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State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

May 25, 2010

Lennie Boteilho
Ames Construction Inc.
3737 West 2100 South
West Valley City, Utah 84120

Subject: Initial Review of Notice of Intention to Commence Large Mining Operations, Ames Construction, Inc., Lake Point Quarry, M/049/0076, Utah County, Utah

Dear Mr. Boteilho:

The Division has completed a review of your Notice of Intention to Commence Large Mining Operations for the Lake Point Quarry Mine, which was received April 13, 2010. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by sending replacement pages of the original mining notice using **redline and strikeout** text. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two clean copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records.

The Division will suspend further review of the Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me at 801-538-5261 or Lynn Kunzler (lead reviewer) at 801-538-5310. Other reviewers are Tom Munson (TM, 801-538-5321), Wayne Western (WW, 801-538-5263), and John Rogers (JR, 801-538-5349). Thank you for your cooperation in completing this permitting action.

Sincerely,

Paul B. Baker
Minerals Program Manager

PBB:lk:vs
Attachment: Review
P:\GROUPS\MINERALS\WP\M049-Utah\M0490076-LakePointLMO\final\REV-3497-05192010.doc

**INITIAL REVIEW OF NOTICEOF INTENTION
TO COMMENCE LARGE MINING OPERATIONS**

**Ames Construction, Inc.
Lake Point Quarry**

**M/049/0076
May 25, 2010**

R647-4-105 - Maps, Drawings & Photographs

105.1 - Topographic base map, boundaries, pre-act disturbance

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
1	Figure 1	This map should also identify and show the location of the adjacent Cedarstrom calcite mine.	Lk	

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
2	7a	Label cross sections A-A', B-B' etc. Cross section profiles (blue and green lines should be labeled as to what they represent).	JR	

R647-4-106 - Operation Plan

106.8 - Depth to groundwater, extent of overburden, geology

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
3	Fig. 1	All the rock units on the geologic map should be represented in the stratigraphic column. A geologic cross section through the area would be helpful.	JR	

R647-4-109 - Impact Assessment

109.1 - Impacts to surface & groundwater systems

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
4	Figure 5, 7, 8A	These figures show a reclaimed channel that circles the pit. There are no dimensions for the channel or calculations for expected peak flows and subsequent velocities demonstrating adequate erosion protection. There are some major concerns over the design and why the channel does not run as a straight shot across the pit instead of making 90 degree bends along the top of the regraded slope. The Division cannot accept this design without any supporting documentation to show it is stable for the long term.	TM	

R647-4-110 - Reclamation Plan

110.2 - Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
5	Page 21, para 7	This paragraph implies that there may be slopes steeper than 2.5H:1V. How will the steeper slopes be reclaimed? Please note, the preferred slope for unconsolidated materials is 3H:1V.	Lk	
6		The NOI says that slopes that are longer than 100 feet will have water bars placed on the contour. Since it is difficult to construct water bars of any length on the contour, and have them sufficiently sized so they do not fail (if one fails, generally all of them down-gradient fail as well), please consider deep ripping (18-24 inches) on the contour (after topsoil replacement) and leave the surface rough. See also comment # 8 under 110.5.	Lk	

110.5 - Revegetation planting program

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
7	Page 24, Table 110.5.1	It is unlikely that the proposed seed mix in this table will establish a diverse, permanent vegetative cover that will meet the needs of the intended post-mining land use. The seed mix should include 4-5 grasses, 4-5 forbs and 4-5 shrub species. Please refer to the attached recommended seed mix, if this is acceptable, please incorporate it into the NOI.	Lk	
8		Final regrading should be planned (scheduled) to coincide with the late fall seeding window. If seeding occurs shortly after the final ripping, there is no need to harrow or drag the area. This leaves the surface in a more roughened condition which is more effective in controlling erosion and providing more moisture for vegetation establishment. The final ripping should occur after topsoil replacement and application of the Biosol (soil amendment). Finally, seed should not be mixed with the Biosol (fertilizer) since even short-term direct contact with fertilizers reduces seed germination.	Lk	

R647-4-113 – Surety

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
9		Please include a list of all structures, equipment and facilities that will be located within the permit boundaries and show those items on an operations map. The Division needs this information to keep track of those items that must be removed.	WW	
10	App. H Summary Sheet	Please use the Division's worksheet for calculating reclamation cost estimates. The Division's summary sheet includes 26.8% indirect costs.	WW	
11	App. H 1. Process Facility	Please use the Division's worksheet for demolition costs. All equipment must include a disposal fee. The Division has encountered situations where the equipment was in such poor condition that the equipment had no value. Note that the Division will allow steel to be disposed of at a recycle facility. Under the general assumption, the Operator states that no concrete structures will be used. Generally conveyors, scale houses and control house building, towers and tool shed have concrete footings and or floors. The cost to demolish those concrete structure must be included. Means does include a 20 mile haul to a disposal facility in the demolition costs, and additional distances must be an additional line item.	WW	
12	App. H1 #2	The Operator's sheets goes from #1 to #3; was a #2 sheet supposed to be included in the bond calculations?	WW	
13	App. H1 #3	Used oil tank, antifreeze tanks, gas tank and propane tanks are listed under the "number" column as zero. If those structures will be on site then the number must be at least one. Oil tanks and lube cube are listed in this column as 0.25; please list the number in whole integers. Please use Means costs for tank removal if possible. As a general rule, the Division prefers to use Means costs rather than vendors quotes. Usually oil and fuel tanks have a concrete containment structure to trap any spilled fuels, please include the cost to demolish such concrete structures.	WW	
14	App. H1 #5	No sheet number 5 was listed. Please keep the numbering consecutive.	WW	
15	App. H1 #6	Please describe those items that are included in the off-site transport, off-site disposal and disposal fee. The Division's worksheet lists all those cost for each structure.	WW	
16	App. H1 #7	No costs are listed under pit backfilling. In section 110.2 under slopes, the plan says no grading will occur. The Division needs the reclamation cost based on the maximum amount of work that will be needed. Please include costs, if any, to backfill the working faces. If those costs are included in other items then remove the pit backfilling. Under surface shaping and grading, please describe the work needed and how the 5,000 cubic yard estimate was calculated. Please include productivity calculations under fine grading and seedbed preparation. Please include costs for restoring the drainages.	WW	
17	App. H1 #8	For revegetation costs, the Operator can use the Division's standard cost of $1,000 per acre.	WW	

Attachment: recommended seedmix,
reclamation worksheets.

Recommended Revegetation Species List
for

Lake Point Quarry
M/049/076

Common Name	Species Name	*Rate lbs/ac (PLS)
Intermediate wheatgrass	*Agropyron intermedium*	2.0
Thickspike wheatgrass	*Agropyron dasystachum*	2.0
Piute orchard grass	*Dactylis glomerata*	0.5
Great basin wildrye	*Elymus cinereus*	2.5
Indian rice grass	*Oryzopsis Hymenoides*	2.0
Palmer penstemon	*Penstemon palmerii*	0.5
Pacific Aster	*Aster Chilensis*	0.1
Yellow sweetclover	*Melilotus officinalis*	0.5
Small burnet	*Sanguisorba minor*	1.0
Mountain big sagebrush	*Artemisia tridentata vaseyana*	0.1
4-Wing Saltbush	*Atriplex canescens*	1.0
Rubber rabbitbrush	*Chrysothamnus nauseosus*	0.3
Forage kochia	*Kochia prostrata*	0.5
	Total	12.0 lbs/ac

*** Recommended broadcast seeding rate.**