against wind erosion. Localized areas identified for equipment storage/staging, work areas and required buffers for haul roads and reclamation are not required to be stabilized.
9. All unpaved haul roads shall be treated with water and/or chemical dust suppressants on a schedule sufficient to control fugitive dust from vehicular traffic and wind erosion. At a minimum, two (2) applications of chemical dust suppressant shall be applied annually in accordance with the manufacturer's recommendations. The chemical dust suppressant shall be maintained continuously to the extent that it remains a viable control measure, which may require additional applications. All unpaved portions of haul roads shall receive an initial treatment of chemical dust suppressant prior to any hauling activities at the beginning of each construction season.
10. Croell Redi-Mix, Inc. shall maintain a log book listing the dates, amount of dust suppressant applied, areas treated, water usage and operating hours of the water truck. The log shall be maintained on site for a period of at least five (5) years and shall be made available to the Division upon request.
11. The amount of limestone crushed or hauled from the quarry shall not exceed 500,000 tpy. Records shall be kept for a period of five (5) years to demonstrate compliance with this condition and shall be made available to the Division upon request.
12. This permit shall supersede Air Quality Permit CT-4526 for the Rogers Rock Pit.

Croell Redi-Mix, Inc.  
Air Quality Permit MD-9645  
Page 3

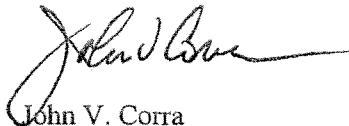
It must be noted that this approval does not relieve you of your obligation to comply with all applicable county, state, and federal standards, regulations or ordinances. Special attention must be given to Chapter 6, Section 2 of the Wyoming Air Quality Standards and Regulations, which details the requirements for compliance with conditions 4 and 5. Any appeal of this permit as a final action of the Department must be made to the Environmental Quality Council within sixty (60) days of permit issuance per Section 16, Chapter I, General Rules of Practice and Procedure, Department of Environmental Quality.

If we may be of further assistance to you, please feel free to contact this office.

Sincerely,



Chad Schlichtemeier  
Acting Administrator  
Air Quality Division



John V. Corra  
Director  
Dept. of Environmental Quality

cc: Tanner Shatto



Table 1: Estimated Emissions, TPY <sup>1</sup>					
Source	NO <sub>x</sub>	CO	SO <sub>2</sub>	TSP	PM <sub>10</sub>
Crushing	--	--	--	0.7	0.3
Screening	--	--	--	3.1	1.1
Blasting	0.8	3.0	0.1	18.9	--
Exposed Acreage	--	--	--	1.0	0.3
Truck Loading & Stockpiling	--	--	--	16.6	7.8
<b>Total Emissions</b>	<b>0.8</b>	<b>3.0</b>	<b>0.1</b>	<b>40.3</b>	<b>9.5</b>

<sup>1</sup>Emissions estimated to nearest 0.1

Table 2: Haul Road Emissions, TPY <sup>1</sup>		
Source	TSP	PM <sub>10</sub>
Haul Road	103.8	29.4

<sup>1</sup>Emissions estimated to nearest 0.1

IN THE MATTER OF A PERMIT APPLICATION (AP-9645) FROM CROELL REDI-MIX, INCORPORATED TO MODIFY THE ROGERS ROCK PIT, IN CROOK COUNTY, WYOMING.

DECISION

I. INTRODUCTION

The Air Quality Division received a permit application from Croell Redi-Mix, Incorporated, on July 6, 2009, to modify the Rogers Rock Pit, which will include limestone crushing, screening, blasting, exposed acreage, stockpiling, haul activity, a hot mix asphalt plant, a concrete batch plant and expanding the size to 600 acres, located in the NW¼NE¼ of Section 25, T52N, R62W, approximately five (5) miles northeast of Sundance, in Crook County, Wyoming. The applicant estimates an annual production rate of 500,000 tons. The Air Quality Division conducted an analysis of this application and on October 1, 2009, published in the Sundance Times in Sundance, Wyoming, a public notice of proposed intent to approve the application and placed a copy of the application and Division's analysis in the office of the Crook County Clerk in accordance with regulations. The public notice period ran from October 1, 2009 through November 2, 2009. A public hearing was requested and was held on December 14, 2009, at the Crook County Library, located at 414 Main Street, Sundance, Wyoming.

Public comments were received from Judith Bush, Levi Delp, Judith Hamm, Gary & Barb Johnson, Jack & Terri McGee, Dewey Turbibile, Les & Karen Turgeon, Douglas M. Watson, and Scott & Julie Wheeler. Due to the number of public comments with similar concerns, the Division grouped individual comments and developed summary responses.

II. ANALYSIS TO PUBLIC COMMENTS:

Emissions Impact

*Comments*

- No person shall cause, threaten or allow the discharge or emission of any air contaminant in any form so as to cause pollution which violates rules, regulations and standards adopted by the council.
- Air pollution
- Air quality concerns
- Do not want skies polluted with dangerous emissions
- Dust concerns
- The Rogers Pit limestone crushing operation, as it presently exists, blows dust over our hayland and grazing land.
- Numerous quarries in the area.
- Are the other pits all taken into consideration and incremental effects of each considered as part of the whole before permit is approved?
- This area has too many quarries and they are too close together.
- Concerned over health of children – breathing
- I also wonder about using average wind velocity to calculate truck loading and stockpiling emissions. One good wind can do a lot of damage and more than make up for any number of average or less than average wind velocities.

- What boggles my mind is that this is the basis on which the AQD has calculated not only the amount of airborne particles, including various toxic substances, which the operation will generate, but this same estimate, provided by the applicant is also used to determine the type of mining permit-which this operation should fall under.
- It is unclear if the emissions of any of the large machinery have been factored into the Air Quality emission estimates.

*Response*

Wyoming Air Quality Standards and Regulations (WASQR) requires consideration of Best Available Control Technology (BACT) in all permitting actions, which is more stringent than Federal regulations. [Also see BACT Response.] However, compliance with BACT does not mean there will be no air quality impact. Estimated emissions from activities at the quarry were calculated using approved emission factors and operational information from the applicant. [Also see Size of Quarry and Annual Production Responses.] Because the emission estimates are on annual basis, average conditions (e.g., wind velocity) are used in the emission calculations. Control efficiencies are applied to the emissions to reflect the application of BACT. This is the same methodology used to calculate emissions at large surface coal mines. The Division does not require applicants to estimate emissions from mobile equipment (e.g., haul trucks, loaders) at quarries of this size. Mobile equipment utilizes nonroad engines, which the Air Quality Division has no authority to regulate. Emissions from these sources are estimated for large surface coal mines and included in the modeling analysis discussed below.

