

Red Dog Mine Reclamation Plan Approval

Issued by the Department of Natural Resources
Division of Mining, Land & Water



Jack DiMarchi
Large Mine Project Coordinator
Office of Project Management & Permitting
Alaska Department of Natural Resources
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Reclamation Plan

- ◆ The result of 7 years of work, supported by several studies – incorporated stakeholder preferences
- ◆ Specifies re-contouring slopes, constructing soil covers, re-vegetation, stream stabilization, wet tailings cover, seepage collection and long term water treatment and discharge, demolition of most mine facilities, maintenance of others.
- ◆ Specifies pre- and post-closure environmental monitoring
- ◆ Based on proven mine reclamation practices
- ◆ Backed by financial assurances (\$304M)

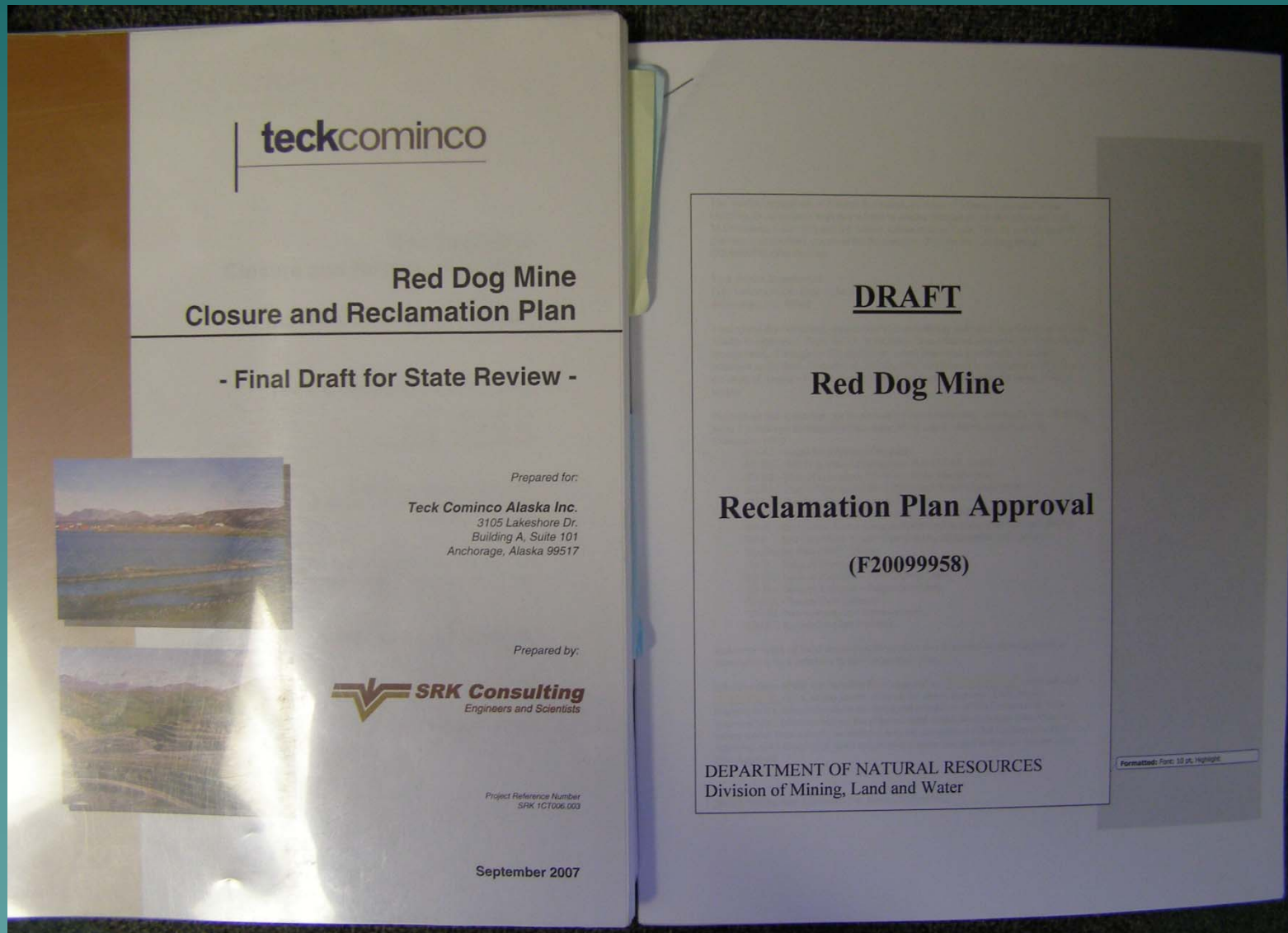


Regulatory Requirements

- ◆ AS 27.19.020. Reclamation Standard – A mining operation shall be conducted in a manner that prevents unnecessary and undue degradation of land and water resources, and the mining operation shall be reclaimed as contemporaneously as practicable with the mining operation to leave the site in a stable condition.
- ◆ AS 27.19.030. Reclamation Plan – Except as provided in AS 27.19.050, a miner may not engage in a mining operation until the commissioner has approved a reclamation plan for the mining operation.



Plan and State Approval



Reclamation Plan Approval

- ◆ Finding - The Reclamation Plan is complete – It meets the reclamation regulatory requirements of the State (AS27.19)
- ◆ DNR's responsibility is to ensure that the terms of the reclamation plan are followed and the plan is updated as conditions change
- ◆ Accomplished by:
 - ◆ Repetitive Monitoring
 - ◆ State Regulatory Inspections
 - ◆ Term of 5 years
 - ◆ Periodic third-party environmental audits
 - ◆ Financial Assurances



Monitoring

Operations

