



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

February 22, 2010

LQD

FEB 25 10

RECEIVED

Mr. Ron McMurry
McMurry Ready Mix Co.
P. O. Box 2488
Casper, WY 82602

RE: Eastfork Ranch Pit TFN 5 3/143 – Mine Permit Application Completeness Review -
Application Incomplete

Dear Mr. McMurry,

The Wyoming Department of Environmental Quality – Land Quality Division (WDEQ-LQD) received the Application for a Mining Permit for the McMurry Ready Mix Eastfork Ranch Pit on December 23, 2009. Per Wyoming Statutes we have reviewed the application and are providing comments. At this time, WDEQ-LQD has identified deficiencies in the application and finds it to be incomplete.

WDEQ-LQD staff will be available to meet with you and your representative, Aqua Terra Consultants, Inc., to answer questions and assist in the remedy of outstanding issues.

GENERAL COMMENTS

1. There are numerous references to the possibility of mining to the limit of the gravel (which would be well below the water table), but no definite commitment that this will occur. WDEQ-LQD requires a definitive mine plan and reclamation plan. The Mine Plan and Reclamation Plan should focus on a shorter term period; perhaps 10 to 20 years. WDEQ-LQD would suggest using an above-water scenario for that time period. The reclamation plan for deep mining over an 80 year life would be better presented as a long term conceptual plan.
2. There are multiple references throughout the permit application indicating that the 10 acre limited mining operation (LMO) 1423ET is in existence and that the ground has been disturbed. There are also multiple references to this LMO indicating that the ground has not yet been disturbed or is partially disturbed. The LMO has disturbed 11.3 acres. The topsoil pile which was located at the north end of the pit was moved into the pit along the east highwall and the area where the topsoil pile had been located was scarified and seeded. All sections of the application should correctly reflect the current situation on the ground. Also note, McMurry Ready Mix agreed to seed the topsoil pile in its new location to protect the topsoil from wind and water erosion; this has yet to be done.

Lander Field Office • 510 Meadowview Drive • Lander, WY 82520 • <http://deq.state.wy.us>

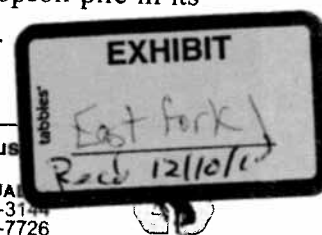
ABANDONED MINES
(307) 332-5085
FAX 332-7726

AIR QUALITY
(307) 332-6755
FAX 332-7726

LAND QUALITY
(307) 332-3047
FAX 332-7726

SOLID & HAZARDOUS WASTE
(307) 332-6924
FAX 332-7726

WATER QUALITY
(307) 332-3144
FAX 332-7726



3. There is a haul road along the north edge of the property which was significantly improved (width, borrow ditches and gravel surfacing) during the summer of 2009. There are multiple references to this road as belonging to WYDOT, having been built by WYDOT and having been used by WYDOT. WDEQ-LQD staff has had conversations with WYDOT personnel and with Mr. Ron McMurry regarding the construction and use of this road. The haul road was not built by WYDOT nor has it been used by the STATE of Wyoming. WDEQ-LQD will not accept any verbiage in the application document, maps or ancillary information suggesting the haul road was built by, used by, or maintained by WYDOT or the State of Wyoming. Please correct all such references in the various sections of the application.
4. Please clarify whether the disturbed acreage associated with the haulroad (8.9 acres) was measured before or after the road had been upgraded. Please insure that the correct acreage is referenced in all sections of the application.
5. There are two different references to the distance of the Eastfork pit from Boulder, WY; 10 miles and 13 miles. These should be consistent throughout the application.
6. It would be helpful if all of the adjudication materials (Form 1, Form 3, Bonding Calculations, Surface Owner Consent (Form 8), Other Consent, Other Permits, Appendix A, Appendix B, Appendix C, Appendix E and the reclamation cost estimate) were organized with tabbed dividers, following the outline in the Table of Contents.

Bond Calculations

- a.) It should be noted that "area bond" and "incremental bond" are coal related terms that don't really apply to non-coal operations. Future revisions to the calculations should not include this terminology.
- b.) Page ADJ-4-4 item B-10, the total disturbed area is listed as 16.8 acres, however, the bond calculation on page ADJ-4-6, covers a total of 20.1 acres. Please correct this discrepancy.
- c.) Figure ADJ-4-1, The topsoil pile shown on this map has been moved. The new location for the topsoil stockpile should be shown, as well as any additional stockpiles that will be created through the Year 1 topsoil stripping shown on the map.
- d.) The costs for disking and drill seeding operations should each be estimated at \$50 per acre. Cover crops should not be used (see comment under reclamation plan) and this cost should not be included in the bond estimate. The cost of the permanent seed mix seems low and should be verified. Please revise the bond calculation to adjust these costs.
- e.) Section B-9, page ADJ-4-4, discusses the use of mulch, whereas the cost estimate does not include mulch. LQD has no preference concerning the use of mulch, however the discrepancy should be corrected.