The Division generally does not require modeling or monitoring for rock quarries or multiple quarries in an area. In previous permitting actions, the Division has modeled large surface coal mines with production rates in the millions of tons per year and the results have demonstrated compliance with particulate matter (PM<sub>10</sub>) and nitrogen dioxide (NO<sub>2</sub>) annual ambient standards, which are health based standards. Primary ambient air quality standards set limits to protect public health, including the health of “sensitive” populations such as asthmatics, children, and the elderly. When comparing the modeled results to actual monitoring, the results from the modeling are almost always higher. Some of the over prediction can be attributed to the inaccuracies of the model, but there is also the thought the emissions estimates are conservative. While there may be episodic events that may result in higher actual emissions and impacts than estimated, the Division considers the emission estimates for the quarries to be representative for permitting.

Emission estimates for quarries range from 50 tpy to 200 tpy particulate matter depending on the operational activity at the quarry. In comparison, a coal mine that produces 40 million tpy (MM tpy) of coal annually has estimate particulate emissions in the range of 1,500 tpy. While all the quarries in Crook County may total or exceed this level, the quarries are not contiguous or adjacent so their cumulative impact is going to be less than a single large coal mine. [Also see Major Source and Location Not Suitable for Mine Operations Responses.] The large surface coal mines in the Power River Basin (PRB) are adjacent and modeling analysis described earlier is a cumulative analysis. Meaning, the emissions from all mines in the modeling domain are considered in the modeling analysis, which can total 7,000 tpy particulate matter and 5,000 tpy NO<sub>x</sub>. As discussed, large surface coal mines in the PRB have demonstrated compliance with Wyoming Air Quality Standards and Regulations health-based standards through modeling and/or monitoring. It should be noted that the large surface coal mines located in the PRB in Campbell County have an established monitoring network for particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) and nitrogen dioxide (NO<sub>2</sub>) and currently demonstrate compliance with all ambient standards.

Based on this experience, the Division concludes the cumulative impact from properly controlled quarries, as required through the application of BACT, will not result in an exceedance of air quality standards. However, to confirm the Division's assessment based on other permitting actions, the Division is evaluating locating a PM<sub>10</sub> monitor and/or camera in the Sundance area for a designated period of time. A site analysis will be conducted in the April/May timeframe of this year.

### Best Available Control Technology (BACT)

#### *Comments*

- Their Best Available Control Technology is limited in their explanation and only recites the requirements. They do not elaborate on their operating procedures. They say they will use a wet suppression to control fugitive emissions from crushing/and screening. The crusher equipment listed for the land quality permit did not say if the crushers were equipped with operating water suppression equipment and what percentage of the time it would be used.
- The Croell Pit has caused pollution in this area. Based on this type of operation, I feel that this operator needs to better address their plan on how they will control the dust.
- What is economic reasonableness? Is their profit margin more important than air pollution?
- In the winter months of operation when water freezes how are they going to use this type of suppression for dust control? Are they going to operate in the winter months?
- What are they going to do when the wind speed is more than 20 mph? How are they going to attempt to control the emissions from blasting?

#### *Response*

Croell Redi-Mix, Inc. will be subject to the terms of the permit, which includes controlling fugitive dust. Chapter 6, Section 2 of the Wyoming Air Quality Standards and Regulations requires consideration of "best available control technology" with consideration of the technical practicability and economic reasonableness of reducing or eliminating the emissions resulting from the facility. The term economic reasonableness is a measure of how much a proposed control technology costs and the associated emissions reduction. This term is expressed as annualized cost per ton of pollutant controlled. Profit margin is not a consideration in the BACT process.

The Division has considerable experience in permitting these types of operations throughout the State and has determined that application of water and/or dust suppressant is an effective means of controlling emissions from crushing, screening, exposed acreage and haul roads, and as such represents BACT for this type of operation. Any equipment located at a quarry will be required to have a separate, valid air quality permit for which BACT will have been applied. Proposed permit conditions will require Croell Redi-Mix, Inc. to control fugitive emissions at the mine, which are as follows:

- i. That the crushing/screening equipment shall be equipped with a wet suppression system to control fugitive emissions from the crushing/screening equipment. The wet suppression system shall be operated to the extent necessary to limit visible emissions to twenty percent (20%) opacity or applicable limits set forth by Wyoming Air Quality Standards and Regulations, Chapter 5, Section 2, Subpart 000, as determined by 40 CFR part 60, Appendix A, Method 9.

- ii. That all work areas, disturbed areas, and stockpiles shall be treated with water and/or chemical dust suppressants on a schedule sufficient to control fugitive dust.
- iii. All unpaved haul roads shall be treated with water and/or chemical dust suppressants on a schedule sufficient to control fugitive dust from vehicular traffic and wind erosion. At a minimum, two (2) applications of chemical dust suppressant shall be applied annually in accordance with the manufacturer's recommendations. The chemical dust suppressant shall be maintained continuously to the extent that it remains a viable control measure, which may require additional applications. All unpaved portions of haul roads shall receive an initial treatment of chemical dust suppressant prior to any hauling activities at the beginning of each construction season.
- iv. Croell Redi-Mix, Inc. shall maintain a log book listing the dates, amount of dust suppressant applied, areas treated, water usage and operating hours of the water truck. The log shall be maintained on site for a period of at least five (5) years and shall be made available to the Division upon request.

The Division continues to evaluate BACT for all sources in the State. Since this application was proposed, additional BACT requirements for quarry operations were developed which address expanding the application of dust suppressant to the work areas and a more specific condition addressing dust control from exposed acreages. The new conditions, which will be included in the final permit, are as follows:

- i. That all work areas, disturbed areas, and stockpiles shall be treated with water and/or chemical dust suppressants on a schedule sufficient to control fugitive dust. At a minimum, two (2) applications of chemical dust suppressant shall be applied annually to all work areas in accordance with the manufacturer's recommendations. The chemical dust suppressant shall be maintained continuously to the extent that it remains a viable control measure, which may require additional applications. All work areas shall receive an initial treatment of chemical dust suppressant prior to any activities at the beginning of each construction season.
- ii. Croell Redi-Mix, Inc. shall stabilize against wind erosion the exposed areas at the quarry. Newly disturbed areas shall be treated within sixty (60) days of completion of stripping unless otherwise approved by the Division. Reclamation areas shall be stabilized against wind erosion within sixty (60) days of reaching the approved post mining topography, unless otherwise approved by the Division. Stabilization practices may consist of ripping or chiseling to create a roughened surface, seeding with a temporary vegetative cover, or other practices which effectively stabilized against wind erosion. Localized areas identified for equipment storage/staging, work areas, and required buffers for haul roads and reclamation are not required to be stabilized.

The final conditions of this permit represent BACT for quarry operations and are required to be complied with during all operating conditions, which include winter time operations. [See also Facility Inspections and Blasting Responses.]

