Enter Data Below in Green and Blue Spaces

STANDARDIZED RECLAMATION COST ESTIMATOR

Version 1.4.1 Build 017b (Revised 16 May 2019)

Approved for use in Nevada, August 1, 2012

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COST DATA FILE INFORMATION	DN
File Name:	Att 1_Cost Estimate for Reclamation after Exploration.xlsm
Cost Data File:	SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Data Date:	September 29, 2020
Cost Data Basis:	User Data Cost Units: Imperial
Author/Source:	Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801_SRCE_Cook
PROJECT INFORMATION	
Property/Mine Name:	Foothill Dolomite Mine Property Code: N/A
Project Name:	Foothill Dolomite Mine
Date of Submittal:	09-29-2020 Average Altitude: 4865 ft.
Select One:	○ Notice or Sm Exploration Plan ○ Lg Exploration Plan ● Mine Operation
Select One:	© Private Land
Cost Estimate Type:	Surety
Cost Basis Category:	American Magnesium - Option 1
Cost Basis Description:	American Magnesium - Foothill Dolomite Mine - Northern Nevada Equipment

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Project Name: Foothill Dolomite Mine

Project Date: 09-29-2020

_Cost Estimate for Reclamation after Exploration.xlsm Reclamation Plan

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Closure Cost Estimate Cost Summary

Project Name: Foothill Dolomite Mine Project Date: 09-29-2020 Model Version: Version 1.4.1 File Name: Att 1_Cost Estimate for Reclamation after Exploration.xIsm

A. Earthwork/Recontouring	Labor (1)	Equipment (2)	Materials	Total
Exploration Exploration Roads & Drill Pads	\$0 \$2,767	\$0 \$13,288	\$0 \$0	\$16,
Roads	\$569	\$3,066	\$0	\$3,
Well Abandonment	\$0	\$0	\$0	
Pits Quarries & Borrow Areas	\$0 \$0	\$0 \$0	N/A \$0	
Underground Openings	\$0	\$0	\$0	
Process Ponds	\$0	\$0	\$0	
Heaps Waste Rock Dumps	\$0 \$0	\$0 \$0	\$0 \$0	
Landfills	\$0	\$0	\$0	
Tailings	\$0	\$0	\$0	
Foundation & Buildings Areas Yards, Etc.	\$0 \$132	\$0 \$685	\$0 \$0	\$
Drainage & Sediment Control	\$132	\$000	\$0 \$0	3
Generic Material Hauling	\$0	\$0	\$0	
Other User Costs (from Other User sheet)	\$0	\$0	\$59,427	\$59,
Other** ubtotal	\$3,468	\$17,039	\$59,427	\$79,
watered.	40,100	V ,000	400,121	······································
Mob/Demob if included in Other User sheet	\$0	\$0	\$0	
Mob/Demob Control IIIA	60.400	647.000	\$50.407	A70.
Subtotal "A"	\$3,468	\$17,039	\$59,427	\$79,9
. Revegetation/Stabilization	Labor (1)	Equipment (2)	Materials	Total
Exploration See to B. P. H. P. H.	\$0	\$0	\$0	
Exploration Roads & Drill Pads Roads	\$410 \$210	\$147 \$75	\$18,755 \$9,601	\$19 \$9
Well Abandonment	φ210	\$15	\$9,00 I	299
Pits	\$0	\$0	\$0	
Quarries & Borrow Areas	\$0	\$0	\$0	
Underground Openings Process Ponds	\$0	\$0	\$0	551555555555555555544444444444
Process Ponds Heaps	\$0 \$0	\$0 \$0	\$0 \$0	
Waste Rock Dumps	\$0	\$0 \$0	\$0	
Landfills	\$0	\$0	\$0	
Tailings	\$0	\$0 \$0	\$0	
Foundation & Buildings Areas Yards, Etc.	\$0 \$140	\$0 \$50	\$0 \$1,601	\$1
Drainage & Sediment Control	\$0	\$0	\$0	ψ.
Generic Material Hauling	\$0	\$0	\$0	
Other User Costs (from Other User sheet)	\$0	\$0	\$0	
Other** Subtotal "B"	\$760	\$272	\$29,957	\$30,
Custotal B			Ψ23,331	430 ,
. Detoxification/Water Treatment/Disposal of Wastes**	Labor (1)	Equipment (2)	Materials	Total
Process Ponds/Sludge				
Heaps Dumps (Waste & Landfill)				
Damps (waste a Landini)				
Tailings				
Tailings Surplus Water Disposal				
Tailings Surplus Water Disposal Monitoring				
Tailings Surplus Water Disposal Monitoring Miscellaneous	0.0	\$0	N/A	
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site	\$0	\$0	N/A	
Tailings Surplus Water Disposal Monitoring Miscellaneous	\$0	\$0	N/A	
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils	\$0	\$0	\$0	
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet)				
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other*	\$0 \$0	\$0 \$0	\$0 \$0	
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C"	\$0 \$0	\$0 \$0	\$0 \$0	
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other* Subtotal "C" Structure, Equipment and Facility Removal, and Misc.	\$0 \$0 \$0 Labor (1)	\$0 \$0 \$0	\$0 \$0 \$0 Materials	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas	\$0 \$0 \$0 Labor (1) \$0	\$0 \$0 Equipment (2) \$0	\$0 \$0 \$0 Materials	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal	\$0 \$0 \$0 Labor (1) \$0 \$0 \$0	\$0 \$0 \$0 Equipment (2) \$0 \$0	\$0 \$0 \$0 Materials	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 Equipment (2) \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 Materials \$0 \$0 \$0	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Solis Other User Costs (from Other User sheet) Other* Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Installation	\$0 \$0 \$0 Labor (1) \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 Equipment (2) \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 Materials \$0 \$0 \$0	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Installation Culvert Removal	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 Equipment (2) \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 Materials \$0 \$0 \$0	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other" Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Installation Culvert Removal Fipe Removal Pipe Removal Pipe Removal Powerline Removal	\$0 \$0 \$0 Labor (1) \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 Equipment (2) \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 Materials \$0 \$0 \$0 \$0	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Installation Culvert Removal Pipe Removal Powerline Removal Powerline Removal	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 Materials \$0 \$0 \$0 \$0 N/A N/A	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Installation Culvert Removal Powerline Removal Powerline Removal Foransion Femoval Foransi	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 Equipment (2) \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Installation Culvert Removal Pipe Removal Powerline Removal Powerline Removal	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Installation Culvert Removal Pipe Removal Powerline Removal Pipe Removal Rip-rap, rock lining, gabions Other Wisc. Costs Other User Costs (from Other User sheet) Other**	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other* Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Removal Pipe Removal Pipe Removal Pipe Removal Pipe Removal Rip-rap, rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet)	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Installation Culvert Removal Pipe Removal Pipe Removal Transformer Removal Rip-rap, rock lining, gabions Other User Costs (from Other User sheet) Other User Costs (from Other User sheet) Other User Costs (from Other User sheet) Other** Subtotal "D"	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Removal Pipe Removal Pipe Removal Powerline Removal Powerline Removal Rip-rap, rock lining, gabions Other User Costs (from Other User sheet) Other** Subtotal "D" Monitoring Reclamation Monitoring and Maintenance	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 Materials \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Installation Culvert Removal Pipe Removal Pipe Removal Transformer Removal Rip-rap, rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other Wisc. Costs Other User Costs (from Other User sheet) Other** Subtotal "D" Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Removal Pipe Removal Pipe Removal Powerline Removal Powerline Removal Rip-rap, rock lining, gabions Other User Costs (from Other User sheet) Other** Subtotal "D" Monitoring Reclamation Monitoring and Maintenance	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 Materials \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Installation Culvert Removal Pipe Removal Powerline Removal Powerline Removal Rip-rap, rock lining, gabions Other User Costs (from Other User sheet) Other** Subtotal "D" Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E"	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 Materials \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	Total \$12,
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Pipe Removal Pipe Removal Pipe Removal Powerline Removal Rip-rap, rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other** Subtotal "D" Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E" Construction Management & Support	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total \$12,
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Installation Culvert Removal Fence Removal Fence Installation Culvert Removal Pipe Removal Pipe Removal Transformer Removal Rip-rap, rock liming, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other** Subtotal "D" Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E" Construction Management & Support Construction Management	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total \$12,
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Pipe Removal Pipe Removal Powerline Removal Rip-rap, rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other" Subtotal "D" Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "D" Construction Management & Support Construction Management	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total \$12, Total \$12,
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Installation Culvert Removal Pipe Removal Pipe Removal Transformer Removal Rip-rap, rock lining, gabions Other User Costs (from Other User sheet) Other " Subtotal "D" Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "D" Construction Management & Support Construction Management Construction Management Cond Maintenance Other User Costs (from Other User sheet)	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total \$12 \$12 Total \$11
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Installation Culvert Removal Powerline Removal Powerline Removal Rip-rap, rock liming, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other** Subtotal "D" Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Sheet) Subtotal "E" Construction Management Construction Management Construction Support Road Maintenance Other User Costs (from Other User sheet) Other" Construction Support Road Maintenance Other User Costs (from Other User sheet) Other"	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total \$12, \$12, Total \$11
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other" Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Installation Culvert Removal Fence Removal Fence Installation Culvert Removal Transformer Removal Transformer Removal Rip-rap, rock lining, gabions Other User Costs (from Other User sheet) Other " Subtotal "D" Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E" Construction Management & Support Construction Management Construction Support Road Maintenance Other User Costs (from Other User sheet)	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total \$12 \$12 Total \$11
Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other* Subtotal "C" Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Installation Culvert Removal Powerline Removal Transformer Removal Rip-rap, rock lining, gabions Other User Costs (from Other User sheet) Other* Subtotal "D" Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Sosts (from Other User sheet) Subtotal "E" Construction Management Construction Management Construction Support Road Maintenance Other User Costs (from Other User sheet) Other "E" Construction Management Construction Support Road Maintenance Other User Costs (from Other User sheet) Other'*	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Total \$12, \$12, Total \$11

Closure Cost Estimate Cost Summary

Project Name: Foothill Dolomite Mine Project Date: 09-29-2020 Model Version: Version 1.4.1 File Name: Att 1_Cost Estimate for Reclamation after Exploration.xIsm

 $\ensuremath{^{**}}$ Other Operator supplied costs - additional documentation required.

Closure Cost Estimate Cost Summary

Project Name: Foothill Dolomite Mine Project Date: 09-29-2020 Model Version: Version 1.4.1

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Indirect Costs				Include?	Total
1. Engineering, Design and Construction (ED&C) Plan (7)					\$11,547
2. Contingency (8)					\$14,433
3. Insurance (9)		\$381			\$381
4. Performance Bond (10)					\$4,330
Contractor Profit (11)					\$14,433
Contract Administration (12)					\$14,433
7. Government Indirect Cost (13)					\$3,031
Subtotal Add-On Costs					\$62,588
Total Indirect Costs as % of Direct Cost					43%
OR AND TOTAL					\$206,920
GRAND TOTAL Administrative Cost Rates (%)					\$ 200,020
					Ψ200,020
		Cost Ranges	s for Indirect Cost	Percentages	\$200,020
	<=	<=	s for Indirect Cost	>	\$100,010
	<= \$1,000,000				
Administrative Cost Rates (%)		<=		>	Small Plar
Administrative Cost Rates (%) 1. Engineering, Design and Construction (ED&C) Plan (7) Variable Rate	\$1,000,000 8% <=	<= \$25,000,000 6% <=	<=	> \$25,000,000 4% >	Small Plar 0%
Administrative Cost Rates (%) 1. Engineering, Design and Construction (ED&C) Plan (7) Variable Rate 2. Contingency (8)	\$1,000,000 8% <= \$500,000	<= \$25,000,000 6% <= \$5,000,000	<= <= \$50,000,000	\$25,000,000 4% > \$50,000,000	Small Plar 0%
Administrative Cost Rates (%) 1. Engineering, Design and Construction (ED&C) Plan (7) Variable Rate	\$1,000,000 8% <= \$500,000 10%	<= \$25,000,000 6% <= \$5,000,000 8%	<=	> \$25,000,000 4% >	Small Plar 0% Small Plar
Administrative Cost Rates (%) 1. Engineering, Design and Construction (ED&C) Plan (7) Variable Rate 2. Contingency (8) Variable Rate 3. Insurance (9)	\$1,000,000 8% <= \$500,000 10% 1.5% of	<= \$25,000,000 6% <= \$5,000,000 8% If labor costs	<= <= \$50,000,000 6%	\$25,000,000 4% > \$50,000,000	Small Plar 0% Small Plar
Administrative Cost Rates (%) 1. Engineering, Design and Construction (ED&C) Plan (7) Variable Rate 2. Contingency (8) Variable Rate	\$1,000,000 8% <= \$500,000 10% 1.5% of	<= \$25,000,000 6% <= \$5,000,000 8% If labor costs	<= <= \$50,000,000	\$25,000,000 4% > \$50,000,000	Small Plar 0% Small Plar
Administrative Cost Rates (%) 1. Engineering, Design and Construction (ED&C) Plan (7) Variable Rate 2. Contingency (8) Variable Rate 3. Insurance (9)	\$1,000,000 8% <= \$500,000 10% 1.5% 0 3.0% 0	<= \$25,000,000 6% <= \$5,000,000 8% If labor costs	<= <= \$50,000,000 6%	\$25,000,000 4% > \$50,000,000	Small Plar 0% Small Plar
Administrative Cost Rates (%) 1. Engineering, Design and Construction (ED&C) Plan (7) Variable Rate 2. Contingency (8) Variable Rate 3. Insurance (9) 4. Bond (10) 5. Contractor Profit (11)	\$1,000,000 8% <= \$500,000 10% 1.5% of 3.0% of 10% of	<= \$25,000,000 6% <= \$5,000,000 8% f labor costs of the O&M costs if O&M costs of the O&M costs <= \$5,000,000 costs of the O&M costs of the O&M costs <= \$5,000,000 costs of the O&M costs of the O&M costs <= \$5,000,000 costs of the O&M	<= <= \$50,000,000 6%	> \$25,000,000 4% > \$50,000,000 4%	Small Plar 0% Small Plar
Administrative Cost Rates (%) 1. Engineering, Design and Construction (ED&C) Plan (7) Variable Rate 2. Contingency (8) Variable Rate 3. Insurance (9) 4. Bond (10) 5. Contractor Profit (11) 6. Contract Administration (12)	\$1,000,000 8% <= \$500,000 10% 1.5% or 3.0% or 10% or <= \$1,000,000	<= \$25,000,000 6% <= \$5,000,000 8% if labor costs if the O&M costs if O&I if the O&M costs <= \$25,000,000	<= \$50,000,000 6% M costs are >\$100,000	\$25,000,000 4% \$50,000,000 4% \$50,000,000 \$76	Small Plan 0% Small Plan 0%
Administrative Cost Rates (%) 1. Engineering, Design and Construction (ED&C) Plan (7) Variable Rate 2. Contingency (8) Variable Rate 3. Insurance (9) 4. Bond (10) 5. Contractor Profit (11)	\$1,000,000 8% <= \$500,000 10% 1.5% o 3.0% o 10% o <= \$1,000,000 10%	<= \$25,000,000 6% <= \$5,000,000 8% f labor costs of the O&M costs if O&M costs of the O&M costs <= \$5,000,000 costs of the O&M costs of the O&M costs <= \$5,000,000 costs of the O&M costs of the O&M costs <= \$5,000,000 costs of the O&M	<= \$50,000,000 6% M costs are >\$100,000	> \$25,000,000 4% > \$50,000,000 4%	Small Pla 09 Small Pla

RECLAMATION COST ESTIMATION SUMMARY SHEET FOOTNOTES

- Federal construction contracts require Davis-Bacon wage rates for contracts over \$2,000. Wage rate estimates may include base pay, payroll loading,
 The reclamation cost estimate must include the estimated plugging cost of at least one drill hole for each active drill rig in the project area. Where the

- The reclamation cost estimate must include the estimated plugging cost of at least one drill hole for each active drill rig in the project area. Where the
 Miscellaneous items should be itemized on accompanying worksheets.
 Fluid management should be calculated only when mineral processing activities are involved. Fluid management represents the costs of maintaining
 Handling of hazardous materials includes the cost of decontaminating, neutralizing, disposing, treating and/or isolating all hazardous materials used,
 Any mitigation measures required in the Plan of Operations must be included in the reclamation cost estimate. Mitigation may include measures to avoid,
 Engineering, design and construction (ED&C) plans are often necessary to provide details on the reclamation needed to contract for the required work. To
 A contingency cost is included in the reclamation cost estimation to cover unforeseen cost elements. Calculate the contingency cost as a percentage of the
 Insurance premiums are calculated at 1.5% of the total labor costs. Enter the premium amount if liability insurance is not included in the itemized unit
 Federal construction contracts exceeding \$100,000 require both a performance and a payment bond (Miller Act, 40 USC 270et seq.). Each bond premium
 For Federal construction contracts, use 10% of estimated O&M cost for the contractor's profit.
 To estimate the contract administration cost, use 6 to 10% of the operational and maintenance (O&M) cost. Calculate the contract administration cost as a
 Government indirect cost rate is 21% of the contract administration costs.

Closure Cost Estimate Other User

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm Model Version: Version 1.4.1

Cost Data: User Data

Ot	Other Cost Items Calculated Elsewhere												
	Description (required)	ID Code	Facility Type	Quantity	Units	Total Capital Cost	Material Unit Cost	Labor Unit Cost	Equipment/ Operating Unit Cost	Cost Type	Total Cost	Comments	
Ь.			000000000000000000000000000000000000000			\$	\$	\$	\$	(select)	\$		
	Topdressing Purchase and Hauling		Off Site - Other Load Out I	4,055	1	\$15,503.60 \$15,504	\$10.83 \$43.924	\$0	**	A. Earthwork	\$59,427 \$59,427		

Notes: Capital cost is lump sum (i.e. not multiplied by the quantity).

Material, Labor and Equipment/Operating costs are unit costs (i.e. multiplied by the quantity).

Note: Assumes 20% discount on purchased soil for bulk discount at \$13.54cy original Cost

Note: Assumes Capitol Cost as Delivery cost at \$3.50 per mile using an 18 cy dump truck at 19.6 miles for delivery.

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Page 1 of 1 Other User

Closure Cost Estimate Reclamation Quantities

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Data Cost File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm

Cost Data: User Data

											Unit Costs					
Description	Total Regrade or Haul Volume cy	Total Regrade or Haul Cost \$	Total Cover Volume cy	Cover Placement Cost	Total Growth Media Volume cy	Growth Media Placement Cost \$	Total Surface Area acres	Total Scarify Cost \$	Total Revetation Cost \$	TOTALS \$	Regrade Unit Cost \$/CY	Material Haul or Backfill Unit Cost \$/CY	Cover Unit Cost \$/CY	Growth Media Unit Cost \$/CY	Scarify Unit Cost \$/CY	Area Unit Cost \$/acre
1 Waste Rock Dumps		\$ -		\$ -		\$ -		\$ -	\$ -	\$ -		N/A				
2 Tailings Impoundments		\$ -		\$ -		\$ -		\$ -	\$ -	\$ -		N/A				
3 Heap Leach Pads		\$ -		\$ -		\$ -		\$ -	\$ -	\$ -		N/A				
5 Open Pits		\$ -							\$ -	\$ -		N/A				
4 Quarries & Borrow Pits		\$ -		\$ -		\$ -		\$ -	\$ -	\$ -		N/A				
6 Roads	42	\$ 163			2,420	\$ 3,309	1.5	\$ 163	\$ 9,886	\$ 13,521	\$3.88	N/A		\$1.37	\$108.67	\$9,014.0
7 Landfills		\$ -		\$ -		\$ -		\$ -	\$ -	\$ -		N/A				
8 Buildings				\$ -		\$ -		\$ -	\$ -	\$ -		N/A				
9 Yards		\$ -		\$ -	484	\$ 654	0.25	\$ 163	\$ 1,791	\$ 2,608		N/A		\$1.35	\$652.00	\$10,432.0
0 Ponds		\$ -				\$ -			\$ -	\$ -	N/A					
1 Exploration Roads	1,653	\$ 4,716			4,722	\$ 11,012	2.93	\$ 327	\$ 19,312	\$ 35,367	\$2.85	N/A		\$2.33	\$111.60	\$12,070.6
2 Exploration Trenches		\$ -							\$ -	\$ -		N/A				
3 Diversion Ditches		\$ -								\$ -		N/A				
4 Sediment Ponds		\$ -				\$ -		\$ -	\$ -	\$ -						
5 Generic Haulage/Backfill		\$ -		\$ -		\$ -		\$ -	\$ -	\$ -	N/A					
6 Adit/Decline Backfilling1		\$ -								\$ -	N/A					
7 Shaft Backfilling		\$ -								\$ -	N/A					
TOTALS	1,695	\$ 4,879	-	\$ -	7,626	\$ 14,975	4.68	\$ 653	\$ 30,989	\$ 51,496						
Average Costs	per CY	\$2.88	per CY		per CY	\$1.96	per acre	\$139.53	\$47.46	\$11,003	per acre					

1 of 1 Reclamation Quantities

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Exploration - Cost Summary				
	Labor	Equipment	Materiais	lotais
Hole Abandonment Costs	\$0	\$0	\$0	\$0
Trench Backfilling Costs	\$0	\$0		\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Trench Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Exp	oloration Drillhole Abandonment - User Inpu	ut								
	Facility Description			Hole Plugging						
	Description (required)	ID Code	Hole Type (select)	Diameter in	Total Number of Holes	Max Holes Open at One Time	Casing to Remove ft	Average Depth of Hole ⁽¹⁾ ft bgs	Depth to Water ft bgs	Hole Plug Method (select)
1	Exploration Boreholes	N/A	Rotary Pre-dril	3.0	86.0	0.0	0.0	100.0	250.0	Grout Only

Notes

If core holes are pre-drilled, use length of hole below pre-drilled length

2. If Top Plug is selected, assumes maximum 1/2hr laborer time to place plug and backfill with cuttings/soil (including move-to/set up time).

NOTE: Exploration Boreholes and casings will be removed and backfilled with grout upon drilling completion of each exploration borehole.

Page 1 of 6 Exploration

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Exploration - Cost Summary	1												
	Labor	Equipment	Materials	lotais									
Hole Abandonment Costs	\$0	\$0	\$0	\$0									
Trench Backfilling Costs	\$0	\$0		\$0									
Subtotal Earthworks	\$0	\$0	\$0	\$0									
Trench Revegetation Costs	\$0	\$0	\$0	\$0									
TOTALS	\$0	\$0	\$0	\$0									

Exploration Trenches - User Input												
ĺ	Facility Description		Trench Parameters				Backfill				Revegetation	
	Description (required) ID	Trench Code Length ft	Trench Depth ft	Trench Bottom Width ft	Trench Sideslope Angle degrees	Additional Hrs for Walk-in ⁽¹⁾ hr	Backfill Material (select)	Cut Material Type (select)	Backfilling Fleet (select)	Seed Mix (select)	Mulch (select)	Fertilizer (select)

- Include <u>one-way</u> hours necessary to walk equipment in from drop-off point to work area
 Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

11/17/2020

Page 2 of 6 Exploration

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Exploration - Cost Summary												
	Labor	Equipment	wateriais	lotais								
Hole Abandonment Costs	\$0	\$0	\$0	\$0								
Trench Backfilling Costs	\$0	\$0		\$0								
Subtotal Earthworks	\$0	\$0	\$0	\$0								
Trench Revegetation Costs	\$0	\$0	\$0	\$0								
TOTALS	\$0	\$0	\$0	\$0								

Exp	Exploration Drillhole Abandonment													
	Description (required)	Vol/foot of depth ft3	Hole Plugging Material ⁽¹⁾	Total Grout Volume ⁽²⁾ cy	Total Cuttings Volume cy	Total Top Seal Volume ^(3,4) cy	Drillhole Abandon. Hours ^(6,7) hrs	Casing Removal Labor Cost ⁽⁵⁾	Casing Removal Equipment Cost \$	Plugging Labor Cost \$	Plugging Equipment Cost \$	Plugging Material Cost \$	Top Seal Material Cost ^(2,3)	Total Cost ^(6,7)
1	Exploration Boreholes	0.050	Cuttings	0.19			3	\$0	\$0	\$0	\$0	\$0	\$0	
				0.19			3	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Notes:

- 1. Assumes grout backfill from bottom of hole to 50' (15.24m) above static water level, up to 10' (3m) from top of hole
- 2. Assumes 25% loss to formation for grout backfill
- 3. If "Top Plug" hole plug method is used, assumes physical plug installed without backfill, grout or cement. Not available option for Nevada projects
- 4. Assumes top 20' (6 m) of hole is plugged with cement if "Grout Only", "Backfill + Grout", or "Cement Plug" hole plug method are chosen.
- 5. Assumes that a) casing is not cemented entire length, b) does not include temporary surface casing
- 6. Assumes minimum 1 hr per hole for abandonment (excluding move-to and casing removal)
- 7. Assumes fixed hours per hole for setup & tear-down and moving between holes (see Productivty Sheet) per drill hole (includes rig time if grouting required, labor crew only if cuttings backfill only)

Page 3 of 6 Exploration

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Exploration - Cost Summary				
	Labor	Equipment	wateriais	lotais
Hole Abandonment Costs	\$0	\$0	\$0	\$0
Trench Backfilling Costs	\$0	\$0		\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Trench Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Exploration Trenches - Calculations Exploration Trench Volume Calculation Dozing & Ripping/Scarifying Calculations Dozing & Ripping/Scarifying Calculations Dozing: Dozing distance = 1/2 trench length or 400 ft (max push) whichever is less Assumes flat push (grade correction factor = 1) Revegetation: 10 It added to trench width to account for revegetation under spoil pile

Page 4 of 6 Exploration

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Exploration - Cost Summary				
	Labor	Equipment	Materiais	lotais
Hole Abandonment Costs	\$0	\$0	\$0	\$0
Trench Backfilling Costs	\$0	\$0		\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Trench Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Ехр	xploration Trenches - Backfill/Regrading Costs											
Prod	Productivity = Dozer Productivity x Grade Correction x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83)											
	Description (required)	Trench Backfill Volume LCY (BCY+30%)	Dozer Push Distance	Equipment Productivity yd3/hr	Dozing Material	Density Correction	Backfilling Fleet	Corrected Hourly Productivity yd3/hr	Total Dozer Hours	Labor Cost \$	Trench Backfill Equipment Cost	Trench Backfill Cost
	\$0 \$0 \$										\$0	

Page 5 of 6 Exploration

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Exploration - Cost Summary				
	Labor	Equipment	Materiais	lotais
Hole Abandonment Costs	\$0	\$0	\$0	\$0
Trench Backfilling Costs	\$0	\$0		\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Trench Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Exp	Exploration Trenches - Revegetation Costs											
	Description (required)	Surface Area	Revegetation Labor Cost	Revegetation Equipment Cost	Revgetation Material Cost	Total Revegetation Cost						
		acres	\$	\$	\$	\$ \$0						

Page 6 of 6 Exploration

Closure Cost Estimate Expl. Roads & Pads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$1,038	\$3,678	N/A	\$4,716
Cover Placement Cost	\$1,677	\$9,335	N/A	\$11,012
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327
Subtotal Earthworks	\$2,767	\$13,288		\$16,055
Revegetation Cost	\$410	\$147	\$18,755	\$19,312
TOTALS	\$3,177	\$13,435	\$18,755	\$35,367

Exp	Exploration Roads & Pads - User Input You must fill in ALL green cells and relevant blue cells in this section for each road																
Facility Description				Physical (1) - MANDATORY							User O	User Overrides		Growth Media			
	Description (required)	ID Code	Underlying Ground Slope % grade	Ungraded Slope _H:1V	Cut Slope degrees	Road + Drill Pad Length ft	Road Width ft	Number of Drill Pads	Individual Sump Volume Cy	Drill Pad Width ft	Drill Pad Length ft	Slope Replacement Percent %	Regrade Volume (if calculated elsewhere) Cy	Disturbed Area (if calculated elsewhere) acres	Growth Media Thickness in	Distance to Growth Media Stockpile ft	Slope from Road to Stockpile % grade
1	Exploration Roads		15.0	2.0	66.7	10,626	12.0	86	0	12.0	10	115%		2.93	12	1,379	15.0

- 1. All Physical parameters must be input even if manual overrides for volume or area are used.
- 1. All rhysical parameters instate in place even in manual oventions to volume to a read are used.
 2. Slope replacement refers to the percentage of cut volumn replaced during regrading.
 3. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)
 4. Sump volume will be applied to all roads on slopes <20%. On slopes >20% pad width (i.e. cut volume) should be adequate to account for sump volume.

Page 1 of 7 Expl. Roads & Pads

Closure Cost Estimate Expl. Roads & Pads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

xploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$1,038	\$3,678	N/A	\$4,716
Cover Placement Cost	\$1,677	\$9,335	N/A	\$11,012
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327
Subtotal Earthworks	\$2,767	\$13,288		\$16,055
Revegetation Cost	\$410	\$147	\$18,755	\$19,312
TOTALS	\$3,177	\$13,435	\$18,755	\$35,367

Exp	Exploration Roads & Pads - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each road													
		Grading				Growth Media				Revegetation				
	Description (required)	Regrade Material Condition (select)	Cut Material Type (select)	Recontouring Equipment Fleet (select)	Additional Hrs for Walk-in ⁽¹⁾	Growth Media Material Type (select)	Growth Media Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Additional Hrs for Walk-in ⁽¹⁾	Seed Mix (select)	Mulch (select)	Fertilizer (select)	Scarifying/ Ripping? (select)	Ripping Fleet (select)
1	Exploration Roads	0.8	LS - broken	Small Dozer	1.0	Alluvium	Small Truck		1.0	User Mix 1	Straw Mulch	None	Yes	Small Dozer

- Notes:

 1. Include one-way hours necessary to walk equipment in from drop-off point to work area

 2. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Page 2 of 7 Expl. Roads & Pads Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

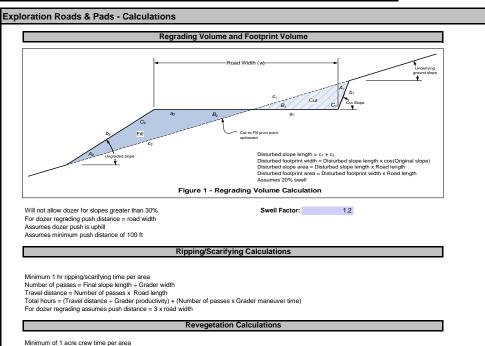
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$1,038	\$3,678	N/A	\$4,716
Cover Placement Cost	\$1,677	\$9,335	N/A	\$11,012
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327
Subtotal Earthworks	\$2,767	\$13,288		\$16,055
Revegetation Cost	\$410	\$147	\$18,755	\$19,312
TOTALS	\$3,177	\$13,435	\$18,755	\$35,367



Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

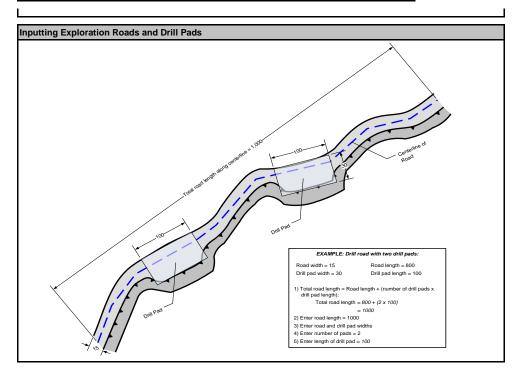
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$1,038	\$3,678	N/A	\$4,716
Cover Placement Cost	\$1,677	\$9,335	N/A	\$11,012
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327
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Revegetation Cost	\$410	\$147	\$18,755	\$19,312
TOTALS	\$3,177	\$13,435	\$18,755	\$35,367



Closure Cost Estimate Expl. Roads & Pads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$1,038	\$3,678	N/A	\$4,716
Cover Placement Cost	\$1,677	\$9,335	N/A	\$11,012
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327
Subtotal Earthworks	\$2,767	\$13,288		\$16,055
Revegetation Cost	\$410	\$147	\$18,755	\$19,312
TOTALS	\$3,177	\$13,435	\$18,755	\$35,367

Expl	oration Roads & Pads - Regrading Costs									
	Description (required)	Total Road Length ft	Total Drill Pad Length ft	Regrading Volume cy	Recontouring Fleet	Equipment Productivity cy/hr	Total Equipment Hours ⁽¹⁾ hr	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
1	Exploration Roads	9,766	860	1,653	D6R	43	40	\$1,038	\$3,678	\$4,716
		9,766	860	1,653			40	\$1,038	\$3,678	\$4,716

⁽¹⁾ Includes walk-in time based on distance and travel speed (see Productivity sheet for speeds)

Page 5 of 7 Expl. Roads & Pads

Closure Cost Estimate Expl. Roads & Pads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Exploration Roads & Pads - Cost Summary											
	Labor	Equipment	Materials	Totals							
Grading Costs	\$1,038	\$3,678	N/A	\$4,716							
Cover Placement Cost	\$1,677	\$9,335	N/A	\$11,012							
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327							
Subtotal Earthworks	\$2,767	\$13,288		\$16,055							
Revegetation Cost	\$410	\$147	\$18,755	\$19,312							
TOTALS	\$3,177	\$13,435	\$18,755	\$35,367							

Expl	oration Roads & Pads - Growth Media Cos	ts							
	Description (required)	Growth Media Volume Cy	Growth Media Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$
1	Exploration Roads	4,722	725/966G/D7R	515	4	11	\$1,677	\$9,335	\$11,012
	_	4,722				11	\$1,677	\$9,335	\$11,012

Closure Cost Estimate Expl. Roads & Pads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Exploration Roads & Pads - Cost Summary											
	Labor	Equipment	Materials	Totals							
Grading Costs	\$1,038	\$3,678	N/A	\$4,716							
Cover Placement Cost	\$1,677	\$9,335	N/A	\$11,012							
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327							
Subtotal Earthworks	\$2,767	\$13,288		\$16,055							
Revegetation Cost	\$410	\$147	\$18,755	\$19,312							
TOTALS	\$3,177	\$13,435	\$18,755	\$35,367							