LQD

FEB 15 10

RECEIVED

Certificate of Public Liability

- a.) This item is only required for coal mines.
- b.) Page ADJ5-1, The first paragraph indicates that the certificate of public liability is maintained at the Casper and Cheyenne offices of the LQD. This should be the Lander and Cheyenne offices of the LQD.

Surface Owner Consent

- a.) A signed WDEQ-LQD Form 8 is required for any surface owners within the permit area.

LQD

FEB 15 11

RECEIVED

Other Consent

- a.) Provide consent from ditch company(s) and SEO to move the Baner No. 1 Ditch and remove the Hittle Enlargement of Jorgensen Ditch.

Other Permits

- a.) Provide a copy of the Sublette County Planning and Zoning/Commission conditional use permit for expanding the mine.
- b.) Before the final reclamation plan can be approved WDEQ-LQD will need copies of SEO water appropriation and a copy of the SEO permit for the reservoir.

Appendix A – Surface and Mineral Ownership Within the Permit Area

- a.) Since there are multiple surface owners and mineral owners within the permit boundary, Figure AB1 – Surface and Mineral Ownership needs to be split into two maps; Surface Ownership and Mineral Ownership, in order to clearly show ownership information.
- b.) Each map should be located in the tabbed section immediately following the tabular listing of names and addresses.
- c.) Each map should clearly indicate ownership. Specify if multiple owners, own minerals or surface at any location.
- d.) Please also show the east and west access roads on the ownership maps.

Appendix C – Legal Description

- a.) Figure C-1 should clearly show the area described in aliquot parts and that area called "Parcel 1" described by metes and bounds. It is requested that a copy of the property survey map be included in the application to clearly show the corners and distances as described in the metes and bounds survey.
- b.) Figure C-1 should show the east and west access roads, as well as State highways and County roads, clearly labeled with their route numbers.
- c.) Please show township and range on Figure C-1 as well as all other maps in the application.

Appendix E – Easements, Right of Ways and Structures

- a.) Page ADJ9-AB-2, the Memorandum of Landowner Agreement and Easement between Eastfork Livestock and McMurry Ready Mix should be moved here.
- b.) Pages ADJ9-AC-1 and ADJ9-AC-2 Eastfork Livestock, Inc. Road Clarification should be moved here.
- c.) Provide documentation for an easement or right of way as legal access through the Sublette County and Jensen properties on the east side of the permit area and Eastfork Livestock on the west side of the permit area.
- d.) Figure E-1 should be expanded to the west to show the connection of the west haul road to the county road. Please label the county road with the appropriate number.

Appendix D5 – Topography, Geology, and Overburden Assessment

- a.) The reported Grade Elevation and Casing Elevation for all of the drilling logs are in the 4,600 msl range, while actual ground surface elevation per topography map Figure D5-2 are in the 7,100 msl range. The drilling logs should be corrected so they can be correlated to the map.
- b.) Is there inner-burden between the upper and lower gravel benches? This layer should be characterized either for the final pit floor, or as material to be used in backfill grading. Where will this material be stockpiled if the lower gravel seam is mined?
- c.) It is requested that additional borings be conducted at several locations inside the proposed pit area to accurately determine the thickness and character of the gravel seams and the inner-burden material.

Appendix D6-Surface and Groundwater

- a.) Provide a tabular summary of Surface and Groundwater Rights, location, owners, depth to water, date completed (if possible).

APPENDIX D7 - Soil Assessment

- a.) Page D7-4, paragraph 5 states that "All ten soil profile descriptions and sample site locations are plotted on the map," in reference to Figure D7-1. This same paragraph states, "The map's legend includes a list of all map units and their recommended salvage depths." The map, Figure D7-1, included in this section does not show the above listed details. Please add this information to the map.
- b.) Page D7-1, Item D7-1.1, this reference distance of 10 miles east of Boulder, WY is different than all other references of 13 miles.