### Facility Inspections

#### *Comments*

- They say they will have provisions for measuring the emissions of significant air contaminants as determined by the Administrator of the Division of Air Quality. What exactly is the requirement? Will there be someone trained in opacity testing? What hours will this person be on site? Since this is done in daylight, how are they going to do this at night or when it is dark or cloudy? How often or how is this person going to perform this test? How is this person going to decide when to do this test? Is this a subjective test?
- Unannounced checks on quarries would be appropriate and very helpful
- Rules and regulations should be enforced and at the time don't believe they are
- Croell Redi-Mix does not have a terrific record when it comes to staying within the conditions of mining permits which have been granted to the company by the DEQ. About a year ago, Croell Redi-Mix, apparently after Breuning Rock was issued a permit from DEQ Air Quality for a crusher with a capacity to crush 1,500,000 tons/year which was moved to Rogers Pit, was cited by the DEQ for operating in an area more than double the size of their permit. Several other citations relating to other rock operations have also been made against Croell Redi-Mix in the past three years.

#### *Response*

The conditions of this permit do not require Croell Redi-Mix, Inc. to have personnel certified to read opacity. In general, companies have personnel certified to read opacity or at least qualified to read opacity to gauge compliance with permit conditions. The Division does expect Croell Redi-Mix, Inc. to have adequate trained personnel and have an internal dust mitigation plan or equivalent to ensure compliance with the conditions of the permit during all operating conditions.

Division personnel are certified to read opacity and conduct announced inspections to ensure compliance with the permit conditions and unannounced inspections in response to public complaints as Division resources allow. Questions regarding compliance with the permit conditions should be directed to the District Engineer at 1866 S. Sheridan Avenue, Sheridan, WY 82801, or by phone at (307) 673-9337.

Compliance history is not a consideration under the Wyoming Air Quality Standards and Regulations in issuing an air quality permit.

### Blasting

#### *Comments*

- The blasting emissions were based on a total numbers of blasts. I had contacted LQ with concerns about my well and blasting and I was also told by DEQ that there are no regulations presently regarding blasting. A question I would like answered is how can they arrive at these emissions when there are no requirements and how can they be enforced if there are no requirements?
- Concerned over explosives being used at pit

*Response*

The Division required the applicant to identify whether blasting will occur at the quarry and the number of blasts per year. In the Division's analysis, emissions from blasts were quantified. There are currently no methods to control emissions from blasting. As discussed in the Emissions Impact Response, there are NO<sub>x</sub> and PM (PM<sub>10</sub> and PM<sub>2.5</sub>) networks established for large surface coal mines, where blasting is part of the operations, that demonstrates compliance with ambient air quality standards. Blasting is part of the operations at a coal mine. In the Land Quality application, Croell Redi-Mix, Inc. reported that on days of blasting, signs will be placed on all access roads to the blasting area.

**Location Not Suitable for Mine Operations**

*Comment*

- Numerous quarries in the area.
- How many gravel pits do you need and why can't they put them where they are not placed in a place where dust comes over peoples' houses?
- This area has too many quarries and they are too close together.

*Response*

There are no distance restrictions contained in the Wyoming Air Quality Standards and Regulations nor does it regulate the number of gravel quarries in a certain county. By statute, the Division is required to issue a permit if the facility complies with all applicable rules and regulations. The WAQSR does require that quarries must be located in accordance with proper land use planning as determined by the appropriate State or local agency charged with such responsibility. If counties have restrictions on quarry locations, the applicants will be required to meet the requirement as part of the air quality permitting process. Location of quarries with respect to residential areas is an issue that needs to be addressed at the county level.

As part of this permitting action, Croell Redi-Mix, Inc. provided a letter from the Crook County Commissioners stating Crook County does not have zoning regulations in effect. Croell Redi-Mix, Inc. has complied with the siting requirements of Chapter 6, Section 2 of the Wyoming Air Quality Standards and Regulations.

**Air Quality Monitoring**

*Comments*

- Effective monitoring concerns
- Is the air quality being monitored in Crook County? If so, what are the standards being monitored?
- NO<sub>x</sub> contributes to greenhouse gases, to what level is this considered? Is this monitored in any way?
- Did the applicant conduct a continuing Ambient Air Quality monitoring analysis for one year preceding this application to determine existing levels of all affected pollutants? If so, where would this information be found? If not why was this not required? If it was only required for the initial permit, where can this information be obtained?

- WAQSR Section 1. Introduction to permitting requirements states. "Section 2 covers general air quality permitting requirements for construction and modification as well as minor source permits to operate" Section 2. (b) (i) The applicant shall conduct such continuous Ambient Air Quality monitoring analyses as may be determined by the Administrator to be necessary in order to assure that adequate data are available for purposes of establishing existing concentration levels of all affected pollutants. As a guideline, such data should be gathered continuously over a period of one calendar year preceding the date of application. Upon petition of the applicant, the Administrator will review the proposed monitoring programs and advise the applicant if such is approvable or modifications are required." Why is this the only statement in the paragraph that does not apply to limestone quarries?
- Won't it be more appropriate for this quarry to have an air monitor?
- In Chapter 2 Ambient Standards there is a listing of standards for particulate matter 10 (PM<sub>10</sub>), particulate matter 2.5 (PM<sub>2.5</sub>), nitrogen oxides, carbon monoxide, plus others. These measurements are based on micrograms per cubic meter.
- How can opacity testing which your department tells me is used to monitor emissions from this industry be related to micrograms per cubic meter?
- How can the estimates of 50% of the emissions be related to micrograms per cubic meter?

***Response***

There is currently no air quality monitors located in Crook County. See Emissions Impact Response for more information on monitoring quarries.

WAQSR Chapter 6, Section 2 (b)(i) states that the applicant shall conduct such continuous ambient air quality monitoring analyses as may be determined by the Administrator to be necessary in order to assure that adequate data are available for purposes of establishing existing concentration levels of all affected pollutants. The Administrator does not require applicants for quarries of this type to perform preconstruction monitoring. As discussed in the Emissions Impact Response, the Division has experience with much larger surface coal mines and the associated ambient impacts and has determined for quarries of this size no preconstruction monitoring is required.

The Division is not requiring Croell Redi-Mix, Inc. to install monitors based on experience with large surface coal mines with much larger production rates and emissions. As discussed in the Emissions Impact Response, the Division is evaluating locating a PM<sub>10</sub> monitor and/or camera in the Sundance area for a designated period of time.

Opacity is used to determine whether the emissions from a source, such as a crusher, are acceptable. While there is no direct correlation between opacity and impact (i.e., micrograms per cubic meter), lower opacity readings means less emissions are being emitted and, therefore, less impact. Opacity is one of the tools in the BACT tool box used to evaluate the effectiveness of the controls and to ensure the source is complying with all applicable requirements in the WAQSR.