Expl	oration Roads & Pads - Scarifying/Reveget	ation Cos	ts								
	Description (required)	Surface Area acres	Ripping/ Scarifying Fleet	Ripping Hours hrs	Ripping Labor Costs \$	Ripping Equipment Cost \$	Total Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$
1	Exploration Roads	2.93	D7R	2	\$52	\$275	\$327	\$410	\$147	\$18,755	\$19,312
	_	2.93		2	\$52	\$275	\$327	\$410	\$147	\$18,755	\$19,312

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Estimate Type: Surety

Vaste Rock Dumps - Cost Summary				
	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Was	/aste Rock Dumps - User Input You must fill in ALL green cells in this section for each dump, lift or dump category																			
	Facility Description		Physical - MANDATORY								C	over		Growth Media						
										Average Flat Area Long	Final	Regrade	_	_	Distance	Slope				l
	Description		_	Underlying Ground	Ungraded	Final	Final Top	Lift (dump)	Mid-Bench	Dimension (ripping	(Regraded) Dump	Volume (1) (if calculated		Cover Thickness Flat	from Cover	from Dump to		Flat Area Growth Media		Slope from Dump to
	(required)	ID Code	Type	Slope % Grade	Slope _H:1V	Slope _H:1V	Slope % Grade	Height ft	Length ft	distance) ft	Footprint acres	elsewhere) cy	Slopes in	Areas in	Borrow ft	Cover Borrow % grade	Thickness in	Thickness in	Stockpile ft	Stockpile % grade

Notes:

1. All Physical parameters must be input even if manual overrides for volume or area are used.

2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivy Sheet)

11/17/2020

Page 1 of 6 Waste Rock Dumps

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Wa	Waste Rock Dumps - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each dump, lift or dump category																	
	Grading Cover Growth Media Revegetation																	
		Regrading	Regrading	Regrading		Cover	Cover Placement	Growth Media	Growth Media									
	Description	Material	Material		Slot/Side-by-	Material	Equipment	Material	Equipment	Seed Mix	Seed Mix Flat	Mulch	Mulch	Fertilizer	Fertilizer	Slope Scarify/	Flat Area	Scarify/
	(required)	Condition (select)	Type (select)	Fleet (select)	Side (select)	Type (select)	Fleet (select)	Type (select)	Fleet (select)	Slopes (select)	Areas (select)	Slopes (select)	Flat Areas (select)	Slopes (select)	Flat Areas (select)	Rip? (select)	Scarify/ Rip? (select)	Ripping Fleet (select)

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Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

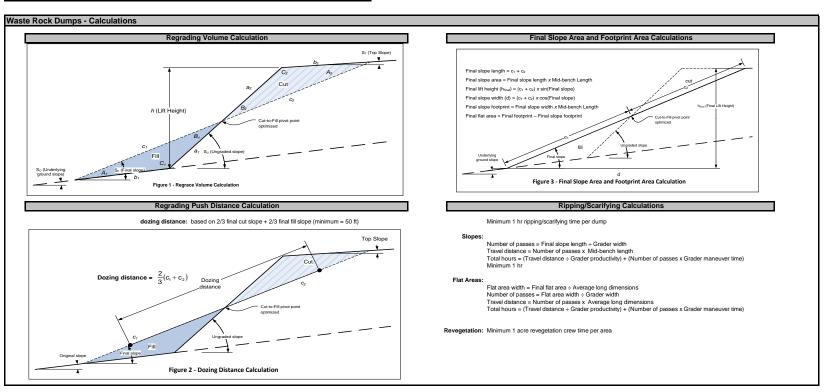
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Waste Rock Dumps - Cost Summary											
	Labor	Equipment	Materials	lotals							
Grading Costs	\$0	\$0	N/A	\$0							
Cover Placement Cost	\$0	\$0	N/A	\$0							
Topsoil Placement Cost	\$0	\$0	N/A	\$0							
Ripping/Scarifying Cost		\$0	N/A	\$0							
Subtotal Earthworks	\$0	\$0	\$0	\$0							
Revegetation Cost	\$0	\$0	\$0	\$0							
TOTALS	\$0	\$0	\$0	\$0							



Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Waste Rock Dumps - Cost Summary				
	Labor	Equipment	Materials	l otals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Waste Rock Dumps - Regrading Costs Productivity = Dozer Productivity x Grade Correction x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83) x (Slot/Side-by-Side) x (Altitude Deration)													
Description (required)	Regrading Volume cy	Dozing Distance (see above)	Regrading Fleet	Uncorrected Dozer Productivity cy/hr	Grade Correction	Dozing Material	Density Correction	Side-by-Side or Slot Dozing	Total Hourly Productivity cy/hr	Total Dozer Hours hr	Total Labor Cost	Total Equipment Cost \$	Total Regrading Cost \$
											\$0	\$0	\$

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Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Waste Rock Dumps - Cost Summary				
	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Was	te Rock Dumps - Cover and Growth Media	Costs															
				-	Cover (lowe	r layer)							Growth Me	dia Placeme	ent		
	Description (required)	Cover Volume cy	Cover Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Cover Labor Cost	Cover Equipment Cost \$	Total Cover Cost \$	Growth Media Volume cy	Growth Media Replacement Fleet	Fleet Productivity BCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$
					•		\$0	\$0	\$0						\$0	\$0	\$0

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Estimate Type: Surety

Vaste Rock Dumps - Cost Summary				
	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Wast	te Rock Dumps - Scarifying/Revegetation C	osts														
				Total		Flat Area	Ripping/	Slope	Flat Area	Scarifying/	Scarifying/ Ripping		Revegetation		Revgetation	Total
	Description	Slope	Flat	Surface	Final Slope	Long	Scarifying	Scarifying/		Ripping Labor	Equipment	Scarifying/	Labor	Equipment	Material	Revegetation
	(required)	Area	Area	Area	Length	Dimension	Fleet	Ripping Hours	Ripping Hours	Costs	Cost	Ripping Costs	Cost	Cost	Cost	Cost
	, , ,	acres	acres	acres	ft	ft		hrs	hrs	\$	\$	\$	\$	\$	\$	\$

Notes: 1) Minimum total ripping hours = 1 (i.e. If total ripping hrs (slope + flat) < 1, then one hour of fleet time is assumed, regardless of acres shown in in scarifying table.)

Page 6 of 6 Waste Rock Dumps

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	S
Grading Costs	\$0	\$0	N/A	\$
Cover Placement Cost	\$0	\$0	N/A	\$1
Topsoil Placement Cost	\$0	\$0	N/A	S
Ripping/Scarifying Cost	\$0	\$0	N/A	\$
Subtotal Earthworks	\$0	\$0	\$0	\$1
Revegetation Cost	\$0	\$0	\$0	S
TOTALS.	¢n.	\$0	\$0	¢

Heap Leach Pads - User Input	You must fill in ALL green cell	ells and relevant blue cells in this section for each heap, lift or heap catego	ory				
Facility Description	Physical	al (1) - MANDATORY	Cover	Growth Media			
Description (required) ID Code Type	Underlying Ground Slope % gradeH:1VH:1VH:1VFinal Slope SlopeH:1VH:1VW grade	Average Flat Area Long Dimension (ripping Height th tt Average Flat Area Long Dimension (ripping distance) Flotal Flotal Flotal Regrade Volume (if calculated elsewhere) oy	Cover Thickness Fiat Cover Heap to Slopes in ft ft % grade	Slope Growth Media Thickness in Slope Growth Media Thickness Thic			

- Notes:

 1. All Physical parameters must be input even if manual overrides for volume or area are used.

 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

Page 1 of 8 Heap Leach

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

leap Leach Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	\$0
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Hea	eap Leach Pads - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each heap, lift or heap category																	
	Grading Cover Growth Media Revegetation																	
	Description (required)	Regrading Material Condition (select)	Regrading Material Type (select)	Regrading Equipment Fleet (select)	Slot/ Side-by-Side (select)	Cover Material Type (select)	Placement Equipment Fleet (select)	Growth Media Material Type (select)	Growth Media Equipment Fleet (select)	Seed Mix Slopes (select)	Seed Mix Flat Areas (select)	Mulch Slopes (select)	Mulch Flat Areas (select)	Fertilizer Slopes (select)	Fertilizer Flat Areas (select)	Slope Scarify/ Rip? (select)	Flat Area Scarify/ Rip? (select)	Scarifying/ Ripping Fleet (select)

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Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	\$(
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Heap	Leach Pads - User Input (cont.)													
		Solution Collection Ditch Fill								Piping				
	Description (required)	Collection Ditch Length ft	Collection Ditch Top Width ft	Collection Ditch Depth ft	Volume (if calculated elsewhere)	Distance from Borrow ft	Slope to Borrow % grade	Drain Rock Equipment Fleet (select)	Solid Pipe Length ft	Solid Pipe Type (select)	Drainage Pipe Length ft	Drainage Pipe Type (select)		

Notes:

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

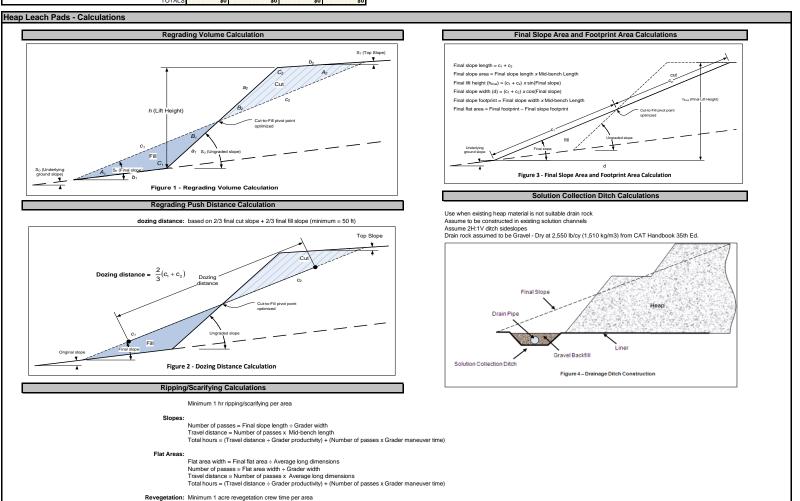
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

leap Leach Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	\$0
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0



Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Heap Leach Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	\$0
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Heap	Leach Pad - Drainage Channel Fill & Drain	age Pipe In	stallation											
	Drain Rock Placement Drainpipe Installation													
	Description (required)	Drain Rock Volume cy	Drain Rock Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours hrs	Drainage Labor Cost \$	Drainage Equipment Cost \$	Total Drainage Cost \$	Piping Crew Hours hrs	Piping Labor Cost \$	Piping Equipment Cost \$	Piping Material Cost \$	Total Pipe Installation Cost \$
						0	\$0	\$0	\$0		\$0	\$0	\$0	\$0

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Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

leap Leach Pads - Cost Summary	Tabas	Faulament I	Materials	Tatala
	Labor	Equipment	waterials	Totals
Drain Installation	\$0	\$0	\$0	\$0
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$(
Ripping/Scarifying Cost	\$0	\$0	N/A	\$(
Subtotal Earthworks	\$0	\$0	\$0	\$(
Revegetation Cost	\$0	\$0	\$0	\$(
TOTALS	\$0	\$0	\$0	\$(

Heap	Leach Pad - Regrading Costs					Heap Leach Pad - Regrading Costs														
Produ	Productivity = Dozer Productivity x Grade Correction x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83) x (Slot/Side-by-Side) x (Altitude Deration)																			
	Description (required)	Regrading Volume cy	Dozing Distance (see above) ft	Regrading Fleet	Uncorrected Dozer Productivity cy/hr	Grade Correction	Dozing Material	Density Correction	Side-by-Side or Slot Dozing	Total Hourly Productivity cy/hr	Total Dozer Hours hr	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$						
												\$0	\$0	\$0						

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Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	S
Grading Costs	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$(
Topsoil Placement Cost	\$0	\$0	N/A	\$(
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Hea	p Leach Pad - Cover and Growth Media Cos	ts															
Cover (lower layer)									Growth Media Placement								
	Description (required)	Cover Volume cy	Cover Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Cover Labor Cost	Cover Equipment Cost \$	Total Cover Cost \$	Growth Media Volume cy	Growth Media Replacement Fleet	Fleet Productivity BCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$
							\$0	\$0	\$0						\$0	\$0	\$0

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Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	S
Grading Costs	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$(
Topsoil Placement Cost	\$0	\$0	N/A	\$(
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Heap	Heap Leach Pad - Scarifying/Revegetation Costs															
	Description (required)	Slope Area acres	Flat Area acres	Total Surface Area acres	Final Slope Length ft	Flat Area Long Dimension ft	Ripping/ Scarifying Fleet	Slope Scarifying/ Ripping Hours hrs	Flat Area Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Costs \$	Scarifying/ Ripping Equipment Cost \$	Total Scarifying/ Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$
										\$0	\$0	\$0	\$0	\$0	\$0	\$0

¹⁾ Minimum total ripping hours = 1 (i.e. If total ripping hrs (slope + flat) < 1, then one hour of fleet time is assumed, regardless of acres shown in in scarifying table.)

Heap Leach

Bond Calculation Tailings

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$0
Tailings Surface Grading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Tailings - User Input You must fill in ALL green cells and relevant blue cells in this section for each tailings impoundment																	
Facility Description		Physical - MANDATORY									Cover				Growth Media		
Description (required)	ID Code	Underlying Ground Slope % Grade	Ungraded Slope _H:1V	Final (Regraded) Embankment Slope _H:1V	Final Embankment Height ft	Final Tailings Surface Area acres	Mid- Embankment or Ripping Length ft	Embankment Regrade Volume (if calculated elsewhere) cy	Surtace Regrade Volume (calculated elsewhere)	Embankment Cover Thickness in	Tailings Surface Cover Thickness in	Distance from Cover Borrow ft	Slope from Tailings to Borrow % grade	Embankment Growth Media Thickness in	Tailings Surface Growth Media Thickness in	Distance from Growth Material Stockpile ft	

Notes:

All Physical parameters must be input even if manual overrides for volume or area are used.
 If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet).

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Page 1 of 14 Tailings

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

illings - Cost Summary				
	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$0
Tailings Surface Grading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Taili	ailings - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each tailings impoundment																
			Cover Growth Media				Revegetation										
	Description (required)	Regrading Material Condition (select)	Embankment Material Type (select)	Regrading Equipment Fleet (select)	Slot/Side-by- Side (select)	Cover Material Type (select)	Cover Placement Equipment Fleet (select)	Growth Media Material Type (select)	Growth Media Equipment Fleet (select)		Seed Mix Tailings Surface (select)		Mulch Tailings Surface (select)	Fertilizer Embankment Slopes (select)		Embankment Slope Scarify/ Rip? (select)	Tailings Surface Scarify/ Rip? (select)

Page 2 of 14 Tailings

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

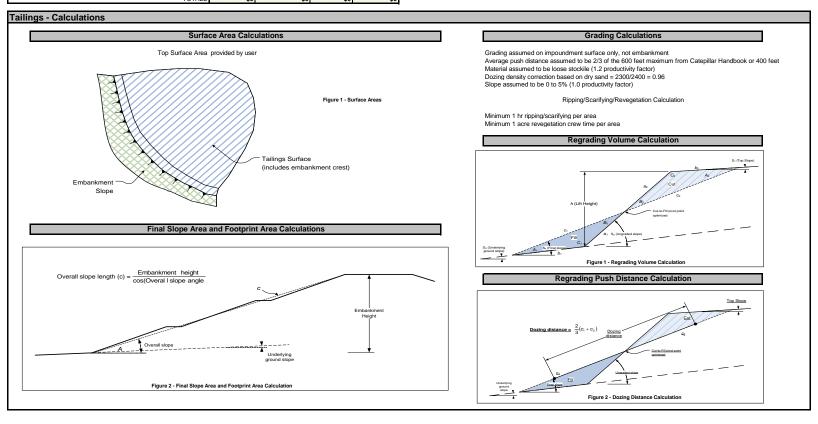
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$
Tailings Surface Grading Cost	\$0	\$0	N/A	\$
Cover Placement Cost	\$0	\$0	N/A	\$
Topsoil Placement Cost	\$0	\$0	N/A	\$
Ripping/Scarifying Cost	\$0	\$0	N/A	\$
Subtotal Earthworks	\$0	\$0	\$0	\$
Revegetation Cost	\$0	\$0	\$0	\$
TOTALS	\$0	\$0	\$0	\$



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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$0
Tailings Surface Grading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Tailiı	ngs - Embankment Regrading Costs													
Produ	activity = Dozer Productivity x Grade Correction x	Density Cor	rection x Opera	tor (0.75) x	Material x Vis	sibility x Job	Efficiency	(0.83) x (Slo	t/Side-by-Sid	e) x (Altitude	e Deration)			
	Description (required)	Regrading Volume	Dozing Distance (see above)	Regrading Fleet	Uncorrected Dozer Productivity cy/hr	Grade Correction	Dozing Material Condition	Density Correction	Side-by-Side or Slot Dozing	Total Hourly Productivity cy/hr	Total Dozer Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
					,							\$0	\$0	\$0

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

ings - Cost Summary				
	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$0
Tailings Surface Grading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

	ngs - Surface Regrading Costs uctivity = Dozer Productivity x Grade Correction x	Doneity Cor	raction v Opera	tor (0.75) v	Matorial v Vie	sibility v Joh	Efficiency	(0.93) v (SIo	t/Sido by Side	a) v (Altitud	Doration)			
FIOU	Description	Regrading	Dozing Distance	Regrading	Uncorrected Dozer	Grade	Density	Dozing	Side-by-Side or	Total Hourly		Total Labor	Total Equipment	Total Regrading
	(required)	Volume cy	(see above) ft	Fleet	Productivity cy/hr	Correction	Correction	Material	Slot Dozing	Productivity cy/hr	Total Dozer Hours hr	Cost \$	Cost \$	Cost \$

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Tailings

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

lings - Cost Summary				
	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$0
Tailings Surface Grading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Tai	ilings - Cover and Growth Media Costs																
					Cover Place	cement						G	Frowth Media	a Placement			
			Cover	Cover	Number of		Total	Total				Growth Media	Number of		Total	Total	Total
	Description		Placement	Fleet	Trucks/	Total Fleet	Labor	Equipment	Total Cover	Growth Media	Growth Media	Fleet	Trucks/	Total Fleet	Labor	Equipment	Growth Media
	(required)	Cover Volume	Fleet	Productivity	Scrapers	Hours	Cost	Cost	Placement Cost	Volume	Placement Fleet	Productivity	Scrapers	Hours	Cost	Cost	Cost
		cy		LCY/hr	-		\$	\$	\$	cy		LCY/hr	-		\$	\$	\$
							\$0	\$0	\$0						\$0	\$0	\$0

Page 6 of 14 Tailings

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$(
Tailings Surface Grading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Taili	ngs - Scarifying/Revegetation Costs														
	Description (required)	Embankment Slope Area	Tailings Surface Area	Total Surface Area	Final Slope Length	Ripping/ Scarifying Fleet	Slope Scarifying/ Ripping Hours	Flat Area Scarifying/ Ripping Hours	Scarifying/ Ripping Labor Cost	Scarifying/ Ripping Equipment Cost	Total Scarifying/ Ripping Cost	Revegetation Labor Cost	Revegetation Equipment Cost	Revgetation Material Cost	Total Revegetation Cost
	()	acres	acres	acres	ft		hrs	hrs	\$	\$	\$	\$	\$	\$	\$

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Slope from Tailings to Stockpile % grade Scarifying/ Ripping Fleet (select)

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Grading Costs	\$26	\$137	N/A	\$163
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$569	\$3,066		\$3,635
Revegetation Cost	\$210	\$75	\$9,601	\$9,886
TOTALS	\$779	\$3,141	\$9,601	\$13,521

Roa	pads - User Input You must fill in ALL green cells and relevant blue cells in this section for each road													
	Facility Description		Physical (1) - MANDATORY							User Overrides		Growth Media		
	Description (required)	ID Code	Туре	Underlying Ground Slope % grade	Ungraded Slope _H:1V	Cut Slope degrees	Road Width	Road Length ft	Slope Replacement Percent %	Regrade Volume (if calculated elsewhere)	Disturbed Area (if calculated elsewhere) acres	Growth Media Thickness in	Haul Distance from Growth Media Stockpile ft	Slope from Road to Stockpile % grade
1	Access Road		Haul Road	2.0	3.0	50.0	16.0	1,350	115%		1.50	12.0	1,379	-2%

- 1. All Physical parameters must be input even if manual overrides for volume or area are used.
- 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)
- 2. In soper from required for building roads with a dozer is similar to that required to regrade a road with a dozer, this sheet could be used to provide a rough estimate of road construction costs if a dozer is selected as the grading fleet.

 Note: Assumes any improvements made to existing BML road will be left in place and not require reclamation.

Page 1 of 7 Roads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Roads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$26	\$137	N/A	\$163
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$569	\$3,066		\$3,635
Revegetation Cost	\$210	\$75	\$9,601	\$9,886
TOTALS	\$779	\$3,141	\$9,601	\$13,521

Roa	Roads - User Input (cont.)											
		Road Safety B	Berms									
	Description (required)	Berm Length ft	Berm Height ft	Berm Base Width ft	Berm Sideslope Angle _H:1V	Number of Berms (2) (1 or 2 sides)						
1	Access Road	0.0	2.0	6.0	1.3	2						

⁽²⁾ Enter 1 if berm on only one side of road, 2 if both sides of road are bermed.

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Grading Costs	\$26	\$137	N/A	\$163
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$569	\$3,066		\$3,635
Revegetation Cost	\$210	\$75	\$9,601	\$9,886
TOTALS	\$779	\$3,141	\$9,601	\$13,521

R	Roads - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each road													
	Grading							Growth Media Revegetation						
		Description (required)	Regrading Material Condition (select)	Regrading Material Type (select)	Equipment Fleet (select)	No. of Excavators if grade >30% (select)	Material Type (select)	Cover Placement Equipment Fleet (select)	Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)	Scarifying/ Ripping? (select)	Ripping Fleet (select)
Г	1 Ac	ccess Road	1	Alluvium	Sm Dozer		Alluvium	Small Truck		User Mix 1	Straw Mulch	None	Yes	Small Dozer

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

2. If original slope >30% only excavators are allowed.

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1 Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Roads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$26	\$137	N/A	\$163
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$569	\$3,066		\$3,635
Revegetation Cost	\$210	\$75	\$9,601	\$9,886
TOTALS	\$779	\$3,141	\$9,601	\$13,521

Roads - Calculations

Regrading Volume and Footprint Volume

Figure 1 - Regrading Volume Calculation

Assumes 20% swell

Will not allow dozer for slopes greater than 30% For dozer regrading push distance = road width

Assumes dozer push is uphill

Assumes minimum push distance of 100 ft

Ripping/Scarifying Calculations

Minimum 1 hr ripping/scarifying time per area Number of passes = Final slope length ÷ Grader width

Travel distance = Number of passes x Road length

Total hours = (Travel distance ÷ Grader productivity) + (Number of passes x Grader maneuver time)

For dozer regrading assumes push distance = 3 x road width

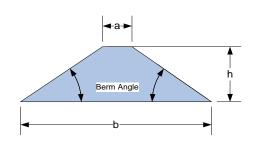
Revegetation Calculations

Minimum of 1 acre crew time per area

Safety Berm Volume Calculation

Cross Sectional Area = $\frac{(a+b)}{2} \times h$

Berm Volume = Berm Length x Cross Sectional Area x No. Sides



Total berm volume doubled if both sides of road are bermed.

If length of berm on each side of road is different, input total length of both berms and input 1 for number of sides

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Grading Costs	\$26	\$137	N/A	\$163
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$569	\$3,066		\$3,635
Revegetation Cost	\$210	\$75	\$9,601	\$9,886
TOTALS	\$779	\$3,141	\$9,601	\$13,521

Roa	ds - Regrading Costs							
	Description (required)	Regrading Volume cy	Recontouring Fleet	Fleet Productivity cy/hr	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
1	Access Road	42	D7R	296	1	\$26	\$137	\$163
		42			1	\$26	\$137	\$163

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Roads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$26	\$137	N/A	\$163
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$569	\$3,066		\$3,635
Revegetation Cost	\$210	\$75	\$9,601	\$9,886
TOTALS	\$779	\$3,141	\$9,601	\$13,521

Road	ds - Growth Media Costs								
	Description (required)	Growth Media Volume Cy	Growth Media Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$
1	Access Road	2,420	725/966G/D7R	548	3	4	\$517	\$2,792	\$3,309
-		2,420				4	\$517	\$2,792	\$3,309

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Roads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$26	\$137	N/A	\$163
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$569	\$3,066		\$3,635
Revegetation Cost	\$210	\$75	\$9,601	\$9,886
TOTALS	\$779	\$3,141	\$9,601	\$13,521

Road	ds - Scarifying/Revegetation Costs											
	Description (required)	Total Surface Area acres	Final Slope Length ft	Ripping/ Scarifying Fleet	Ripping Hours hrs	Ripping Labor Costs \$	Ripping Equipment Cost \$	Total Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$
1	Access Road	1.50	48.0	D7R	1	\$26	\$137	\$163	\$210	\$75	\$9,601	\$9,886
		1.50			1	\$26	\$137	\$163	\$210	\$75	\$9,601	\$9,886

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Closure Cost Estimate Pits

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Pits - Cost Summary				
	Labor	Equipment	Materials	Totals
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Pits	ts - User Input																	
	Facility Description					Pit Berms			Berm Cor		Excavate or Doze	н	auling (if se	lected meth	od)		Revegetatio	n
	Description (required)	ID Code	Туре	Berm (or Highwall) Length ft	Berm Height ft	Berm Base Width ft	Berm Sideslope Angle _H:1V	Volume (if calculated elsewhere)	Construction Method (select)		Berm Construction Equipment Fleet (select)	Berm Hauling Fleet (select)	Distance to Borrow Source ft	Slope to Borrow Source % grade	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)

- Notes:
 1. All Physical parameters must be input even if manual overrides for volume or area are used.
 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)
 3. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

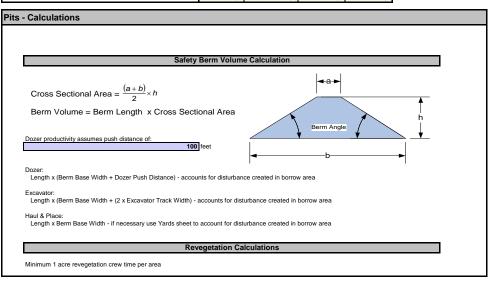
Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Pits - Cost Summary				
	Labor	Equipment	Materials	Totals
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0



Closure Cost Estimate Pits

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Pits - Cost Summary				
	Labor	Equipment	Materials	Totals
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Pits ·	Pits - Safety Berm Construction Costs												
		Safety Berm											
	Description (required)	Safety Berm Volume Cy	Selected Fleet	Number of Trucks/ Scrapers	Corrected Fleet Productivity cy/hr	Total Hours	Safety Berm Labor Cost \$	Safety Berm Equipment Cost \$	Total Safety Berm Cost \$				
							\$0	\$0	\$0				

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Closure Cost Estimate Pits

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Pits - Cost Summary	Pits - Cost Summary											
	Labor	Equipment	Materials	Totals								
Safety Berm Construction Cost	\$0	\$0	N/A	\$0								
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0								
TOTALS	\$0	\$0	\$0	\$0								

Pits ·	Pits - Safety Berms - Revegetation Costs											
	Description (required)	Flat Area acres	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$						
			\$0	\$0	\$0	\$0						

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Waste Rock Dumps - Cost Summary				
	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Quarr	Quarries & Borrow Pits - User Input You must fill in ALL green cells in this section for each dump, lift or dump category																			
Facility Description							Physical - MANDATORY						Cover				Growth Media			
	Description (required)	ID Code	Туре	Underlying Ground Slope % Grade	Ungraded Slope _H:1V	Final Slope _H:1V	Final Top Slope % Grade	Bench or Highwall Height ft	Mid-Bench Length ft	Average Flat Area Long Dimension (ripping distance) ft	Final (Regraded) Footprint acres	Regrade Volume (1) (if calculated elsewhere)	Cover Thickness Slopes in	Cover Thickness Flat Areas in	Distance from Cover Borrow ft	Slope from Dump to Cover Borrow % grade	Slope Growth Media Thickness in	Flat Area Growth Media Thickness in	Distance from Growth Media Stockpile ft	Slope from Dump to Stockpile % grade

- Notes:

 1. All Physical parameters must be input even if manual overrides for volume or area are used.

 2. If Stope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

Page 1 of 7 Quarries & Borrow Pits

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Qι	uarries & Borrow Pits - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each dump, lift or dump category																	
Grading						Co	over	Grow	h Media	Revegetation								
	Description (required)	Regrading Material Condition	Regrading Material Type	Regrading Equipment Fleet	Slot/Side-by- Side (select)	Cover Material Type	Placement Equipment Fleet	Growth Media Material Type (select)	Growth Media Equipment Fleet (select)	Seed Mix Slopes (select)	Seed Mix Flat Areas (select)	Mulch Slopes	Mulch Flat Areas	Fertilizer Slopes (select)	Fertilizer Flat Areas (select)	Slope Scarify/ Rip? (select)	Flat Area Scarify/ Rip? (select)	Scarify/ Ripping Fleet (select)

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

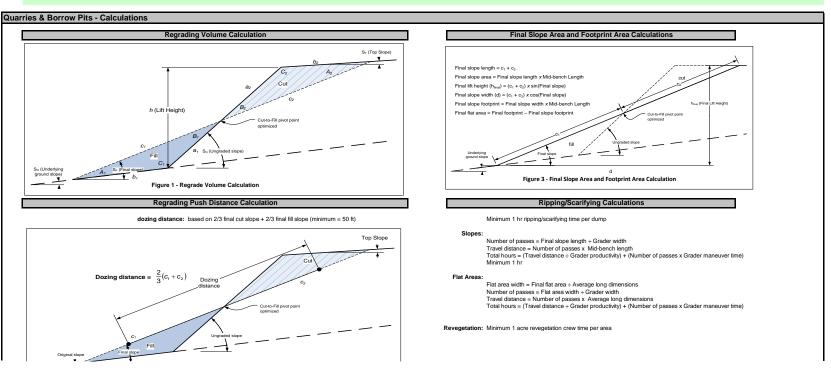
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$(
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Qua	rries & Borrow Pits - User Input (cont.)															Quarries & Borrow Pits - User Input (cont.)												
	Facility Description		Hi	ghwall Berms			Berm Co	nstruction	Excavate or Doze		Hauling (if selec	cted method	i)		Revegetation	n												
	Description (required)	Berm (or Highwall) Length ft	Berm Height ft	Berm Base Width ft	Berm Sideslope Angle _H:1V	Volume (if calculated elsewhere)	Construction Method (select)		Berm Construction Equipment Fleet (select)	Berm Hauling Fleet (select)	Distance to Borrow Source ft	Slope to Borrow Source % grade	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)												

- Notes:

 1. All Physical parameters must be input even if manual overrides for volume or area are used.
- 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)
- 3. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table



Page 3 of 7 Quarries & Borrow Pits Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

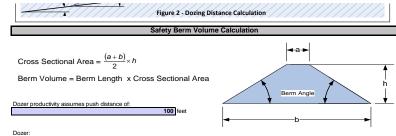
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$(
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0



Length x (Berm Base Width + Dozer Push Distance) - accounts for disturbance created in borrow area

Excavator:

Length x (Berm Base Width + (2 x Excavator Track Width) - accounts for disturbance created in borrow area

Length x Berm Base Width - if necessary use Yards sheet to account for disturbance created in borrow area

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$(
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

rries & Borrow Pits - Regrading Costs uctivity = Dozer Productivity x Grade Correction x	Density Cor	rection x Operat	tor (0.75) x Mate	erial x Visibil	ity x Job Ef	ficiency (0.8	3) x (Slot/Si	de-by-Side) x	(Altitude De	eration)			
Description	Regrading	Dozing Distance		Uncorrected Dozer	Grade	Dozing	Density	Side-by-Side or	Total Hourly		Total Labor	Total Equipment	Total Regrading
(required)	Volume cy	(see above) ft	Regrading Fleet	Productivity cy/hr	Correction	Material	Correction	Slot Dozing	Productivity cy/hr	Total Dozer Hours hr	Cost \$	Cost \$	Cost \$
											\$0	\$0	\$0

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Quar	ries & Borrow Pits - Cover and Growth Med	dia Costs															
	Cover (lower layer) Growth Media Placement																
	Description (required)	Cover Volume cy	Cover Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Cover Labor Cost	Cover Equipment Cost \$	Total Cover Cost \$	Growth Media Volume cy	Growth Media Replacement Fleet	Fleet Productivity BCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$
							\$0	\$0	\$0						\$0	\$0	\$0

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Quar	ries & Borrow Pits - Scarifying/Revegetation	n Costs														
	Description (required)	Slope Area acres	Flat Area acres	Total Surface Area acres	Final Slope Length ft	Flat Area Long Dimension ft	Ripping/ Scarifying Fleet	Slope Scarifying/ Ripping Hours hrs	Flat Area Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Costs \$	Scarifying/ Ripping Equipment Cost \$	Scarifying/ Ripping Costs \$	Labor Cost \$	Revegetation Equipment Cost \$	Material Cost \$	Total Revegetation Cost \$
											\$0	\$0	\$0	\$0	\$0	\$0

Notes: 1) Minimum total ripping hours = 1 (i.e. If total ripping hrs (slope + flat) < 1, then one hour of fleet time is assumed, regardless of acres shown in in scarifying table.)

Closure Cost Estimate Underground Openings

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Underground Openings Cost Summary				
	Labor	Equipment	Materials	Totals
Adits, Portals & Declines Plugging	\$0	\$0	\$0	\$0
Shaft Backfill/Cover	\$0	\$0	N/A	\$0
Shaft Capping	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Adits	Adits, Portals & Declines - User Input													
	Facility Description Physical Characteristics Backfill Material													
	Description (required)	ID Code	Height ft	Width ft	Backfill/ Plug Type	Distance to Bulkhead ft	Backfill Material Condition (select)	Backfill Material Type (select)	Distance to Backfill Borrow ft	Slope from Adit to Borrow Area % grade				

Notes: 1) Foam (adit) option is for smaller openings that can be plugged with simple forms and a 5 ft thick plug.