- ◆ Mine Water
- ◆ Groundwater
- ◆ Waste Rock
- ◆ Tailings
- ◆ Dust
- ◆ Wildlife
- ◆ Fish

Closure/Post Closure

- ◆ Changes in water monitoring
- ◆ Performance monitoring of reclamation activities

Site Inspections

ADNR reserves the right to enter the premises without notice at all reasonable times for the purpose of inspections



5 Yr Term

- ◆ The Approval must be renewed every 5 years.
 - Linked to 3rd party Environmental Audit
 - Review - Modifications made in response to new information or improvements in technology or the audit – reclamation costs are re-calculated
 - Financial Assurance updated as necessary

Financial Assurance

Years <i>(after suspension of mining)</i>	Suspension <i>(site maintenance & ongoing water treatment)</i>	Closure Earthwork and other Reclamation	Closure Water Treatment	Post-Closure <i>(perpetual annual water treatment)</i>	Cash Flows	Net Present Value <i>(at a 4.3% estimated real rate of return)</i>
1	\$13,290,000				\$13,290,000	\$304,520,000
2	\$13,290,000				\$13,290,000	
3	\$13,290,000				\$13,290,000	
4	\$13,290,000				\$13,290,000	
5	\$13,290,000				\$13,290,000	
6		\$25,500,000	\$7,850,000		\$33,350,000	
7		\$25,500,000	\$7,850,000		\$33,350,000	
8				\$10,540,000	\$255,656,279	
9 and thereafter				\$10,540,000	\$10,540,000	



Public Comment

- ◆ The public comment period for the Reclamation Plan Approval and the Waste Management permit has been set at 60 days. There are two ways to comment. You can comment verbally at today's Public Hearing, or you can submit comments in writing by mail, fax or email.
- ◆ Written Comments Must be Received by Monday August 10, 2009 5:00 pm AST. Send written comments by mail, email or fax to:
- ◆ **Red Dog Comments**
Jack DiMarchi, Project Manager
ADNR / Office of Project Management & Permitting
3700 Airport Way, Fairbanks, AK 99709
Telephone: (907) 374-3708
Fax: (907) 451-2703
Email: jack.dimarchi@alaska.gov

