FILED

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL STATE OF WYOMING

OCT 2 0 2010

In the Matter of the Appeal		Jim Ruby, Executive Secretary Environmental Quality Council
And Petition for Hearing of:)	
Croell Redi-Mix, DEQ AQD Pe	ermit)	Docket No. 10-2803
Application No. AP-9645		
And DEQ AQD Permit No. MD)-9645)	
Dated March 17, 2010		

DEQ'S MOTION FOR SUMMARY JUDGMENT

EXHIBIT 1

Croell's Permit Modification Application

DEQ Bates Nos. 000001 - 000022

Reviewer NCM Copy to: Cynthia	JUI 2000
D.E. RE	CENED
STATE OF WYOMING File: 9.048 Department of Environmental Quality Air Quality Division WAQS&R Chapter 6, Section 2 Permit Application Mining/Quarry Operations - Non Coal Permit Application Form Please submit three (3) copies of the complete application	JUL 2009 CENTED HE
COMPANY: Crot. Last Submit three (3) copies of the complete application Contact: Sulv Fwing Title: Safety Director Mailing Address: D DOX 135D City: State: U/Y Zip: H2.729 Phone: 307-283-2021 Fax: 307-283-1450 E-Mail: U/C. Fwing (0) 1	 Dell. <i>co</i> m)
MINE/QUARRY NAME: LOGENS LOCK PIT New Mine/Quarry: Modification to existing Mine/Quarry: Size of Mine/Quarry: LOD & OT Acres Legal Description: MA 1/4 NE 1/4 Section 25 T 52 N R (12 W + St) 4	
TYPE OF MATERIAL MINED: (This form is Not for Coal Mines) ////////////////////////////////////	;
CQUIPMENT/OPERATION Crushing* Stockpiling* PLANNED AT THIS SITE: Screening* Hot Mix Asphalt Plant* 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. Any crushers, screens, hot mix asphalt plants, or concrete batch plants must have a separate, valid air quality termit to operate at this mine/quarry.	
Chis application must include: 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). 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.)	
Responsible Official (Please print or type) Title atte that I have knowledge of the facts herein set forth and that the same are true and correct to the best of my mowledge and belief. I further certify that the maximum production rate listed in this application reflects the maximum niticipated production rate at this mine/quarry. The facility will operate in compliance with all Wyoming Air Quality tandards and Regulations.	
ignature: Date: 0/30/09	



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



	Mined Mater	ial Information 2	Y	YYOMING
ACCESS & HAUL ROADS			1	
Maximum Distance Material v			J	miles
Fugitive Particulate Control M	ethod: Water Tr	u.ck)		
Type of Dust Suppressant Use				
Control Application Frequency	r: AS NULDE	d		
* The application MUST incluand the first paved road associ	ated with the mining acti	vities.	ling county roads, other	unpaved roads,
HAUL TRUCKS (Trucks the		rom the Quarry)	•	
Truck Type 1 (Description):				
No of Trucks:5	_ Capacity (tons):	40 TON	Empty Weight (lbs):	40,000
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Truck Type 2 (Description):	<u> </u>		· · · · · · · · · · · · · · · · · · ·	
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/F If crushing or screening equipment does not have a valid air of CS1-4, AQD-HM1-4, or AQD	ment, a hot mix asphalt p quality permit or relocati	plant, or concrete to on permit, the app	patch plant will be operator plant will be operator for the control of the contro	
OTHER	4 . 1.			
Other Emission Sources and C	ontrol:			
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FORM: AQD-MN3			REV	ISED: August 2008

Croell Redi-Mix,	Inc #	Per	to Mine
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December, 2008

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), (viii). 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> Municipal Corporation <u>Sundance</u>	Description Acres Total Permit (Amendment) Acres	
Applicant Signature	Date Permit No.	

MINE PLAN

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MINE PLAN

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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 Readi-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 been 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 hose 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.

<u>Water Supply</u> 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.

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

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 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-1are 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 $\frac{1}{2}$ " 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 ¾ 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 1-90. 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

MP.14

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,

Letter CL.1



Crook County Growth & Development

P.O. Box 848 Sundance, WY 82729-0848 Phone 307-283-4548 Fax 307-283-4549

Timothy R. Lyons, Administrator

Fred M. Duncan, County Planner fredd@crookcounty.wy.gov

Mr. Dennis McGirr P.O. Box 149 Beulah, WY 82712

2/12/2008 4:31:44 PM

re: Crook County zoning

Dear Mr. McGirr:

As per your conversation with this office at 4:25 p.m. of this date I am writing this letter to you addressing the issue of Crook County zoning, or other existing rules or regulations pertaining to gravel extraction operations.

Crook County does not have as of this date any zoning of any type. Barring an access permit, Crook County does not have any other rule or regulation that would apply to a gravel extraction operation. If the operation would require a septic system for waste products, as the Lein pit does, you will be required to get a septic permit from WYDEQ and Crook County.

Should you desire further information please give me a call at 307-283-4548, our hours are 8:00 a.m. to 5:00 p.m. weekdays.

Respectfully submitted

Fred M. Duncan

Crook County Planner