- 2) Foam (production) option is for larger production openings (declines, etc.) and requires larger form construction and minimum 10 ft thick plug.
- 3) All foam plugs include minimum 15ft of backfill from opening to plug.
- 4) Bat gate option is for small openings and the material cost is the same for any size opening.
- 5) Backfilling assumes that small dozer will push material from nearby stockpile or dump
 6) Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Closure Cost Estimate Underground Openings

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Underground Openings Cost Summary				
	Labor	Equipment	Materials	Totals
Adits, Portals & Declines Plugging	\$0	\$0	\$0	\$0
Shaft Backfill/Cover	\$0	\$0	N/A	\$0
Shaft Capping	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Shaf	t Openings - User Input			You must fill in ALL green cells and relevant blue cells in this section for each shaft										
	Facility Description			ical Characteris	Backfill or Foundation Cover									
	Description (required)	ID Code	Diameter ft	Shaft Depth (for backfill method) ft	Backfill/ Plug Type (select)	Backfill Material Type (select)	Cover/ Backfill Fleet (select)	Thickness (if not complete backfill)	Distance to Backfill Borrow ft	Slope from Shaft to Borrow Area % grade	Maximum Fleet Size (user override)			

Notes:

1. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

2. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

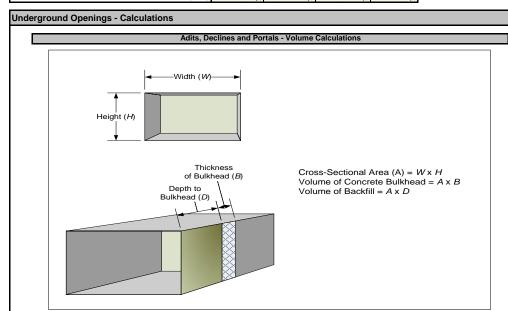
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

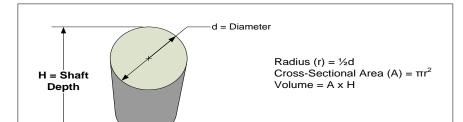
Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Inderground Openings Cost Summary					
	$\neg \top$	Labor	Equipment	Materials	Totals
Adits, Portals & Declines Plugging		\$0	\$0	\$0	\$0
Shaft Backfill/Cover		\$0	\$0	N/A	\$0
Shaft Capping		\$0	\$0	\$0	\$0
T	OTALS	\$0	\$0	\$0	\$0





Shaft Volume Calculations

Concrete Cover/Bulkhead Volume Calculation

Using Means Heavy Construction Cost Data (2004)

Estimage cover/bulkhead thickness

Assumes that all concrete works are reinforced

Productivity for crew from Means Heavy Construction Cost Data (2004) adjusted for supervision (addressed in Misc. Costs) and Davis-Bacon Wage Rates

Assumes 18 in thick slab

Backfill Calculations

Uses 1 large and 1 small dozer for adit backfill

Assumes max 400 foot push

Assumes average operator and 50 min/hr availability

Uses truck & loader load, haul place fleets for shafts
Concrete cap will be 1.5 feet thick, reinforced, structually supported.
If concrete cap is used, assume 10 feet of rock backfill on top of cap.
Assumes that all concrete works are reinforced

If backfill is used, assume overfill by 5 feet
Carpenter rate incl Fringe: 0 per h

Closure Cost Estimate Underground Openings

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Inderground Openings Cost Summary					
		Labor	Equipment	Materials	Totals
Adits, Portals & Declines Plugging		\$0	\$0	\$0	\$0
Shaft Backfill/Cover		\$0	\$0	N/A	\$0
Shaft Capping		\$0	\$0	\$0	\$0
	TOTALS	\$0	\$0	\$0	\$0

Adits, Portals & Declines Plugging Uses RS Means Heavy Construction Cost Data for bulkhead production rate, material costs and crews																		
							Bulkhead Construction			Backfill or Foam (1)				Bat Gate or Culvert (2,3,4)				
	Description (required)	Bulkhead Volume cy	Backfill (rock) Volume cy	Backfill Equipment Fleet	Backfill Productivity LCY/hr	Backfill Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Bulkhead Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Material (Foam) Cost \$	Total Backfill Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Bat Gate Cost \$
							\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Notes:

- 1) Foam costs include 1 hour move to and setup + 1 hr. minimum crew time 2) Assumes 1 hr walk-in/walk-out time for equipment

- 3) Batgate assumes 8 hr install time each
 4) Bat culvert backfill costs based on one 8-hr day (i.e. backfilling hours = 8 hrs).

Closure Cost Estimate Underground Openings

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Underground Openings Cost Summary				
	Labor	Equipment	Materials	Totals
Adits, Portals & Declines Plugging	\$0	\$0	\$0	\$0
Shaft Backfill/Cover	\$0	\$0	N/A	\$0
Shaft Capping	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Shaft Plugging														
		Cover/Cap Backfill/Cover										er		
	Description (required)	Cover Area ft2	Backfill or Cover Volume cy	Backfill Equipment Fleet	Number of Trucks	Backfill Productivity LCY/hr	Backfill Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Shaft Cap Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Backfill Cost \$
								\$0	\$0	\$0	\$0	\$0	\$0	\$0



Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Generic Material Hauling - Cost Summary				
	Labor	Equipment	Materials	Totals
Hauling/Crush/Screen/Compact	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Generic Material Hauling - User Input																	
Facility Description Physical Hauled Material Crushing & Screening Cover														Growth Medi			
Description (required)	ID Code	Туре	Final Surface Area acres	Average Ripping Distance ft	Material Volume Required cy	from Borrow Source (1)	to Borrow Source % grade	Crush Material	Screen Material	Loss to Crushing/ Screening %	Distance to Placement Location (2)	Slope to Placement % grade	Cover Thickness in	to Cover Borrow ft	Slope to Borrow % grade	Growth Media Thickness in	Distance to Growth Material Stockpile ft

- Notes:
 1. Input distance to crusher if material to be crushed
- 1. Injut distance from crusher to placement if material to be crushed
 2. Injut distance from crusher to placement if material to be crushed
 3. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

Page 1 of 10 Haul Material

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Generic Material Hauling - Cost Summary				
	Labor	Equipment	Materials	Totals
Hauling/Crush/Screen/Compact	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Gen	eric Material Hauling - User Input (cont.)															
	Hauling Material Cover Growth Media Revegetation															
	Description (required)	Haul Material Type (select)	Material Hauling Fleet (select)	Each Fleet Size (from/to crusher) (user override)	Compact After Placement?	Cover Material Type (select)	Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Growth Media Material Type (select)	Growth Media Equipment Fleet (select)	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch Type (select)	Fertilizer Type (select)	Scarify/ Rip? (select)	Scarifying/ Ripping Fleet (select)

Page 2 of 10 Haul Material

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

eneric Material Hauling - Cost Summary				
	Labor	Equipment	Materials	Totals
Hauling/Crush/Screen/Compact	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Gene	eric Material Hauling - Load, Haul, Place ar	nd Grade											
					Material Hau	lage					Crush and/or	Compact	
	Description (required)	Material Volume to Crusher cy	Final Material Volume cy	Material Haulage Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Hauling Labor Cost \$	Hauling Equipment Cost \$	Total Crush/ Screen Cost \$	Compact Labor Cost \$	Compact Equipment Cost \$	Total Load/Haul/ Place Cost \$
								\$0	\$0	\$0	\$0	\$0	\$0

Notes: Final Material Volume includes allowance for additional material hauled to crushing/screening plant based on Loss to Crushing/Screening input above.

Page 3 of 10 Haul Material

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Generic Material Hauling - Cost Summary				
	Labor	Equipment	Materials	Totals
Hauling/Crush/Screen/Compact	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

G	Generic Material Hauling - Cover and Growth Media Costs																	
						Cover Placem	ent						Gro	owth Media	Placement			
Г				Cover	Cover			Total	Total	Total Cover			Growth Media	Number of		Total	Total	Total
		Description		Placement	Fleet	Number of	Total Fleet	Labor	Equipment	Placement	Growth Media	Growth Media	Fleet	Trucks/	Total Fleet	Labor	Equipment	Growth Media
		(required)	Cover Volume	Fleet	Productivity	Trucks/ Scrapers	Hours	Cost	Cost	Cost	Volume	Placement Fleet	Productivity	Scrapers	Hours	Cost	Cost	Cost
			cy		LCY/hr			\$	\$	\$	cy		LCY/hr	-		\$	\$	\$
								\$0	\$0	\$0						\$0	\$0	\$0

Page 4 of 10 Haul Material

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Generic Material Hauling - Cost Summary				
	Labor	Equipment	Materials	Totals
Hauling/Crush/Screen/Compact	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Gen	eric Material Hauling - Scarifying/Revegeta	tion Costs									
	Description (required)	Total Surface Area acres	Ripping/ Scarifying Fleet	Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Cost \$	Scarifying/ Ripping Equipment Cost \$	Total Scarifying/ Ripping Cost \$	Revegetation Labor Cost	Revegetation Equipment Cost	Revgetation Material Cost	Total Revegetation Cost \$
					\$0	\$0	\$0	\$0	\$0	\$0	\$0



Haul Material

Haul Material

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materiais	lotais
Building Demolition Cost	\$0	\$0	N/A	\$0
Wall Demolition Cost	\$0	\$0	N/A	\$0
Slab Demolition	\$0	\$0	N/A	\$0
Subtotal Demolition	\$0	\$0	\$0	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Buildings & Foundation - User Input					You must fill in ALL green cells and relevant blue cells in this section for each building or facility												
	Facility Description			Physical - MANDATORY Foundation Cover (1) Growth Media (1								edia (1) (entire	e footprint)				
	Description Description (required) ID Code Type				Width ft	Eve Height ft	Slab Thickness in	Foundation Wall Thickness in	Foundation Wall Height ft	Average Flat Area Long Dimension (ripping distance) ft	Footprint (including surrounding facilities) acres	Foundation Cover Thickness in	Distance from Foundation Cover Borrow Area ft	Slope from Facility to Borrow Area % grade	Growth Media Thickness in	Distance from Growth Media Stockpile ft	Slope from Facility to Stockpile % grade

Notes:
1. Foundation cover only calculated to cover slab. Growth media estimated over entire footprint area
2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

Page 1 of 6 Foundations & Buildings

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materiais	rotais
Building Demolition Cost	\$0	\$0	N/A	SI
Wall Demolition Cost	\$0	\$0	N/A	\$(
Slab Demolition	\$0	\$0	N/A	\$(
Subtotal Demolition	\$0	\$0	\$0	ŞI
Cover Placement Cost	\$0	\$0	N/A	\$(
Growth Media Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$(
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$(
TOTALS	\$0	\$0	\$0	S(

Buil	Buildings & Foundation - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each building or facility															
		ruction Materials	emolition	ion Foundation Cover			Growth Media			Revegetation						
	Description (required)	Building Type (select)	Foundation Wall Type (select)	Slab Demo Method (select)	Slab Breaking Equipment Fleet (select)	Cover Material Type (select)	Cover Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Growth Media Material Type (select)	Growth Media Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)	Scarify/ Rip?	Ripping Fleet (select)

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	rotais
Building Demolition Cost	\$0	\$0	N/A	\$
Wall Demolition Cost	\$0	\$0	N/A	\$
Slab Demolition	\$0	\$0	N/A	\$(
Subtotal Demolition	\$0	\$0	\$0	ŞI
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$(
Subtotal Earthworks	\$0	\$0	\$0	\$(
Revegetation Cost	\$0	\$0	\$0	\$(
TOTALS	02	\$0	\$0	9

Buildings & Foundation - Calculations

Building Volume Calculations

Using Means Heavy Construction Cost Data (2004) calculates cubic feet from building dimensions Estimage slab thickness and wall thickness if not known

Assumes that all concrete slabs are reinforced
Productivity for crew from Means Heavy Construction Cost Data (2004) adjusted for supervision

(addressed in Misc. Costs) and Davis-Bacon Wage Rates

Demolition costs do not include hauling or disposing if debris - Use Waste Disposal module

Slab Demolition Calculations

Minimum 1 hr excavator time for slab demolition

Cover Volume Calculation

Foundation area x cover thickness

If "Bury in Place" is selected as slab demolition method, cover thickness is adjusted such that total cover (cover + growth media) equals value entered in "Minimum thickness of cover over unbroken slab" cell above

Ripping/Scarifying Calculations

Flat area width = Final flat area ÷ Average long dimensions

Number of passes = Flat area width ÷ Grader width
Travel distance = Number of passes x Average long dimensions

Total hours = (Travel distance ÷ Grader productivity) + (Number of passes x Grader maneuver time)

Minimum 1 acre revegetation crew time per area

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020 File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm Model Version: Version 1.4.1

Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

uildings & Foundation Demolition Cost Summary				
	Labor	Equipment	Materiais	rotais
Building Demolition Cost	\$0	\$0	N/A	\$0
Wall Demolition Cost	\$0	\$0	N/A	\$0
Slab Demolition	\$0	\$0	N/A	\$0
Subtotal Demolition	\$0	\$0	\$0	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Buil	Building & Foundation Demolition Costs Uses RS Means Heavy Construction Cost Data for building and wall demolition cost calculations. Uses CAT Handbook for slab breaking production.																		
Building Demolition Wall Demolition Slab Demolition Total Costs													Total Costs						
	Description (required)	Building Footprint (slab area) sqft	Building Volume cu ft	Wall Length	Wall Area sq ft	Slab Demolition Fleet	Slab Volume cy	Total Labor Cost \$	Total Equipment Cost \$	Total Building Demolition Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Wall Demolition Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Slab Breaking Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Demolition Costs \$
								\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Page 4 of 6 Foundations & Buildings

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020 File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm Model Version: Version 1.4.1

Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materiais	lotais
Building Demolition Cost	\$0	\$0	N/A	\$0
Wall Demolition Cost	\$0	\$0	N/A	\$0
Slab Demolition	\$0	\$0	N/A	\$0
Subtotal Demolition	\$0	\$0	\$0	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Buil	Building & Foundation - Foundation Cover and Growth Media Costs																		
				Foundation (Cover							Growth	Media				Total Cove	r & Growth N	ledia Costs
	Description (required)	Cover Volume cy	Cover Repacement Fleet	Fleet Number of Productivity LCY/hr Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Cover Cost \$	Growth Media Volume cy	Growth Media Repacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Costs
						\$0	\$0	\$0						\$0	\$0	\$0	\$0	\$0	\$

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020 File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm Model Version: Version 1.4.1

Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materiais	lotais
Building Demolition Cost	\$0	\$0	N/A	\$0
Wall Demolition Cost	\$0	\$0	N/A	\$0
Slab Demolition	\$0	\$0	N/A	\$0
Subtotal Demolition	\$0	\$0	\$0	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Build	ding & Foundation - Scarifying/Revegetation	on Costs													
					Sc	arifying/Rippi	ng		Reve	getation		To	tal Scarify & R	evegation C	osts
	Description (required)	Flat Area acres	Ripping/ Scarifying Fleet	Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Costs \$	Scarifying/ Ripping Equipment Cost \$	Total Scarifying/ Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Costs
					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Page 6 of 6 Foundations & Buildings

Project Name: Foothill Dolomite Mine - Reclamation Plan
Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Other Demoltion and Equipment Removal - Cost Summary											
	Labor	Equipment	Materials	Totals							
Other Demolition	\$0	\$0	\$0	\$0							
Equipment Removal	\$0	\$0	\$0	\$0							
TOTALS	\$0	\$0	\$0	\$0							

Other Demolition						
Facility Description						
Description (required)	ID Code	Туре	Quantity	Units	Labor Unit Cost \$	Equipment Unit Cost \$
					\$0	\$0

Notes:

Project Name: Foothill Dolomite Mine - Reclamation Plan
Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Other Demoltion and Equipment Removal - Cost Summary											
	Labor	Equipment	Materials	Totals							
Other Demolition	\$0	\$0	\$0	\$0							
Equipment Removal	\$0	\$0	\$0	\$0							
TOTALS	\$0	\$0	\$0	\$0							

Equ	Equipment & Material Removal										
	Facility Description										
	Description (required)	ID Code	Туре	Quantity	Units	Labor Unit Cost (\$)	Equipment Unit Cost (\$)				
						\$0	\$0				

Notes:	





Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Orainage Control - Cost Summary				
	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$0
Diversion Ditch Liner	\$0	\$0	\$0	\$0
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$0
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Di	version Ditches - User Input															
				Diversions Ditches					Revegetation	1		Liner and Rip	-Rap Installat	ion		
	Description (required)	ID Code	Diversion Length ft	Diversion Depth ft	Ditch Bottom Width ft	Ditch Sideslope Angle _H:1V	Excavate Volume (if calculated elsewhere) Cy	Excavating Material Condition (select)	Excavating Equipment Fleet (select)	Seed Mix (select)	Mulch (select)	Fertilizer (select)	Liner Area S.Y.	Liner Type (select)	Rip-Rap Area S.Y.	Rip-Rap Type (select type)

Notes:

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$0
Diversion Ditch Liner	\$0	\$0	\$0	\$0
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$0
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

s	Sediment/Evaporation Pond Construction/Removal - User Input												
Sediment Ponds											Growth Media		
	Description (required) It	ID Code	Pond Width ft	Pond/Berm Length ft	Berm Height ft	Crest Width ft	Sideslope Angle _H:1V	Final Area (if calculated elsewhere) acres	Regrade Volume (if calculated elsewhere) cy	Cover Volume (if calculated elsewhere)	Growth Media Thickness in	Distance from Growth Media Stockpile ft	Slope from Pond to Borrow % grade

Notes:

1. All Physical parameters must be input even if manual overrides for volume or area are used.

2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

3. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotais
Diversion Ditch Construction	\$0	\$0	N/A	\$
Diversion Ditch Liner	\$0	\$0	\$0	\$
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$(
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$(
Liner Installation	\$0	\$0	\$0	\$(
Sed Pond Cover	\$0	\$0	N/A	\$(
Ripping/Scarifying Cost	\$0	\$0	N/A	\$(
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$(
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$(
TOTALS	\$0	\$0	\$0	\$0

Se	Sediment/Evaporation Pond Construction/Removal - User Input (cont.)												
	Sediment Ponds Growth Media Revegetation Ripping/Scarifying											Scarifying	
	Description (required)	Excavating Material Condition (select)	Material Type (select)	Excavating Equipment Fleet (select)	Liner Type (select)	Growth Media Material Type (select)	Growth Media Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)	Scarify/ Rip? (select)	Scarify/ Ripping Fleet (select)

Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

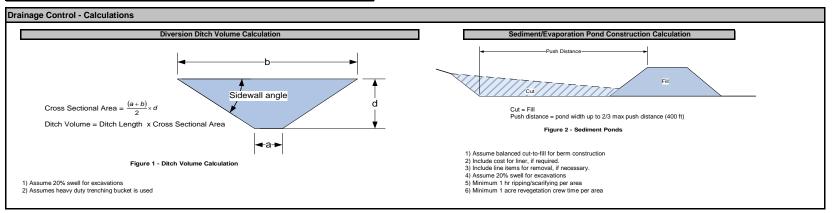
Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$0
Diversion Ditch Liner	\$0	\$0	\$0	\$0
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$0
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0



Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

rainage Control - Cost Summary	Labor	Equipment	Materials	Totals
Diversion Ditch Construction	\$0	\$0	N/A	\$0
Diversion Ditch Liner	\$0	\$0	\$0	\$0
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$0
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Div	Diversion Ditches - Excavation Costs															
			Liner Installation				Rip-Rap Installation									
	Description (required)	Diversion Ditch Volume LCY	Diversion Ditch Equipment	Corrected Excavator Productivity LCY/hr	Total Hours	Diversion Ditch Labor Cost \$	Diversion Ditch Equipment Cost \$	Total Diversion Ditch Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Liner Cost	Labor Cost \$	Equipment Cost \$	Material Cost \$	Total Cost \$
	_					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$(

Notes: LCM assumes 20% swell from ditch volume

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$
Diversion Ditch Liner	\$0	\$0	\$0	\$(
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$0
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Div	version Ditches - Revegetation Costs				Diversion Ditches - Revegetation Costs											
			Revegetation	Revegetation	Revgetation	Total										
	Description	Surface	Labor	Equipment	Material	Revegetation										
	(required)	Area	Cost	Cost	Cost	Cost										
		acres	\$	\$	\$	\$										
			\$0	\$0	\$0	\$0										

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$(
Diversion Ditch Liner	\$0	\$0	\$0	\$(
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$0
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Sec	diment/Evaporation Ponds - Construction/	Regrading	Costs													
Pro	roductivity = Dozer Productivity x Grade Correction x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83)															
	Description (required)	Regrading Volume cy	Sed/Evap Pond Equipment	Dozing Distance (see above) ft	Uncorrected Dozer Productivity LCY/hr	Grade Correction	Density Correction	Excavating Material	Corrected Productivity LCY/hr	Total Dozer Hours hr	Total Labor Cost \$	Total Equipment Cost \$	Total Constr/ Regrading Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$
											\$0	\$0	\$0	\$0	\$0	\$0

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$
Diversion Ditch Liner	\$0	\$0	\$0	\$
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$
Liner Installation	\$0	\$0	\$0	\$
Sed Pond Cover	\$0	\$0	N/A	\$
Ripping/Scarifying Cost	\$0	\$0	N/A	\$
Subtotal Earthworks	\$0	\$0	\$0	\$
Diversion Ditch Revegetation	\$0	\$0	\$0	\$
Sediment Pond Revegetation	\$0	\$0	\$0	\$
Subtotal Revegetation	\$0	\$0	\$0	\$
TOTALS	\$0	\$0	\$0	9

Sediment/Evaporation Ponds - Growth Media	Costs										
	Growth Media										
Description (required)	Growth Media Volume cy	Growth Media Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Cover Placement Cost \$			
						\$0	\$0	\$0			

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$(
Diversion Ditch Liner	\$0	\$0	\$0	\$(
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$0
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Se	diment/Evaporation Ponds - Revegetation	Costs										
	Description (required)	Surface Area acres	Long Ripping Distance ft	Ripping/ Scarifying Fleet	Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Costs \$	Scarifying/ Ripping Equipment Cost \$	Total Scarifying/ Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$
_	•				0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Closure Cost Estimate Process Ponds

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Basis: American Magnesium - Option 1 Cost Estimate Type: Surety

Process Ponds - Cost Summary				
	Labor	Equipment	Materials	Totals
Backfilling Costs	\$0	\$0	N/A	\$0
Growth Media Placement Costs	\$0	\$0	N/A	\$0
Liner Cutting & Folding Costs	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

F	Process Ponds - User Input You must fill in ALL green cells and relevant blue cells in this section for each pond												
Г	Facility Description		Pond Dimensions (1)						ucks are use	ed) (1)	Growth Media		
	Description (required) ID C	Pond de Length ft	Pond Width ft	Pond Depth ft	Pond Sideslope Angle _H:1V	Disturbed Area (if calculated elsewhere) acres	Percent Backfill (100% if blank)	Distance from Backfill Borrow ft	Slope from Facility to Borrow Area % grade	Pond Volume (if calculated elsewhere)	Growth Media Thickness in	Distance from Growth Media Stockpile ft	

- 1. All Physical parameters must be input even if manual overrides for volume or area are used.
 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

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Closure Cost Estimate Process Ponds

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

· ·	Labor	Equipment	Materials	Totals
Backfilling Costs	\$0	\$0	N/A	\$(
Growth Media Placement Costs	\$0	\$0	N/A	\$0
Liner Cutting & Folding Costs	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Proc	ess Ponds - User Input (cont.)										
		Liner		Backfill		Growth Media			Revegetation		
	Description (required)	Crew Cut & Fold Time ⁽²⁾ hrs	Backfill Material Type (select)	Backfill Equipment Fleet (select)	Maximum Fleet Size (user override)	Growth Media Material Type	Growth Media Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)

Notes

Page 2 of 12 Process Ponds

^{1.} Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

⁽²⁾ Pond liner removal crew (2Clab + excavator) = 2 General Laborers + 325C Excavator

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

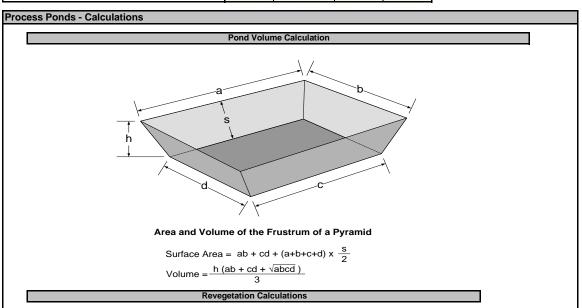
Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Backfilling Costs	\$0	\$0	N/A	Ş
Growth Media Placement Costs	\$0	\$0	N/A	9
Liner Cutting & Folding Costs	\$0	\$0	N/A	9
Subtotal Earthworks	\$0	\$0	\$0	\$
Revegetation Costs	\$0	\$0	\$0	9
TOTALS	\$0	\$0	\$0	\$



Minimum 1 acre revegetation crew time per area

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Process Ponds - Cost Summary				
	Labor	Equipment	Materials	Totals
Backfilling Costs	\$0	\$0	N/A	\$0
Growth Media Placement Costs	\$0	\$0	N/A	\$0
Liner Cutting & Folding Costs	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Process Ponds - Liner Cutting and Folding				
Description		Total Labor	Total Equipment	Total Liner Removal
(required)	Crew Hours hrs	Cost \$	Cost \$	Cost \$
·		\$0	\$0	\$0

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Page 4 of 12
Process Ponds
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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Process Ponds - Cost Summary				
·	Labor	Equipment	Materials	Totals
Backfilling Costs	\$0	\$0	N/A	\$0
Growth Media Placement Costs	\$0	\$0	N/A	\$0
Liner Cutting & Folding Costs	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Proc	cess Ponds - Backfill and Growth Media Co	rocess Ponds - Backfill and Growth Media Costs														
		Pond Backfill Growth Media														
	Description (required)	Backfill Volume cy	Backfill Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours hrs	Total Labor Cost \$	Total Equipment Cost \$	Total Backfill Cost \$	Growth Media Volume cy	Growth Media Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost
							\$0	\$0	\$0						\$0	\$0

Page 5 of 12 Process Ponds
Page 5 of 12

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Backfilling Costs	\$0	\$0	N/A	\$(
Growth Media Placement Costs	\$0	\$0	N/A	\$0
Liner Cutting & Folding Costs	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Process Ponds - Revegetation Costs					
Description (required)	Surface Area acres	Revegetation Labor Cost \$	Revegetation Equipment Cost	Revgetation Material Cost	Total Revegetation Cost \$
		\$0	\$0	\$0	\$0

Page 6 of 12 Process Ponds

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Page 7 of 12 Process Ponds

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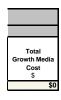
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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Basis: American Magnesium - Option 1 Cost Estimate Type: Surety

Landfills - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Lanc	Ifills - User Input	You must fill in ALL green cells and relevant blue cells in this section for each landfill									
	Facility Description			Physical (1)			Cover	Cover Growth Media			
	Description (required)	ID Code	Final Landfill Footprint acres	Average Long Dimension (ripping distance) ft	Regrade Volume (calculated elsewhere)	Cover Thickness in	Distance from Cover Borrow ft	Slope from Landfill to Cover Borrow % grade	Growth Media	Distance from Growth Media Stockpile ft	Slope from Landfill to Stockpile % grade

- 1. All Physical parameters must be input even if manual overrides for volume or area are used.
 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

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Page 1 of 12 Landfills

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Landfills - Cost Summary				
·	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Lan	Landfills - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each landfill															
Grading			Cover			Growth Media				Revegetation						
	Description (required)	Regrading Material Condition (select)	Regrading Material Type (select)	Regrading Equipment Fleet (select)	Slot/ Side-by-Side (select)	Cover Material Type (select)	Cover Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Growth Media Material Type (select)	Growth Media Equipment Fleet (select)	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch Type (select)	Fertilizer (select)	Scarify/ Rip? (select)	Scarifying/ Ripping Fleet (select)

Notes:

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^{1.} Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Basis: American Magnesium - Option 1 Cost Estimate Type: Surety

	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Landfills - Calculations

Dozing, Ripping/Scarifying & Revegetation Calculations

Dozing: Dozing distance = 2/3 of the 600 feet maximum from Catepillar Handbook or 400 feet

Assumes flat push (grade correction factor = 1)

Minimum 1 hr per area

Ripping: Flat area width = Final flat area ÷ Average long dimensions

Number of passes = Flat area width ÷ Grader width

Travel distance = Number of passes x Average long dimensions

Total hours = (Travel distance ÷ Grader productivity) + (Number of passes x Grader maneuver time)
Minimum 1 hr per area

Revegetation: Minimum 1 acre revegetation crew time per area

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Page 3 of 12 Landfills

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Landfills - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Land	dfills - Regrading Costs												
Prod	roductivity = Dozer Productivity x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83) x (Slot/Side-by-Side)												
	Description (required)	Regrading Volume cy	Dozing Distance (see above)	Regrading Fleet	Uncorrected Dozer Productivity cy/hr	Dozing Material	Density Correction	Side-by-Side or Slot Dozing			Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
											\$0	\$0	\$0

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

dfills - Cost Summary	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$(

Land	andfills - Cover and Growth Media Costs															
	Cover Placement Growth Media Pla								Placement							
	Description (required)	Cover Volume	Cover Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Cover Labor Cost \$	Cover Equipment Cost \$	Total Cover Cost \$	Growth Media Volume ft	Growth Media Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$
							\$0	\$0	\$0						\$0	\$0

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Landfills - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Land	fills - Scarifying/Revegetation Costs											
					Ī	T 1		ī				Ī
				Ripping/	Scarifying/	Scarifying/	Scarifying/ Ripping	Total	Revegetation	Revegetation		Total
	Description	Surface		Scarifying		Ripping Labor	Equipment	Scarifying/	Labor	Equipment	Revgetation	Revegetation
	(required)	Area acres	Long Dimension ft	Fleet	Hours hrs	Costs \$	Cost \$	Ripping Costs \$	Cost \$	Cost \$	Material Cost \$	Cost \$
						\$0	\$0	\$0	\$0	\$0	\$0	\$0

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Page 10 of 12 Landfills



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Page 11 of 12 Landfills

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

rds, Etc Cost Summary				
	Labor	Equipment	Materials	lotais
Regrading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$106	\$548	N/A	\$654
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$132	\$685		\$817
Revegetation Cost	\$140	\$50	\$1,601	\$1,791
TOTALS	\$272	\$735	\$1,601	\$2,608

Υ	ard	ds, Etc User Input				You must fill i	n ALL green ce	ells and relevar	nt blue cells in	this section for	each building	or facility	
	Facility Description				Physical			Cover			Growth Media		
		Description (required)	ID Code	Туре	Area acres	Average Flat Area Long Dimension (ripping distance) ft	Regrade Volume (calculated elsewhere)	Cover Thickness in	Distance from Cover Borrow Area ft	Slope from Facility to Borrow Area % grade	Growth Media Thickness in	Distance from Growth Media Stockpile ft	Slope from Facility to Stockpile % grade
	1	Laydown Yard		Other Facilities	0.25	100		0	100	0.1	12	100	0.1

- Notes:

 1. All Physical parameters must be input even if manual overrides for volume or area are used.
- 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

Note: A portion of the Laydown Yard will be used during reclamation as a temporary staging area for equipment and topdressing.

Yards, Etc.

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

rds, Etc Cost Summary										
	Labor	Equipment	Materials	lotais						
Regrading Cost	\$0	\$0	N/A	\$0						
Cover Placement Cost	\$0	\$0	N/A	\$0						
Growth Media Placement Cost	\$106	\$548	N/A	\$654						
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163						
Subtotal Earthworks	\$132	\$685		\$817						
Revegetation Cost	\$140	\$50	\$1,601	\$1,791						
TOTALS	\$272	\$735	\$1,601	\$2,608						

Yaı	'ards, Etc User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each building or facility														
Grading Cover Growth Media									R	evegetation					
	Description (required)	Regrading Material Condition	Regrading Material Type	Regrading Equipment Fleet	Cover Material Type	Cover Placement Equipment Fleet	Maximum Fleet Size	Growth Media Material Type	Growth Media Equipment Fleet	Maximum Fleet Size	Seed Mix	Mulch	Fertilizer	Scarify/ Rip?	Ripping Fleet
	(roquirou)	(select)	(select)	(select)	(select)	(select)	(user override)		(select)	(user override)		(select)	(select)	(select)	(select)
1	Laydown Yard	1	Alluvium	Small	Alluvium	Small Truck		Alluvium	Small Truck		User Mix 1	Straw Mulch	None	Yes	Small Dozer

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Yards, Etc.

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	lotais
Regrading Cost	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$106	\$548	N/A	\$654
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$132	\$685		\$817
Revegetation Cost	\$140	\$50	\$1,601	\$1,791
TOTALS	\$272	\$735	\$1,601	\$2,608

Yards, Etc. - Calculations

Grading Calculations

Average push distance assumed to be 2/3 of the 600 feet maximum from Catepillar Handbook or 400 feet Material assumed to be loose stockile (1.2 productivity factor)

Slope assumed to be 0 to 5% (1.0 productivity factor)

Cover Volume Calculation

Yard area x cover thickness

Ripping/Scarifying Calculations

Flat area width = Final flat area ÷ Average long dimensions

Number of passes = Flat area width ÷ Grader width

Travel distance = Number of passes x Average long dimensions
Total hours = (Travel distance + Grader productivity) + (Number of passes x Grader maneuver time)
Minimum 1 h ripping/scarffying per area

Revegetation

Minimum 1 acre revegetation crew time per area

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	lotais
Regrading Cost	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$106	\$548	N/A	\$654
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$132	\$685		\$817
Revegetation Cost	\$140	\$50	\$1,601	\$1,791
TOTALS	\$272	\$735	\$1,601	\$2,608

	Yards, Etc Regrading Costs Productivity = Dozer Productivity x Grade Correction x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83) x (Slot/Side-by-Side)												
	Description (required)	Regrading Volume cy	Dozing Distance (see above)	Regrading Fleet	Uncorrected Dozer Productivity cy/hr	Grade Correction	Dozing Material	Density Correction	Total Hourly Productivity cy/hr	Total Dozer Hours hr	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
1	Laydown Yard			D7R							\$0	\$0	\$0
	<u> </u>										\$0	\$0	\$0

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

ards, Etc Cost Summary										
	Labor	Equipment	Materials	lotais						
Regrading Cost	\$0	\$0	N/A	\$0						
Cover Placement Cost	\$0	\$0	N/A	\$0						
Growth Media Placement Cost	\$106	\$548	N/A	\$654						
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163						
Subtotal Earthworks	\$132	\$685		\$817						
Revegetation Cost	\$140	\$50	\$1,601	\$1,791						
TOTALS	\$272	\$735	\$1,601	\$2,608						

Yard	Yards, Etc Cover and Growth Media Costs															
		Cover					Growth Media									
	Description (required)	Cover Volume cy	Topsoil Repacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Cover Cost \$	Growth Media Volume cy	Growth Media Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$
1	Laydown Yard						\$0	\$0	\$0	484	725/966G/D7R	483	2	1	\$106	\$548
							\$0	\$0	\$0	484				1	\$106	\$548

5 of 12 Yards, Etc.

