# APPENDIX D SURFACE WATER RUNOFF MANAGEMENT FACILITIES SUMMER 2013 PHOTOS

# OTTER CREEK MINE - BASELINE REPORT 325A APPENDIX D PHOTOS OF SURFACE WATER RUNOFF MANAGEMENT STRUCTURES, SEPTEMBER, 2013

APPENDIX D. Photos of Surface Water Runoff Management Structures, September 2013.



1. Ditches channeling runoff from upper Otter Creek.



2. Upper Otter Creek spreader dike.



3. Upper Otter Creek spreader dikes.



4. Upper Otter Creek spreader dikes.



5. Otter Creek at mouth of 15-Mile Creek; spreader dikes.



7. Tenmile Creek looking south; dike along Otter Creek.

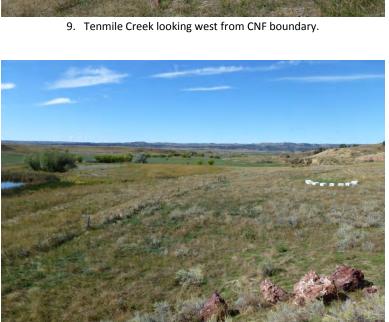


6. Otter Creek at mouth of 15-Mile Creek; dike along Otter Creek.



8. Tenmile Creek looking south; spreader dikes & dike along Otter Creek.





11. Tenmile Creek looking west toward Otter Creek.



10. Tenmile Creek looking SW below CNF boundary. Dike below pond.



12. Otter Creek looking downstream from Tenmile Creek road; no diking.



13. Dikes in field below mouth of Chromo Creek.



15. Chromo Creek culvert.



14. Dikes in field below mouth of Chromo Creek.



16. Spreader dikes E of Otter Crk below Tenmile Crk; dike along Otter Crk.



17. Lower end of dike directing Gene Creek flow to Otter Creek fields.



19. Gene Creek diversion dike below highway culvert.



18. See Photo 17 caption; spreader dike. Note Culvert.



20. Otter Creek dike north of Gene Creek mouth.



21. Spreader dikes below E side drainage in back. Otter Crk dike in front.



22. Spreader dikes capturing flow from east side drainages.



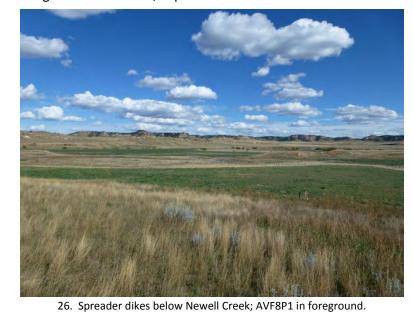
23. Spreader dike on west side of Otter Creek below small side drainage.



24. Dike along west side of Otter Creek at lower crossing.



25. Spreader dike on east side of Otter Creek at lower crossing.





27. Dikes along Otter Creek.



28. Dikes along Otter Creek.



29. Dikes along Otter Creek.



31. Dike along east side of Otter Creek at Badgett crossing.



30. Dike along west side of Otter Creek at Badgett crossing.



32. Otter Creek below Badgett house. Very wet with little if any diking.





35. Dike along edge of upper terrace below side drainage looking south.



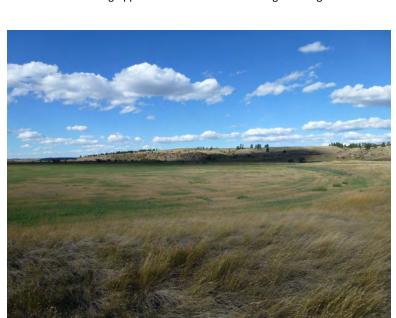
34. Dike along edge of upper terrace below side drainage.



36. Dike along W side of Otter Creek below diked upper terrace looking south.



37. Dike along upper terrace below side drainage looking north.



39. Otter Creek looking downstream from Gratwohl house. No dikes.



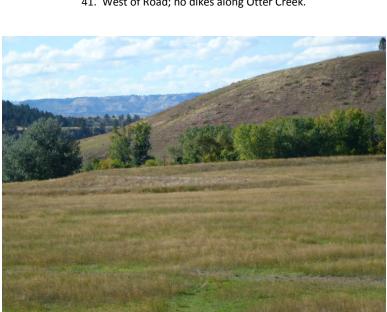
38. Otter creek downstream from Stevens crossing; no dikes.



40. Spreader dike and dike along Otter Creek west of road.



41. West of Road; no dikes along Otter Creek.



43. Dike on lower edge of upper terrace south of East Fork.



42. Spreader dikes on higher terraces south of East Fork.



44. Dike at mouth of Fortune Coulee diverting flow to a field to N.



45. Dike at mouth of Fortune Coulee diverting flow to field to south.



47. Ditch diverting flow away from Otter Creek and into another field below.



46. Diversion outlet into field at mouth of Fortune Coulee. Well AVF4-2 and Piezometer AVF4-P5 at edge of field.



48. Direct view of diversion outlet shown on Photo 46.



49. Dike on east side of Otter Creek at Badgett crossing looking south.



50. Spreader dike below mouth of east side drainage below Badgett crossing.



51. Dike at mouth of W side drainage diverting flow away from Otter Creek.



52. Mouth of Threemile Creek looking upstream; dike visible.



53. Close-up view of dike near mouth of Threemile Creek.



55. Outlet of diversion shown in Photo 54; dike along lower edge.



54. Diversion ditch from overflow of Pond 4 to field on upper bench on upper Threemile Creek.



56. Spreader dike at lower edge of uppermost field on Threemile Creek.



57. Second dike on Threemile Creek below Photo 56.



58. Third dike.



59. Fourth and fifth dikes. Note dike along lower edge of field in background.



60. Upper Threemile Creek below Section 12.



61. Threemile Creek above Stevens corrals.



63. Dam and spreader dikes below south side drainage on Home Creek.



62. Threemile Creek below Stevens corrals.



64. Dam and diversion/spreader dikes below S side drainage on Home Creek.



65. Dike at lower edge of field shoen in Photos 63 and 64.



67. Diversion dike on lower Home creek looking downstream.



66. Diversion dike on lower Home creek diverting entire flow.



68. Perpendicular dike with head gate below Photo 67.



69. Ditch below head gate.



70. Ditch looking upstream.



71. Ditch looking downstream to outlet at upper edge of field.



72. Interception of side drainage by lower Home Creek ditch.



73. Spreader and lower dikes along Home Creek.



75. Another view of spreader/diversion dike shown in Photo 74.



74. Spreader/diversion dike below side drainage on south side of Home Creek just below Stevens barn.



76. Home Creek spreader dikes.



77. Home Creek spreader dikes.



79. Spreader dikes below upper Home Creek side drainage.



78. Home Creek spreader dikes.



80. Spreader dikes below upper Home Creek side drainage (below Photo 79).



81. Spreader dikes below upper Home Creek side drainage (below Photo 80).



82. Spreader dikes below upper Home Creek side drainage (below Photo 81).



83. Spreader dikes below upper Home Creek side drainage (below Photo 82).



84. Spreader dikes in upper Home Crk side drainage just above Stevens barn.



85. Dike across ephemeral tributary of Home Creek diverting flow to hay field.



86. Spreader/interception dike along W side of Otter Crk (from Hwy 212).