APPENDIX D8 – Vegetation Inventory

- a.) Page D8-2, section D8-4.1 Mapping states that "Two vegetation community types were delineated on the Eastfork Ranch Pit permit area." Further review of this Appendix details four vegetation community types, including Mixed Shrub, Disturbed Land, Riparian/Willow Bottom, and Meadow community types. The map, Figure D8-1, also shows all four community types in the permit area. Please correct this discrepancy.
- b.) Page D8-3, The Disturbed Land section does not appear to take into account the existing Limited Mining Operation into the total acreage of 8.9 acres of disturbed lands. Please clarify.
- c.) Figure D8-1, Vegetation Inventory Map. The map shows the boundary for the existing Limited Mining Operation; however the vegetation type shown in this area is illustrated as Mixed Shrub. This entire area has been disturbed and should therefore be illustrated as Disturbed Lands.
- d.) Page D8-3, Table D8-1 should account for the additional disturbed lands acreage listed in the above comments (LMO and widened road). This change will affect percentages also listed in this table.
- e.) Page D8-3, Remove reference to WYDOT association to haulroad.

LQD

FEB 13 10

RECEIVED

APPENDIX D9 – Wildlife Inventory

- a.) Page D9-1, 2nd paragraph in the Wildlife Habitats section states that the disturbed lands within the permit area consist only of the road constructed by WYDOT and it occupies 8.9 acres. This statement

does not take into account the ≈ 10 acres of disturbed lands from the Limited Mining Operation and the additional acreage disturbed from widening the haulroad this year. Please clarify and remove reference to WYDOT.

- b.) Page D9-2, Table D9-1 should account for the additional disturbed lands acreage listed in the above comment. This change will affect percentages also listed in this table.
- c.) The applicant is required to consult with both WG&F and USFWS regarding wildlife issues. Please include all correspondence both to and from these agencies. Recommendations from these agencies will have to be incorporated into the mine and reclamation plan.

LQD

MINE PLAN and RECLAMATION PLAN - GENERAL

FEB 15 10

RECEIVED

WDEQ-LQD recognizes that neither the mine plan nor reclamation plan can account for all contingencies over a 80 mining period. WDEQ-LQD expects there will be revisions to both plans over the life of the mine. This 80 year plan should probably be designated as a long-term conceptual plan. WDEQ-LQD requests a definitive mine plan and reclamation plan that focuses on a shorter period of time; for instance 10 to 20 years. In the short term plan WDEQ-LQD expects a definitive statement from McMurry Ready Mix as to the depth of mining. Either mining will be limited to above the groundwater table, or there will be a plan to mine to the full depth of the gravel with a corresponding mine plan and reclamation plan. The current reclamation plan is based on mining full depth. If the mine plan is not committed to full depth mining, then the current reclamation plan cannot be achieved.

Since the permit area is within core sage grouse habitat, contemporaneous and successful reclamation will be essential in order to minimize impacts to sage grouse habitat. WDEQ-LQD requests a definitive commitment that no more than 25 acres will be disturbed at any one time. This will necessitate prompt reclamation grading and seeding.

WDEQ-LQD is not favorable to two reservoirs in the final reclamation. Since the haul road is bladed and graveled only, the cost to move it, curving around the northwest corner would allow mining of the mineral under the existing haulroad and provide for simpler, more unified reclamation at the end of the project.

The triangular area, adjacent to the northwest corner of the existing LMO, as shown is not to be mined. WDEQ-LQD favors mining through it to recover the mineral and ease the grading in the reclamation of the LMO. If the triangular area is intended to protect the well EF-1, which appears to be north of the haulroad, please explain why this large area is needed for protection.

On page MP-4 and RP-1 the application states that the landowner desires to return the area to pasture land for grazing to include agriculture and wildlife habitat. The Large Reservoir (proposed to be 3,258+ acre feet) far exceeds the impoundment size necessary for a stock pond (20 acre feet). As a major impoundment (not preexisting) this is considered to be a land use change, which will require justification. Converting a combined total of over 180 acres of the 291 acres to be affected to reservoir constitutes a change in use and does not appear to be consistent with the landowners desire to returning the area to grazing land. No justification for this change in land use appears to be included in this application..