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Yards, Etc Cost Summary										
	Labor	Equipment	Materials	lotais						
Regrading Cost	\$0	\$0	N/A	\$0						
Cover Placement Cost	\$0	\$0	N/A	\$0						
Growth Media Placement Cost	\$106	\$548	N/A	\$654						
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163						
Subtotal Earthworks	\$132	\$685		\$817						
Revegetation Cost	\$140	\$50	\$1,601	\$1,791						
TOTALS	\$272	\$735	\$1,601	\$2,608						

Yar	ards, Etc Scarifying/Revegetation Costs											
	Description (required)	Surface Area acres	Area Long Dimension ft	Ripping/ Scarifying Fleet	Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Costs \$	Scarifying/ Ripping Equipment Cost \$	Total Scarifying/ Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$
1	Laydown Yard	0.25	100	D7R	1	\$26	\$137			\$50	\$1,601	\$1,791
		0.25			1	\$26	\$137	\$163	\$140	\$50	\$1,601	\$1,791

6 of 12 Yards, Etc.



Closure Cost Estimate Waste Disposal

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary	•										
	Labor	Equipment	Fees	Totals							
Solid Waste - On Site	\$0	\$0	N/A	\$0							
Solid Waste - Off Site				\$0							
Hazardous Materials				\$0							
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0							
TOTALS	\$0	\$0	\$0	\$0							

Waste	Waste Disposal - User Input - Solid Waste										
								Landfill (Bulk) Disposal			
								Number	Months		
	Description		Waste	Disposal		Distance	Slope to	of	Dumpster		
	(required)	ID Code	Туре	Method	Quantity	to Landfill	Landfill	Trucks	Rental		
			(select)	(select)	су	ft	% grade	(user override)	months		

Notes:

- 1. All Physical parameters must be input even if manual overrides for volume or area are used.
- 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

Page 1 of 7 Waste Disposal

Closure Cost Estimate Waste Disposal

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary												
	Labor	Equipment	Fees	Totals								
Solid Waste - On Site	\$0	\$0	N/A	\$0								
Solid Waste - Off Site				\$0								
Hazardous Materials				\$0								
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0								
TOTALS	\$0	\$0	\$0	\$0								

Waste	Waste Disposal - User Input - Hazardous Materials										
	Description (required)	ID Code	Waste Type (select)	Container Type (select)	Vacuum Truck Size (select)	Liquid Quantity gallons	Soild Quantity Cy	One Way Travel Distance to Disposal Site mi	One Way Travel Time to Disposal Site hr		

Notes:

Page 2 of 7 Waste Disposal

^{1.} Use Other Demo & Equip Removal Sheet for tank removal

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$0	\$0	N/A	\$0
Solid Waste - Off Site				\$0
Hazardous Materials				\$0
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Waste Disposal - User Input - Hydrocarbon Contaminated Soils										
Description (required)	ID Code	Waste Type (select)	Disposal Method (select)	Quantity Cy	Travel Distance to Offsite Disposal mi					

Notes:

Page 3 of 7 Waste Disposal

^{1.} Use Yards or Landfills Sheets for bioremediation facility reclamation

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$0	\$0	N/A	\$0
Solid Waste - Off Site				\$0
Hazardous Materials				\$0
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Waste Disposal - Assumptions & Calculations

Solid Waste Disposal

Off site disposal assumes use of average rolloff dumpster [30 cy (m3), 10 ton (tonne)]

On site disposal assumes use of small loader/truck fleet for haulage

Average density for on site disposal = 2,600 lb/cy (1,540 kg/m3)

For on site disposal only 1 truck is required unless total truck hours > 8, only 2 trucks unless total truck hours are > 16

Hazardous Materials Disposal

Assumes all hazardous materials are known

Enter EITHER solid or liquid quantity each line.

If container type = 55 gallon (200 liter) drum then solid waste hauling costs apply

Average density for solids assumed to be 2,600 lb/cy (1,540 kg/m3)

Vacuum truck sizes: small = 2,200 gal (~8,300 litres), large = 5,000 gal (~19,000 litres)

Vacuum truck on site for 4 hours for each load

Hydrocarbon Contaminated Soils Disposal

Assumes all hazardous materials are known

On site disposal assumes biopad treatment

Exavation productivity =45 cy./hr (35 m3/hr) (Means Heavy Construction, 2006: 02315-424-0360)

11/17/2020

Page 4 of 7 Waste Disposal

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$0	\$0	N/A	\$0
Solid Waste - Off Site				\$0
Hazardous Materials				\$0
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Waste	Disposal - Solid Waste Disposal									
	Description (required)	Waste Volume cy	Number of Off Site Dumpster Loads	Landfill Fleet Equipment	Landfill Fleet Productivity LCY/hr	Number of Trucks	Total Fleet Hours	Total Dumpster Cost \$	Total Labor Cost \$	Total Equipment Cost \$
				•	•			\$0	\$0	\$0

Page 5 of 7 Waste Disposal

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$0	\$0	N/A	\$0
Solid Waste - Off Site				\$0
Hazardous Materials				\$0
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Waste I	Disposal - Hazardous Materials Disposal								
	Description (required)	Liquid Waste Volume gallons	Solid Waste Volume cy	Number of Truck Loads	Tons of Waste Tons	Pick-up Fees \$	Transport Fees \$	Disposal Fees \$	Total Hazardous Material Cost
						\$0	\$0	\$0	\$0

Page 6 of 7 Waste Disposal

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$0	\$0	N/A	\$0
Solid Waste - Off Site				\$0
Hazardous Materials				\$0
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Waste I	Vaste Disposal - Hydrocarbon Contaminated Soils										
								1		Total	
				Total				Total	Total	Waste	
	Description			Fleet	Treatment	Transport	Disposal	Labor	Equipment	Disposal	
	(required)	Quantity cv	Disposal Equipment Fleet	Hours	Cost \$	Fees \$	Fees \$	Cost \$	Cost \$	Cost \$	
		,			\$0	\$0	\$0	\$0	\$0	\$0	

Page 7 of 7 Waste Disposal

Closure Cost Estimate Well Abandonment

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Basis: American Magnesium - Option 1 Cost Estimate Type: Surety

Well Abandonment													
	Labor	Equipment	Materials	Totals									
Production, Dewatering, Infiltration Wells	\$0	\$0	\$0	\$0									
Monitoring Wells	\$0	\$0	\$0	\$0									
TOTALS	\$0	\$0	\$0	\$0									

Production, Dewatering and Infil	tration Well	Closure																						
Description (required)	ID Code	Number of Holes	Casing Diam in	Average Depth ⁽¹⁾ ft bgs	Depth to First Water ft bgs	Original Static Water Level ft bgs	Top of Slotted Casing ⁽²⁾ ft bgs	Casing Below Top of Screen ⁽²⁾	Type of Pump (if any) (select)	Depth to Pump ft bgs	Hole Plug Method (select)	Casing Volume per ft cf	Perforation Length ^(3,4) ft	Grout Volume per Hole ^(4,5) cy	Cement Volume per Hole ⁽⁶⁾ cy	Media Volume per Hole ⁽⁷⁾ cy	Pump Removal Labor Cost \$	Pump Removal Equip Cost \$	Perf Labor Cost \$	Perf Equip Cost ⁽⁸⁾ \$	Grout + Cement Labor Cost ⁽⁹⁾	Grout + Cement Equip Cost ⁽⁹⁾ \$	Grout + Cement Material Cost \$	Inert Media Labor Cost ⁽¹⁰⁾ \$

- (1) For previously abandoned holes enter "0" for depth
- (2) Wells abandoned per Nevada Administrative Code (NAC 534.420). Hole grouted and perforated from bottom to 50 feet (15.24m) above the top of the screen, or first water encountered or original static water level, depending on vertical hydraulic gradient and well construction parameters. Inert media (cuttings or alluvium) used from top of grout to top seal.
- (3) Perforation length = amount of blank casing below first water (for confined aquifers) or predicted recovered water table (unconfined aquifers) + 50 feet (15.24m) of blank casing above water table

- (3) Perforation length = amount of blank casing below first water (for confined aquifers) or predicted recovered water table (unconfined aquifers) + 50 feet (15.24m) of (4) Assumes 50' (15.24m) sanitary seal at top of hole. Therefore, perforation and grouting only required to bottom of sanitary seal.
 (5) Assumes 100% loss to formation for grout (abandonite) for screened and perforated sections.
 (6) Assumes 20' (6m) top seal of cement in casing only. See note 4.
 (7) Inert material is cuttings or alluvium sourced locally.
 (8) Includes perforation tool wear cost/ft of perforation (see Productivty Sheet).
 (9) See Productivity Sheet for hourly production. Minimum 1 hr per hole + fixed hours per hole for move and setup. If no perforation required, use standard drill rig.
 (10) See Productivity Sheet for hourly production. Minimum 1 hr per hole.

Notes:

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Page 1 of 4 Well Abandonment Inert
Media Equip
Cost⁽⁹⁾
\$

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Page 2 of 4 Well Abandonment

Closure Cost Estimate Well Abandonment

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Well Abandonment										
	Labor	Equipment	Materials	Totals						
Production, Dewatering, Infiltration Wells	\$0	\$0	\$0	\$0						
Monitoring Wells	\$0	\$0	\$0	\$(
TOTALS	\$0	\$0	\$0	\$(

Mo	onitoring Well Closure																	
	Description (required)	ID Code	Number of Holes	Casing Diam in	Average Depth ft bgs	Top of Screen ⁽¹⁾ ft bgs	Hole Plug Method (select)	Casing Volume per ft ft3	Grout Volume/ Well ^(2,3) cy	Cement Volume per Hole ⁽⁴⁾ cy	Inert Backfill Volume per Hole ⁽⁵⁾ cy	Total Grouting Hours/ Hole hr	Total Inert Media Hours/ Hole hr	Grout + Cement Labor Cost ⁽⁶⁾ \$	Grout + Cement Equip Cost ⁽⁶⁾ \$	Grout + Cement Material Cost \$	Inert Material Labor Cost ⁽⁷⁾ \$	Inert Material Equip Cost ⁽⁷⁾ \$
														\$0	\$0	\$0	\$0	\$0

Wells abandoned per NAC 534.420 with bentonite grout placed to 50 feet above the top of the screen (see note 1).

- (1) Assumes top of screen is at or above the static water level (in unconfined aquifers) or the depth of first water encountered (in confined aquifers). Assumes top of screen is at or above the static water level (in unconfined aquifers) or the depth of first water encountered (in confined at (2) Assumes 25% loss to formation for grouting
 Grouting only required to 50' (15.24m) above the top of screen because monitor wells are constructed with a seal in the annular space.
 Assumes top 20' (6m) plugged with cement.
 Assumes hole plugged with inert material (cuttings or alluvium) above grout up to cement surface plug.
 See Productivity Sheet for hourly production. Minimum 1 hr per hole + fixed hours per hole for move and setup (see Productivity Sheet).
 See Productivity Sheet for hourly production. Minimum 1 hr per hole.

Notes:

Page 3 of 4 Well Abandonment Project Name: Foothill Dolomite Mine - Reclamation Plan

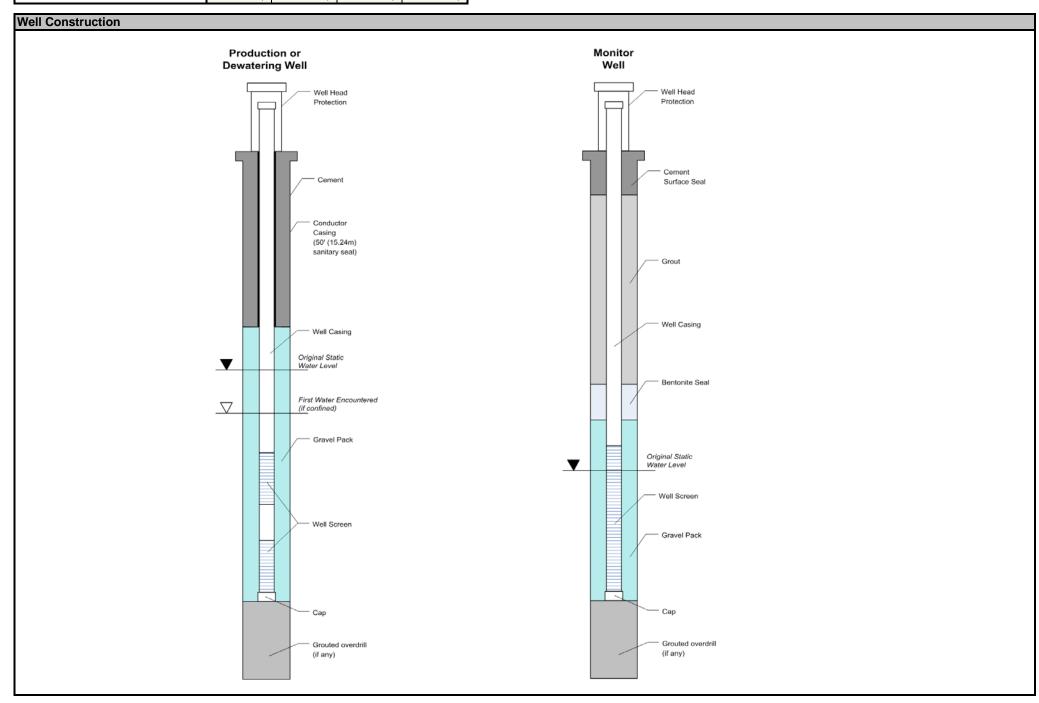
Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Well Abandonment				
	Labor	Equipment	Materials	Totals
Production, Dewatering, Infiltration Wells	\$0	\$0	\$0	\$0
Monitoring Wells	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0



Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1 Cost Data: User Data

Labor	Equipment	Materials	lotals
\$0	\$0	N/A	9
\$0	\$0	\$0	(
\$0	\$0	N/A	9
\$0	\$0	N/A	Ş
\$0	N/A	N/A	Ş
\$0	N/A	N/A	Ş
\$0	\$0	\$0	;
\$0	\$0	\$0	
	\$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 N/A \$0 N/A \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$

Fenc	Fence Removal You must fill in ALL green and blue cells							
Costs								
	Description (required)	ID Code	Length ft	Type (select type)	Labor Cost \$	Equipment Cost \$	Total Cost \$	
					\$0	\$0	\$0	

Notes:

Fend	e Installation		You must fill in ALL green and blue cells						
			Input	Costs					
	Description (required)	ID Code	Length ft	Type (select type)	Labor Cost \$	Equipment Cost \$	Material Cost (\$)		
					\$0	\$0	\$0		

Notes:

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1 Cost Data: User Data

Labor	Equipment	Materials	lotals
\$0	\$0	N/A	9
\$0	\$0	\$0	(
\$0	\$0	N/A	9
\$0	\$0	N/A	Ş
\$0	N/A	N/A	Ş
\$0	N/A	N/A	Ş
\$0	\$0	\$0	;
\$0	\$0	\$0	
	\$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 N/A \$0 N/A \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$

Culv	ert & Buried Pipe Removal	You must fill in ALL green and blue cells					
				Input			Costs
	Description (required)	ID Code	Length ft	Type (select type)	Location (select)	Labor Cost \$	Equipment Cost \$
		•				\$0	\$0

Notes:

Surfa	ace Pipe Removal		You must fill in ALL green and blue cells					
				Costs				
	Description (required)	ID Code	Length ft	Type (select type)	Location (select)	Labor Cost \$	Equipment Cost \$	
		•	•	•	•	\$0	\$0	

Notes:

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1 Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

		Labor	Equipment	Materials	l otals
Fence Removal		\$0	\$0	N/A	Ç
Fence Installation		\$0	\$0	\$0	
Culvert & Buried Pipe Removal		\$0	\$0	N/A	
Surface Pipe Removal		\$0	\$0	N/A	
Power Lines		\$0	N/A	N/A	
Substations/Transformers		\$0	N/A	N/A	
Rip-rap, rock lining, gabions		\$0	\$0	\$0	
Other Costs		\$0	\$0	\$0	
Other Costs	TOTALS	\$0 \$0	\$0 \$0	\$0	

Power	Power Line and Substation Removal You must fill in ALL green and blue cel						
	Description (required)	ID Code	Power Line Length miles	Power Line Type (select)	Number of Substations #	Location (select)	Power Line Removal \$
			-				\$0

Notes: If substation owned by operator, use Other Demo & Equipment Removal sheet
User may need to add line items in Foundations & Buildings for substation slab demolition and fence removal
Labor/Equipment costs assume approximately 80% of cost are equipment and 20% are labor related costs

3 of 5 Misc. Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1 Cost Data: User Data

Labor	Equipment	Materials	lotals
\$0	\$0	N/A	9
\$0	\$0	\$0	(
\$0	\$0	N/A	9
\$0	\$0	N/A	Ş
\$0	N/A	N/A	Ş
\$0	N/A	N/A	Ş
\$0	\$0	\$0	;
\$0	\$0	\$0	
	\$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 N/A \$0 N/A \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$

Rip-F	Rap & Rock Lining		You must fill in ALL green and blue cells					
			Input	Costs				
	Description				Labor	Equipment	Material	
	(required)	ID Code	Area	Type	Cost	Cost	Cost	
			S.Y.	(select type)	\$	\$	\$	
					\$0	\$0	\$0	

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Notes:		
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4 of 5 Misc. Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1 Cost Data: User Data

	Labor	Equipment	Materials	lotais
Fence Removal	\$0	\$0	N/A	\$
Fence Installation	\$0	\$0	\$0	\$
Culvert & Buried Pipe Removal	\$0	\$0	N/A	\$(
Surface Pipe Removal	\$0	\$0	N/A	\$(
Power Lines	\$0	N/A	N/A	\$(
Substations/Transformers	\$0	N/A	N/A	\$(
Rip-rap, rock lining, gabions	\$0	\$0	\$0	\$0
Other Costs	\$0	\$0	\$0	\$(
TOTALS	\$0	\$0	\$0	\$(

Misc. Costs 5 of 5

1 of 2

Project Name: Foothill Dolomite Mine - Reclamation Plan
Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data
Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Lab & Materials	Totals
Revegetation Maintenance	\$164	\$59	\$293	\$516
Erosion Maintenance	\$747	\$2,242	N/A	\$2,989
Reclamation Monitoring	\$8,910	\$374	N/A	\$9,284
Subtotal Reclamation Monitoring	\$9,821	\$2,675	\$293	\$12,789
Water Quality Monitoring	\$0	\$0	\$0	\$0
TOTAL MONITORING	\$9,821	\$2,675	\$293	\$12,789

Description	Total Revegetation Surface Area (1,2) acres	% Area Requiring Reseeding	Seed Mix (select)	Area Requiring Reseeding acres	Seed \$/acres	Labor \$/acres	Equipment \$/acres	Totals \$
Revegetation Maintenance	5	25%	User Mix 1	1.2	\$250.00	\$140.00	\$50.00	
Labor Equipment Materials Cost/Acre							Subtotal	\$164 \$59 \$290 \$440 \$516
	Total Volume Growth Media cy	% Volume Requiring Maintenance	Average Growth Media Placement Cost \$ACY	Volume Requiring Replacement cy		Labor (assume: 25%) \$/acres	Equipment (assume: 75%) \$/acres	Total \$
Erosion Maintenance	Volume Growth Media	Requiring	Growth Media Placement Cost	Requiring Replacement		(assume: 25%)	(assume: 75%)	

Reclamation Monitoring						
Description	Hrs/Day	Days/Year	Number of Years	Rate \$/hr		
Field Work	•					
Field Geologist/Engineer Range Scientist	8	1	3	\$134.99 \$119.42		\$3,24 \$
Reporting						
Field Geologist/Engineer Range Scientist	14	1	3	\$134.99 \$119.42	Subtotal	\$5,67 \$ \$8,91
Travel						
	Hrs/Trip hr	Trips/Year	Years	Truck Cost \$/hr		
Travel	4	1	3	\$31.13		\$37
					Subtotal	\$37
					Total Reclamation Monitoring	\$9,28
Not	es: Assumes Engine Assumes 10 hou	eer will travel from irs for reporting a			d demobilization	

2 of 2

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Reclamation Monitoring & Maintenance - Cost	Summary			
	Labor	Equipment	Lab & Materials	Totals
Revegetation Maintenance	\$164	\$59	\$293	\$516
Erosion Maintenance	\$747	\$2,242	N/A	\$2,989
Reclamation Monitoring	\$8,910	\$374	N/A	\$9,284
Subtotal Reclamation Monitoring	\$9,821	\$2,675	\$293	\$12,789
Water Quality Monitoring	\$0	\$0	\$0	\$0
TOTAL MONITORING	\$9,821	\$2,675	\$293	\$12,789

Description	Samples	Events/Year	No. Years	First Sample Year closure year	No. of Samplers	Days/Event	Hrs/Day	Analysis Cost	Supplies	Lab Cos
	#			(1-100)				\$/sample	\$/sample	\$
										\$0

Notes: Sampling labor cost = No. Samplers x Years x Events/year x Days/event x Hour/Day x Labor Rate Sampling equipment costs include 1 pickup truck for every two samplers

ımp Costs				
Description	No. of units		Years	Cost \$
Pump (purchased)		Replacement period (yrs):		\$i
			Subtotal Fie	old Work \$0
otes: Replacement period = frequ	ency of pump replace	ement		
eporting				
Description	Hrs/Event	Rate \$/hr	Cost \$	
Field Geologist/Engineer				
		Subtotal Reporting		
Not	es:			

Closure Cost Estimate Constr. Mgmt

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Construction Management & Road Mainte	enance - Cost S	Summary		
	Labor	Equipment	Materials	l otals
Construction Management	\$9,979	\$1,436	N/A	\$11,415
Construction Support		\$214		\$214
Road Maintenance	\$1,347	\$6,918	\$726	\$8,991
TOTAL CONSTRUCTION MANAGEMENT	\$11,326	\$8,568	\$726	\$20,620

		Constr	uction Manageı	ment Staff			
Description	Duration mo.	Hours/ Month hr.	Number of Supervisors	Supervisor Rate \$/hr	Labor Cost \$	Equipment Cost ⁽¹⁾ \$	Totals \$
Active Reclamation	0.5	80	1	\$89.10	\$3,564	\$513	\$4,07
M	36	2	1	\$89.10	\$6,415	\$923	\$7,33
Monitoring & Maintenance							
Construction Manageme	•			Total Staff	\$9,979	\$1,436	\$11,41
	•	Number of Units		Rental Rate \$/mo	\$9,979 Generator Cost \$/mo	\$1,436 Equipment Cost ⁽¹⁾ \$	\$11,41: Totals
Construction Manageme	ent Support Duration			Rental Rate \$/mo	Generator Cost	Equipment Cost ⁽¹⁾ \$	Totals \$
Construction Manageme	ent Support Duration			Rental Rate	Generator Cost	Equipment Cost ⁽¹⁾ \$	Totals \$

Description	Fleet Size (select)	Number	Duration mo.	Hours/ Month hr.	Labor Cost \$	Equipment Cost \$	Totals \$
Active Reclamation							
Water Truck	Small	1	1	40	\$932	\$5,273	\$6,20
Grader	Small	1	1	16	\$415	\$1,645	\$2,06
Monitoring & Maintena	ance						
Water Truck	Small	1	36	0	\$0	\$0	\$
Grader	Small	1	36	0	\$0	\$0	\$
	Gallons/	Days/		Cost/			
Description	Day	Month	Duration mo.	Gallon \$			Totals \$
Water Fees							
Water Fees	6000	14	1	0.01			\$72
		•	Total Pro	ject Maintenance	\$1,347	\$6,918	\$8,99

Notes: 1) Supervisor equipment = pickup truck
Note: Assumes water from City of Demning at \$8.64 per 1,000 gallons.

1 of 1 Constr. Mgmt

Closure Cost Estimate Labor Rates

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm
Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm

Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Color Code Key	
User Input - Direct Input	Direct Input
User Input - Pull Down List	Pull Down Selection
Program Constant (can override)	Alternate Input
Program Calculated Value	Locked Cell - Formula or Reference

TONE AD HISTMENTS		
ZONE ADJUSTMENTS		
Cost Basis/Project Region	American Magnesium - Option 1	American Magnesium - Foothill Dolomite Mine - Northern Nevada Equipment
Power Equipment Operators	50-150 miles	\$0.00
Truck Drivers	50-150 miles	\$0.00
Laborers	50-150 miles	\$0.00
INDIRECT COSTS		
Unemployment (%)	1.84%	
Retirement/SS/Medicare (%)	7.65%	1
Workman's Compensation (%)	13.30%	
Other Indirects		
State Payroll Tax (13),(15),(17),		
Total Other Indirects	0.00%	1

EQUIPMENT TYPE (1) OR	Labor		Zone	Harrie		Retirement/	Unamalaras and	Workman's	Other Indirect	
OB DESCRIPTION (Labor Group	Base Rate (\$/hr)	Zone Adjustment (\$/hr)	Hourly Wage (\$/hr)	Fringe (\$/hr)	Retirement/ Medicare (\$/hr)	Unemployment Insurance (\$/hr)	Workman's Compensation (\$/hr)	Other Indirect Costs (\$/hr)	Total (\$/hr)
Equipment Operators (\$/hr) (2)									
Bulldozers										
D6R		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25.9
D6R w/ Winch		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25.9
D7R		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25.9
D8R D9R		\$21.14 \$21.14	\$0.00 \$0.00	\$21.14 \$21.14		\$0.39 \$0.39	\$1.62 \$1.62	\$2.81 \$2.81	\$0.00 \$0.00	\$25. \$25.
D10R		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25. \$25.
D11R		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25.
Wheeled Dozers		*	7			*****	*···-	****		¥=-
824G										
834G										-
844										
854G										
Motor Graders										
120H		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25
14G/H		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25
16G/H		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25
24M		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25
Track Excavators										
312C		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
320C		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
325C		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
330C 345B		\$27.12 \$27.12	\$0.00 \$0.00	\$27.12 \$27.12		\$0.50 \$0.50	\$2.07 \$2.07	\$3.61 \$3.61	\$0.00 \$0.00	\$33 \$33
365BL		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
385BL		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.
Scrapers			•	, ,						
631G		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.
637G		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.
Wheeled Loaders										
924G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
928G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
950G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
966G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
972G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
980G 988G		\$27.12 \$27.12	\$0.00 \$0.00	\$27.12 \$27.12		\$0.50 \$0.50	\$2.07 \$2.07	\$3.61 \$3.61	\$0.00 \$0.00	\$33 \$33
990		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
992G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
994D		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
L2350		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33
Shovels										
PC2000										
PC3000										
PC4000										
PC5500										
PC8000										
Hydraulic Hammers										
H-120 (fits 325)										
H-160 (fits 345)	4									
H-180 (fits 365/385)	1									
Demolition Shears	_									
S340 (fits 322/325/330)	4									
S365 (fits 330/345) S390 (fits 365/385)	1									
Demolition Grapples	1									
G315 (fits 322/325) G320 (fits 325/330)	1									
	11									

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Closure Cost Estimate Labor Rates

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm
Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Color Code Key	
User Input - Direct Input	Direct Input
User Input - Pull Down List	Pull Down Selection
Program Constant (can override)	Alternate Input
Program Calculated Value	Locked Cell - Formula or Reference

ZONE ADJUSTMENTS			
	American		
	Magnesium -		
Cost Basis/Project Region	Option 1		gnesium - Foothill Dolomite Mine - Northern Nevada Equipment
Power Equipment Operators	50-150 miles	\$0.00	
Truck Drivers	50-150 miles	\$0.00	
Laborers	50-150 miles	\$0.00	
INDIRECT COSTS			
Unemployment (%)	1.84%		
Retirement/SS/Medicare (%)	7.65%		
Workman's Compensation (%)	13.30%		
Other Indirects			
State Payroll Tax (13),(15),(17),			
Total Other Indirects	0.00%		