Like opacity, there is not direct correlation between the application of water to control dust and impact. However, water is used to control emissions and less emissions means less impact. The 50 percent control efficiency is a common control factor applied to an emission factor using water as a control method.



EPA's Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule list a group of six greenhouse gases (GHGs) that may be covered by an EPA rule controlling or limiting their emissions:

- Carbon dioxide (CO<sub>2</sub>)
- Methane (CH<sub>4</sub>)
- Nitrous oxide (N<sub>2</sub>O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF<sub>6</sub>)

NO<sub>x</sub> is not this list and, therefore, is not considered a greenhouse gas.

#### Airshed Levels of Crook County

##### *Comment*

- What air shed level does Crook County fall under?

##### *Response*

Area classifications limit the maximum allowable increase in concentration (i.e., amount of emissions growth) that is allowed to occur above a baseline concentration for an air pollutant. With the exception of eight Class I areas, all of the State of Wyoming is classified as a Class II area. Class II areas are designated to accommodate normal well-managed industrial growth. Class I areas are allowed the smallest increases and thus only allow a small degree of air quality deterioration. Class I areas are defined by Wyoming Air Quality Standards and Regulation Chapter 9, Section 2 (c)(iii) as "all mandatory Class I Federal areas established in the Clean Air Act Amendments of 1977 and include the following for the State of Wyoming: Yellowstone National Park, Teton National Park, North Absoroka Wilderness, Washakie Wilderness, Teton Wilderness, Bridger Wilderness, and Fitzpatrick Wilderness. Such term also includes the Savage Run Wilderness which is not a mandatory Class I Federal area and any future Class I area redesignated in accordance with Chapter 6, Section 4(d) of these regulations."

#### Asphalt and Concrete Plants

##### *Comments*

- Opposed to asphalt plant
- If the applicant is serious about moving a hot-mix asphalt plant onto the site, pollution from this use has also not been calculated into the total estimated emissions for this expanded operation. Emissions from such plants are both toxic and odorous.

##### *Response*

During the Public Hearing, Roger Croell indicated that he has no current plans to locate an asphalt plant or concrete plant at this quarry. Although Roger Croell made these comments at the public hearing, Croell Redi-Mix, Inc. does not wish to remove the ability of having an asphalt plant and/or concrete plant from the requested permitting action.

Asphalt plants have individual air quality permits, as this equipment is portable. Emissions of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), volatile organic compounds (VOC), and particulate matter (PM) from the asphalt plant stack, baghouse, transfer and discharge points, diesel generator, and raw material storage bins associated with the plant are addressed through the permitting process and BACT review. BACT thresholds, emission testing, monitoring, and record keeping requirements, as necessary, are placed on the owners and operators of the portable equipment as those permits are issued.

The Division acknowledges that any crushing/screening equipment, asphalt plant and/or concrete batch plant, which may in the future be located at the quarry, is a source of emissions. However, this permitting action is to expand the size of the quarry, not to authorize or permit individual portable sources which may be operated at the quarry. Operation of an asphalt plant and/or concrete batch plant at the Rogers Rock Pit is currently authorized under Air Quality Permit CT-4526 issued February 13, 2007. Condition 6 of this permit states:

Any crushing/screening, hot mix plant or concrete batch plant equipment shall have separate valid air quality permit(s) prior to locating/operating at this site.

Proposed conditions for the quarry will supersede Air Quality Permit CT-4526. Any applicable requirements from permit CT-4526 have been incorporated into the proposed permit, which includes the condition addressing operation of an asphalt plant.

### Major Source

#### *Comment*

- Rogers Pit should be considered a major source because all emissions including haul road emissions is over 100 tons per year of any pollutant. 35-11-203.
- While the Croell Pit is not a "major stationary source" It appears that they do have the potential to emit 100 tons per year. This is especially true when you add in the other large quarries within a five mile radius. They do project that they will emit they will emit 29.4 tons of PM<sub>10</sub> that is a hazardous pollutant. This is more than twice the allowed standard for major air sources.
- When looking at the total emissions between the three quarries, could they not be considered a major source? Surely their emissions would put them in this category, certainly Rogers Pit.
- The conclusion that this application for a 600 + acre limestone mining operation does not constitute a major source or a major emitting facility is also questionable.

#### *Response*

Under Chapter 6, Section 3 of the WAQSR, a "Major Source" means any stationary source (or any group of stationary sources that are located on one or more contiguous or adjacent properties, and are under common control of the same person or persons under common control) belonging to a single major industrial grouping and this is described in paragraphs (A), (B), or (C) of this definition. For the purpose of defining "major source", a stationary source or group of stationary sources shall be considered part of a single industrial grouping if all of the pollutant emitting activities at such source or group of sources on contiguous or adjacent properties belong to the same Major Group (i.e., all have the same two-digit code) as described in the Standard Industrial Classification Manual, 1987.

- (A) A major source under section 112 of the Act, which is defined as:
  - (I) For pollutants other than radionuclides, any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit, in the aggregate, 10 tons per year (tpy) or more of any hazardous air pollutant which has been listed pursuant to section 112(b) of the Act, 25 tpy or more of any combination of such hazardous air pollutants, or such lesser quantity as the EPA may establish by rule. Notwithstanding the preceding sentence, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources; or
  - (II) For radionuclides, "major source" shall have the meaning specified by the EPA by rule.
- (B) A major stationary source of air pollutants, as defined in section 302 of the Act, that directly emits or has the potential to emit, 100 tpy or more of any air pollutant (including any major source of fugitive emissions of any such pollutant, as determined by rule by the EPA). Emissions of air pollutants regulated solely due to section 112(r) of the Act shall not be considered in determining whether a source is a "major source" for purposes of Chapter 6, Section 3 applicability. The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source unless the source belongs to one of the following categories of stationary sources:
  - (I) Stationary sources listed in Chapter 6, Section 4(a)(i)(a) of the WAQSR; or
  - (II) Any other stationary source category, which as of August 7, 1980 is being regulated under section 111 or 112 of the Act.
- (C) A major stationary source as defined in part D of Title I of the Act (in reference to sources located in non-attainment areas).

A written comment was received questioning the methods used for calculating haul road emissions and why they are not considered when determining whether a facility is considered a major or minor source. The Division uses widely accepted methods when determining emission calculations for sources like the Rogers Rock Pit. Also, the Division performs necessary analysis on the emissions generated from the haul roads, but does not consider these emissions when determining whether a facility is a major or minor source.

