

SITE SPECIFIC RECLAMATION: RECLAMATION PRESCRIPTIONS INDIVIDUALIZE FOR SUCCESSFUL RESULTS¹

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Abstract: Land reclamation proves to be difficult throughout the arid west during oil and natural gas development due to harsh environmental and climate conditions. Site specific reclamation uses science-based reasoning and technology to develop reclamation prescriptions that are tailored to each individual site within a project area. Reclamation begins with construction through the salvage of suitable soil materials by developing a soil salvage plan. The pre-construction soil salvage plan is a tool used to delineate the location and quantity of suitable soil resources at a planned site of disturbance to ensure that unsuitable material is avoided. Next, a site-specific reclamation prescription is created based on individual site properties such as soil type, dominant vegetation, and topography. If landscape homogeneity is common across a project area, zones with similar properties are delineated and reclamation prescriptions are created for each zone, rather than individual sites, to provide guidance for determining the most appropriate reclamation procedures. However, when site specificity is necessary, individual prescriptions are created for each site. Such practices are currently being implemented under the Natural Gas Full Field Development Plan for the West Tavaputs Plateau project area in Duchesne and Carbon Counties, Utah and results are pending. This proposal aims as an introduction to the concepts of the soil salvage plan and site-specific reclamation services. Given that reclamation science is continually evolving and strictly prescribed, blanket reclamation plans could limit reclamation success. Each reclamation plan, comprised of a soil salvage plan and a reclamation prescription, is therefore a living document. Knowledge gained through monitoring reclamation performance of zone-specific or site-specific reclamation prescriptions will be used to facilitate modification and improvement of recommendations over time.

Additional Key Words: arid land reclamation, soil salvage plan, West Tavaputs Plateau, Natural Gas Full Field Development Plan

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