Other Equipment										
420D 4WD Backhoe		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.2
428D 4WD Backhoe		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.2
CS533E Vibratory Roller		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.2
CS633E Vibratory Roller		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.
CP533E Sheepsfoot Compacto	ol .	\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.
CP633E Sheepsfoot Compacto		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.
Light Truck - 1.5 Ton		\$0.00		\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.
Supervisor's Truck		\$0.00		\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.
Flatbed Truck		70.00		77.133		•	,,,,,	4 2		
Air Compressor + tools		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.
Welding Equipment		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.
Heavy Duty Drill Rig		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.
Pump (plugging) Drill Rig		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.
Concrete Pump		ψ1 1.00	ψ0.00	Ç1 1100		Q 0.20	\$1.07	\$1.01	ψ0.00	Ų.,
Gas Engine Vibrator		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.
Generator 5KW		ψ1 1.00	ψ0.00	\$1 1.00		\$ 0.20	\$1.07	\$1.01	ψ0.00	Q.7
HDEP Welder (nine or liner)									00.00	\$33.
HDEP Welder (pipe or liner)		\$27.12	\$0.00	\$27.12		\$0.50				
5 Ton Crane		\$27.12 \$27.12	\$0.00	\$27.12 \$27.12		\$0.50 \$0.50	\$2.07 \$2.07	\$3.61 \$3.61	\$0.00	
5 Ton Crane 20 Ton Crane		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.
5 Ton Crane 20 Ton Crane 50 Ton Crane 120 Ton Crane 120 Ton Crane OTES: (1) Equipment Type:	Catepillar model or equivalen	\$27.12 \$27.12 \$27.12								\$33. \$33. \$33.
5 Ton Crane 20 Ton Crane 50 Ton Crane 120 Ton Crane 0TES:	Davis-Bacon Act WD#NM20	\$27.12 \$27.12 \$27.12	\$0.00 \$0.00	\$27.12 \$27.12		\$0.50 \$0.50	\$2.07 \$2.07	\$3.61 \$3.61	\$0.00 \$0.00	\$33. \$33.
5 Ton Crane 20 Ton Crane 50 Ton Crane 120 Ton Crane 120 Ton Crane OTES: (1) Equipment Type: (2) Equipment Operator Source.	Davis-Bacon Act WD#NM20	\$27.12 \$27.12 \$27.12	\$0.00 \$0.00	\$27.12 \$27.12		\$0.50 \$0.50	\$2.07 \$2.07	\$3.61 \$3.61	\$0.00 \$0.00	\$33. \$33.
5 Ton Crane 20 Ton Crane 50 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type: (2) Equipment Operator Source: (3) Zone Bass:	Davis-Bacon Act WD#NM20 From Deming	\$27.12 \$27.12 \$27.12 \$27.12	\$0.00 \$0.00 \$0.00	\$27.12 \$27.12	\$0.00	\$0.50 \$0.50	\$2.07 \$2.07	\$3.61 \$3.61 \$3.61	\$0.00 \$0.00	\$33. \$33.
5 Ton Crane 20 Ton Crane 50 Ton Crane 120 Ton Crane 120 Ton Crane OTES: (1) Equipment Type: (2) Equipment Operator Source: (3) Zone Bass: ruck Drivers (\$/hr) (4)	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds	\$27.12 \$27.12 \$27.12 \$27.12 it, LeTourneau 200012	\$0.00 \$0.00	\$27.12 \$27.12 \$27.12 \$27.12	\$0.00	\$0.50 \$0.50 \$0.50	\$2.07 \$2.07 \$2.07	\$3.61 \$3.61	\$0.00 \$0.00 \$0.00	\$33. \$33. \$33.
5 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type: (2) Equipment Operator Source: (3) Zone Basis: TUCK Drivers (\$/hr) (4) 725	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds - ruck Driver > 25 yds -	\$27.12 \$27.12 \$27.12 \$1. LeTourneau 200012 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00	\$27.12 \$27.12 \$27.12 \$27.12	\$0.00	\$0.50 \$0.50 \$0.50 \$0.50	\$2.07 \$2.07 \$2.07 \$2.07	\$3.61 \$3.61 \$3.61 \$3.61	\$0.00 \$0.00 \$0.00 \$0.00	\$33. \$33. \$33. \$23.
5 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type: (2) Equipment Operator Source: (3) Zone Basis: TUCK Drivers (\$/hr) (4) 725 730	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds	\$27.12 \$27.12 \$27.12 \$27.12 11, LeTourneau 200012 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00	\$27.12 \$27.12 \$27.12 \$27.12 \$18.97 \$18.97		\$0.50 \$0.50 \$0.50 \$0.50	\$2.07 \$2.07 \$2.07 \$2.07	\$3.61 \$3.61 \$3.61 \$3.61	\$0.00 \$0.00 \$0.00 \$0.00	\$33. \$33. \$33. \$23. \$23. \$23.
5 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type: (2) Equipment Operator Source: (3) Zone Basis: ruck Drivers (\$/hr) (4) 725 730 735	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds -	\$27.12 \$27.12 \$27.12 \$27.12 \$27.12 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$27.12 \$27.12 \$27.12 \$27.12	\$0.00 \$0.00	\$0.50 \$0.50 \$0.50 \$0.50	\$2.07 \$2.07 \$2.07 \$2.07 \$1.45 \$1.45	\$3.61 \$3.61 \$3.61 \$3.61 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$33 \$33 \$33 \$33 \$23 \$23 \$23 \$23 \$23
5 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type: (2) Equipment Operator Source. (3) Zone Basis: 725 730 735 740	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds	\$27.12 \$27.12 \$27.12 \$27.12 \$11.40 \$1	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$27.12 \$27.12 \$27.12 \$27.12 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00	\$0.50 \$0.50 \$0.50 \$0.50 \$0.35 \$0.35 \$0.35 \$0.35	\$2.07 \$2.07 \$2.07 \$2.07 \$2.07	\$3.61 \$3.61 \$3.61 \$3.61 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$33. \$33. \$33. \$33. \$23. \$23. \$23. \$23.
5 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type: (2) Equipment Operator Source (3) Zone Basis: ruck Drivers (\$/hr) (4) 725 730 735 740 769D	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds	\$27.12 \$27.12 \$27.12 \$27.12 \$27.12 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$27.12 \$27.12 \$27.12 \$27.12 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00	\$0.50 \$0.50 \$0.50 \$0.50 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$2.07 \$2.07 \$2.07 \$2.07 \$2.07 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$3.61 \$3.61 \$3.61 \$3.61 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$33. \$33. \$33. \$33.
5 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type. (2) Equipment Type. (3) Zone Basis. **ruck Drivers (\$/hr) (4) 725 730 735 740 769D 773E 7777D	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds -	\$27.12 \$27.12 \$27.12 \$27.12 \$1. LeTourneau 200012 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$27.12 \$27.12 \$27.12 \$27.12 \$27.12 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.50 \$0.50 \$0.50 \$0.50 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$2.07 \$2.07 \$2.07 \$2.07 \$2.07 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$33 \$33 \$33 \$33 \$23 \$23 \$23 \$23 \$23 \$23
5 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type: (3) Zone Basis: ruck Drivers (\$/hr) (4) 725 730 735 740 769D 773E	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds	\$27.12 \$27.12 \$27.12 \$27.12 \$1. LeTourneau 200012 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$27.12 \$27.12 \$27.12 \$27.12 \$27.12 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.50 \$0.50 \$0.50 \$0.50 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$2.07 \$2.07 \$2.07 \$2.07 \$2.07 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$33 \$33 \$33 \$33 \$23 \$23 \$23 \$23 \$23 \$23
5 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type: (2) Equipment Operator Source: (3) Zone Basis: ruck Drivers (\$/hr) (4) 725 730 735 740 769D 773E 777D	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds	\$27.12 \$27.12 \$27.12 \$27.12 \$1. LeTourneau 200012 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$27.12 \$27.12 \$27.12 \$27.12 \$27.12 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.50 \$0.50 \$0.50 \$0.50 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$2.07 \$2.07 \$2.07 \$2.07 \$2.07 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$33 \$33 \$33 \$33 \$23 \$23 \$23 \$23 \$23 \$23
5 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type. (2) Equipment Operator Source. (3) Zone Basis. (UCK Drivers (\$/hr) (4) 725 730 735 740 769D 773E 777D 785C 797B	Davis-Bacon Act WD#NN/20 From Deming ruck Driver > 25 yds - ruck Driver > 60 yds -	\$27.12 \$27.12 \$27.12 \$27.12 \$1. LeTourneau 200012 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$27.12 \$27.12 \$27.12 \$27.12 \$27.12 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.50 \$0.50 \$0.50 \$0.50 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$2.07 \$2.07 \$2.07 \$2.07 \$2.07 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$33 \$33 \$33 \$33 \$23 \$23 \$23 \$23 \$23 \$23
5 Ton Crane 20 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type: (2) Equipment Operator Source. (3) Zone Basis: ruck Drivers (\$/hr) (4) 725 730 735 740 769B 7777 773E 7777D 785C	Davis-Bacon Act WD#NM2D From Deming Fuck Driver > 25 yds - ruck Driver > 60 yds - ter Truck > 2,500 galf	\$27.12 \$27.12 \$27.12 \$27.12 \$1. LeTourneau 200012 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$27.12 \$27.12 \$27.12 \$27.12 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.50 \$0.50 \$0.50 \$0.50 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$2.07 \$2.07 \$2.07 \$2.07 \$2.07 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$3.61 \$3.61 \$3.61 \$3.61 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$33 \$33 \$33 \$33 \$23 \$23 \$23 \$23 \$23 \$23
5 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type: (2) Equipment Operator Source: (3) Zone Basis: ruck Drivers (\$/hr) (4) 725 730 735 740 769P 773E 777D 785C 793C 793C 7937B 613E (5,000 gal) Water Wagor	Davis-Bacon Act WD#NM2D From Deming Fuck Driver > 25 yds - ruck Driver > 60 yds - ter Truck > 2,500 galf	\$27.12 \$27.12 \$27.12 \$27.12 \$1.4 LeTourneau 200012 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.50 \$0.50 \$0.50 \$0.50 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$2.07 \$2.07 \$2.07 \$2.07 \$2.07 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$33 \$33 \$33 \$23 \$23 \$23 \$23 \$23 \$23 \$23
5 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type: (2) Equipment Operator Source: (3) Zone Basis: ruck Drivers (\$/hr) (4) 725 730 736 740 769D 773E 777D 7785 793C 797B 613E (5,000 gal) Water Wagor 621E (8,000 gal) Water Wagor 621E (8,000 gal) Water Wagor	Davis-Bacon Act WD#NM2D From Deming Fuck Driver > 25 yds - ruck Driver > 60 yds - ter Truck > 2,500 galf	\$27.12 \$27.12 \$27.12 \$27.12 \$1.4 LeTourneau 200012 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.50 \$0.50 \$0.50 \$0.50 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$2.07 \$2.07 \$2.07 \$2.07 \$2.07 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$33 \$33 \$33 \$23 \$23 \$23 \$23 \$23 \$23 \$23
5 Ton Crane 20 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane (1) Equipment Type: (2) Equipment Type: (3) Zone Basis: 10ck Drivers (\$/hr) (4) 755 730 735 740 769D 773E 777D 785C 793C 793C 7997B 613E (5,000 gal) Water Wagor 621E (8,000 gal) Water Wagor	Davis-Bacon Act WD#NM2D From Deming Fuck Driver > 25 yds - ruck Driver > 60 yds - ter Truck > 2,500 galf	\$27.12 \$27.12 \$27.12 \$27.12 \$1.4 LeTourneau 200012 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.50 \$0.50 \$0.50 \$0.50 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$2.07 \$2.07 \$2.07 \$2.07 \$2.07 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61 \$3.61	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$33 \$33 \$33 \$33 \$33 \$23 \$23 \$23 \$23 \$23

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2 of 3 Labor Rates

Closure Cost Estimate Labor Rates

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm
Model Version: Version 1.4.1

Cost Data: User Data

Color Code Key	
User Input - Direct Input	Direct Input
User Input - Pull Down List	Pull Down Selection
Program Constant (can override)	Alternate Input
Program Calculated Value	Locked Cell - Formula or Reference

ZONE ADJUSTMENTS		
Cost Basis/Project Region	American Magnesium - Option 1	American Magnesium - Foothill Dolomite Mine - Northern Nevada Equipment
Power Equipment Operators	50-150 miles	\$0.00
Truck Drivers	50-150 miles	\$0.00
Laborers	50-150 miles	\$0.00
INDIRECT COSTS		
Unemployment (%)	1.84%	
Retirement/SS/Medicare (%)	7.65%	
Workman's Compensation (%)	13.30%	
Other Indirects		
State Payroll Tax (13),(15),(17),		
·		
Total Other Indirects	0.00%	

Total Other Indirects	0.00%									
HOURLY LABOR RATE	TABLE									
aborers (\$/hr) (6,7)										
General Laborer	Group 1	\$12.37	\$0.00	\$12.37	\$0.00	\$0.23	\$0.95	\$1.65	\$0.00	\$15.
Skilled Laborer	Group 4	\$17.97	\$0.00	\$17.97	\$0.00	\$0.33	\$1.37	\$2.39	\$0.00	\$22.
Driller's Helper	Group 3	\$17.83	\$0.00	\$17.83	\$0.00	\$0.33	\$1.36	\$2.37	\$0.00	\$21.
Rodmen (reinforcing concrete)	Group 1	\$17.74	\$0.00	\$17.74	\$0.00	\$0.33	\$1.36	\$2.36	\$0.00	\$21.
Cement finisher	Group 3	\$17.83	\$0.00	\$17.83	\$0.00	\$0.33	\$1.36	\$2.37	\$0.00	\$21.
Carpenter		\$22.26	\$0.00	\$22.26	\$13.48	\$0.41	\$1.70	\$2.96	\$0.00	\$40.
OTES:										
(6) Laborer Source:	D-B LABO0169-034 10/1/		WD#NM2020	0012						
(7) Carpenter Source:		ern Nevada								
(8) Zone Basis:										
Project Management an	nd Technical La	. , , , ,								
Project Manager		\$72.56		\$72.56	\$0.00	\$1.34	\$5.55	\$9.65	\$0.00	\$89.
Foreman		\$67.50		\$67.50	\$0.00	\$1.24	\$5.16	\$8.98	\$0.00	\$82.
Field Geologist/Engineer		\$109.94		\$109.94	\$0.00	\$2.02	\$8.41	\$14.62	\$0.00	\$134.
Field Tech/Sampler		\$76.11		\$76.11	\$0.00	\$1.40	\$5.82	\$10.12	\$0.00	\$93.
Range Scientist		\$97.25		\$97.25	\$0.00	\$1.79	\$7.44	\$12.93	\$0.00	\$119.
Senior Planning Engineer					\$0.00					
Project Engineer					\$0.00					
Mechanic/Fitter					\$0.00					
					\$0.00					
					\$0.00					
					\$0.00					
					\$0.00					
IOTES:										
(9) Project Manager:	R.S.Means 2020 Q2 (01 3	1 1320 0200 Total Incl.	O&P-10%) Adju	usted for Elko, NV						
(9) Foreman Source:	R.S.Means 2020 Q2 (01 3	1 1320 0200 Total Incl.	O&P-10%) Adju	usted for Elko, NV						
(9) Techical Labor Source:	Wood plc 2020 Adjusted for	or Zone,Tax and Ins.								
Other Labor Source:										
Other Labor Source:										
†Additional User Markups										
(These are added by the user to the										
base rate to account for site-specific										
conditions or corporate requirements)										

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Closure Cost Estimate Equipment Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan
Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Monthly Rental Basis: 1600 hrs month

EQUIPMENT TYPE (1)	Monthly Owner/Rental Rate	Equipment Hourly Rate	Fuel/Lube/ Wear	Total Rate
ulldozers				
D6R D6R w/ Winch	\$6,570.00 \$6,570.00	\$41.06 \$41.06	\$50.90 \$50.90	\$91.96 \$91.96
D7R	\$18,300.00	\$114.38	\$22.95	\$137.33
D8R	\$20,180.00	\$126.13	\$29.70	\$155.83
D9R D10R	\$30,100.00 \$44.500.00	\$188.13 \$278.13	\$41.41 \$51.43	\$229.54 \$329.55
D11R	\$56,234.00	\$351.46	\$235.44	\$586.90
Vheeled Dozers				
824G 834G	\$19,849.00 \$24,929.00	\$124.06 \$155.81	\$113.00 \$138.70	\$237.06 \$294.51
844	\$33,734.00	\$210.84	\$184.06	\$394.90
854G	\$33,802.00	\$211.26	\$221.85	\$433.11
Motor Graders 120H	\$8,670.00	\$54.19	\$48.60	\$102.79
14G/H	\$14,790.00	\$92.44	\$94.28	\$102.78
16G/H	\$18,806.00	\$117.54	\$129.63	\$247.16
24M rack Excavators	\$20,686.00	\$129.29	\$158.47	\$287.75
312C	\$5,610.00	\$35.06	\$7.59	\$42.65
320C	\$7,750.00	\$48.44	\$15.05	\$63.49
325C	\$10,750.00	\$67.19	\$18.57	\$85.76
330C 345B	\$11,500.00 \$16,730.00	\$71.88 \$104.56	\$23.64 \$29.42	\$95.51 \$133.99
365BL	\$23,119.00	\$144.49	\$113.51	\$258.00
385BL	\$28,472.00	\$177.95	\$134.75	\$312.70
crapers				
631G 637G	\$27,700.00 \$36,819.00	\$173.13 \$230.12	\$70.61 \$200.40	\$243.74 \$430.52
/heeled Loaders	430,018.00	\$23U.1Z	\$200.40	\$43U.52
924G	\$5,610.00	\$35.06	\$19.78	\$54.85
928G	\$6,530.00	\$40.81	\$36.90	\$77.71
950G 966G	\$9,520.00 \$11,500.00	\$59.50 \$71.88	\$32.45 \$37.28	\$91.95 \$109.16
972G	\$13,480.00	\$84.25	\$37.28 \$43.86	\$109.10
980G	\$15,690.00	\$98.06	\$61.05	\$159.11
988G	\$19,589.00	\$122.43 \$176.87	\$151.77 \$233.36	\$274.20 \$410.23
990 992G	\$28,299.00 \$47,500.00	\$176.87 \$296.88	\$233.36 \$225.73	\$410.23 \$522.61
994D	\$45,175.00	\$282.34	\$350.03	\$632.37
L2350	\$82,607.00	\$516.29	\$625.53	\$1,141.82
PC2000	\$70,917.00	\$442.22	\$279.29	\$704 E4
PC3000	\$70,917.00	\$443.23 \$453.29	\$278.28 \$345.19	\$721.51 \$798.47
PC4000	\$74,135.00	\$463.34	\$427.42	\$890.76
PC5500	\$81,548.00	\$509.68	\$562.14	\$1,071.82
PC8000 Hydraulic Hammers	\$89,703.00	\$560.64	\$658.00	\$1,218.64
H-120 (fits 325)	\$3,420.00	\$21.38	\$11.57	\$32.95
H-160 (fits 345)	\$7,028.00	\$43.93	\$23.24	\$67.17
H-180 (fits 365/385)	\$8,168.00	\$51.05	\$24.96	\$76.01
Demolition Shears	60 504 00	\$00.00	600.50	640.50
S340 (fits 322/325/330) S365 (fits 330/345)	\$3,524.00 \$4,131.00	\$22.03 \$25.82	\$20.50 \$25.23	\$42.53 \$51.05
S390 (fits 365/385)	\$6,593.00	\$41.21	\$31.61	\$72.82
Demolition Grapples				
G315 (fits 322/325) G320 (fits 325/330)				\$0.00 \$0.00
G330 (fits 345/365)				\$0.00
Other Equipment				
420D 4WD Backhoe	\$3,240.00	\$20.25	\$22.10	\$42.35
428D 4WD Backhoe CS533E Vibratory Roller	\$3,870.00 \$4,402.00	\$24.19 \$27.51	\$22.59 \$27.54	\$46.78 \$55.06
CS633E Vibratory Roller	\$4,291.00	\$26.82	\$31.05	\$57.87
CP533E Sheepsfoot Compactor	\$4,085.00	\$25.53	\$33.08	\$58.61
CP633E Sheepsfoot Compactor Light Truck - 1.5 Ton	\$6,588.00 \$2,184.00	\$41.18 \$13.65	\$40.18 \$17.48	\$81.36 \$31.13
Supervisor's Truck	\$834.00	\$5.21	\$7.61	\$12.82
Flatbed Truck	\$621.00	\$3.88	\$21.62	\$25.50
Air Compressor + tools	\$597.00	\$3.73	\$5.57	\$9.30
Welding Equipment Heavy Duty Drill Rig	\$405.00 \$52,018.00	\$2.53 \$325.11	\$6.30 \$314.83	\$8.83 \$639.94
Pump (plugging) Drill Rig	\$52,018.00	\$325.11	\$310.45	\$635.56
Concrete Pump	\$14,864.20	\$92.90	\$21.90	\$114.80
Gas Engine Vibrator Generator 5KW	\$357.00 \$938.00	\$2.23 \$5.86	\$3.65 \$6.87	\$5.88 \$12.73
HDEP Welder (pipe or liner)	\$7,022.96	\$43.89	\$4.38	\$12.73 \$48.27
5 Ton Crane	\$7,159.50	\$44.75	\$42.14	\$86.88
20 Ton Crane 50 Ton Crane	\$7,955.00 \$15,154.00	\$49.72 \$94.71	\$48.28 \$88.82	\$98.00 \$183.54
120 Ton Crane	\$15,154.00 \$28,943.00	\$94.71 \$180.89	\$88.82 \$177.03	\$183.54 \$357.92
rucks				
725	\$10,824.00	\$67.65	\$82.89	\$150.54
730 735	\$14,640.00 \$16,730.00	\$91.50 \$104.56	\$62.31 \$70.00	\$153.81 \$174.56
740	\$18,820.00	\$117.63	\$74.01	\$191.63
769D			\$23.86	\$23.86
773E 777D	\$18,267.00 \$37,750.00	\$114.17 \$235.94	\$160.85 \$325.91	\$275.02 \$561.85
785C	\$37,750.00 \$40,948.00	\$235.94 \$255.93	\$325.91 \$366.30	\$561.85 \$622.22
793C	\$49,547.00	\$309.67	\$470.39	\$780.06
797B	\$89,160.00	\$557.25	\$817.64	\$1,374.89
613E (5,000 gal) Water Wagon 621E (8,000 gal) Water Wagon	\$8,726.00 \$10,006.00	\$54.54 \$62.54	\$77.29 \$103.42	\$131.83 \$165.96
777D Water Truck	\$37,226.00	\$62.54 \$232.66	\$321.40	\$165.96
785C Water Truck	\$40,948.00	\$255.93	\$366.30	\$622.22
Dump Truck (10-12 yd ³)	\$3,752.00	\$23.45	\$32.89	\$56.34
	Catepillar model or equ RS Means Heavy Con RS Means Heavy Con	struction (2020 Q2)	loader, Komatsu sho	vels

Closure Cost Estimate Equipment Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan
Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xIsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12

EQUIPMENT TYPE	PM Cost Per Hour ⁽¹⁾	Under carriage or Tires (2)	G.E.T Consumption (3)	Fuel Use Rate gal/hr (4)	Cost@ 2.19/gal	Total Hourly Equipment Cost
Bulldozers						
D6R D6R w/ Winch	\$34.60 \$34.60		\$2.61 \$2.61	6.25 6.25	\$13.69 \$13.69	\$50.9 \$50.9
D7R	\$2.69		\$3.84	7.50	\$16.43	\$22.9
D8R D9R	\$3.49		\$4.86	9.75 14.25	\$21.35 \$31.21	\$29.7
D9R D10R	\$3.61 \$3.79		\$6.59 \$8.22	18.00	\$31.21 \$39.42	\$41.4 \$51.4
D11R	\$160.74		\$16.66	26.50	\$58.04	\$235.4
Wheeled Dozers						
824G 834G	\$49.58 \$59.69	\$38.56 \$49.72	\$1.32 \$1.70	10.75 12.60	\$23.54 \$27.59	\$113.0 \$138.7
844	\$77.91	\$70.88	\$2.42	15.00	\$32.85	\$184.0
854G	\$90.20	\$87.64	\$2.40	19.00	\$41.61	\$221.8
Motor Graders 120H	\$20.32	\$18.90	\$0.62	4.00	\$8.76	\$48.6
14G/H	\$37.21	\$42.00	\$1.38	6.25	\$13.69	\$94.2
16G/H 24M	\$50.42	\$60.78	\$2.00	7.50	\$16.43 \$33.95	\$129.6
Frack Excavators	\$55.46	\$66.86	\$2.20	15.50	\$33.90	\$158.4
312C	\$2.14		\$1.33	1.88	\$4.12	\$7.5
320C	\$2.38		\$1.94	4.90	\$10.73	\$15.0
325C 330C	\$2.64 \$3.01		\$1.48 \$2.67	6.60 8.20	\$14.45 \$17.96	\$18.5 \$23.6
345B	\$3.36		\$2.85	10.60	\$23.21	\$29.4
365BL	\$80.63		\$3.97	13.20	\$28.91	\$113.5
385BL Scrapers	\$91.31		\$5.11	17.50	\$38.33	\$134.7
631G	\$3.22	\$32.68	\$1.86	15.00	\$32.85	\$70.6
637G	\$116.00	\$30.28	\$2.11	23.75	\$52.01	\$200.4
Wheeled Loaders						
924G 928G	\$9.33 \$16.35	\$4.24 \$12.28	\$0.19 \$0.60	2.75 3.50	\$6.02 \$7.67	\$19.7 \$36.9
950G	\$2.30	\$20.52	\$0.87	4.00	\$8.76	\$32.4
966G	\$2.42	\$21.40	\$0.87	5.75	\$12.59	\$37.2
972G 980G	\$2.53 \$2.57	\$26.56 \$40.64	\$1.08 \$1.41	6.25 7.50	\$13.69 \$16.43	\$43.8 \$61.0
988G	\$57.81	\$65.20	\$2.26	12.10	\$26.50	\$151.7
990	\$85.58	\$106.84	\$3.71	17.00	\$37.23	\$233.3
992G 994D	\$11.87 \$122.36	\$130.76 \$143.84	\$32.73 \$4.99	23.00 36.00	\$50.37 \$78.84	\$225.7 \$350.0
L2350	\$203.53	\$268.16	\$9.30	66.00	\$144.54	\$625.5
Shovels						
PC2000 PC3000	\$183.38 \$218.80		\$13.87 \$16.89	37.00 50.00	\$81.03 \$109.50	\$278.2
PC4000	\$254.21		\$19.91	70.00	\$109.50	\$345.1 \$427.4
PC5500	\$279.63		\$21.90	119.00	\$260.61	\$562.1
PC8000	\$307.59		\$24.09	149.00	\$326.31	\$658.0
Hydraulic Hammers H-120 (fits 325)	N/A		\$11.57			\$11.5
H-160 (fits 345)	N/A		\$23.24			\$23.2
H-180 (fits 365/385)	N/A		\$24.96			\$24.9
Demolition Shears S340 (fits 322/325/330)	N/A		\$20.50			\$20.5
S365 (fits 330/345)	N/A		\$25.23			\$25.2
S390 (fits 365/385)	N/A		\$31.61			\$31.6
Demolition Grapples G315 (fits 322/325)	N/A					\$0.0
G320 (fits 325/330)	N/A					\$0.0
G330 (fits 345/365)	N/A					\$0.0
Other Equipment 420D 4WD Backhoe	\$11.81	\$3.18	\$0.54	3.00	\$6.57	\$22.
428D 4WD Backhoe	\$12.20	\$3.22	\$0.60	3.00	\$6.57	\$22.5
CS533E Vibratory Roller	\$19.33			3.75	\$8.21	\$27.5
CS633E Vibratory Roller	\$20.65			4.75	\$10.40	\$31.0
CP533E Sheepsfoot Compactor CP633E Sheepsfoot Compactor	\$24.87 \$29.78			3.75 4.75	\$8.21 \$10.40	\$33.0 \$40.1
Light Truck - 1.5 Ton	\$8.67	\$5.52		1.50	\$3.29	\$17.4
Supervisor's Truck	\$3.62	\$1.80		1.00	\$2.19	\$7.6
Flatbed Truck Air Compressor + tools	\$3.85 \$3.38	\$7.48	N/A	4.70 1.00	\$10.29 \$2.19	\$21.6 \$5.5
Welding Equipment	\$1.92		N/A	2.00	\$4.38	\$6.3
Heavy Duty Drill Rig	\$278.95 \$278.95		\$9.60	12.00	\$26.28 \$21.00	\$314.8
Pump (plugging) Drill Rig Concrete Pump	\$278.95		\$9.60 N/A	10.00	\$21.90 \$21.90	\$310.4 \$21.9
Gas Engine Vibrator	\$1.46		N/A	1.00	\$2.19	\$3.6
Generator 5KW	\$3.58		N/A	1.50	\$3.29	\$6.8
HDEP Welder (pipe or liner) 5 Ton Crane	\$23.22	\$12.35	N/A	3.00	\$4.38 \$6.57	\$4.3 \$42.1
20 Ton Crane	\$25.80	\$13.72		4.00	\$8.76	\$48.2
50 Ton Crane	\$45.47	\$33.06		4.70	\$10.29	\$88.8
120 Ton Crane Frucks	\$80.14	\$85.50		5.20	\$11.39	\$177.0
725	\$28.22	\$41.16	\$3.22	4.70	\$10.29	\$82.8
730	\$2.76	\$44.94	\$3.22	5.20	\$11.39	\$62.3
735 740	\$2.86 \$2.97	\$47.82 \$51.72	\$3.22 \$3.22	7.35 7.35	\$16.10 \$16.10	\$70.4 \$74.4
769D	\$2.97	\$51.72	\$3.22 \$3.60	9.25	\$16.10 \$20.26	\$74.
773E	\$47.92	\$83.16	\$4.04	11.75	\$25.73	\$160.
777D	\$95.60	\$189.12	\$4.51	16.75	\$36.68	\$325.
785C 793C	\$105.16 \$127.24	\$208.03 \$251.72		24.25 41.75	\$53.11 \$91.43	\$366. \$470.
797B	\$127.24 \$204.78	\$484.20		58.75	\$128.66	\$470.
613E (5,000 gal) Water Wagon	\$45.31	\$18.84		6.00	\$13.14	\$77.
621E (8,000 gal) Water Wagon 777D Water Truck	\$50.66 \$95.60	\$29.22 \$189.12		10.75 16.75	\$23.54 \$36.68	\$103.4 \$321.4
785C Water Truck	\$105.16	\$189.12		24.25	\$36.68 \$53.11	\$321.4 \$366.2
Dump Truck (10-12 yd3) (5)	N/A	\$21.50	N/A	5.20	\$11.39	\$32.
lotes:						
(1) PM Source: (2) Undercarriage Source:						
(2) Undercarriage Source: (3) G.E.T. Source:						
	Caterpillar Handbook,	Edition 35 Ch 30: o	r estimated average fr	or smaller vehicles		

Closure Cost Estimate Equipment Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan
Date of Submittal: 09-29-2020
File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm

		# of Tires Per Piece	Cost		Life Expectency Hours	Tire Cost no
Equipment	Tire Size	# of Tires Per Piece of Equipment	Cost Per Tire	Tire Cost (1)(2)	(Low/Zone A) (3)	Tire Cost per Hour
Bulldozers	1					
D6R D6R w/ Winch			N/A N/A			
D7R			N/A			
D8R D9R			N/A N/A			
D10R			N/A			
D11R Wheeled Dozers			N/A			
824G	29.5R25	4	\$33,740.00	\$134,960.00	3.500	\$38.5
834G	35/65-R33	4	\$43,505.00	\$174,020.00	3,500	\$49.7
844 854G	45/65-R39 45/65-R45	4	\$62,020.00 \$76,685.00	\$248,080.00 \$306,740.00	3,500 3,500	\$70.8 \$87.6
Motor Graders	40/00/14/0	-	ψ10,000.00	Q000,1 40.00	0,000	401.0
120H	13PR24	6	\$11,025.00	\$66,150.00	3,500	\$18.9
14G/H 16G/H	20.5R25 23.5R25	6	\$24,500.00 \$35,455.00	\$147,000.00 \$212,730.00	3,500 3,500	\$42.0 \$60.7
24M	23.5R25	6	\$39,000.50	\$234,003.00	3,500	\$66.8
Track Excavators	_					
312C 320C			N/A N/A			
325C			N/A			
330C			N/A			
345B 365BL			N/A N/A			
385BL			N/A			
Scrapers						
631G 637G	37.25R35 37.25R35	4	\$32,680.00 \$30,280.00	\$130,720.00 \$121,120.00	4,000	\$32.6 \$30.2
Wheeled Loaders	2201100		-30,200.00			, QOU.2
924G	17.5R25	4	\$4,770.00	\$19,080.00	4,500	\$4.2
928G 950G	17.5R25 26.5R25	4	\$13,815.00 \$23.085.00	\$55,260.00 \$92,340.00	4,500 4,500	\$12.2 \$20.5
966G	26.5R25 26.5R25	4	\$23,085.00	\$96,300.00	4,500	\$20.5 \$21.4
972G	26.5R25	4	\$29,880.00	\$119,520.00	4,500	\$26.5
980G 988G	29.5R25 35/65-33	4	\$45,720.00 \$73,350.00	\$182,880.00 \$293,400.00	4,500 4,500	\$40.6 \$65.2
990	41.25/70-39	4	\$120,195.00	\$480,780.00	4,500	\$106.8
992G	45/65R45	4	\$147,105.00	\$588,420.00	4,500	\$130.7
994D L2350	55/85R57 55/85R57	4	\$161,815.50 \$301,680.00	\$647,262.00 \$1,206,720.00	4,500 4,500	\$143.8 \$268.1
Shovels						
PC2000			N/A			
PC3000 PC4000			N/A N/A			
PC5500			N/A			
PC8000 Hydraulic Hammers	1		N/A			
H-120 (fits 325)			N/A			
H-160 (fits 345)			N/A			
H-180 (fits 365/385) Demolition Shears			N/A			
S340 (fits 322/325/330)			N/A			
S365 (fits 330/345)			N/A			
S390 (fits 365/385) Demolition Grapples			N/A			
G315 (fits 322/325)			N/A			
G320 (fits 325/330)			N/A			
G330 (fits 345/365) Other Equipment			N/A			
420D 4WD Backhoe	340/80R18-19.5LR24	2	\$4,770.00	\$9,540.00	3,000	\$3.1
428D 4WD Backhoe	340/80R18-16.9R28	2	\$4,830.00	\$9,660.00	3,000	\$3.2
CS533E Vibratory Roller CS633E Vibratory Roller			N/A N/A			
CP533E Sheepsfoot Compactor	1		N/A			
CP633E Sheepsfoot Compactor	_		N/A	040 500 0	2.000	
Light Truck - 1.5 Ton Supervisor's Truck		4	4140 1350	\$16,560.00 \$5,400.00	3,000	\$5.5 \$1.8
Flatbed Truck		22	1020	\$22,440.00	3,000	\$7.4
Air Compressor + tools Welding Equipment			N/A N/A			
Heavy Duty Drill Rig		4	13/A	\$0.00	3,000	
Pump (plugging) Drill Rig		4		\$0.00	3,000	
Concrete Pump Gas Engine Vibrator			N/A N/A			
Generator 5KW			N/A			
HDEP Welder (pipe or liner)	-		N/A			
5 Ton Crane 20 Ton Crane		4	\$9,261.00 \$10,290.00	\$37,044.00 \$41,160.00	3,000 3,000	\$12.3 \$13.7
50 Ton Crane		6	\$16,530.00	\$99,180.00	3,000	\$33.0
120 Ton Crane Trucks		6	\$42,750.00	\$256,500.00	3,000	\$85.5
725	23.5R25	6	\$13,720.00	\$82,320.00	2,000	\$41.1
730	23.5R25	6	\$14,980.00	\$89,880.00	2,000	\$44.9
735 740	26.5R25 29.5R25	6	\$15,940.00 \$17,240.00	\$95,640.00	2,000 2,000	\$47.8 \$51.7
740 769D	29.5R25 18.00R33	6	\$17,240.00	\$103,440.00 \$0.00	6,000	\$51.7
773E	24.00R35	6	\$69,300.00	\$415,800.00	5,000	\$83.1
777D	27.00R49	6	\$157,600.00	\$945,600.00	5,000	\$189.1
785C 793C	33.00R51 40.00R57	6	\$138,688.00 \$167,812.48	\$832,128.00 \$1,006,874.88	4,000 4,000	\$208.0 \$251.7
797B	40.00R57	6	\$322,800.00	\$1,936,800.00	4,000	\$484.2
613E (5,000 gal) Water Wagon	23.5R25	6	\$18,840.00	\$113,040.00	6,000	\$18.8
621E (8,000 gal) Water Wagon	33.25R29 27.00R49	6	\$38,960.00 \$157,600.00	\$233,760.00 \$945,600.00	8,000 5,000	\$29.2 \$189.1
777D Water Truck				·-,000.00		ψ.03.1
777D Water Truck 785C Water Truck	27.00R49 33.00R51	6	\$138,688.00	\$832,128.00	4,000	\$208.0
785C Water Truck Dump Truck (10-12 yd3)				\$832,128.00 \$129,000.00	4,000 6,000	\$208.0 \$21.5
785C Water Truck	33.00R51	6	\$138,688.00			

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Revegetation Materials						
	Seed Mixes					
Seed MIX	Descrip	otion	Cost/Acre			
	1					
None	<u>.</u>					
Mix 1	Basins		\$302.50			
Mix 2 Mix 3	Low Hills		\$332.75 \$363.00			
	Uplands					
Mix 4	Riparian or Custom	-	\$393.25			
User Mix 1 User Mix 2	Site Specific Seed M	ix	\$250.00			
User Mix 3 User Mix 4						
Oser Mix 4	Cost/lb	lbs/Acre	Cost/Acre			
User Mix 5 (from Seed Mix sheet	\$0.00	\$9.18	\$0.00			
Notes:		φο.το	φ0.00			
	Mulch					
Item	Cost/lb	lbs/Acre	Cost/Acre			
		lbs/Acre	Cost/Acre			
None	Cost/lb					
None Straw Mulch	Cost/lb \$0.17	Ibs/Acre 36300	Cost/Acre \$6,150.83			
None Straw Mulch Hydro Mulch	Cost/lb					
None Straw Mulch Hydro Mulch	Cost/lb \$0.17					
None Straw Mulch Hydro Mulch	Cost/lb \$0.17					
None Straw Mulch Hydro Mulch	Cost/lb \$0.17					
None Straw Mulch Hydro Mulch	Cost/lb \$0.17					
None Straw Mulch Hydro Mulch	Cost/lb \$0.17					
None Straw Mulch Hydro Mulch imber Mulch	Cost/lb \$0.17					
None Straw Mulch Hydro Mulch	\$0.17 \$0.25	36300	\$6,150.83			
None Straw Mulch Hydro Mulch Timber Mulch	Cost/lb \$0.17	36300	\$6,150.83			
None Straw Mulch Hydro Mulch Fimber Mulch	\$0.17 \$0.25	36300	\$6,150.83			
None Straw Mulch Hydro Mulch Fimber Mulch	\$0.17 \$0.25	36300	\$6,150.83			

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Amendment	S	
ltem	Cost/lb	lbs/Acre	Cost/Acre
None			
Organic Matter	\$0.70		\$0.00
Treated Sludge			
Chemical	\$0.59		\$0.00
Notes:	Western Nevada Su	pply \$29.34 per 50 lb	. bag 15-15-15 (June 20)

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Description	Cost/50lb bag	Units	Cost/unit*
			_
Cement	\$7.57	су	\$36.07
Grout (Low Grade Bentonite)	\$8.85	су	\$42.14
Inert Material/Cuttings		су	
		су	
		су	
Jentech Drilling Supply quote	(June 2020) Type I,II C	ement at \$14.24 pe	er 94 lb. bag
) Jentech Drilling Supply (June	2020) 3/8 in. Chunk Ber	ntonite Hole Plug a	t \$8.85 per 50 lb. bag

Description	Units	Cost/unit
		L
Monitor Well Pump	ea.	\$2,788.4
Sampling Supplies	ea.	\$6.5
Water Analysis (Profile I) (1)		\$411.0
Leach Test (MWMP) w/ analysis	ea.	\$483.4
ABA + S speciation	ea.	\$150.0
WAD Cyanide in water	ea.	\$56.0
Water Analysis (Profile II) (1)	ea.	\$461.0
vvater / maryoro (i Terme II) (1)	ea.	φ401.0
	ea.	
(1) WET Lab, Reno, Nevada (July 20	N20)	
Well pump and Sample supply costs		
Original source unknown.	2 44,40104 10 2020.	