Emissions from a haul road are considered to be fugitive emissions. Fugitive emissions means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. In determining whether fugitive emissions must be considered in the major source applicability, the source must belong to one of the source categories listed under (B)(I) or (II) listed above. (B)(I) applies to named sources under Chapter 6, Section 4, which does not include

quarries. (B)(II) applies to sources that are subject to New Source Performance Standards (NSPS – Section 111) or National Emission Standards Hazardous Air Pollutants (NESHAPS – Section 112) promulgated as of August 7, 1980. The quarry is not subject to any NSPS or NESHAP standards promulgated as of this date. Therefore, fugitive emissions from the haul road or due to quarry operations are not included in determining if the quarry is a major source.

In order for quarries in the area to be considered one stationary source they must be located on one or more contiguous or adjacent properties, under common control of the same person or persons under common control and belonging to a single major industrial grouping. The quarries in the area are not contiguous or adjacent (i.e., must be touching or have a common end point) nor all under the same common control. All three criteria must be met before the quarries would be considered one source. Therefore, the emissions from the quarries are not aggregated to determine major source applicability.

PM<sub>10</sub> is a regulated NSR pollutant, which is defined in Chapter 6, Section 4 of the WAQSR as meaning the following:

- (i) Any pollutant for which a national ambient air quality standard has been promulgated and any constituents or precursors for such pollutants identified by the EPA Administrator (e.g., volatile organic compounds are precursors for ozone);
- (ii) Any pollutant that is subject to any standard promulgated under section 111 of the Federal Clean Air Act;
- (iii) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the Federal Clean Air Act; or
- (iv) Any pollutant that otherwise is subject to regulation under the Federal Clean Air Act; except that any or all hazardous air pollutants either listed in section 112 of the Federal Clean Air Act or added to the list pursuant to section 112(b)(2) of the Federal Clean Air Act, which have not been delisted pursuant to section 112(b)(3) of the Federal Clean Air Act, are not regulated NSR pollutants unless the listed hazardous air pollutant is also regulated as a constituent or precursor of a general pollutant listed under section 108 of the Federal Clean Air Act.

Item (iv) excludes all hazardous air pollutants listed under Section 112. PM<sub>10</sub> is not a hazardous air pollutant listed in Section 112 or Chapter 5, Section 3 (d)(ii) of the WAQSR.

### Hours of Operation

#### *Comments*

- Hours of operation are stated in the permit but not enforced or mandated by the DEQ. When responding to a public notice, the public has the right to know what to expect when a 600.07 acre quarry is permitted with 2 miles of another saying they are producing 400,000 tons which is within another quarry producing 200,000 tons. Residences have the right to know if this operator plans to operate through the night. Night operation affects our quality of life in that the noise disrupts our sleep. Hours of operation should be limited. I would suggest no work between 10pm and 5 am so we can have at least 7 hours of quiet especially in the summer when our windows are open, another reason to control the dust.
- The application form filled out by Croell Redi-Mix states that the operation will run five days per week for ten hours per day and for 20 weeks per year. I am not certain that crushing has been limited to 20 weeks per year in the past. My ranch manager has told me that hauling operations continue pretty much year round. A person who reads this application and does not know any better would reasonably assume that they would only have to endure the dust from the trucks on the road for twenty weeks out of the year, which is bad enough.

#### *Response*

The Division is satisfied that the control requirements established through the BACT process will ensure the quarry complies with all applicable requirements of the Wyoming Air Quality Standards and Regulations. Therefore, the Division does not have the authority to limit hours of operation.

Croell Redi-Mix, Inc. responded to the question on hours of operation and during normal operations activity at the quarry will typically be as represented in the application. It also was explained that there may be jobs that require additional operations to meet the timeframe established in the contract.

### Water Source and Usage

#### *Comments*

- Croell Redi-Mix's application states that initially they will truck in the water used to keep the dust down. However, the application also states that in the future an on site well may supply ground water for this purpose. How much water may be needed for this purpose is an unknown? No one at the various discrete divisions of the DEQ or the State Water Engineers are looking at how much water might be required and whether the quantity of water has a potential to affect local wells.
- I do not know of any estimate regarding how much water might be required to keep the dust down to 50% of what it would otherwise be. I have not seen where either the applicant or anyone at the DEQ has ventured an estimate on this. It is not being investigated because the applicant has stated that he will not be using ground water for this purpose (at least until after the application is approved).
- No attention seems to have been given to how much water from an on-site well may be necessary to keep the dust down, and what impact this may have on nearby wells on our property. Water is the limiting factor for growth in Wyoming. It should not be ignored and/or squandered.

*Response*

The conditions of the permit require water to be used to control fugitive emissions during all operating periods. The amount of water that needs to be applied to satisfy the conditions of the permit is not calculated because there are a number of variables that would go into this determination, such as precipitation, type of material being mined and/or processed, and wind conditions. The source of the water or potential impact on nearby wells is not a consideration in issuing an air quality permit under the WAQSR.

In response to comments, Croell Redi-Mix, Inc. indicated during the public hearing that they would use a combination of on-site well water and water from an off-site reservoir to meet their water usage needs.

**Public Notice Process**

*Comments*

- Also in regards to this permitting process I would recommend that the Air Quality Control require at least three consecutive weeks of public notice in the newspaper. Even though we knew this notice was going to be published, we did not realize there would be two (AQD and LQD) and at different times.
- It seems to me that both meetings (AQD and LQD) are being set up in ways which will tend to discourage rather than encourage attendance.
- In general, I think that the public would be better served and better informed in meetings attended by representatives from all involved departments of the DEQ, as well as by representatives from any other involved government agencies (of whatever level of government).
- Various divisions of the DEQ bring their separate expertise to various aspects of any proposed mining operation. I have no problem with this. However, when it comes to presenting a particular proposed mining operation to the public. It makes no sense to me that it is presented in a piecemeal fashion, when, in fact all of these various aspects are interrelated and should be introduced to the public as a package.
- Landowners in the area were not notified of the proposed application.

*Response*

Chapter 6, Section 2(m) of the Wyoming Air Quality Standards states that after the Administrator has reached a proposed decision based upon the information presented in the permit application to construct or modify, the Division of Air Quality will advertise such proposed decision in a newspaper of general circulation in the county in which the source is proposed. This advertisement will indicate the general nature of the proposed facility, the proposed approval/disapproval of the permit, and a location in the region where the public might inspect the information submitted in support of the requested permit and the Air Quality Division's analysis of the effect on air quality. The public will be afforded a 30-day period in which to make comments and recommendations to the Division of Air Quality. A public hearing may be called if sufficient interest is generated or if any aggrieved party so requests in writing within the 30-day comment period. After considering all comments, including those presented at any hearings held, the Administrator will reach a decision and notify the appropriate parties.

