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State of Utah
DEPARTMENT OF NATURAL RESOURCES

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Division of Oil, Gas and Mining
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January 11, 2015

Michael Dalley
Staker Parson Companies
89 West 13490 South, Suite 100
Draper, Utah 84020

Subject: Completeness Review of Notice of Intention to Commence Large Mining Operations, Staker Parson Companies, Daniels Canyon Mine, M/051/0008, Wasatch County, Utah

Dear Mr. Dalley:

The Division of Oil, Gas and Mining has completed a review of the referenced Notice of Intention to Commence Large Mining Operations which was received December 9, 2012. 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 those items requested in the attached technical review by submitting replacement pages for the Notice of Intention to Commence Large Mining Operations (Notice) using redline and strikeout text. When the Notice is determined technically complete, the Division will ask that you submit two clean copies of the complete and corrected plan. Upon final approval, both copies will be stamped approved, and one will be returned for your records.

Please submit your response to this review by April 8, 2016.

The Division will suspend further review of the Notice until receiving your response to this letter. Please contact Leslie Heppler at 801-538-5257 or me at 801-538-5261 if you have questions about this process or about the review. Thank you for your cooperation.

Sincerely,

Michael P. Bradley
for Paul B. Baker
Minerals Program Manager

PBB: lah: eb
Attachment: Review
cc: Mike George, Harry Campbell, Matt Garn, and Dan Hall, DEQ (mmgeorge@utah.gov hcampbell@utah.gov, mgarn@utah.gov, dhall@utah.gov)
P:\GROUPS\MINERALS\WP\M051-Wasatch\M0510008-DanielsCyn\Final\REV1-7054-12142015.docx

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UTAH DNR OIL, GAS & MINING

COMPLETENESS REVIEW OF NOTICEOF INTENTION TO COMMENCE LARGE MINING OPERATIONS

Staker Parson Companies
Daniels Canyon Mine

M/051/0008
January 11, 2016

General Comments:

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
1	All	Thank you for formatting the submittal to easily incorporate additional revisions and amendments. No further response needed	lah	
2	All	Please complete all items in highlighted red text. The Division may have additional comments based on items not yet received but required by R647.	lah	
3	All	This review contains comments about items included in the Notice of Intention, and there are several acknowledged incomplete portions of the Notice. The "non-com" designation in the second column is associated with items which cannot be reviewed at this time.	lah & pnb	

R647-4-104 – Operator Information and Surface and Mineral Ownership

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
4	Page 6	Further define Section 22 as S½ Section 27 as expansion is planned.	lah	
	non-com	Land and mineral ownership information is missing.		
5	Page 7	Landowners can't be verified without Figure 2.	lah	
6	Page 7	Why haven't the land, mineral and adjacent landowners been notified?	lah	

R647-4-105 - Maps, Drawings & Photographs

General Map Comments

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	No comment until figures have been received	lah	

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

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	No comment until figures have been received	lah	

105.2 - Surface facilities map

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	No comment until figures have been received	lah	

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

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	No comment until figures have been received	lah	

R647-4-106 - Operation Plan

General Operation Comments

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action

106.1 - Minerals mined

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action

106.2 - Type of operations - mining method, onsite processing, deleterious or acid-forming materials

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
7	Page 10	At the time of the last inspection, there were areas that had been regraded, including topsoil placement, which would be considered as concurrent reclamation. Please show these areas on a map.	lah lk	

106.3 - Estimated acreages disturbed, reclaimed, annually/sequentially

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	Information missing		

106.4 - Nature of materials mined or processed (including waste materials), and estimated annual tonnages

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	Previously mined areas mentioned in text should be shown on a map.		
8	Page 11	Under the text in section 106.4, "historic" and "early 1990's" are used in the same paragraph. To clarify, mining in the 1990's is not "historic mining." Please change the text from "Prior Disturbance due to Historic Mining" to "Prior Mining Disturbance."	lah	
9	Page 10	Table 1 needs to identify not only the acreage involved with the topsoil stockpiles, but the size (aerial extent), volume (cubic yards), and the location of each stockpile needs to be shown on a map. This includes not only existing stockpiles but future stockpiles as well.	lk	

106.5 - Existing soil types, location, amount

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
10	non-com	Soil sampling locations should be displayed on a map, and this map should be referenced in the text discussion.	lah	
11	Page 11	The site-specific soil survey conducted by the NRCS indentifies significantly more topsoil (A horizon materials) than the 4-6 inches identified in this section. This section needs to be corrected to reflect the topsoil depths as determined by the NRCS.	lk	