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Fuel, Etc.		
Description	Units	Cost/unit
Off-road Diesel - delivered (1)	\$/gal	\$2.190
Pickup Truck Mileage	\$/mi	\$0.575
Electical Power	\$/kWh	\$0.079
(1) Source: Oil Price Information So	ervice average annu	al cost including freio

(1) Source: Oil Price Infomration Service, average annual cost including freight to Nevada (July 2020).

Source: Federal Government Vehicle Allowance Rate 2020

Source: NV Energy (July 2020) \$0.07872

Revegetation Method												
	Slopes											
Disturbance Type	Seed Application Method	Labor	Equipment	Total								
		Cost/Acre	Cost/Acre	Cost/Acre								
Waste Rock Dumps	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Heap Leach	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Tailings	Hand Broadcast	\$140.00	\$50.00	\$190.00								
Quarries & Borrow Pits	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Flat Areas and Undifferentiated												
Disturbance Type	Seed Application Method	Labor Cost/Acre	Equipment Cost/Acre	Total Cost/Acre								
Exploration Trenches	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Exploration Roads	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Waste Rock Dumps	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Heap Leach	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Tailings	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Quarries & Borrow Pits	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Roads	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Pits	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Haul Material	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Foundations & Buildings	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Sediment & Drainge Control	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Process Ponds	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Landfills	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Yards, Etc.	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								
Revegetation Maintenance	Mechanical Broadcast	\$140.00	\$50.00	\$190.00								

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Revegetation	regetation											
	Means Number	Unit	Crew	Daily Output	Daily Output User	Materials	Labor	Equipment	Total	Notes		
Seeding - Broadcast Hand (1)		acres					\$140.00	\$50.00	\$190.00			
Seeding - Broadcast Mechanical (1)		acres					\$140.00	\$50.00	\$190.00			
Seeding - Drill (1)		acres		365			\$140.00	\$120.00	\$260.00			
Seeding - Hydroseeding (1)				365			\$250.00	\$150.00	\$400.00			
Shrub Planting - bare root 6-10 in (150- 250mm) (2)	02910-400-0561	ea.	1 Clab	365					\$0.00			
Tree Planting - bare root 11-16 in (270- 400mm) (3)	02910-400-0562	ea.	1 Clab	260					\$0.00			
Cactus Planting (4)		ea.	1 Clab						\$0.00			
NOTES:												
(1) Seeding Source:	Source: Kelley Erosion	Control (Ju	uly 2020).									
(2) Shrub Source:												
(3) Tree Source:												
(4) Cactus Source:												

Building and Wall Demolition

Hourly productivity rates and crew composition from Means Heavy Construction 2005 Edition by permission of R.S.Means/Reed Construction Data .

All equipment, labor and material unit costs are from Labor Costs, Equipment Costs and Material Costs spreadsheets

	Means Number	Unit	Crew	Daily Output	Daily Output User	Labor	Equipment	Premium	Total	Notes			
Building Demolition													
Lg. steel	02220-110-0012	C.F.	B-8	21500		\$0.08	\$0.11		\$0.19				
Lg. concrete	02220-110-0050	C.F.	B-8	15300		\$0.11	\$0.15		\$0.26				
Lg. masonry	02220-110-0080	C.F.	B-8	20100		\$0.08	\$0.11		\$0.19				
Lg. mixed	02220-110-0100	C.F.	B-8	20100		\$0.08	\$0.11		\$0.19				
Sm. steel	02220-110-0500	C.F.	B-3	14800		\$0.10	\$0.10		\$0.20				
Sm. concrete	02220-110-0600	C.F.	B-3	11300		\$0.12	\$0.13		\$0.25				
Sm. masonry	02220-110-0650	C.F.	B-3	14800		\$0.10	\$0.10		\$0.20				
Sm. wood	02220-110-0700	C.F.	B-3	14800		\$0.10	\$0.10		\$0.20				
Wall Demolition													
Block 4 in (100 mm) thick	02220-130-2000	S.F.	1 Clab	180		\$0.68	\$0.00	20%	\$0.82				
Block 6 in (150 mm) thick	02220-130-2040	S.F.	1 Clab	170		\$0.71	\$0.00	20%	\$0.85				
Block 8 in (200 mm) thick	02220-130-2080	S.F.	1 Clab	150		\$0.81	\$0.00	20%	\$0.97				
Block 12 in (300 mm) thick	02220-130-2100	S.F.	1 Clab	150		\$0.81	\$0.00	20%	\$0.97				
Conc 6 in (150 mm) thick	02220-130-2400	S.F.	B-9	160		\$8.04	\$0.47	10%	\$9.36				
Conc 8 in (200 mm) thick	02220-130-2420	S.F.	B-9	140		\$9.19	\$0.53	10%	\$10.69				
Conc 10 in (250 mm) thick	02220-130-2440	S.F.	B-9	120		\$10.72	\$0.62	10%	\$12.47				
Conc 12 in (300 mm) thick	02220-130-2500	S.F.	B-9	100		\$12.87	\$0.74	10%	\$14.97				

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal									
Unit rates from Means Heavy Construction 2006 Edition by	by permission of R.S.Me	ans/Reed	Construc	tion Data .					
	Means Number	Unit	Crew	Daily Output	Materials	Labor	Equipment	Total	Notes
Rubbish Handling									
Dumpster delivery (average for all sizes)	02220-350-0910	ea.			\$51.50			\$51.50	
Haul (average for all sizes)	02220-350-0920	ea.			\$161.00			\$161.00	
Rent per month (average for all sizes)	02220-350-0940	ea.			\$55.00			\$55.00	
Disposal fee per ton (tonne) (average for all sizes)	02220-350-0950	ton			\$60.50			\$60.50	
NOTES:									
Dumpster Cost Source									
Dumpster Disposal Fee Source:		struction (2020 Q2).						
Hazardous Material Handling - Solids (+ Liqui	ds in drums)								
Pickup fees 55 gal (200 L). drums	02110-300-1100	ea.			\$251.00			\$251.00	
Bulk material (average)	02110-300-1220/1230	ton			\$409.50			\$409.50	
Transport - truck load (80 drums, 25 cy (m3), 18 tons)	02110-300-1260/1270	mile			\$5.88			\$5.88	
Dump site solid disposal fee	02110-300-6000/6020	ton			\$288.50			\$288.50	
NOTES:									
Solid Handling Cost Source									
Solid Disposal Fee Source:	2019 Q2 R.S. Means He	eavy Cons	st. ave. 02	81					
Hazardous Material Handling - Liquids									
Vacuum Truck Pickup (2200 gal/8300 L)	02110-300-3110	hr.			\$147.00			\$147.00	
Vacuum Truck Pickup (5000 gal/19000 L)	02110-300-3120	hr.			\$213.00			\$213.00	
Dump site liquid disposal fee	02110-300-6000/6020	ton			\$288.50			\$288.50	
NOTES:									
Liquid Handling Cost Source									
Liquid Disposal Fee Source:	2020 Q2 R.S. Means He	eavy Cons	st. ave. 02	81					
Hydrocarbon Contaminated Soils (HCS)									
Insitu Biotreatment	02115-200-2020/2021	C.Y.			\$17.64			\$17.64	
	02115-200-2050/2055	C.Y.			\$278.50			\$278.50	
NOTES:	·						·		
Insitu Treatement Cost Source									
HCS Disposal Fee Source:	2020 Q2 R.S. Means He	eavy Cons	st., ave. 02	65					

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Concrete Structure Installation										
Weekly dumpster rental rates from Means Heavy Constru	uction 2005 Edition with	n permissio	n by R.S.N	/leans/Reed	Construction Dat	a .				
Weekly dumpster rental rates include haul to off-site dispo	sal site and disposal fe	es	•							
	Means Number	Unit	Crew	Daily Output	Materials	Labor	Equipment	Premium	Total	Notes
Reinforced Concrete Bulkheads and Shaft Co	overs									
Grade walls - 15 in (400mm) thick, 8 ft (2.5m) high	03310-240-4300	C.Y.	C-14D	80.02	\$163.00	\$93.03	\$13.35		\$269.38	includes reinforcing
Grade walls - 15 in (400mm) thick, 12 ft (3.7m) high	03310-240-4350	C.Y.	C-14D	26.2	\$163.00	\$284.13	\$40.76		\$487.89	includes reinforcing
Elevated conc, 1-way beam & slab - 15ft (4.6m) span	03310-240-2700	C.Y.	C-14B	20.59	\$278.00	\$355.26	\$51.87		\$685.13	includes reinforcing
Elevated conc, 1-way beam & slab - 25ft (7.5m) span	03310-240-2750	C.Y.	C-14B	28.36	\$265.00	\$257.93	\$37.66		\$560.59	includes reinforcing
Bat Gate/Foam Plug Installation										
Bat Gate (5)		ea.			\$3,367.61					materials \$/ea. Installed
Culvert Gate (5)		ea.			\$6,735.21					materials \$/ea. Installed
Adit Foam Plug (6)		ea./C.Y.			\$336.76					materials \$/cy placed
Production Opening Foam Plug (6)		ea./C.Y.		materials \$/cy placed						
NOTES:										_
(5) Bat Gate Source:	NV BLM, 2/2006: 8 hr	+ 1hr mob/	demob + 1	hr setup per	gate (adjusted to	0 2020)				
(6) Foam Plug Source:	NV BI M 2/2006: 8 hr+	- 1hr mob/c	lemob + 1h	nr setup per	adit: 16 hrs per p	roduction one	ning (adjusted to	2020)		

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Misc. Linear Projects										
Hourly productivity rates and crew composition from Mean						onstruction D	ata .			
All equipment, labor and material unit costs are from Labor	or Costs, Equipment Co	osts and M	laterial Cos		eets	-			T T	
	Means Number	Unit	Crew	Daily Output	Materials	Labor	Equipment	Premium	Total	Notes
Fencing Installation										
Barbed 3-strand	02820-170-1650	L.F.	B-80A	760	\$0.51	\$0.48	\$0.33		\$1.32	
Barbed 4-strand	extrapolated	L.F.	B-80A	570	\$0.68	\$0.64	\$0.44		\$1.76	
Barbed 5-strand	02820-130-0920	L.F.	B-80A	456	\$0.85	\$0.80	\$0.55		\$2.20	
Chain link 8-10ft (2.5-3m) Install	02820-130-0920	L.F.	B-80C	180	\$38.00	\$2.03	\$1.38		\$41.41	
Wood stockade fence 6 ft (2 m) high - Install	02820-510-1240	L.F.	B-80C	150	\$16.00	\$2.43	\$1.66		\$20.09	
	user	L.F.							\$0.00	
	user	L.F.							\$0.00	
	user	L.F.							\$0.00	
	user	L.F.							\$0.00	
Fencing Removal										
Barbed 3-strand Removal	02220-220-1600	L.F.	2 Clab	430		\$0.57	\$0.58		\$1.15	
Barbed 4-strand Removal	extrapolated	L.F.	2 Clab	355		\$0.68	\$0.70		\$1.38	
Barbed 5-strand Removal	02220-220-1650	L.F.	2 Clab	280		\$0.87	\$0.89		\$1.76	
Chain link 8-10 ft (2.5-3 m) Removal	02220-220-1700	L.F.	B-6	445		\$1.14	\$1.40		\$2.54	
Wood, all types 4-6 ft ("1.5-2 m) high - Removal	02220-220-1775	L.F.	2 Clab	430		\$0.57	\$0.58		\$1.15	
	user	L.F.								
	user	L.F.							\$0.00	
	user	L.F.							\$0.00	
	user	L.F.							\$0.00	
Culvert Removal										
12 in (300 mm) Diameter	02220-220-2900	L.F.	B-6	175		\$2.91	\$3.55		\$6.46	
18 in (450 mm) Diameter	02220-220-2930	L.F.	B-6	150		\$3.40	\$4.14		\$7.54	
24 in (600 mm) Diameter	02220-220-2960	L.F.	B-6	120		\$4.25	\$5.18		\$9.43	
36 in (1m) Diameter	02220-220-3000	L.F.	B-6	90		\$5.66	\$6.91		\$12.57	
Pipeline Removal										
0.75 in (20mm) - 4 in (100 mm) diameter	02220-381-1600	L.F.	B-20	700		\$1.37	\$0.36		\$1.73	
6 in (150 mm) - 8 in (200 mm)	02220-381-1700	L.F.	B-20	500		\$1.92	\$0.50		\$2.42	
10 in (250 mm) - 18 in (450 mm)	02220-381-1800	L.F.	B-20	300		\$3.20	\$0.83		\$4.03	
20 in (500 mm) - 36 in (1 m)	02220-381-1900	L.F.	B-20	200		\$4.81	\$1.25		\$6.06	
Pipe and Drainpipe Installation										
Water 4in (100mm) 40ft (12m) length, welded HDPE	02510-760-0100	L.F.	B-22A	400	\$2.70	\$1.91	\$5.44		\$10.05	
Water 6in (150mm) 40ft (12m) length, welded HDPE	02510-760-0200	L.F.	B-22A	380	\$5.85	\$2.01	\$5.72		\$13.58	
Water 12in (300mm) 40ft (12m) length, welded HDPE	02510-760-0500	L.F.	B-22A	260		\$2.94	\$8.36		\$11.30	
Drain 4in (100mm) perforated PVC	02620-630-2100	L.F.	B-14	315	\$1.74	\$4.09	\$1.87		\$7.70	
Drain 6in (150mm) perforated PVC	02620-630-2110	L.F.	B-14	300	\$4.22	\$4.29	\$1.96		\$10.47	
Drain 4in (100mm) corrugated, perf or plain	02620-660-0040	L.F.	2 Clab	1200	\$0.78	\$0.20	\$0.21		\$1.19	
Drain 6in (150mm) corrugated., perf or plain	02620-660-0060	L.F.	2 Clab	900	\$2.18	\$0.27	\$0.28		\$2.73	

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Drain Rock Preparation												
•	1 0 4	<u> </u>		1	1	#0.50						
Crushing						\$0.50						
Screening	C.Y.					\$0.50						
TOTAL						\$1.00						
sc.												
Backhoe work	02210-700-0120 C.Y.	B-11M 2	8	\$4.92	\$12.10	\$17.02						
Powerline and Transformer Removal												
Single Pole	mile					\$46,803.69						
Double Pole	mile					\$53,489.93						
Transformer (9)	ea.					\$58,997.31						
NOTES:			•									
		/ Energy estimate (2009) Adjusted to 2020										
(8) Double Pole Source:	NV Energy estimate (2009) Adju	Energy estimate (2009) Adjusted to 2020										
(9) Transformer Source:	NV Energy estimate (2018) adju	sted to 2020										
E ' 10 " 11" 0 1 1												

Erosion and Sedimentation Control

Hourly productivity rates and crew composition from Means Heavy Construction 2005 Edition by permission of R.S.Means/Reed Construction Data .

All equipment, labor and material unit costs are from Labor Costs, Equipment Costs and Material Costs spreadsheets

	Means Number	Unit	Crew	Daily Output	Materials	Labor	Equipment	Premium	Total	Notes
lip-Rap & Rock Lining										
Rip-Rap 3/8 to 1/4 CY (m3) pieces, grouted	02370-450-0110	S.Y.	B-13	80	\$25.00	\$17.69	\$9.80		\$52.49	assumes on-site source of rip-rap
Rip-Rap 18 in (450 mm) min thick, no grout	02370-450-0200	S.Y.	B-13	53	\$7.65	\$26.71	\$14.79		\$49.15	assumes on-site source of rip-rap
Gabions, 6 in (150 mm) deep	02370-450-0400	S.Y.	B-13	200	\$7.05	\$7.08	\$3.92		\$18.05	assumes on-site source rock fill for gabions
Gabions, 9 in (250 mm) deep	02370-450-0500	S.Y.	B-13	163	\$9.85	\$8.68	\$4.81		\$23.34	assumes on-site source rock fill for gabions
Gabions, 12 in (300 mm) deep	02370-450-0200	S.Y.	B-13	153	\$14.30	\$9.25	\$5.12		\$28.67	assumes on-site source rock fill for gabions
Gabions, 18 in (450 mm) deep	02370-450-0200	S.Y.	B-13	102	\$18.35	\$13.88	\$7.69		\$39.92	assumes on-site source rock fill for gabions
Gabions, 36 in (1m) deep	02370-450-0200	S.Y.	B-13	60	\$31.00	\$23.59	\$13.07		\$67.66	assumes on-site source rock fill for gabions
IDEP Liner Installation										
Finish grading large area	2310-100-0100	S.F.	B-11L	18000		\$0.02	\$0.08		\$0.10	
Compaction-riding, vibrating roller - 12in (300mm) lifts	2315-310-5100	C.Y.	B-10Y	2600		\$0.10	\$0.17		\$0.27	
60 mil HDPE	2660-610-0010	S.F.	3 Skwk	1600	\$0.57	\$0.42	\$0.45		\$1.44	
80 mil HDPE	user	S.F.	3 Skwk	149		\$4.48	\$4.87		\$9.35	
40 mil VLDPE	user	S.F.	3 Skwk	150		\$4.45	\$4.83		\$9.28	
	user	S.F.	3 Skwk	149		\$4.48	\$4.87		\$9.35	
	user	S.F.	3 Skwk	149		\$4.48	\$4.87		\$9.35	

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Construction Management Support								
Office Trailer, Furnished, no hook-ups 01	150-500-0250 mo		\$198.00				\$198.00	
Toilet Portable, chemical 15	590-400-6410 mo		\$214.20				\$214.20	
TOTAL			\$412.20				\$412.20	
Pump and Casing Removal								
Pump Type N	Measurement Uni	t		Labor	Equipment		Total	Notes
Pump Removal								
Submersible ft to pu	ump L.F			\$7.65	\$18.86		\$26.51	
Line Shaft ft to pu	ump L.F			\$7.65	\$18.86		\$26.51	
NOTES:	•		•		•	•		
(10) Pump Removal Source: Boart	Longyear Quote: June 2	020						

Closure Cost Estimate Fleets (Crews)

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

		EQUIPMENT	TOTAL LABOR	TOTAL
	Standard	UNIT COST	UNIT COST	COST
ACTIVITY AND FLEET	Crew Size	(Hourly)	(Hourly)	(Hourly)
PING				
Rip road Waste rock dumps, heaps, tails - rip flat surfaces Surface preparation Scarify				
	Dozer w/ multi-sha	nk		
D7R Totals	1	\$137.33 \$137.33	\$25.96 \$25.96	\$163 \$163
_	Dozer w/ multi-sh		<u> </u>	
D9R	1 Dozer W/ Multi-Si	\$229.54	\$25.96	\$25
Totals		\$229.54	\$25.96	\$25
	Dozer w/ multi-sha		фог ool	6 25
D10R Totals	1	\$329.55 \$329.55	\$25.96 \$25.96	\$35 \$35
Grad	der w/ multi-shank	(
16G/H	1	\$247.16	\$25.96	\$273
Totals		\$247.16	\$25.96	\$27
ADING Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms				
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms	mall Dozer Fleet			
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms Si D7R	mall Dozer Fleet	\$137.33 \$137.33	\$25.96 \$25.96	
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms St D7R Totals	1	\$137.33 \$137.33	\$25.96 \$25.96	
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms St D7R Totals Me	1 edium Dozer Fleet	\$137.33	\$25.96	\$16: \$16:
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms St D7R Totals	1			\$16 \$25
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms Si D7R Totals Me D9R Totals	1 edium Dozer Fleet	\$137.33 \$229.54	\$25.96 \$25.96	\$163 \$258
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms SI D7R Totals Me D9R Totals La	edium Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96	\$16: \$25: \$25: \$35:
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms Si D7R Totals Me D9R Totals La	edium Dozer Fleet 1 arge Dozer Fleet	\$137.33 \$229.54 \$229.54	\$25.96 \$25.96 \$25.96	\$16: \$25: \$25: \$35:
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms SI D7R Totals Me D9R Totals La D10R Totals Constructing pit safety berms	edium Dozer Fleet 1 arge Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96	\$16: \$25: \$25: \$35:
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms SI D7R Totals Me D9R Totals La D10R Totals	edium Dozer Fleet 1 arge Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96	\$16: \$25: \$25: \$35:
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms SI D7R Totals Me D9R Totals La D10R Totals La PLORATION GRADING Backfilling and grading exploration trenches Grading flat exploration roads	edium Dozer Fleet 1 arge Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96	
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms St D7R Totals Me D9R Totals La D10R Totals La D10R Totals Backfilling and grading exploration trenches Grading flat exploration roads St St St St St St St St St S	edium Dozer Fleet 1 arge Dozer Fleet 1	\$137.33 \$229.54 \$229.54 \$329.55 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$163 \$253 \$254 \$354 \$354
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms SI D7R Totals Me D9R Totals La D10R Totals DLORATION GRADING Backfilling and grading exploration trenches Grading flat exploration roads Si D6R Totals	arge Dozer Fleet 1 arge Dozer Fleet 1 mall Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$16: \$25: \$25: \$35: \$35:
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms SI D7R Totals Me D9R Totals La D10R Totals La D10R Totals SI D10R Totals La D10R Totals SI D10R Totals La D10R Totals SI D10R Totals D10R Totals SI D10R Totals Totals SI D10R Totals Totals D10R Totals Me Me Me	arge Dozer Fleet amall Dozer Fleet 1 amall Dozer Fleet 2 dedium Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55 \$329.55 \$91.96 \$91.96	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$163 \$254 \$254 \$355 \$354 \$354
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms SI D7R Totals Me D9R Totals La D10R Totals DLORATION GRADING Backfilling and grading exploration trenches Grading flat exploration roads Si D6R Totals	arge Dozer Fleet 1 arge Dozer Fleet 1 mall Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$163 \$253 \$254 \$354 \$354
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms SI D7R Totals Me D9R Totals La D10R Totals PLORATION GRADING Backfilling and grading exploration trenches Grading flat exploration roads SI D6R Totals Me D7R Totals	arge Dozer Fleet arge Dozer Fleet amail Dozer Fleet addium Dozer Fleet 1	\$137.33 \$229.54 \$229.54 \$329.55 \$329.55 \$91.96 \$91.96	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$16: \$25: \$25: \$35: \$35: \$11: \$11: \$16:
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms SI D7R Totals Me D9R Totals La D10R Totals PLORATION GRADING Backfilling and grading exploration trenches Grading flat exploration roads SI D6R Totals Me D7R Totals	arge Dozer Fleet amall Dozer Fleet 1 amall Dozer Fleet 2 dedium Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55 \$329.55 \$91.96 \$91.96	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$16 \$25 \$25 \$35 \$35 \$31 \$11 \$11

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

QUIPMENT FLEETS			T	
40711177 4310 51 557	Standard	EQUIPMENT UNIT COST	TOTAL LABOR UNIT COST	TOTAL
ACTIVITY AND FLEET XCAVATING	Crew Size	(Hourly)	(Hourly)	(Hourly)
Earthen Berms				
Diversion ditch excavation and backfill Underground openings backfill - excavate and place Pit berm construction (excavator option)				
-	all Excavator			
325C Totals	1	\$85.76 \$85.76	\$33.30 \$33.30	\$119. \$119.
Medi	ium Excavator	£122.00 l	\$22.201	\$167.
Totals	1	\$133.99 \$133.99	\$33.30 \$33.30	\$167.
	ge Excavator	040.70	#20.00I	#0.40
385BL Totals	1	\$312.70 \$312.70	\$33.30 \$33.30	\$346. \$346.
XCAVATE AND RECONTOUR Recontour large roads (haul roads, access roads, etc.)				
Ponds - Excavate and pull liner and bury				
Small E	xcavator + Doze	er		
325C	1	\$85.76	\$33.30	\$119
D7R Total Equipment	1	\$137.33	\$25.96 \$59.26	\$163
• • •		\$223.09	\$59.26	\$282
	Excavator + Doz	er		
345B	1	\$133.99	\$33.30	\$167.
D9R Totals	1	\$229.54 \$363.53	\$25.96 \$59.26	\$255. \$422.
<u></u>		•	*	
Large E	xcavator + Doze	e r \$312.70	\$33.30	\$346.
D10R	1	\$329.55	\$25.96	\$355.
Totals		\$642.25	\$59.26	\$701
XPLORATION ROAD/PAD RECONTOUR				
Recontour small roads (exploration roads, service roads, etc.	.)			
Cut and Fill reclamation on slopes	•			
Drill pad recountour Drill sump backfill				
·				
-	mall Dozer	f04.00L	Φος οο.l	6447
D6R Totals	1	\$91.96 \$91.96	\$25.96 \$25.96	\$117. \$117.
	· '			•
	arge Dozer		***	
D8R Totals	1	\$155.83 \$155.83	\$25.96 \$25.96	\$181. \$181.
. 5005		ψ100.00	Ψ20.00	Ψίθι
	Grader			
14G/H Totals	1	\$186.72 \$186.72	\$25.96 \$25.96	\$212. \$212.
i UldiS		φ100.72	Ψ23.30	Ψ212.
<u></u>	all Excavator			
Sma		¢62.40	\$33.30	\$96
320C	1	\$63.49		
Sma		\$63.49	\$33.30	\$96
320C Totals				\$96.
320C Totals	1			\$96. \$119. \$119.

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

QUIPMENT FLEETS				T	
AOTHUTY AND SUFFE		Standard	EQUIPMENT UNIT COST	TOTAL LABOR UNIT COST	TOTAL
ACTIVITY AND FLEET		Crew Size	(Hourly)	(Hourly)	(Hourly)
DAD, HAUL AND PLACE MATERIAL Rock placement					
Haul overburden for backfill					
Haul borrow for backfill					
Haul cover or growth media					
	ll Truck/L	oader Flee			2
725 966G	Loader	Calculated	\$150.54 \$109.16	\$23.29 \$33.30	\$173 \$142
D7R	Loauei	1	\$137.33	\$25.96	\$163
Totals			\$397.03	\$82.55	\$479
Mediu	ım Truck/	Loader Fle	et		
740		Calculated	\$191.63	\$23.29	\$214
988G	Loader	1	\$274.20	\$33.30	\$307
D8R Totals		1	\$155.83 \$621.66	\$25.96 \$82.55	\$181 \$70/
Totals			\$621.66	\$82.55	\$704
Large	e Truck/L	oader Flee	et		
769D		Calculated	\$23.86	\$23.29	\$47
988G D7R	Loader	1	\$274.20 \$137.33	\$33.30 \$25.96	\$307 \$163
Totals		'	\$435.39	\$82.55	\$517
Fortuna II-	araa T	lell acrier 5	loct		
777D Extra La	arge iruc	k/Loader F Calculated	*1 eet \$561.85	\$23.29	\$585
992G	Loader	1	\$522.61	\$33.30	\$555
D7R		1	\$137.33	\$25.96	\$163
Totals			\$1,221.79	\$82.55	\$1,304
Sc	craper/Do	zer Fleet			
631G		Calculated	\$243.74	\$17.23	\$260
D10R D7R		1	\$329.55 \$137.33	\$25.96 \$25.96	\$355 \$163
Totals		1	\$710.62	\$69.15	\$779
		F1			
	ndem Scr	aper Fleet	6400 50	#47.00L	0.4.4-
637G D7R		1	\$430.52 \$137.33	\$17.23 \$25.96	\$447 \$163
Totals		·	\$567.85	\$43.19	\$611
SC. LOAD AND HAUL AND EARTHWORKS					
Sludge removal					
Drainage controls					
Misc Cat 325	B Excav	ator / 10-12	vd3 Truck		
325C WISC Cat 323	LACAVO	1	\$85.76	\$33.30	\$119
Dump Truck (10-12 yd3)		1	\$56.34	\$14.61	\$70
Totals			\$142.10	\$47.91	\$190
Misc Cat D9R Doz	er/ Loade	er (5 yd3) /	10-12 yd3 Truci	(
D9R		1	\$229.54	\$25.96	\$255
966G	-	1	\$109.16	\$33.30	\$142
Dump Truck (10-12 yd3) Totals		1	\$56.34 \$395.04	\$14.61 \$73.87	\$70 \$468
<u></u>			•	•	φ-γοι
Misc Cat D6 Doze	r / Cat 96		•		
D6R 966G		1	\$91.96 \$109.16	\$25.96 \$33.30	\$117 \$142
Dump Truck (10-12 yd3)		1	\$56.34	\$14.61	\$70
Totals			\$257.46	\$73.87	\$331

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

ACTIVITY AND FLEET	Standard Crew Size	EQUIPMENT UNIT COST (Hourly)	TOTAL LABOR UNIT COST (Hourly)	TOTAL COST (Hourly)
DNCRETE BREAKING	Crew Size	(Hourly)	(Hourry)	(Hourly)
Slab demolition				
Footing demolition Wall demolition				
Small - Cat 325B Exc	avator w/ H140	D s Hammer		
325C	1	\$85.76	\$33.30	\$119
H-120 (fits 325)	1	\$32.95	\$0.00	\$32
D9R	1	\$229.54	\$25.96	\$255
Totals		\$348.25	\$59.26	\$407
Medium - Cat 345B Ex			\$20.00	0407
345B	1	\$133.99 \$67.17	\$33.30 \$0.00	\$167
H-160 (fits 345)	1 1	\$229.54	\$25.96	\$67 \$255
Totals	'	\$430.70	\$59.26	\$489
Large - Cat 385B Exc	eavator w/ H180	DD's Hammer		
385BL	1	\$312.70	\$33.30	\$346
H-180 (fits 365/385)	1	\$76.01	\$0.00	\$76
D9R	1	\$229.54	\$25.96	\$255
Totals		\$618.25	\$59.26	\$677
RILL HOLE ABANDONMENT				
	Grout or Ceme			
Pump (plugging) Drill Rig	1	\$635.56	\$17.23 \$43.78	\$652
Driller's Helper Totals	2	\$0.00 \$635.56	\$43.78 \$61.01	\$43 \$696
				φυσυ
Drill Hole - Inert Media (I	Means Crew B-		•	0.50
420D 4WD Backhoe General Laborer	1	\$42.35 \$0.00	\$17.23 \$15.19	\$59 \$15
Totals	'	\$42.35	\$32.42	\$74
Dvill Hala Coning	n Doufouction o	r Domeyal		
Drill Hole - Casing Heavy Duty Drill Rig	1 1	\$639.94	\$17.23	\$657
Driller's Helper	2	\$0.00	\$43.78	\$43
Totals		\$639.94	\$61.01	\$700
AINTENANCE FLEET				
ad Grading, Dust Suppression, Clean Up				
Maintenance - Small Wa				
613E (5,000 gal) Water Wagon	1	\$131.83	\$23.29	\$155
Totals	1	\$102.79 \$234.62	\$25.96 \$49.25	\$128 \$283
				Ψ200
Maintenance - Medium V				0455
613E (5,000 gal) Water Wagon 14G/H	1 1	\$131.83 \$186.72	\$23.29 \$25.96	\$155 \$212
Totals		\$318.55	\$49.25	\$367
	-1 T			
Maintenance - Large Wa	ater Truck and	Cat 16G Grader \$165.96	\$23.29	\$189
	1	\$247.16	\$25.29 \$25.96	\$273
		\$413.12	\$49.25	\$462
16G/H Totals				
16G/H Totals				
16G/H Totals COJECT SUPERVISION	1 1	\$0.00	\$82.881	\$82
16G/H Totals	1 1	\$0.00 \$12.82	\$82.88 \$0.00	\$82 \$12