The Air Quality Division conducted an analysis of this application and on October 1, 2009, published in the Sundance Times a public notice of the Division's proposed intent to approve the permit application and placed a copy of the application and Division's analysis in the office of the Crook County Clerk. During the public comment period, comments were received requesting a public hearing. A public hearing was held on December 14, 2009, at the Crook County Library, 414 Main Street in Sundance, Wyoming. The Division has met the public notice requirements for this application.

The Division conducts all public hearings as administrative hearings as provided under Chapter III of DEQ's Rules of Practice and Procedure. As such, they are not question and answer hearings. The purpose of the hearing is to receive comments on the Division's advertised proposed decision to grant a permit to the applicant. The public hearings are not conducted in an informal manner because the Division must carefully consider all comments before a final decision is rendered.

It should be noted that representatives from the Land Quality Division were present at the December 14, 2009 Air Quality Division public hearing. After the public hearing was conducted, representatives from both Divisions were available to discuss the application.

The Air Quality and Land Quality Divisions have been working together to coordinate the permitting processes. However, the permitting processes for both Divisions are significantly different and coordinating the processes is extremely difficult.

#### Public Notice and Hearing Notice Did Not Mention Pit Expansion

##### *Comment*

- Please note that there was nothing in the notice which was placed in the Sundance Times on June 4 and 11, 2009 to indicate the extent of expansion being sought by Croell Redi-Mix.

##### *Response*

The Air Quality Division on October 1, 2009, published in the Sundance Times in Sundance, Wyoming, a public notice of proposed intent to approve the application. On December 1, 2009, the Air Quality Division published in the Sundance Times in Sundance, Wyoming, a notice of public hearing.

The public notice listing and the notice for a public hearing posted in the Sundance Times on October 1, 2009 and December 1, 2009, respectively, described the proposed modification to Rogers Rock Pit but did not specifically state the quarry was being expanded to 600 acres. The notices did include the increase in production rate to 500,000 tons per year. The Division acknowledges this oversight. However, Croell Redi-Mix, Incorporated's application and the Division's analysis were based on the expansion to 600 acres and a production rate of 500,000 tpy.

### Annual Production

#### *Comment*

- Is it correct that the Air Quality Division does not request information regarding annual production of operators to whom it has issued air quality permits?
- In its applications for Land Quality and Air Quality permits, Croell Redi-Mix estimated its yearly production at 100,000 tons per year.
- Bruening Rock Products has an AQD permit to operate a crusher initially in the Rogers Pit with the capacity of 1,050,000 tons per year.
- Emissions estimates for the Bruening Rock Products crusher was based on 1,050,000 tons per year.

#### *Response*

Maximum production rate for this quarry is reported at 500,000 tpy and was the basis for the Division's analysis. A condition has been added to the final permit as follows:

The amount of limestone crushed or hauled from the quarry shall not exceed 500,000 tpy. Records shall be kept for a period of five (5) years to demonstrate compliance with this condition and made available upon request by the Division.

Therefore, any crushing/screening equipment operating at this quarry will be limited to 500,000 tpy. If multiple crushers/screens operate at this quarry during a calendar year, the total amount of limestone crushed/screened shall not exceed this limit.

### Exposed Acreage

#### *Comment*

- The DEQ Air Quality has estimated emissions due to exposed acreages on the basis of 5 acres per year. Unless the DEQ has an obscure technical definition of what constitutes exposed acreage, this strikes me as impossibly low.

#### *Response*

The Division has confirmed with Croell Redi-Mix, Inc. that the 5 exposed acres is correct. During inspection, Division personnel will be evaluating the amount of exposed acreage and compliance with the conditions of the permit addressing exposed acreage.

### Operation in Proposed Area

#### *Comment*

- In the permitting process it appears that operations are allowed before the public hearings are completed. Why is this allowed?

#### *Response*

Air Quality Permit CT-4526 for the Rogers Rock Pit is a valid permit. Conditions of the proposed permit will supersede this permit. Until the modification permit is issued, Croell Redi-Mix, Inc. is authorized to operate under CT-4526.



### Regulation Updates

#### *Comment*

- I understand that the Air Quality Division of the DEQ has just completed holding meetings to upgrade their air quality standards in order to bring them in line with Federal regulations, which are more stringent. I do not know if by approving this permit at this time the Roger's Pit would be grandfathered and not have to comply with the more stringent Wyoming regulations when they come on line.

#### *Response*

On October 26-27, 2009, the Division presented to the Air Quality Advisory Board Meeting proposed changes to the WAQSR. Most of the changes are to update the regulations to make consistent with Federal regulations. None of the proposed changes will affect the Rogers Rock Pit. It should be noted that this quarry is being permitted under Wyoming's minor source permitting program (i.e., Chapter 6, Section 2). There is no minor source permitting program at the Federal level. If this facility was under the jurisdiction of EPA, no permit would be required. Any Federal standards (i.e., NSPS or NESHAP) that apply to this quarry are required to be complied with whether in the permit or not.

### Size of Quarry

#### *Comment*

- It would make more sense to issue a permit to Croell Redi-Mix for a much smaller area; and to include additional land within the permitted area only at the same time as mined and reclaimed acreage is removed from the permitted area. This would leave a more level playing field for more modest operations to acquire contracts. It could be permitted in-such a way as to ensure that any new criteria governing cleaner mining operations would be applicable to lands newly included in the mining permit

#### *Response*

As discussed in this decision document, the application as proposed to increase the size to 600 acres and a production rate of 500,000 tpy complies with all applicable requirements of the WAQSR. Therefore, the Division does not have the authority to require Croell Redi-Mix, Inc. to reduce the size for the quarry.

### Increasing Regional Haze

#### *Comment*

- The Regional Haze in this area has been increasing every year. I have consulted an "official weatherman" and they have confirmed from my pictures that were sent that it is dust from the surrounding quarries. When reviewing the Regional Haze Proposal the "Bad Days" of these class 1 areas are Sundance's "Good Days".

#### *Response*

The Division is not required to address Class I [See also Airshed Levels of Crook County Response] impacts as part of a WAQSR Chapter 6, Section 2 permitting action nor are there any standards for visibility (regional haze).