MINE PLAN - SPECIFICS

1. Page MP-1, Section MP-1.2 describes the mine progression for the 80 year life of the mine. As discussed above, this section should be revised to describe the 80 year plan as a conceptual long range plan and a short term (10-20 year) plan should be developed. This short term plan could be revised and updated as dictated by future developments. LQD
2. Page MP-2, Table MP-1 needs to show the equipment used to excavate below the water table. FEB 1
3. Page MP-3, Item MP-1.5.1 should reference the elevation of the groundwater. RECEIVED
4. Page MP-6, Item MP-1.6.7 topsoil stockpiles must be designed with 3:1 sloping sides so that they can be seeded.
5. Page MP-7 1st paragraph says "a buffer of up to 25 feet will be stripped..." this should also say "not less than 10 feet".
6. Page MP-7 4th paragraph says topsoil signage will be within 150 feet of the topsoil stockpiles. Signage must be placed on each stockpile.
7. Page MP-7, the 2nd paragraph in Section MP-2.1.2 describes the location of the topsoil pile produced from the existing Limited Mining Operation. This topsoil pile should be illustrated on Figure MP-1.
8. Figure MP-1 needs to show the locations of all existing topsoil piles and mineral stockpiles.
9. LQD suggests that McMurry evaluate the feasibility of a plan that would commence deep mining from the west side of the permit area and move eastwardly. This would allow for construction of the impoundment and then mining would proceed up-dip to allow containment of the water without pumping?
10. Since the permit area is within core sage grouse habitat, contemporaneous and successful reclamation will be essential in order to minimize impacts to sage grouse habitat. WDEQ-LQD requests a definitive commitment that no more than 25 acres will be disturbed at any one time. Please incorporate this into both the mine plan and the reclamation plan.

SPCC Plan

- a.) Page MP-AA-4 is not signed by a professional engineer licensed in the State of Wyoming.
- b.) Page MP-AA-6 item C. This section specifies that the plastic lined earthen berm around each storage tank will be constructed to hold the volume of the tank. 40 CFR 112.7 requires 100% of the volume plus freeboard for precipitation. Elsewhere in the application the containment berm is specified at 150%. The current berm around the existing tank in the LMO is grossly insufficient and has not been corrected.
- c.) The alluvial deposits have been described in this permit application as highly conductive. Page D6-21st paragraph estimates transmissivities of 7,000 to 66,000 gallons per day per foot. Based on the high hydraulic conductivity and proposed mining below the water table, there is need for more specific information in the Spill Protection Control and Containment plan. For instance, if equipment such as a dragline, were mining below the groundwater table and a hydraulic hose ruptured spilling oil onto the water surface, what specific items are to be located on site to contain the oil film. Where will these materials be stored. Who and how many persons will be required to perform the required functions to contain the oil film. How will the oil film be removed. Who will remove it. Where will it go. Who will determine the cleanup is satisfactory. How and where will the containment materials be disposed.

RECLAMATION PLAN

The Reclamation Plan as submitted assumes deep mining for the entire permit area for the life of the mine. The mine plan assumes shallow mining with an option to go deep. If deep mining is not performed, the Reclamation Plan cannot be achieved.

Reservoirs, impoundments, stock dams, etc. need to be designed in accordance with WDEQ-LQD Guideline 17. This guideline suggests that the design should provide for the impoundment to spill at least every 10 years. It also requires a change in land use for large impoundments that are not pre-existing.

The designs for the impoundments don't appear to consider any out-flow; ever. Since, the reclaimed land will be used by livestock, there will likely be impact on the water quality. If the impoundment never flushes out or spills, there will be continued degradation in quality due to evaporation and concentration of naturally occurring minerals in the water. A spillway is necessary to control the water elevation at a level that will allow periodic flushing/outflow.

RECLAMATION PLAN - SPECIFICS

FFP 000000

RECEIVED

1. WDEQ-LQD prefers to see a short term mine and reclamation plan based on 10 to 20 years. The 80 year plan is beyond reasonable projection and should be discussed as a long-term conceptual plan. Figure RP-1 Postmining Topography (or its revision) should be labeled as a long term conceptual plan. A post mining topography based on 10-20 years of mining should be developed for inclusion in the permit application. This plan could be revised in the future as conditions dictate.
2. WDEQ-LQD suggests that the short term plan be based on mining above the water table unless McMurry Ready Mix is willing to commit to deep mining for that period of time.
3. A triangular area near Well EF-1 is proposed not to be mined. Left intact, the triangular area causes steep slopes in the reclamation of the LMO that would otherwise not be required. Please address how this piece could be mined out to provide gentler slopes in the LMO area. This would require relocation of the Baner No. 1 Ditch closer to the east permit boundary, but as shown the Baner No.1 Ditch is already relocated.
4. WDEQ-LQD does not favor two reservoirs, especially with the sizes of each and their proximity to each other. Consider moving the haulroad from where it crosses the northwest corner to a location closer to the north and west boundaries (possibly creating a curve) to alleviate the need for the small reservoir. The Baner No.1 Ditch would also move further to the northwest corner in this location. However, as shown the Baner No. 1 Ditch is already relocated in this area.
5. The size of the large reservoir, even at normal water line it extremely large relative to the size the affected area. Explain what other uses are proposed for this reservoir.
6. Explain and justify the change in land use from livestock and wildlife to a reservoir.
7. Since the reservoirs will have no outlets, they will have fluctuating water levels based on fluctuations in climate and precipitation. This zone of inundation between the normal water line and the reservoir crest of the large reservoir is excessive. It is requested that a spill feature (spillway or outlet pipe) near