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

EQUIPMENT FLEETS				
EQUIPMENT FLEETS				
	Standard	EQUIPMENT UNIT COST	TOTAL LABOR UNIT COST	TOTAL COST
ACTIVITY AND FLEET	Crew Size	(Hourly)	(Hourly)	(Hourly)
MEANS CREW DEFINITIONS				
Crew composition from Means Heavy Construction 2005 Editi		R.S.Means/Reed C	onstruction Data .	
For use with misc. unit costs where Means is the source for pr	roductivity			
1 Clab - Seedling Pla	anting/Block Wa	II Demolition		
General Laborer	1	\$0.00	\$15.19	\$15.19
Totals		\$0.00	\$15.19	\$15.19
2 Clab Barbad Wira/Mand Fance Rome	val Drainnina In	otalistian Dum	ning Eveneratio	
2 Clab - Barbed Wire/Wood Fence Remo	vai, Drainpipe ir	\$0.00	\$30.38	\$30.38
Light Truck - 1.5 Ton	1	\$31.13	\$0.00	\$31.13
Totals		\$31.13	\$30.38	\$61.51
2 Clab + Excavator			***	
General Laborer 325C	2	\$0.00 \$85.76	\$30.38 \$33.30	\$30.38 \$119.06
Totals	'	\$85.76	\$63.68	\$149.44
	l .		7-2-3-1	•
	Welder - Bat Gat	es		
General Laborer	2	\$0.00	\$30.38	\$30.38
Welding Equipment Light Truck - 1.5 Ton	1 1	\$8.83 \$31.13	\$33.30 \$0.00	\$42.13 \$31.13
Totals	'	\$31.13 \$39.96	\$63.68	\$103.64
Totals		ψου.υυ	φου.σσ	Ψ100.05
3 Clab -	Foam Adit Plug	s		
General Laborer	2	\$0.00	\$30.38	\$30.38
420D 4WD Backhoe	1	\$42.35	\$17.23	\$59.58
Light Truck - 1.5 Ton Totals	1	\$31.13 \$73.48	\$0.00 \$47.61	\$31.13 \$121.09
Totals		φ13.40	φ41.01	Ψ121.03
3 Clab + Weld	der - Culvert Ba	t Gate		
General Laborer	2	\$0.00	\$30.38	\$30.38
Welding Equipment	1	\$8.83	\$33.30	\$42.13
420D 4WD Backhoe Light Truck - 1.5 Ton	1 1	\$42.35 \$31.13	\$17.23 \$0.00	\$59.58 \$31.13
Totals	'	\$82.31	\$80.91	\$163.22
· otalo	ı	Ψ02.01	φοσ.σ.	Ψ100.22
3 Clab D - 3 Laborers	+ Foreman - De	contamination		
General Laborer	3	\$0.00	\$45.57	\$45.57
Foreman Supervisor's Truck	1	\$0.00 \$12.82	\$82.88 \$0.00	\$82.88 \$12.82
Light Truck - 1.5 Ton	1 1	\$31.13	\$0.00	\$12.02
Totals		\$43.95	\$128.45	\$172.40
	1	•	7.=9	
	· Liner Installation			
Skilled Laborer	3	\$0.00	\$66.18	\$66.18
HDEP Welder (pipe or liner) 420D 4WD Backhoe	1 1	\$48.27 \$42.35	\$0.00 \$17.23	\$48.27 \$59.58
TAND AND DAGNING	1	\$0.00	Φ11.23	\$0.00
		\$0.00		\$0.00
		\$0.00		\$0.00
Totals	1	\$90.62	\$83.41	\$174.03

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

QUIPMENT FLEETS				
ACTIVITY AND FLEET	Standard Crew Size	EQUIPMENT UNIT COST (Hourly)	TOTAL LABOR UNIT COST (Hourly)	TOTAL COST (Hourly)
B-3 - Small I	Building Demol	tion		
	LABOR			
General Laborer	2	\$0.00	\$30.38	\$30
Foreman	1	\$0.00	\$82.88	\$82
		\$0.00		\$0
		\$0.00		\$0
FC	QUIPMENT	\$0.00		\$0
928G	1 1 1	\$77.71	\$33.30	\$111
Dump Truck (10-12 yd3)	2	\$112.68	\$29.22	\$141
	_	\$0.00	, -,	\$0
		\$0.00		\$0
		\$0.00		\$0
		\$0.00		\$(
		\$0.00 \$0.00		\$(\$(
		\$0.00		\$(
Totals		\$190.39	\$175.78	\$366
Totalo	l I	Ψ100.00	ψ170.70	φοσο
B-6 - Chain Link	Fence/Culvert I	Removal		
General Laborer	2	\$0.00	\$30.38	\$30
928G	1	\$77.71	\$33.30	\$111
Totals		\$77.71	\$63.68	\$141
D.O. Laure F	Building Demoli	41		
	LABOR	ition		
General Laborer	2	\$0.00	\$30.38	\$30
Foreman	1	\$0.00	\$82.88	\$82
		\$0.00		\$(
		\$0.00		\$0
F	QUIPMENT	\$0.00		\$(
928G	1 1	\$77.71	\$33.30	\$111
20 Ton Crane	1	\$98.00	\$33.30	\$131
Dump Truck (10-12 yd3)	2	\$112.68	\$29.22	\$14
		\$0.00	·	\$(
		\$0.00		\$(
		\$0.00		\$0
		\$0.00 \$0.00		\$0
		\$0.00		\$0 \$0
		\$0.00		\$0
		\$0.00		\$0
		\$0.00		\$0
		\$0.00		\$0
		\$0.00		\$0
		\$288.39	\$209.08	\$497
Totals				
	oto Wall Domali	tion		
B-9 - Concre	ete Wall Demoli		¢60.701	*
B-9 - Concre General Laborer	4	\$0.00	\$60.76	
B-9 - Concre			\$60.76 \$82.88 \$17.23	\$60 \$82 \$26

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

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Model Version: Version 1.4.1

Cost Data: User Data

UIPMENT FLEETS		ı r	ı	
ACTIVITY AND FLEET	Standard Crew Size	EQUIPMENT UNIT COST (Hourly)	TOTAL LABOR UNIT COST (Hourly)	TOTAL COST (Hourly)
B-10Y - Ge	neral Compact	ion		
General Laborer	1	\$0.00	\$15.19	\$15
CS533E Vibratory Roller	1	\$55.06	\$17.23	\$72
Totals		\$55.06	\$32.42	\$87
B-11L - Fine Grading fo	r Evaporation F	ond Liner Base	!	
General Laborer	1	\$0.00	\$15.19	\$15
14G/H	1	\$186.72	\$25.96	\$212
Totals		\$186.72	\$41.15	\$22
B-11M -	Backhoe Work	(
420D 4WD Backhoe	1	\$42.35	\$17.23	\$59
Totals		\$42.35	\$17.23	\$59
B-12G - Rip-Rap M	lachine Placed	(Modified)		
966G	1	\$109.16	\$33.30	\$142
325C	1	\$85.76	\$33.30	\$119
Light Truck - 1.5 Ton	1	\$31.13 \$226.05	\$0.00 \$66.60	\$3° \$29°
Totals			φου.σσ	ΨΖΘ
B-13 - Grouted Ri			\$00.70	C CC
General Laborer Foreman	4	\$0.00 \$0.00	\$60.76 \$82.88	\$60 \$82
20 Ton Crane	1	\$98.00	\$33.30	\$13
Totals		\$98.00	\$176.94	\$274
P 14 PVC Dr	ain Pipe Install	ation		
Foreman B-14 FVC DI		\$0.00	\$82.88	\$82
General Laborer	4	\$0.00	\$60.76	\$60
420D 4WD Backhoe	1	\$42.35	\$17.23	\$59
Light Truck - 1.5 Ton	1	\$31.13	\$0.00	\$3
Totals		\$73.48	\$160.87	\$23
B-20 - Re	emove Pipeline	S		
Foreman	1	\$0.00	\$82.88	\$82
Skilled Laborer	1	\$0.00	\$22.06	\$2
General Laborer	1	\$0.00	\$15.19	\$1
Light Truck - 1.5 Ton	1	\$31.13	\$0.00	\$3
Totals		\$31.13	\$120.13	\$15
B-22A - HDEP In:	stallation - Pipe	e or Liner		
Skilled Laborer	1	\$0.00	\$22.06	\$2
General Laborer	2	\$0.00	\$30.38	\$30
D7R	1	\$137.33	\$25.96	\$163
Light Truck - 1.5 Ton 420D 4WD Backhoe	1	\$31.13 \$42.35	\$0.00 \$17.23	\$3° \$59
Generator 5KW	1	\$42.35 \$12.73	\$0.00	\$12
	1	\$48.27	\$0.00	\$48
HDEP Weiger (Dibe or liner)		\$271.81	\$95.63	\$36
HDEP Welder (pipe or liner) Totals				
Totals	I Barbed Wire I	Fence		
Totals	I Barbed Wire I	Fence \$0.00	\$45.57	\$45
Totals B-80A - Instal			\$45.57 \$0.00	\$45 \$31

Project Name: Foothill Dolomite Mine - Reclamation Plan

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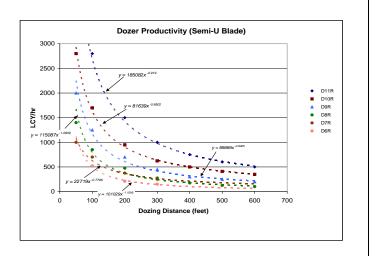
UIPMENT FLEETS				
	Standard	EQUIPMENT UNIT COST	TOTAL LABOR UNIT COST	TOTAL COST
ACTIVITY AND FLEET	Crew Size	(Hourly)	(Hourly)	(Hourly)
B-80C - Install Chain Link Fe	ence (Flatbed tr	uck has small c	rane)	
General Laborer	3	\$0.00	\$45.57	\$4
Light Truck - 1.5 Ton	1	\$31.13	\$0.00	\$3
Totals		\$31.13	\$45.57	\$7
C-14B - Elevated Concrete Sla	bs (Reinforced	Concrete Shaft	Covers)	
Foreman	1	\$0.00	\$82.88	\$8
Supervisor's Truck	1	\$12.82	\$0.00	\$1
Carpenter	16	\$0.00	\$652.96	\$65
General Laborer	2	\$0.00	\$30.38	\$3
Rodmen (reinforcing concrete)	4	\$0.00	\$87.12	\$8
Cement finisher	2	\$0.00	\$43.78	\$4
Gas Engine Vibrator	1	\$5.88	\$17.23	\$2
Concrete Pump	1	\$114.80	\$0.00	\$11
Totals		\$133.50	\$914.35	\$1,04
C-14D - Concrete Walls Formed in F	Place (Reinforce	ed Concrete Adi	t Bulkheads)	
Foreman	1	\$0.00	\$82.88	\$8
Supervisor's Truck	1	\$12.82	\$0.00	\$1.
Carpenter	18	\$0.00	\$734.58	\$73
General Laborer	2	\$0.00	\$30.38	\$3
Rodmen (reinforcing concrete)	2	\$0.00	\$43.56	\$4
Cement finisher	1	\$0.00	\$21.89	\$2
Gas Engine Vibrator	1	\$5.88	\$17.23	\$2
Concrete Pump	1	\$114.80	\$0.00	\$11
Totals		\$133.50	\$930.52	\$1.06

Productivity - Bulldozers

	Dozer Specifications						
Description	D11R	D10R	D9R	D8R	D7R	D6R	
Blade Width (SU) (ft)	18.33	15.92	14.17	12.92	12.08	10.67	
Shank Guage (3 shanks) (ft)	9.83	8.67	7.67	7.08	6.5	6.5	
Pocket Spacing (ft)	4.75	4.33	3.87	3.58	3.25	3.25	
Ripping Width (Ripper + 1 Pocket) (ft)	14.58	13	11.54	10.66	9.75	9.75	
Ripping Speed (mph)	1	1	1	1	1	1	
Ripping Maneuver (turn) Time (min)	0.25	0.25	0.25	0.25	0.25	0.25	
Altitude Deration Factor	1	1	1	1	1	1	
Ripping Hourly Production (excluding maneuvering time) (ft)	5,280	5,280	5,280	5,280	5,280	5,280	

Source: Caterpillar Performance Handbook Edition 35

_			Production (LC	Y/hr)		
Average Dozing Distance (feet)	D11R	D10R	D9R	D8R	D7R	D6R
50	4.800	2.800	2.000	1.400	1.000	
100	2,800	1,700	1,250	850	700	520
200	1,500	950	700	475	375	210
300	1,000	625	450	275	250	150
400	750	500	300	175		
500	600	410	250	125		
600	500	350	200	100		
			Source:	Caterpillar Perfor	mance Handbook	Edition 35
dozer productiv	vity = k x Dozing Distance ^p					
(see gr	raph)					
	k = 185082	81639	89889	115087	22719	10102
	p = -0.919	-0.8502	-0.9425	-1.0809	-0.7796	-1.150



Productivity - Bulldozers (cont.)

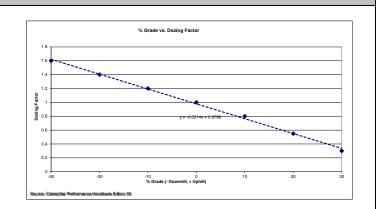
% Grade vs. Dozing Factor		
% Grade	Dozing Factor	
-30	1.6	
-20	1.4	
-10	1.2	
0	1	
10	0.8	
20	0.55	
30	0.3	

Source: Caterpillar Performance Handbook Edition 35 % Grade Dozing Factor = -0.0214x + 0.9786 (see graph)

OPERATOR	
Average	0.75
MATERIAL (1)	
Loose stockpile	1.2
Normal	1
Hard to cut; frozen —	
with tilt cylinder	0.8
Hard to drift; "dead" (dry,non-cohesive	
material) or very sticky material	0.8
Rock, ripped or blasted	0.6
SLOT DOZING OR SIDE BY SIDE (1)	1.2
VISIBILITY	
Good conditions	1
JOB EFFICIENCY	
50 min/hr	0.83

Material Densities(1)				
Material	lb/cy	kg/m		
Alluvium	2,900	1,720		
Basalt	3,300	1,960		
Clay - Dry	2,500	1,480		
Granite - broken	2,800	1,660		
Gravel	2,550	1,510		
LS - broken	2,600	1,540		
LS - crushed	2,600	1,540		
Sandstone	2,550	1,510		
Shale	2,100	1,250		
Stone - crushed	2,700	1,600		
Tailings - Coarse (dry, loose sand)	2,400	1,420		
Tailings - Slimes (loose sand & clay)	2,700	1,600		
Topsoil	1,600	950		

(1) Source: Caterpillar Performance Handbook Edition 3



Note: uses Sand & Gravel - Dry from Caterpillar Handbook

Productivity - Scrapers

Scraper Specif	fications	
Description	631G	637G
Empty Weight	100,600	112,760
Payload Capacity (cy)		
Struck	24	24
Heaped	34	34
Average	29	29
Loaded by	One D10R	Self*
Load Time (min)	1	1
Maneuver and Spread (min)	1	1
Job Efficiency	1	1
Rolling Resistance**	3	3
Altitude Deration Factor	1	1

* Requires pair

**A firm, smooth, rolling roadway with dirt or light surfacing, flexing slightly under load or undulating, maintained fairly regularly, watered

Source: Caterpillar Performance Handbook Edition 35

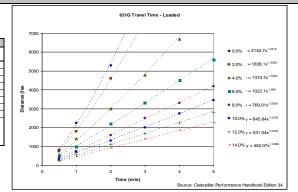
				Do	wnhill Scrape	er Speed - Gr	ade Retardi	ng vs. Effec	tive Grade	(Grade - F	colling Res	istance)		
Weight of N	Materials				63	1G					637G	PP		
Material	lb/cy	Scraper Load	Loaded Weight (lbs)	22	16	10	5	1	Loaded Weight (Ibs)	25	15	10	5	1
Alluvium	2,900	84,100	184,700	7.5	10	13	33	33	196,860	7	10	18.5	34	34
Basalt	3,300	95,700	196,300	7.5	10	13	24.5	33	208,460	7	10	18.5	25	34
Clay - Dry	2,500	72,500	173,100	7.5	10	13	33	33	185,260	7	10	18.5	34	34
Granite - broken	2,800	81,200	181,800	7.5	10	13	33	33	193,960	7	10	18.5	34	34
Gravel	2,550	73,950	174,550	7.5	10	13	33	33	186,710	7	10	18.5	34	34
LS - broken	2,600	75,400	176,000	7.5	10	13	33	33	188,160	7	10	18.5	34	34
LS - crushed	2,600	75,400	176,000	7.5	10	13	33	33	188,160	7	10	18.5	34	34
Sandstone	2,550	73,950	174,550	7.5	10	13	33	33	186,710	7	10	18.5	34	34
Shale	2,100	60,900	161,500	7.5	10	18	33	33	173,660	10	13.5	18.5	34	34
Stone - crushed	2,700	78,300	178,900	7.5	10	13	33	33	191,060	7	10	18.5	34	34
Tailings - Coarse (dry, loose sand)	2,400	69,600	170,200	7.5	10	13	33	33	182,360	7	10	18.5	34	34
Tailings - Slimes (loose sand & clay)	2,700	78,300	178,900	7.5	10	13	33	33	191,060	7	10	18.5	34	34
Topsoil	1,600	46,400	147,000	7.5	10	18	33	33	159,160	10	13.5	18.5	34	34
			Empty	10	18	24.5	33	33	Empty	10	13.5	18.5	34	34
							•				Source: Ca	terpillar Perform	mance Handbo	ok Edition 34

Productivity - Scrapers (cont.)

Total Resistance (%)	Time (min)							
(rolling + grade)	0.5	1	2	3	4	5	k	р
0	825	2,250	5,300				2142.7	1.3418
2	750	1,800	4,600				1838.1	1.3083
4	550	1,400	3,000	4,800	6,700		1310.7	1.1893
6	490	1,000	2,200	3,300	4,500	5,600	1022.1	1.066
8	375	750	1,600	2,500	3,300	4,200	769.01	1.0558
10	300	700	1,300	2,000	2,750	3,450	645.84	1.0424
12	250	550	1,100	1,700	2,250	2,800	531.04	1.0453
14	225	450	900	1,400	1,850	2,250	452.07	1.0089

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

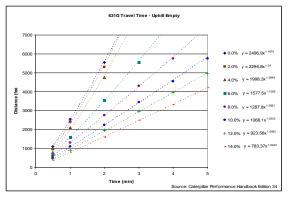
Course: Catarollar Barformanas Handbook Edition

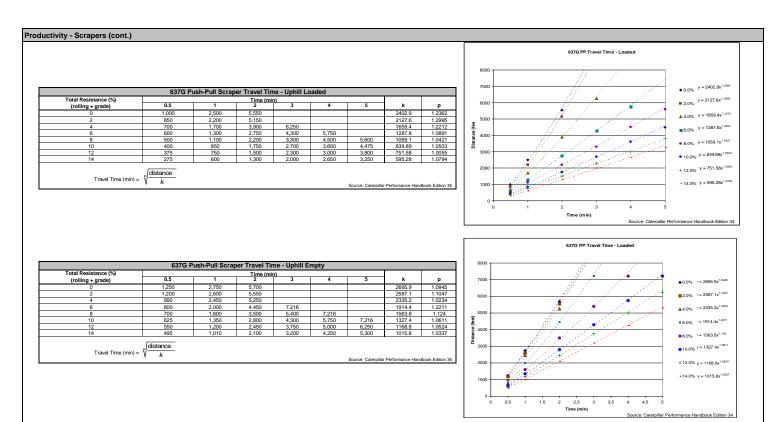


Total Resistance (%)		Time (min)						
(rolling + grade)	0.5	1	2	3	4	5	k	р
0	1,100	2,550	5,550				2496.9	1.16
2	950	2,400	5,300				2294.8	1.2
4	800	2,100	4,750				1998.3	1.28
6	700	1,600	3,550	5,550			1557.5	1.15
8	600	1,300	2,750	4,300	5,750		1287.8	1.08
10	500	1,100	2,250	3,450	4,550	5,750	1068.1	1.05
12	450	900	1,950	2,950	3,950	4,950	923.56	1.04
14	375	800	1,600	2,500	3,300	4,200	783.37	1.04

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

Source: Caterpillar Performance Handbook Edition 35





Productivity - Haul Trucks

	Haul 1	Truck Specifica	ations			
Description	769D	773E	777D	785C	793C	797B
Chassis Weight (lb)	53,506	70,330	113,160	170,000	259,500	473,60
Body Weight (lb)	17,350	20,300	34,785	36,788	70,785	104,20
Standard Liner Weight (lb)	7,000	8,600	12,040	16,846	24,418	8,800
Total Truck Weight (lb)	77,856	99,230	159,985	223,634	354,703	586,60
Payload Capacity (cy)						
Struck	21.6	34.8	55	78.5	126	228
Heaped	31.7	46	78.6	102	169	290
Average	26.65	40.4	66.8	90.25	147.5	259
Maneuver to Load Time (min)	0.7	0.7	0.7	0.7	0.7	0.7
Maneuver and Dump Time (min)	1.1	1.1	1.1	1.1	1.1	1.1
Job Efficiency	0.83	0.83	0.83	0.83	0.83	0.83
Rolling Resistance**	2.5	2.5	2.5	2.5	2.5	2.5
Altitude Deration Factor	1	1	1	1	1	1

**A firm, smooth, rolling roadway with dirt or light surfacing, flexing slightly under load or undulating, maintained fairly regularly, watered

Source: Caterpillar Performance Handbook Edition 35

							Downhil	I Haul Trucl	k Speed - C	Grade Retai	ding vs. E	Effective G	rade (Gra	de - Rolli	ing Resist	ance)			
	Weight of Mate	rials					769D					773E	-				777D		
Material	lb/cy	Truck (769D) Load lb	Truck (773E) Load lb	Truck (777D) Load lb	Loaded Weight (lbs)	20	15	10	5	Loaded Weight (lbs)	20	15	10	5	Loaded Weight (lbs)	20	15	10	5
Alluvium	2,900	77,285	117,160	193,720	155,141	11	11	15	26	216,390	7	7	13	23	353,705	7	9	12	29
Basalt	3,300	87,945	133,320	220,440	165,801	11	11	11	20	232,550	7	7	13	23	380,425	7	7	12	21
Clay - Dry	2,500	66,625	101,000	167,000	144,481	11	11	15	26	200,230	7	9	13	23	326,985	7	9	16	29
Granite - broken	2,800	74,620	113,120	187,040	152,476	11	11	15	26	212,350	7	7	13	23	347,025	7	9	12	29
Gravel	2,550	67,958	103,020	170,340	145,814	11	11	15	26	202,250	7	9	13	23	330,325	7	9	16	29
LS - broken	2,600	69,290	105,040	173,680	147,146	11	11	15	26	204,270	7	9	13	23	333,665	7	9	12	29
LS - crushed	2,600	69,290	105,040	173,680	147,146	11	11	15	26	204,270	7	9	13	23	333,665	7	9	12	29
Sandstone	2,550	67,958	103,020	170,340	145,814	11	11	15	26	202,250	7	9	13	23	330,325	7	9	16	29
Shale	2,100	55,965	84,840	140,280	133,821	11	11	15	26	184,070	7	9	13	31	300,265	7	9	16	29
Stone - crushed	2,700	71,955	109,080	180,360	149,811	11	11	15	26	208,310	7	7	13	23	340,345	7	9	12	29
Tailings - Coarse (dry, loose sand)	2,400	63,960	96,960	160,320	141,816	11	11	15	26	196,190	7	9	13	23	320,305	7	9	16	29
Tailings - Slimes (loose sand & clay)	2,700	71,955	109,080	180,360	149,811	11	11	15	26	208,310	7	7	13	23	340,345	7	9	12	29
Topsoil	1,600	42,640	64,640	106,880	120,496	11	11	15	26	163,870	7	9	17	31	266,865	9	12	16	29
		•		•	Empty	15	15	26	36	Empty	13	17	23	42	Empty	16	16	29	39

Source: Caterpillar Performance Handbook Edition 35

							Downhil	l Haul Trucl	Speed - C	Grade Retai	rding vs. E	Effective G	rade (Gra	de - Roll	ing Resist	ance)			
	Weight of Mate	rials					785C					793C					797B		
Material	lb/cy	Truck (785C) Load Ib	Truck (793C) Load Ib	Truck (797B) Load lb	Loaded Weight (lbs)	20	15	10	5	Loaded Weight (lbs)	20	15	10	5	Weight (lbs)	20	15	10	5
Alluvium	2,900	261,725	427,750	751,100	485,359	8	8	14	27	782,453	7	7	10	17	1,337,700	7	7	9	17
Basalt	3,300	297,825	486,750	854,700	521,459	8	8	14	27	841,453	7	7	10	17	1,441,300	7	7	9	17
Clay - Dry	2,500	225,625	368,750	647,500	449,259	8	11	14	36	723,453	7	7	10	25	1,234,100	7	7	9	23
Granite - broken	2,800	252,700	413,000	725,200	476,334	8	8	14	27	767,703	7	7	10	17	1,311,800	7	7	9	17
Gravel	2,550	230,138	376,125	660,450	453,772	8	8	14	36	730,828	7	7	10	25	1,247,050	7	7	9	23
LS - broken	2,600	234,650	383,500	673,400	458,284	8	8	14	27	738,203	7	7	10	25	1,260,000	7	7	9	23
LS - crushed	2,600	234,650	383,500	673,400	458,284	8	8	14	27	738,203	7	7	10	25	1,260,000	7	7	9	23
Sandstone	2,550	230,138	376,125	660,450	453,772	8	8	14	36	730,828	7	7	10	25	1,247,050	7	7	9	23
Shale	2,100	189,525	309,750	543,900	413,159	8	11	14	36	664,453	7	7	10	25	1,130,500	7	7	13	23
Stone - crushed	2,700	243,675	398,250	699,300	467,309	8	8	14	27	752,953	7	7	10	17	1,285,900	7	7	9	23
Tailings - Coarse (dry, loose sand)	2,400	216,600	354,000	621,600	440,234	8	11	14	36	708,703	7	7	10	25	1,208,200	7	7	9	23
Tailings - Slimes (loose sand & clay)	2,700	243,675	398,250	699,300	467,309	8	8	14	27	752,953	7	7	10	17	1,285,900	7	7	9	2:
Topsoil	1,600	144,400	236,000	414,400	368,034	8	11	19	36	590,703	7	10	13	25	1,001,000	7	9	13	23
					Empty	14	19	36	36	Empty	10	13	17	33	Empty	13	17	23	42

Source: Caterpillar Performance Handbook Edition 35

Productivity - Haul Trucks (cont.) 769D Travel Time - Loaded ◆ 0.0% = 3316.3x^{1.1422} 769D Haul Truck Travel Time - Uphill Loaded Total Resistance (%) Time (min) ■ 2.0% = 2733x^{1.1372} 0.4 (rolling + grade) 2 3 7,183 4,198 6,330 2,952 4,510 2,263 3,411 1,771 2,690 1,181 1,804 8 p 3316.3 1.1422 1928.3 1.1033 1386.4 1.0725 1061.8 1.06 857.82 1.0373 565 1.0482 1,148 689 508 394 3,428 1,984 1,427 1,082 ▲ 4.0% = 1928.3x^{1.1033} 6,002 4,592 3,608 2,394 5,740 4,510 3,018 ■ 6.0% = 1386.4x^{1.0725} 4000 328 213 869 574 • 8.0% / = 1061.8x^{1.05} • 10.0% y = 857.82x1.0373 Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{\nu}}$ + 15.0% y = 565x^{1.0482} Time (min) Source: Cateroillar Performance Handbook Edition 34 769D Travel Time - Empty ◆ 0.0% y = 3870x1.0888 769D Haul Truck Travel Time - Uphill Empty 7000 Total Resistance (%) Time (min) ▲ 4.0% y = 3400.1x^{1.0805} (rolling + grade) 3870 1.0888 3400.1 1.0895 2734.5 1.0759 2191.3 1.0614 1872 1.0391 1222.9 1.0523 1,427 1,246 1,017 7,183 5,740 4,592 3,870 2,558 3,444 2,755 2,230 1,870 1,246 ■ 6.0% y = 2734.5x^{1.0759} 6,954 820 • 8.0% y = 2191.3x^{1.0614} • 10.0% y = 1872x^{1.0391} Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ + 15.0% y = 1222.9x1.0523 Source: Caterpillar Performance Handbook Edition 35 Time (min)

Productivity - Haul Trucks (cont.)

	773	E Haul Truck T	ravel Time -	Uphill Loade	ed			
Total Resistance (%)			Time (mi	n)				
(rolling + grade)	0.4	1	2	3	4	5	k	р
0	1,066	3,117	6,496				3027.4	1.1254
4	656	1,952	4,035	6,168			1863.1	1.1109
6	492	1,312	2,756	4,167	5,577	6,955	1304.2	1.0507
8	394	1,017	2,100	3,182	4,265	5,315	1018.2	1.0326
10	328	853	1,804	2,690	3,609	4,528	856.36	1.041
15	226	525	1,083	1,673	2,231	2,789	549.25	1.0038

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

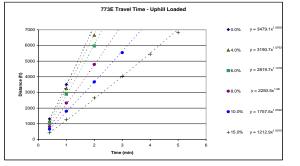
		77	3E Travel T	ime - Uphil	Loaded			
7000		-7	- 7				♦0.0%	y = 3027.4x ^{1.125}
6000		7			•		▲ 4.0%	y = 1863.1x ^{1.110}
5000 -	/		<u>.</u>		•		■6.0%	y = 1304.2x ^{1.050}
4000 Distance (ft)	<u>,/</u> .				.+		●8.0%	y = 1018.2x ^{1.005}
2000				+			• 10.0%	y = 856.36x ^{1.04}
1000		+	-				+15.0%	y = 549.25x ^{1.000}
0 +	i	2	3 Time (min)	4	5	6		

	77:	3E Haul Truck	Travel Time -	Uphill Empt	у			
Total Resistance (%)			Time (mi	n)				
(rolling + grade)	0.4	1	2	3	4	5	k	р
0	1,312	3,510	7,218				3479.1	1.0602
4	1,181	3,248	6,660				3190.7	1.0763
6	1,017	2,887	5,971				2819.7	1.1018
8	820	2,329	4,790	7,218			2250.5	1.08
10	656	1,804	3,675	5,545			1757.5	1.0592
15	427	1,280	2,657	4,035	5,446	6,824	1212.9	1.0915

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

Source: Caternillar Performance Handbook Edition 3

Source: Caterpillar Performance Handbook Edition 35



Productivity - Haul Trucks (cont.)

Total Resistance (%)			Time (mir	n)				ľ
(rolling + grade)	0.4	1	2	3	4	5	k	р
0	656	2,558	6,068				2403.1	1.387
4	459	1,509	3,313	5,215	7,085		1412	1.186
6	394	1,148	2,460	3,706	5,018	6,298	1111	1.094
8		918	1,886	2,837	3,772	4,756	922.57	1.019
10		722	1,443	2,165	2,919	3,608	721.44	1.002
15		525	1.017	1.558	2.034	2.591	520.56	0.990

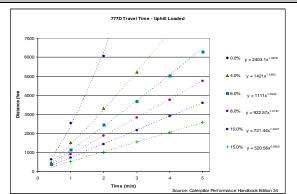
Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

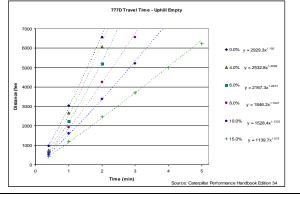
Source: Caterpillar Performance Handbook Edition 35

	77	7D Haul Truck	Traval Time	Unhill Empt				
Total Resistance (%)		7D Haui Truck	Time (mi		у .			
(rolling + grade)	0.4	1	2	3	4	5	k	р
0	968	3,034	6,560				2929.3	1.192
4	754	2,657	6,068				2532.8	1.299
6	656	2,247	5,182				2167.3	1.287
8	607	1,935	4,248	6,560			1846.2	1.183
10	525	1,607	3,378	5,215	7,282		1528.4	1.133
15	410	1,197	2.460	3.706	4.986	6.232	1139.7	1.07

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

Source: Caterpillar Performance Handbook Edition





Productivity - Haul Trucks (cont.)

Total Resistance (%)		Time (min)								
(rolling + grade)	0.4	1	2	3	4	5	k	р		
0	820	2,630	5,500				2491.1	1.1872		
4	530	1,600	3,370	5,040			1524.4	1.1206		
6	300	1,000	2,180	3,270	4,400	5,570	923	1.1469		
8	240	790	1,610	2,480	3,380	4,200	719.64	1.1233		
10	190	630	1,400	2,180	2,920	3,650	590.43	1.1678		
15	40	370	770	1,200	1,590	2,000	227.29	1.4863		

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

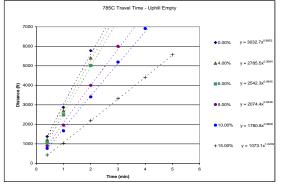
ource: Caternillar Performance Handbook Edition 35

			y = 2491.1x ^{1.1872}
6000		♦ 0.0%	y = 2491.1x*****
5000		▲4.0%	y = 1524.4x ^{1.1206}
€ 4000		■6.0%	y = 923x ^{1.1469}
3000 Distance (ft)		●8.0%	y = 719.64x ^{1.1233}
2000		•10.0%	y = 590.43x ^{1.1676}
1000	<u></u>	+15.0%	y = 227.29x ^{1.486}

Total Resistance (%)								
(rolling + grade)	0.4	1	2	3	4	5	k	р
0	1,380	2,870	5,780				3032.7	0.8852
4	1,210	2,690	5,400				2785.5	0.9264
6	1,060	2,490	5,020				2542.3	0.9645
8	900	1,960	4,000	6,000			2074.4	0.9446
10	770	1,670	3,410	5,190	6,910		1780.8	0.9606
15	430	1,030	2,200	3,320	4,410	5,570	1073.1	1.0209

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

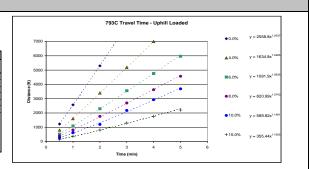
Source: Caternillar Performance Handbook Edition



Productivity - Haul Trucks (cont.)

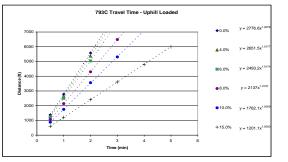
	793C Haul Truck Travel Time - Uphill Loaded									
Total Resistance (%)		Time (min)								
(rolling + grade)	0.5	1	2	3	4	5	k	р		
0	1,230	2,570	5,300				2558.8	1.0537		
4	800	1,600	3,400	5,190	7,000		1634.8	1.0485		
6	520	1,090	2,300	3,560	4,760	5,970	1091.9	1.0635		
8	390	810	1,760	2,700	3,630	4,570	820.99	1.0743		
10	260	630	1,200	2,180	2,930	3,690	589.82	1.1481		
15	150	380	810	1,300	1,760	2,210	355.44	1.1605		
								. —		

Travel Time (min) = $\sqrt[k]{\frac{\text{distance}}{k}}$ Source: Caterpillar Performance Handbook Edition 35



	793C Haul Truck Travel Time - Uphill Empty										
Total Resistance (%)		Time (min)									
(rolling + grade)	0.5	1	2	3	4	5	k	р			
0	1,380	2,780	5,580				2776.6	1.0078			
4	1,310	2,650	5,370				2651.5	1.0177			
6	1,230	2,500	5,040				2493.2	1.0174			
8	1,060	2,140	4,300	6,490			2137	1.0107			
10	880	1,750	3,560	5,310			1762.1	1.0059			
15	600	1,200	2,410	3,610	4,800	6,000	1201.1	1.0003			
· · · · · · · · · · · · · · · · · · ·											

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ Source: Caterpillar Performance

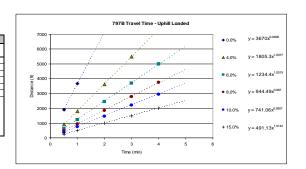


Productivity - Haul Trucks (cont.)