106.6 - Plan for protecting & re-depositing soils

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	Information missing		
12	Page 11	Please refer to comments made under R647-4-106.3. Also, where in most areas there is in excess of 12 inches of topsoil, please plan to salvage and stockpile a minimum of 12 inches. This section needs to discuss how stockpiles will be protected from erosion or other disturbances until used for reclamation. Finally, this section needs to describe how topsoil will be re-deposited at the time of reclamation. This plan should include the types of equipment to be used as well as the addition of any fertilizers or soil amendments, and the timing of when it will be done.	lk	

106.7 - Existing vegetation - species and amount

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
13	Pages 11-12	The vegetation survey provided does not identify the percent ground cover of vegetation for each of the vegetation communities. This data is needed to develop the reclamation success standard.	lk	

106.8 - Depth to groundwater, extent of overburden, geologic setting

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	Show on a map the water well locations used to determine depth to groundwater.		
14	Page12	Geology text should refer in the text to the geology map. (noted as Figure 4 in Table of Contents). Geology should include a brief regional setting, with a more detailed explanation in the quarry area. Geology on the top of Mount Timpanogos is interesting, but factual geologic information from the mine should be provided. The information provided should match the geologic map.	lah	

106.9 - Location & size of ore and waste piles, tailings, ponds

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	Required information missing.		
15	Page 12	Rewrite the third sentence to, "There will be no waste stockpiles, tailings, treatment ponds, and discharges generated on the mine site."	lah	

106.10 - Amounts of material extracted or moved (including ore, waste, topsoil, etc.)

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	Missing.		
16	Page 15	Section 106.10 is to be addressed under 106.9, so change the header to "106.9 & 106.9…."	lah	

R647-4-109 - Impact Assessment

109.1 – Projected impacts to surface & groundwater systems

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	Please provide Appendix F.	lah	

109.2 – Potential impacts to threatened & endangered wildlife/habitat

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
17	Page 16 & App D	When will the wildlife surveys be done? Please provide the month each survey will be done and provide a date for submittal of the reports.	lah lk	

109.3 – Projected impacts on existing soils resources

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
18	Page 16	It is unclear why the operator believes the topsoil will not have erosional and stability problems at the proposed angle. A more important concern to the Division is the height of the stockpiles.	lah	
19	Page 16	Topsoil stockpiles should be relatively shallow (less than 15 feet) and should not have steep sides (3H:1V or flatter preferred). A 1.5H:1V slope on the stockpiles is likely to have erosion problems. If the slopes absolutely must be this steep, special erosion control measures may be needed, such as erosion control blankets, mulch, etc. Please describe the additional erosion control measures to be used in addition to seeding in the fall to prevent erosion if stockpiles are to be steeper than 2.5H:1V. Will other protection measures be employed to prevent disturbances to stockpiles, such as berms and signage?	lk	

109.4 – Projected impacts on slope stability, erosion control, air quality, public health and safety

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
20	Page 16	The current rock slope is steeper than 2H:1V. Please clarify in the text and add statements which clarify slope angles during mining and final slope angles for reclamation. Without cross sections it is difficult to evaluate proposed slope angles.	lah	

109.5 - Actions to mitigate any impacts

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
21	Page 17	Please add verbiage under Section 109.5, such as "Mitigation actions for 109.1, 109.2, 109.3 and 109.4 are discussed in each listed section."	lah	

R647-4-110 - Reclamation Plan

110.1 - Current & post mining land use

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	Please identify the pre-mining land use.		

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action

110.2 – Reclamation of roads, highwalls, slopes, impoundments, drainages, pits, piles, shafts, adits, etc

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	Items to "be determined at a later date" cannot be reviewed or approved.		
22	Page 18 omission	Please refer to the cross sections in Figures 9, 10 and 11, under the highwall section.	lah	
23	Page 18	Based on the current configuration on the ground, it is difficult for the Division to envision 2H:1V slopes, but the Division fully supports this goal. The text needs to be supported by proposed cross sections.	lah	

110.3 - Facilities to be left for post mining use (buildings, utilities, roads, pads, ponds, pits, equipment, etc.)

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
23	Page 18 & 19	The Division would like more information about the "ravines" noted in the text. Perhaps labeling them on the map would help.	lah	

110.4 - Description or treatment/location/disposition of deleterious or acid forming materials, including map

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
24	Page 20	Hazardous materials need to identified in the reclamation cost estimate.	lah	

110.5 - Revegetation planting program

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
25	Page 20-21	Seed table is listed twice and the Division recommends only having it in one place in the permit. Please remove Appendix G (and all references throughout the text). Simply refer to Table 4 on page 20.	Lah & lk	

110.6 – Commitment to reclaim

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	The Notice of Intention needs to contain a signed statement committing to reclamation.		

R647-4-112 - Variance

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
26		No variances requested; no further action is needed.	lah	

R647-4-113 – Surety

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
	non-com	Surety calculations will be required prior to final approval.		
27	Appendix I	Please use the Divisions 2016 spreadsheets provided on the Division's.	lah	