- elevation 7114 msl be designed to eliminate or greatly reduce this area and allow the reservoir to spill at least once every ten years.
8. Provide information how the spill feature will affect the wetlands area.
 9. Page RP-s, item RP-2.3, please clarify whether topsoil will be placed between the low pool water line and reservoir crest in the large reservoir area?
 10. Page RP-2, Section RP-3 states that "the loose, gravelly nature of the materials left in the bottom of the pits precludes the need for scarification and will readily hold topsoil." The purpose of scarification is to increase the depth of root penetration to improve reclamation. The pit floor or the inner-burden material may not have a gravelly texture and may become compacted due to traffic. Please include a commitment to scarify the pit floor prior to topsoil placement.
 11. Page RP-3 item RP-4.2, since the permit is in a core sage grouse area, reclamation must be contemporaneous with mining. It is requested that not more than 25 acres be disturbed (unreclaimed) at any one time. The schedule for reclamation and topsoil replacement will need to be specific in terms of achieving this goal.
 12. Section RP-5.1 discusses the use of cover crops. LQD does not endorse the use of cover crops that are seeded with the permanent seed mix (actually this should be termed a "nurse crop") because they compete with the perennial species in the seed mix. Please eliminate the use of cover/nurse crops that are seeded with the permanent seed mix. A true stubble mulch may be utilized. A stubble mulch is seeded by itself and allowed to grow for one growing season, then the permanent mix is drilled into the stubble the next fall. Please clarify.
 13. Section RP-5.2 states that most of the area will be revegetated with a pasture mix. The vegetation study shows that nearly all of the area is presently comprised of a mixed shrub vegetation community, with shrubs making up approximately 1/3 of the vegetative cover. Due to the site being located in core sage grouse area, with an active lek approximately 1 1/2 miles from the permit area, it is requested that the upland seed mix (containing a minimum of 0.3 lbs PLS/acre sage brush) be planted on at least 50% of the affected area. Please provide this commitment in the reclamation plan.
 14. Page RP-5 item RP-5.4 and 5.6, It is recommended that the reclamation be protected from livestock grazing until the seeded area is released from bonding, a minimum of five years. Controlled grazing is acceptable after the vegetation is well established, and may actually enhance the reclamation, but it must be closely monitored to prevent damage to the new vegetation.
 15. Section RP-5.5 states that tree restoration is not planned. There are 26 narrow-leaf cottonwood trees, many up to 50 feet tall, that will be removed by mining. LQD would like to see an equivalent number of trees replaced in the permit area due to their importance to wildlife. Trees need not be replaced with the same species or in the same locations. Please provide a plan to replace trees.
 16. Section RP-5.7 discusses herbaceous production as a standard for evaluating reclamation success. Actually this standard does not apply to non-coal mines. The standard for non-coal mines is equal cover of perennial species. Please revise the text.

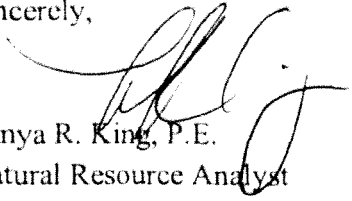
LQD

FEB 11 10

RECEIVED

We have provided numerous comments to this application. If you would like to meet with our staff to go over the comments or discuss revisions, please contact us at the Lander Field office 307 332-3047.

Sincerely,


Tanya R. King, P.E.
Natural Resource Analyst

LQD
FEB 11 10
RECEIVED

xc: Cheyenne DEQ/LQD
Mark Moxley – Lander DEQ/LQD
Aqua Terra Consultants, Inc., Attn: Mr. Steve Stresky, 2624 Heartland Dr. Sheridan, WY 82801
Sublette County Planning and Zoning - Attn: Mr. Bart Myers, 21 South Tyler Avenue,
P.O. Box 506, Pinedale, Wyoming 82941
Chron file – Tanya, Sarah, MMoxley