

vertical). In cases where the excavation abuts a structure, a feature that cannot be removed, or a property line, Tronox will attempt to cut the excavation slope as near vertical as possible without endangering workers or property. These over-steepened excavations will be backfilled as soon as possible. If the excavation would undermine and reduce support for a structure or endanger site workers, a 1:1 cut slope would be constructed and the cutline would represent the top-of-slope. Temporary fencing will be placed along the perimeter of excavated areas until clean compacted backfill is placed. During construction, portions of the excavation sidewalls may also be flattened or the excavation partially backfilled to facilitate vehicle traffic or soil handling activities.

The target excavation depths are shown of Figure 1. The lateral limits are based on the chemical data for sampling locations measured as distance from the top-of-slope. The lateral extent and depth may be increased based on visual staining, odor monitoring instrumentation readings, or other indications. Depths may also be modified in the field if utilities and other buried structures are encountered. Northgate will obtain NDEP approval of any changes to the excavation depths as field work progresses and if special cases are encountered.

The volume of excavation is estimated at 49,834 cubic yards, as shown in Table 1. This is an approximate estimate due to the uneven nature of the surface of the Beta Ditch and the variable top-of-slope and variable width of the ditch.

RZ-E excavation will be accomplished using heavy earth-moving excavators and possibly scrapers. Equipment selection will be made by the contractor. The contractor may elect to stockpile soil in the excavation area or may load the soil directly into trucks for off-Site disposal.

4.4 Post-Excavation Backfilling

Tronox proposes to backfill the excavated RZ-E with clean material to return the ground surface to currently existing grades except in the central area where the final grading plan indicates the construction of retention ponds. Retention ponds in this area are proposed for retaining stormwater and to provide natural soil flushing to remove perchlorate up-gradient of the barrier wall and the interceptor wells. When the backfilling is complete, the shape of the Beta Ditch is expected to be similar to the existing conditions, except in the retention basin area where the bottom of the retention basin will be at the approximate grade of the current Beta Ditch (see Figure 4).

Backfilling will be performed by the contractor in accordance with the remediation plans and specifications. Backfill materials have been tested by Northgate for geotechnical engineering and