Issues which cannot be considered in the issuance of an air quality permit

i. Noise

*Comment*

- Noise concerns

*Response*

A written comment was received expressing concern about the noise generated by the mining operation, including haul equipment. The Division has no authority to regulate noise pollution.

ii. Haul Road Safety Issues

*Comments*

- Unsafe road conditions
- There is a blind spot due to a curve in the road. There have been numerous close calls with loaded gravel trucks turning out from our property onto the Rifle Pit Road.
- We were concerned with the dangers posed by loaded gravel trucks turning onto the Rifle Pit Road. (Line of sight was obscured due to a curve in the Rifle Pit Road at that point).
- The road which Mr. Croell is presently constructing involves a steep descent which ends near where the Rifle Pit Road tunnels underneath I-90 to access Hwy 14. There is limited visibility and a different curve resulting in a different blind spot. There will be run-off which may freeze. There will be no place to put the snow shoveled onto the Rifle Pit Road. Our ranch manager and our neighbors agree that it is an accident waiting to happen.
- Loaded trucks coming out of the Rogers Pit and turning onto the Rifle Pit Road pose a hazard for traffic along the Rifle Pit Road. Our ranch manager's wife nearly wound up under one of the loaded gravel trucks. The sight line is not clear due to a curve in the road.
- The new road which is having the finishing touches put on it as we speak poses an even greater danger to cars traveling along the Rifle Pit Road.
- The haul road is sometimes so dusty you can't see if someone's coming after a gravel truck has went out or came in. And there's been a lot of close accidents of the gravel trucks hauling gravel out of that road cause they were not stopping.
- The traffic problem is a problem on the haul road, even with the new road.

*Response*

The issue of safety due to increased truck traffic and haul road use was raised in the public comment period and during the public hearing. The Air Quality Division has no authority to consider safety issues related to the use of public roads, in determining whether an air quality permit should be granted or denied.

iii. Haul Road Infrastructure

*Comments*

- The Rifle Pit Road is in poor repair.
- The Rifle Pit Road is in generally poor repair due to the limerock laden trucks. Truck traffic to and from the Rogers Pit has been far in excess of anything which can easily be explained by the operation of a 10 acre LMO with an estimated yearly production of 100,000 tons.
- I would recommend while Roger is rebuilding the road, that I don't know if it's county or state project that works on that but we need to get some drainage. We got a drainage problem that needs to be addressed.

*Response*

The issue of road maintenance due to increased truck traffic was raised. Also, concerns were raised over potential drainage issues for the haul road. The Air Quality Division has no authority to regulate or to consider these two issues, in determining whether an air quality permit should be granted or denied.

iv. Aesthetic Impacts

*Comments*

- Our timber is mature - some of it original growth over 200 years old. This is the Wyoming that the state's tourism branch likes to brag about. It is a truly beautiful property.
- We have consistently chosen to forego forgoing quick profits from timber, over hunting and limerock crushing operations in order to preserve the natural scenic beauty mature trees, and abundant wildlife our ranch affords. The value, both in terms of pristine beauty and in terms of financial worth will be eroded by this project going ahead.

*Response*

Comments were received expressing concern with the impact to the surrounding area. The Wyoming Air Quality Standards and Regulations do not allow the Division to consider aesthetics in determining whether an air quality permit can be issued. The Division is required to address the ambient air quality impact of the proposed limestone operation and is satisfied that if the limestone operation is operated within the confines of the permit conditions, ambient air quality standards will not be violated.

v. Property Values

*Comment*

- Pits have the capacity to impact the value of the property of those living nearby.

*Response*

A written comment was received regarding negative effects on property values of surrounding residential or agricultural properties due to the Rogers Rock Pit. The effects on property values caused by operations at the Rogers Rock Pit is not an issue which the Division can consider in determining compliance with standards and regulations and in issuing or denying permits. These are local issues properly resolved by local planning and zoning commissions.

vi. Land Quality Concerns

*Comments*

- Many comments were received regarding the Land Quality Application.

*Response*

These comments are addressed in the Land Quality Division permitting process as the authority to regulate or consider those issues.

vii. Wildlife & Cattle

*Comments*

- The 600 acres which Croell Redi-Mix wishes to include within its regular mining permit are, I am sure, also home to abundant deer and antelope. Emissions from asphalt plants are not good for deer and antelope and elk to breathe.
- Emissions from asphalt plants are not good for cattle.
- Cattle eat the grass, if dust is as bad as it was last summer I am afraid they are going to be getting grass tetany.

*Response*

Comments were received regarding the impact on wildlife and cattle. The Air Quality Division does not have authority in this area.

viii. Livelihood of Crook County Pit Owners

*Comment*

- There are many ranchers in Crook County who have small (10 acre) gravel pits on their property, whose livelihood may be impacted by such a large operation, and who respect and abide by the guidelines of the permits issued to them by the DEQ. The income from these generally small and well-run pits help ranchers to stay in the business of ranching.

*Response*

A comment was received stating that the expansion of the Rogers Rock Pit would negatively affect the livelihood of other gravel quarry owners in Crook County. The Air Quality Division does not have authority in this area.

ix. Haul Road Through Private Land

*Comments*

- Trucks from the Rogers Pit are crossing our land without our permission in order to access the Rifle Pit Road. This has been occurring since the initial permit was granted. We have recently had a title search carried out on our property, and there was no record found of a deeded ROW. Mr. Croell has refenced his property, but has left a gap in a boundary fence between our properties and his trucks continue to access the Rifle Pit Road by driving across our land.
- Last summer we offered Mr. Croell a reasonable land swap - the 20 acres he required to have legal access to his 10 acre gravel pit for 40 acres of nearby land which would have sheltered our ranch to some extent from his operation. Mr. Croell refused and told our agent that he would build his own road. (Given the expanded scope of the present application this offer is now off the table.)

*Response*

During the public hearing, Roger Croell did inform the Air Quality Division that Croell Redi-Mix, Inc. built a new haul road which does not cross any private land. The Division does not have authority in this area.

x. Depth of Limestone Deposits

*Comment*

- Depth of the limerock deposits, which I strongly suspect increase dramatically as the land rises up before it drops off into Red Canyon (which is lined with limestone – hence the name).

*Response*

The Division does not require information of this type as part of the Air Quality permitting process.

xii. Water Quality Concerns

*Comment*

- Installing a concrete plant or asphalt plant could create pollution for the Sundance Creek. If you look on the west side of the interstate right there the water flows out through Roger's place on the other side it goes underground. Where does all this pollution go?

*Response*

The Air Quality Division does not have authority over Water Quality concerns. Croell Redi-Mix, Inc. is required to obtain all appropriate permits, which may include a water quality permit.

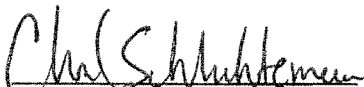
III. DECISION

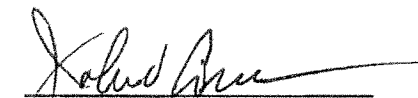
On the basis of comments received during the public notice period and at the public hearing, an analysis of those comments, and representations made by the applicant in the application, the Department of Environmental Quality has determined that the permit application filed by Croell Redi-Mix, Inc. complies with all applicable Wyoming Air Quality Standards and Regulations and that a permit will be issued to Croell Redi-Mix, Inc. to modify the Rogers Rock Pit as described in the application with the following conditions:

1. That authorized representatives of the Division of Air Quality be given permission to enter and inspect any property, premise or place on or at which an air pollution source is located or is being constructed or installed for the purpose of investigating actual or potential sources of air pollution and for determining compliance or non-compliance with any rules, standards, permits or orders.
2. That all substantive commitments and descriptions set forth in the application for this permit, unless superseded by a specific condition of this permit, are incorporated herein by this reference and are enforceable as conditions of this permit.
3. That all notifications, reports and correspondences associated with this permit shall be submitted to the Stationary Source Compliance Program Manager, Air Quality Division, 122 West 25<sup>th</sup> Street, Cheyenne, WY 82002 and a copy shall be submitted to the District Engineer, Air Quality Division, 1866 S. Sheridan Avenue, Sheridan, WY 82801.
4. The owner or operator shall furnish the Administrator written notification of: (i) the anticipated date of initial startup not more than sixty (60) days or less than thirty (30) days prior to such date, and; (ii) the actual date of initial start-up within fifteen (15) days after such date in accordance with Chapter 6, Section 2(i) of the WAQSR.
5. The date of commencement of construction shall be reported to the Administrator within thirty (30) days of such date. The permit shall become invalid if construction or modification is not commenced within twenty-four (24) months of the date of permit issuance or if construction is discontinued for a period of twenty-four (24) months or more in accordance with Chapter 6, Section 2(h) of the WAQSR. The Administrator may extend such time period(s) upon a satisfactory showing that an extension is justified.
6. Any crushing/screening equipment, hot mix asphalt plant and concrete batch plant shall have separate valid air quality permit(s) prior to locating/operating at this site.
7. That all work areas, disturbed areas and stockpiles shall be treated with water and/or chemical dust suppressants on a schedule sufficient to control fugitive dust. At a minimum, two (2) applications of chemical dust suppressant shall be applied annually to all work areas in accordance with the manufacturer's recommendations. The chemical dust suppressant shall be maintained continuously to the extent that it remains a viable control measure, which may require additional applications. All work areas shall receive an initial treatment of chemical dust suppressant prior to any activities at the beginning of each construction season.

8. Croell Redi-Mix, Inc. shall stabilize the exposed areas against wind erosion at the quarry. Newly disturbed areas shall be treated within sixty (60) days of completion of stripping unless otherwise approved by the Division. Reclamation areas shall be stabilized against wind erosion within sixty (60) days of reaching the approved post mining topography, unless otherwise approved by the Division. Stabilization practices may consist of ripping or chiseling to create a roughened surface, seeding with a temporary vegetative cover or other practices which effectively stabilize against wind erosion. Localized areas identified for equipment storage/staging, work areas and required buffers for haul roads and reclamation are not required to be stabilized.
9. All unpaved haul roads shall be treated with water and/or chemical dust suppressants on a schedule sufficient to control fugitive dust from vehicular traffic and wind erosion. At a minimum, two (2) applications of chemical dust suppressant shall be applied annually in accordance with the manufacturer's recommendations. The chemical dust suppressant shall be maintained continuously to the extent that it remains a viable control measure, which may require additional applications. All unpaved portions of haul roads shall receive an initial treatment of chemical dust suppressant prior to any hauling activities at the beginning of each construction season.
10. Croell Redi-Mix, Inc. shall maintain a log book listing the dates; amount of dust suppressant applied, areas treated, water usage and operating hours of the water truck. The log shall be maintained on site for a period of at least five (5) years and shall be made available to the Division upon request.
11. The amount of limestone crushed or hauled from the quarry shall not exceed 500,000 tpy. Records shall be kept for a period of five (5) years to demonstrate compliance with this condition and shall be made available to the Division upon request.
12. This permit shall supersede Air Quality Permit CT-4526 for the Rogers Rock Pit.

Dated this 17<sup>th</sup> day of March, 2010.

  
Chad Schlichtemeier  
Acting Administrator  
Air Quality Division

  
John V. Corra  
Director  
Wyoming Department of Environmental Quality

STATE OF WYOMING

Department of Environmental Quality/Division of Air Quality

NOTICE OF PUBLIC HEARING

Chapter 6, Section 2(m) of the Wyoming Air Quality Standards and Regulations provides that prior to final determination on an application to modify an existing source, opportunity be given for public comment and/or public hearing on the information submitted by the owner or operator and on the analysis underlying the proposed approval or disapproval.

Notice is hereby given that the State of Wyoming, Department of Environmental Quality, Division of Air Quality, proposes to approve a request by the following applicant to modify an existing source in Crook County, Wyoming.

Croell Redi-Mix  
PO Box 1352  
Sundance, WY 82729

The applicant has requested permission to modify the Rogers Rock Pit, which will include limestone crushing, screening, blasting, exposed acreage, stockpiling, haul activity, a hot mix asphalt plant and a concrete batch plant, located in the NW1/4NE1/4 of Section 25, T52N, R62W, approximately five (5) miles northeast of Sundance, in Crook County, Wyoming. The applicant estimates an annual production rate of 500,000 tons. A copy of the permit application and the agency's analysis is available for public inspection at the Crook County Clerk's Office, Sundance, Wyoming. In accordance with the Americans with Disabilities Act, special assistance or alternate formats will be made available upon request for individuals with disabilities.



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Pursuant to the provisions of the Wyoming Environmental Quality Act and the Wyoming Air Quality Standards and Regulations, a public hearing relative to the requested issuance of an air quality permit for the proposed modification will be held by the Administrator of the Air Quality Division, Department of Environmental Quality at 5:30 pm, Monday, December 14, 2009, at the Crook County Library, located at 414 Main Street, Sundance, Wyoming.

The hearing will be conducted pursuant to the provisions of Chapter III of the Rules of Practice and Procedure adopted by the Environmental Quality Council, and therefore, will not be conducted as a contested case. The purpose of the hearing is to gather information concerning the emissions of air pollutants into the atmosphere and the impact of such pollutants on the ambient air quality. The scope of the hearing will be limited to such issues in order for the Department of Environmental Quality to determine whether or not the applicable Air Quality Standards and Regulations will be violated as a result of the modification and/or operation of the facility.

All persons desiring to be heard on this matter are hereby notified to appear at the designated time and place. Oral statements will be accepted at the time of the hearing, but for accuracy of the record, written statements are encouraged and will be accepted at the time of the hearing or prior thereto.

Comments may be directed to David A. Finley, Administrator, Division of Air Quality, Department of Environmental Quality, 122 W. 25th St., Cheyenne, Wyoming 82002. Please reference AP-9645 in your comment. All comments received during the public hearing or received in the Cheyenne Office by 5:00 p.m., December 14, 2009, will be considered in the final determination on this application.