	797B Haul Truck Travel Time - Uphill Loaded										
Total Resistance (%)		Time (min)									
(rolling + grade)	0.5	1	2	3	4	5	k	р			
0	1,900	3,670					3670	0.9498			
4	900	1,800	3,620	5,480			1805.3	1.0077			
6	620	1,230	2,450	3,700	5,000		1234.4	1.0019			
8	480	940	1,850	2,790	3,750		944.49	0.987			
10	370	750	1,460	2,220	2,950		741.06	0.9957			
15	240	500	1,000	1,480	2,000		491.13	1.0142			
	•	•									

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

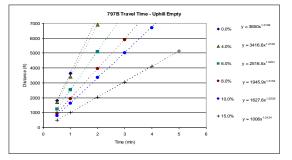
Source: Caterpillar Performance Handbook Edition 35



	797B Haul Truck Travel Time - Uphill Empty									
Total Resistance (%)		Time (min)								
(rolling + grade)	0.5	1	2	3	4	5	k	р		
0	1,800	3,650					3650	1.0199		
4	1,700	3,400	6,900				3416.6	1.0105		
6	1,240	2,520	5,100				2516.5	1.0201		
8	960	1,950	3,960	5,900			1945.9	1.0152		
10	800	1,620	3,350	5,000	6,700		1627.6	1.0239		
15	500	1,000	2,040	3,050	4,100	5,130	1006	1.0124		

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

Source: Caternillar Performance Handbook Edition



Productivity - Articulated Trucks

Description	725	730	735	740	
Chassis Weight (lb)					
Body Weight (lb)					
Standard Liner Weight (lb)					
Operating Weight (Empty) (lb)	50,120	51,220	65,830	72,070	
Payload Capacity (cy)					
Struck	14.5	17.1	19.3	23.3	
Heaped	18.8	22.1	31.8	30.2	
Average	16.65	19.6	25.55	26.75	
Maneuver to Load Time (min)	0.7	0.7	0.7	0.7	
Maneuver and Dump Time (min)	1.1	1.1	1.1	1.1	
Job Efficiency	0.83	0.83	0.83	0.83	
Rolling Resistance**	2.5	2.5	2.5	2.5	
Altitude Deration Factor	1	1	1	1	

**A firm, smooth, rolling roadway with dirt or light surfacing, flexing slightly under load or undulating, maintained fairly regularly, watered

							- Grade Reta	rding vs. Eff	ective Grad	e (Grade -	Rolling Re	sistance)	
Weig	ht of Materials			725						730			
Material	lb/cy	Truck (725) Load lb	Truck (730) Load Ib	Loaded Weight (lbs)	20	15	10	5	Loaded Weight (lbs)	20	15	10	5
Alluvium	2,900	48,285	56,840	98,405	9	9	13	30	108,060	5	8	13	29
Basalt	3,300	54,945	64,680	105,065	5	9	13	22	115,900	5	8	13	29
Clay - Dry	2,500	41,625	49,000	91,745	9	13	13	30	100,220	8	8	13	29
Granite - broken	2,800	46,620	54,880	96,740	9	13	13	30	106,100	5	8	13	29
Gravel	2,550	42,458	49,980	92,578	9	13	13	30	101,200	8	8	13	29
LS - broken	2,600	43,290	50,960	93,410	9	13	13	30	102,180	8	8	13	29
LS - crushed	2,600	43,290	50,960	93,410	9	13	13	30	102,180	8	8	13	29
Sandstone	2,550	42,458	49,980	92,578	9	13	13	30	101,200	8	8	13	29
Shale	2,100	34,965	41,160	85,085	9	13	22	30	92,380	8	13	13	29
Stone - crushed	2,700	44,955	52,920	95,075	9	13	13	30	104,140	8	8	13	29
Tailings - Coarse (dry, loose sand)	2,400	39,960	47,040	90,080	9	13	13	30	98,260	8	8	13	29
Tailings - Slimes (loose sand & clay)	2,700	44,955	52,920	95,075	9	13	13	30	104,140	8	8	13	29
Topsoil	1,600	26,640	31,360	76,760	9	13	22	30	82,580	8	13	22	35
				Empty	13	13	22	30	Empty	13	13	22	35

Source: Caterpillar Performance Handbook Edition 35

							Downhill Haul Truck Speed - Grade Retarding vs. Effective Grade (Grade - Rolling Resistance)										
Weig	ht of Materials			735						740							
Material	lb/cy	Truck (735) Load lb	Truck (740) Load lb	Loaded Weight (lbs)	20	15	10	5	Loaded Weight (lbs)	20	15	10	5				
Alluvium	2,900	74,095	77,575	139,925	7	9	13	27	149,645	7	9	17	23				
Basalt	3,300	84,315	88,275	150,145	7	9	13	27	160,345	7	9	13	23				
Clay - Dry	2,500	63,875	66,875	129,705	7	9	13	27	138,945	9	13	17	31				
Granite - broken	2,800	71,540	74,900	137,370	7	9	13	27	146,970	7	9	17	23				
Gravel	2,550	65,153	68,213	130,983	7	9	13	27	140,283	7	9	17	31				
LS - broken	2,600	66,430	69,550	132,260	7	9	13	27	141,620	7	9	17	31				
LS - crushed	2,600	66,430	69,550	132,260	7	9	13	27	141,620	7	9	17	31				
Sandstone	2,550	65,153	68,213	130,983	7	9	13	27	140,283	7	9	17	31				
Shale	2,100	53,655	56,175	119,485	9	9	18	27	128,245	7	13	17	31				
Stone - crushed	2,700	68,985	72,225	134,815	7	9	13	27	144,295	7	9	17	23				
Tailings - Coarse (dry, loose sand)	2,400	61,320	64,200	127,150	7	9	13	27	136,270	9	13	17	31				
Tailings - Slimes (loose sand & clay)	2,700	68,985	72,225	134,815	7	9	13	27	144,295	7	9	17	23				
Topsoil	1,600	40,880	42,800	106,710	9	13	18	36	114,870	9	13	17	31				
				Empty	13	18	27	42	Empty	17	17	23	31				
				Course Caterillar Badarmana Haudhack Edition 3							ok Edition 3E						

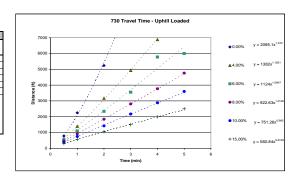
Productivity - Articulated Trucks (cont.) 725 Travel Time - Uphill Loaded 725 Articulated Truck Travel Time - Uphill Loaded ♦0.00% y = 2097.3x^{1.3455} Total Resistance (%) Time (min) (rolling + grade) 2097.3 1.3455 1329.1 1.2109 1091.2 1.0904 928.59 1.0158 741.09 1.0076 504.55 1.0225 600 2,190 5,200 ▲4.00% y = 1329.1x^{1.210} 5,000 6,820 1,400 1,080 880 3,200 2,390 1,850 420 400 3,630 2,850 4,950 3,850 6,200 4,820 ■6.00% y = 1091.2x^{1.090} 1,450 2,250 3,020 1,000 1,570 2,100 3,800 Joon Pista ●8.00% y = 928.59x^{1.015} Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ • 10.00% y = 741.09x1.007 Source: Caterpillar Performance Handbook Edition 35 +15.00% y = 504.55x^{1.00} Time (min) 725 Travel Time - Uphill Empty 725 Haul Truck Travel Time - Uphill Empty Total Resistance (%) (rolling + grade) 2326.3 1.3122 1999.4 1.2616 1728 1.1556 1487.8 1.0986 1271.2 1.0754 ♦0.00% y = 2326.3x^{1.3122} 6000 1,770 1,490 1,270 960 3,900 3,250 2,740 6,020 4,970 4,200 590 540 6,730 5,600 ▲4.00% y = 1999.4x^{1.261} 5000 7,050 470 979.82 1.0145 2,000 3,000 4,000 5,000 ■6.00% y = 1728x^{1.1556} Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ ●8.00% y = 1487.8x^{1.0986} ●10.00% v = 1271.2x1 +15.00% y = 979.82x^{1.01}

Productivity - Articulated Trucks (cont.)

	730 Articulated Truck Travel Time - Uphill Loaded									
Total Resistance (%)										
(rolling + grade)	0.5	1	2	3	4	5	k	р		
0	780	2,250	5,240				2095	1.374		
4	610	1,390	3,170	4,930	6,880		1382	1.1651		
6	540	1,100	2,340	3,550	5,780	6,000	112	1.0847		
8	460	920	1,840	2,810	3,770	4,760	922.63	1.0145		
10	390	750	1,420	2,170	2,880	3,600	751.26	0.965		
15	300	560	1,050	1,500	1,995	2,500	560.84	0.9152		

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

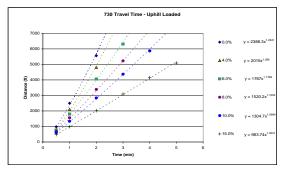
Source: Caterpillar Performance Handbook Edition 35



Total Resistance (%)		Time (min)								
(rolling + grade)	0.5	1	2	3	4	5	k	р		
0	980	2,500	5,560				2388	1.25621		
4	810	2,100	4,810				2015	1.285		
6	770	1,800	4,060	6,310			1767	1.1766		
8	680	1,560	3,390	5,230	7,070		1520.2	1.1252		
10	595	1,340	2,840	4,370	5,870		1304.7	1.0994		
15	480	980	2,020	3,090	4,150	5,090	983.74	1.0321		
			•	•	•					

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

Source: Caterniller Performance Handbook Edition 5



Productivity - Articulated Trucks (cont.) 735 Travel Time - Uphill Loaded 735 Articulated Truck Travel Time - Uphill Loaded Total Resistance (%) (rolling + grade) Time (min) ♦0.00% y = 2166x^{1.2254} 2,200 1,350 1,020 810 700 500 700 550 450 390 5,020 2,950 2,200 1,650 1,400 2166 1.2254 1410.5 1.0528 1095.6 1.0223 879.73 0.9546 754.84 0.9332 4,520 6,100 ▲ 4.00% y = 1410.5x^{1.05} 4,520 6,100 3,400 4,570 5,770 2,530 3,370 4,200 2,100 2,800 3,500 1,400 1,900 2,390 5000 ■6.00% y = 1095.6x^{1.0} 519.31 0.9268 970 • 8.00% y = 879.73x^{0.95} Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ • 10.00% y = 754.84x^{0.93} +15.00% y = 519.31x^{0.928} 735 Travel Time - Uphill Empty 735 Haul Truck Travel Time - Uphill Empty Time (min) (rolling + grade) 5,140 4,760 4,100 2200.2 1.2606 1999.7 1.2795 1751.7 1.1953 ♦0.00% y = 2200.2x^{1.260} 610 580 2,070 1,770 5,950 5,450 3,390 1414.4 1203 871.57 560 440 1,370 1,200 840 2,900 2,600 1,660 4,400 4,030 2,540 1.0306 1.0924 0.969 ▲4.00% /= 1999.7x^{1.2795} 6,900 4,200 ■6.00% /= 1751.7x^{1.1953} Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ ●10.00% y = 1203x^{1.0924} +15.00% y = 871.57x^{0.96} 3 Time (min)

Productivity - Articulated Trucks (cont.) 740 Travel Time - Uphill Loaded 740 Articulated Truck Travel Time - Uphill Loaded Total Resistance (%) (rolling + grade) Time (min) ♦0.00% y = 2190.6x^{1.38} 5.500 3,190 2,200 1,650 1,350 940 2,340 1,390 1,020 800 640 450 2190.6 1.3823 1415 1.1389 1066.4 1.0438 842.87 1.0012 686.02 0.9889 474.86 0.9789 600 500 420 350 4,960 6,780 ▲4.00% y = 1415x^{1.1389} 5000 4,900 6,780 5,700 3,400 4,580 5,700 2,560 3,400 4,300 2,040 2,750 3,410 1,400 1,830 2,340 ■6.00% y = 1066.4x^{1.0} 3000 ta Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ •10.00% y = 686.02x0. +15.00% y = 474.86x^{0.97} 740 Travel Time - Uphill Empty 740 Haul Truck Travel Time - Uphill Empty Time (min) (rolling + grade) 700 630 590 2413.6 1.3214 2170.4 1.3372 1804.5 1.2048 ♦0.00% /= 2413.6x^{1.3214} 2,230 1,840 5,400 4,230 1,510 1,250 900 1541.5 1.1112 1308.2 1.074 951.69 1.0146 7,120 560 500 3,400 2,790 1,900 5,250 4,300 2,920 ▲4.00% /= 2170.4x^{1.3372} 5,800 3,930 5000 4.930 Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ ●8.00% /= 1541.5x^{1.111} ●10.00% y = 1308.2x^{1.07} +15.00% $r = 951.69x^{1.0146}$

Productivity - Wheel Loaders

	Wheel Loader Specifications													
Description	924G	928G	950G	966G	972G	972G (2)	980G	988G	988G(2)	990	992G	992G(2)	994D	L2350
Payload Capacity (cy)														
Struck	2.2	2.5	3.46	4.46	4.71	4.71	6.34	6.9	6.9	9.5	13.2	13.2	18	
Heaped	2.7	3.25	4	5.25	5.5	5.5	7.25	8.33	8.33	11.25	16	16	22.5	1
Average	2.45	2.875	3.73	4.855	5.105	5.105	6.795	7.615	7.615	10.375	14.6	14.6	20.25	53
Matched Truck	N/A	N/A	N/A	725	730	735	N/A	740	769D	773D	777D	785C	793C	797B
Average Cycle Time (min)	0.45	0.45	0.5	0.5	0.5	0.5	0.55	0.55	0.55	0.55	0.6	0.6	0.6	0.75
Passes to Fill Truck	N/A	N/A	N/A	3	4	5	N/A	4	3	4	5	6	7	5
Altitude Deration Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Operator Efficiency	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Job Efficiency	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Time to Fill Truck	N/A	N/A	N/A	1.5	2	2.5	N/A	2.2	1.65	2.2	3	3.6	4.2	3.75
Rolling Resistance**	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Loader matched to small truck fleet Loader matched to medium truck fleet Loader matched to large truck fleet Loader matched to extra large truck fleet

**A firm, smooth, rolling roadway with dirt or light surfacing, flexing slightly under load or undulating, maintained fairly regularly, watered 992G (2) - can be used to load 785 with 6 passes

Source: Caterpillar Performance Handbook Edition 35; LeTourneau/actual Chilean mine operating data for L2350.

Wheeled Loaders	General Purpose	Spade Nose- Rock
928G	3.25 cubic yard	not available
966G	5.0 cubic yard	not available
972G	5.5 cubic yard	not available
988G	not available	8.3 cubic yard
992G	not available	16.0 cubic vard

note: capacities are 2-1 heaped, SAE standards
NOTES: Buckets for both Track Excavators and Wheel Loaders are offered by CECo &
available for the retain area quoted. Bucket sizes and capacities obtained from CATERPILLAR
PERFORMANCE HANDBOOK, ED 34; Section 12, Wheel Loader and Section 4, Excavators

Bucket capacity and width dictated by material weight and configuration, ie., shot, loose, tight bank, stockpile, rock, etc. Typical Nevada applications were used to determine above bucket capacities as related to materials & densities. Job site specific may after specific bucket requirements. (Cashman Equipment, Elko, Nevada - February 21, 2005)

Productivity - Shovels

Shovel Specifications (Komatsu equivalent)								
Description	PC2000	PC3000	PC4000	PC5500	PC8000			
Payload Capacity (cy)								
Struck	10.46	18.84	26.16	33.48	47.09			
Heaped	14.39	25.9	35.97	46.04	64.75			
Average	12.43	22.37	31.07	39.76	55.92			
Matched Truck	740	777D	785C	793C	797B			
Average Cycle Time (min)	0.49	0.49	0.59	0.59	0.69			
Passes to Fill Truck	2.05	2.84	3.38	4.69	5.11			
Altitude Deration Factor	1	1	0.9	1	1			
Operator Efficiency	1	1	1	1	1			
Job Efficiency	0.83	0.83	0.83	0.83	0.83			
Time to Fill Truck	1.68	2.33	3.32	4.61	5.86			
Rolling Resistance**	2.5	2.5	2.5	2.5	2.5			

Shovel matched to small truck fleet Shovel matched to medium truck fleet Shovel matched to large truck fleet Shovel matched to extra large truck fleet

"A firm, smooth, rolling roadway with dirt or light surfacing, fleeing slightly under load or undulating, meintained fairly regularly, watered 992G (2) - can be used to load 78 swift 6 passes Source: Calestifier Performance Handbook Edition 35; Komatsu actual Peruvian mine (Lagunas Note) operating data for PC4000.

Productivity - Motor Graders

Description	120H	14G/H	16G/H	24M
Grader Width (ft)	8	9.25	10.08	14.0
Blade Width (ft)	12	14	16	16
Ripper Width (7 shanks) (ft)	7.6	8.5	9.75	12.8
Road Maintence Speed (mph)				
Minimum	3	3	3	3
Maximum	9.5	9.5	9.5	9.5
Average	6.25	6.25	6.25	6.25
Hourly Production	33,000	33,000	33,000	33,00
Ripping Speed (mph)	1	1	1	1
Minimum	0	0	0	0
Maximum	3	3	3	3
Average	1.5	1.5	1.5	1.5
Altitude Deration Factor	1	1	1	1
Hourly Production (with job efficiency correction & altitude deration factors)				
(excluding manuever time)	6,574	6,574	6,574	6,57
Maneuver time per pass (min)	0.5	0.5	0.5	0.5
Operator Efficiency	1	1	1	1
Job Efficiency	0.83	0.83	0.83	0.83

Productivity - Excavators

Description	312C	320C	325C	330C	345B	365BL	385BL
Bucket Capacity (cy)	0.68	1.57	2.22	2.22	3	4.6	7.3
Fill Factor	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Average Bucket Load (cy)	0.612	1.413	1.998	1.998	2.7	4.14	6.57
Soil Type	packed earth	hard clay	hard cla				
Job Condition	med-hard	med-hard	med-hard	med-hard	med-hard	med-hard	med-har
Cycle Times (minutes) - based on hard of	lay						
Load Bucket	0.07	0.09	0.09	0.09	0.13	0.1	0.19
Swing Loaded	0.06	0.06	0.06	0.07	0.07	0.09	0.06
Dump Bucket	0.03	0.03	0.04	0.04	0.02	0.04	0.03
Swing Empty	0.05	0.05	0.06	0.07	0.06	0.07	0.07
Total Cycle Time	0.21	0.23	0.25	0.27	0.28	0.3	0.35
Job Efficiency	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Operator Efficiency	1	1	1	1	1	1	1
Altitude Deration Factor	1	1	1	1	1	1	1
Corrected Productivity (LCY/hr)	145	306	398	369	480	687	935
Exploration Road Cycle Time (1) (min)	N/A	0.38	0.4	N/A	0.42	N/A	N/A
Exploration Road Corr Prod (LCY/hr)	N/A	185	249	N/A	320	N/A	N/A
Track Width (ft)	8.17	9.17	9.83	10.5	11.42	11.5	11.5
Ditch/Trench Excavation							
Bucket Capacity (cy)	0.42	0.58	0.88	0.89	2.09	3.27	2.75
Fill Factor	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Corrected Productivity (LCY/hr)	50	63	88	82	186	271	196

Track Excavators	Hvy Duty Rock	Extreme Service Exc	Hvy Duty Trench
		(e.g. haulroad recontour)	
312C	30", 0.68 cubic yd	47*, 0.94 cubic yd	22", .42 cubic yd
320C	30", 0.90 cubic yd	55.1", 1.57 cubic yd	23.6", .58 cubic yd
325C	36", 1.25 cubic yd	60", 2.22 cubic yd	30", .88 cubic yd
330C	36", 1.25 cubic yd	60", 2.22 cubic yd	30", .89 cubic yd
345B	43.2", 1.69 cubic yd	65", 3.0 cubic yd	48", 2.09 cubic yd
365BL	60", 3.25 cubic yd	82", 4.6 cubic yd	59", 3.27 cubic yd
385BL	85", 6.30 cubic yd.	96.0, 7.30 cubic yd	57*, 2.75 cubic yd

Note: capacities are 2:1 heaped, SAE standards NOTES: Buckets for both Track Excavators and Wheel Loaders are offered by CECo &

available for the rental rates quoted. Bucket sizes and capacities obtained from CATERPILLAR FERFORMANCE HANDBOOK, ED 34, Section 12, Wheel Loader and Section 4, Excessors Bucket expactly and width dictasted by metalia weight and configuration, le., shot, stock, sight bank, stockpile, mock, etc. Typical Neroda applications were used to determine above bucket expacities are artisled to materials of deratiless. Job late specifics may after specific bucket repositions are raised for materials of deratiless. Job late specifics may after specific bucket requirements (Cashman Equipment, Elko, Nevada - February 21, 2005)

(1) Exploration cycle time assumes feathering/smoothing performed by excavator

Concrete Breaking Production

Description	325C	345B	385BL
Hydraulic Hammer	H120D s	H160D s	H180D s
Material	reinforced concrete		
Min Shift Production (yd3/8hr)	160	300	350
Max Shift Production (yd3/8hr)	300	850	1,550
Avg Shift Production (8hr)	230	575	950
Job Efficiency	0.83	0.83	0.83
Altitude Deration Factor	1	1	1

Source: Caterpillar Performance Handbook Edition 35

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Productivity Page 20 of 23

Drill Hole Plugging Productivity

Description	Drill Rig	Pump Rig
Move-to-hole, set-up, tear-down (1)	2	2
Trip in tremmie pipe (1)	500	
cemented) (1)	200	
Single-pass perforating (water wells)	Productivity(all p	Passes
4	60	4
6	60	4
8	50	4
12	45	6
18	40	9
24	28	12
time (2) (hr)	2	
Perforation tool cost (wear cost)(3)	2.5	
Inert Material Placement (backfill)		
Grouting/Cement (4) (cy/hr)		5.33
Cuttings (see below) (cy/hr)		3.5

Barrick, New West Gold, Agnico Eagle, Idaho General Mines Inc. Sources:

Drillers daily logs from Newmont, Barrick, Target Minerals
 Drillers daily logs from Newmont
 WDC Exploration, Dec 2005

Sournce: WDC Exploration, Dec 200

Cuttings Placement Productivity
Shift productivity (Means 02210-7000120; Crew B11M)
Shift length
Estimated Hourly Productivity

28 cy/shift 8 hours 3.5 cy/hour

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<u> </u>	0-760			500 m	1500-	Elevation 2300 m	2300-3	000 m	3000-	3800 m		4600 m
MODEL	(0-250 CAT	0') User	(2500 CAT	-5000') User	(5000 CAT	-7000') User	(7500-1 CAT	0,000') User	(10,000 CAT	-12,000') User	(12,500 CAT	-15,000') User
ulidozers	CAI	OSei	CAI	OSei	CAI	OSei	CAI	OSei	CAI	OSei	CAI	USei
D6R	100		100		100		100		92		84	
D6R w/ Winch	100		100		100		100		92		84	
D7R	100		100		100		100		100		96	
D8R	100		100		100		93		85		77	
D9R	100		100		100		93		85		77	
D10R	100		100		100		100		97		89	
D11R	100		100		100		93		85		77	
heeled Dozers												•
824G	100		100		100		100		92		84	
834G	100		100		100		100		92		84	
844	100		100		100		100		100		96	
854G	100		100		100		93		85		77	
raders												
120H	100		100		100		100		96		93	
14G/H	100		100		100		100		98		96	
16G/H	100		100		100		100		98		96	
24M	100		100		100		100		98		96	
cavators	100				100							
312C 320C	100		100		100		83		78		73	
320C 325C	100		100		90		87		83		76	
325C 330C	100		100		100		100		100		100	
330C 345B	100		100		100		100		100		100	
340B	100		100		100		100		93		93	
365BL 385BL	100		100		100		86		86		86	
	100		100		100		93		85		78	
crapers 631G	100		400		100		400		97		00	
631G 637G	100		100		100		100		9/		90	
paders	100		100		100		95		87		80	
924G	100		100		100		100		97		89	
928G	100		100		100		100		97		89 85	
950G	100		100		100		100		100		100	
966G	100		100		100		100		96		88	
972G	100		100		92		84		77		70	
980G	100		100		100		100		96		88	
988G	100		100		100		95		85		75	
990	100		100		100		100		92		85	
992G	100		100		100		100		93		87	
994D	100		100		100		100		96		88	
L2350	100		100		100		100		96		90	
novels												
PC2000	100		100		100		100		96		90	
PC3000	100		100		100		100		96		90	
PC4000	100		100		100		100		96		90	
PC5500	100		100		100		100		96		90	
PC8000	100		100		100		100		96		90	
ther Equipment 420D 4WD Backhoe												
	99		97		95		91		91		91	
428D 4WD Backhoe	99		97		95		91		91		91	
CS533E Vibratory Roller	100		100		98		95		91		86	
CS633E Vibratory Roller	100		100		100		100		91		86	
CP533E Sheepsfoot Compactor	100		100		98		95		91		100	
CP633E Sheepsfoot Compactor	100		100		100		100		91		86	
Light Truck - 1.5 Ton												
Supervisor's Truck												
Flatbed Truck			-									
Air Compressor + tools												
Welding Equipment												
Heavy Duty Drill Rig												
Pump (plugging) Drill Rig												
Concrete Pump												
Gas Engine Vibrator												
Generator 5KW												
HDEP Welder (pipe or liner)												
5 Ton Crane 20 Ton Crane												
50 Ton Crane												
120 Ton Crane												
rucks 725	400		400		400	1	400		400	1	05	
730	100 100		100 100		100 100		100 100		100 100		95 95	
735	100		100		100		100		99		95 91	
740	100		100		100		100		99		91 91	
740 769D	100		100		100		93		99 88		91 82	
773F												
777D	100		100		100		100		93		85	
777D 785C	100		100		100		100		93		87	
	100		100		100		93		86		80	
793C	100		100		100		100		100		93	
797B	100		100		100		100		100		93	
613E (5,000 gal) Water Wagon	100		100		100		100		95		87	
621E (8,000 gal) Water Wagon	100		100		100		100		97		90	
					100		100		93		87	
777D Water Truck 785C Water Truck	100 100		100		100		93		86		80	

User entered deration value will override values from CAT Performance Handbook, except L2350 Loader: data from actual mine performance in Chile. Komatsu altitude deration assumed from LeTourneau L2350

STANDARDIZED RECLAMATION COST ESTIMATOR User Tools

Version 1.4.1

These tools allow easy access to some useful VBA routines and macros that are include in this Model Version

	Keyboard Shortcuts							
SHORTCUT KEYS	ACTION							
Ctrl-Shift-C	Go to Table of Contents							
Ctrl-Shift-O	Open Toe Offset Calculator							
Ctrl-Shift-P	Go to Property Information Sheet							
Ctrl-Shift-S	Show Slope Conversion Table							
Ctrl-Shift-T	Go to Tools sheet							
Ctrl-Shift-Z	Paste Formulas - First Use Ctrl-C to copy a range, then use the mouse (or keyboard) to select the paste range and then use this shortcut to paste formulas only from the copy range to the paste range. Equivalent to the Paste Special/Formulas command.							

Closure Cost Estimate Seed Mixture

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Seed Mixture						
		Species Number of				
Common Name	Scientific Name	Seeds / Ib	Mix	PLS/acre	Cost/Lb	Cost/Acre
		Grasses				
Indian ricegrass	Achnatherum hymenoides		14.16	1.30		
Plains lovegrass	Eragrostis intermedia		0.44	0.04		
NM feathergrass	Hesperostipa newmexicana		5.45	0.50		
Sideoats grama	Bouteloua curtipendula		11.98	1.10		
Blue grama	Bouteloua gracilis		2.72	0.25		
Cane beardgrass	Bothriochloa barbinodis		2.18	0.20		
Galleta	Pleuraphis jamesii		11.98	1.10		
Green sprangletop	Leptochloa dubia		2.18	0.20		
Plains bristlegrass	Seteria vulpiseta		3.27	0.30		
Sand dropseed	Sporobolus cryptandrus		0.44	0.04		
		Forbs				
White prairie clover	Dale candida c		4.36	0.40		
Blue flax	Linum lewisii c		3.81	0.35		
Prairie coneflower	Ratibida colomnifera c		1.09	0.10		
Desert globemallow	Sphaeralcea ambugua c		4.36	0.40		
-						
		Shrubs				
Four-wing saltbush	Atriplex canescens		19.06	1.75		
Rubber rabbitbrush	Ericamerica intermedia c		3.81	0.35		
Apache plume	Fallugia paradoxa c		1.09	0.10		
Winterfat	Krascheninnikovia lanata		7.63	0.70		
					•	
	Total			\$9.18		\$0.0

	Al .			
Total			\$9.18	\$0.00
Source:				
Notes:				

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Seed Mix Cost Quotes



TO: Feliz Toprak, Mining Consultant, SRK Consulting, Inc.

CC: Jeff Smith, Chief Operating Officer, NMCC

FROM: Katie Emmer, Permitting & Environmental Compliance Manager, NMCC

DATE: 20 March 2018

SUBJECT: Seed Mix Quotes – Average cost \$175.00/acre PLS

The purpose of this memorandum is to summarize research into seed mix costs for seed mixes identified in the Copper Flat Mine Operation & Reclamation Plan (MORP) and to present the estimated cost of pure live seed (PLS) per acre.

The MORP calls for a specific seed mix and rate of application for interim and final reclamation:

Table E7: Interim and Final Reclamation Seed Mixes

		PL	PLS/ac1	
Scientific Name	Common Name	Interim	Final	
Grasses – Warm Season				
Bothriochloa barbinodis	Cane bluestem	0.15	0.20	
Bouteloua curtipendula	Sideoats grama	1.00	1.10	
Bouteloua gracilis	Blue grama	0.20	0.25	
Pleuraphis jamesii	Galleta	0.75	1.10	
Leptochloa dubia	Green sprangletop	0.15	0.20	
Seteria vulpiseta	Plains bristlegrass	0.20	0.30	
Sporobolus cryptandrus	Sand dropseed	0.03	0.04	
Grasses - Cool, Intermediate	Season			
Achnatherum hymenoides	Indian ricegrass	0.60	1.30	
Eragrostis intermedia	Plains lovegrass	0.05	0.04	
Hesperostipa newmexicana	NM feathergrass	0.70	0.50	
Shrubs	•	180	***	
Atriplex canescens	Four-wing saltbush	0.30	1.75	
Ericamerica nauseosus	Rubber rabbitbrush	0.10	0.35	
Fallugia paradoxa	Apache plume		0.10	
Krascheninnikovia lanata	Winterfat	0.15	0.70	
Forbs				
Dalea candida	White prairie clover	0.10	0.40	
Linum lewisii	Blue flax	0.15	0.35	
Ratibida colomnifera	Prairie coneflower		0.10	
Sphaeralcea ambigua	Desert globemallow	0.10	0.40	
	Total	4.73	9.18	

Notes:

1-Rate is in pounds of pure live seed (PLS) per acre; Substitutions may change seeding rates.

In the week of 12 March 2018, I requested recommendations for seed mix suppliers from knowledgeable personnel at the Bureau of Land Management (BLM) Las Cruces office and Golder & Associates.

Emily Clark, Soil Scientist at Golder, indicated that they commonly work with Granite Seed. Shannon Gentry, Rangeland Management Specialist, suggested Bamert Seed, Granite Seed, and Curtis & Curtis Seed companies. Based on these recommendations, I contacted all three companies and provided MORP Table E7 and requested quotes on PLS/acre that would be certified weed free at the final reclamation rate. I instructed each company that comparable seed substitutions could be made based on availability. Quotes for PLS/acre were received from each company and are presented in the table below.

Seed Mix Quotes for MORP Table E7, Final Rate, March 2018

Company	Date	Price quote PLS/acre	Notes
Curtis & Curtis, Inc.	15 March 2018	\$174.72	Low acreage
			Quote attached
Curtis & Curtis, Inc.	15 March 2018	\$163.79	100 acres+
			Quote attached
Granite Seed	15 March 2018	\$186.50	Quote attached
Bamert Seed	16 March 2018	\$750.00	Quote via email,
			attached.

In further correspondence with Bamert, the supplier speculated the quote could be decreased "as much as 2/3rds" if strategic substitutions of similar seeds were made based on availability. If the Bamert quote was decreased by 67%, it would be about \$247.50/acre. Based on the difference in price from the other two suppliers, I conclude this quote is an outlier that is based on differing assumptions from those communicated in the quote request and have not included it in our estimated average seed mix cost.

Based on these quotes, attached, I conclude the average cost of PLS that would meet MORP requirements for final seed rates shown in Table E7 would be \$175.00 per acre.

Attachements:

Curtis & Curtis, Inc. Quote Granite Seed Quote Bamert Seed Quote (via email)

CURTIS & CURTIS, INC.

4500 North Prince, Clovis, New Mexico 88101 PH: 575-762-4759 FAX: 575-763-4213

Irrigated Pasture Grasses Mountain Pasture Grasses Native Pasture Grasses Yard and Playground Grasses Golf Course Grasses Alfalfa/Clovers

PRICE QUOTATION

TO: Themac Resources DATE: March 15, 2018 ATTENTION: SALESPERSON: Katie Emmer Tyler Stuemky PHONE: 505-400-7925 SHIPPING DATE: As Directed EMAIL: kemmer@themacresourcesgroup.com Clovis FOB: PROJECT: Sierra County Mine Reclamation TERMS: 30 Days Net

DESCRIPTION PRICE AMOUNT

\$174.72/Acre (Low Acreage) Custom Seed Mix:

\$163.79/Acre (100 Acres+)

COMMON NAME	BOTANICAL NAME	PLS/ACRE
Cane Bluestem	Bouteloua dactyloides	0.20
Sub. Buffalograss		
Sideoats Grama	Bouteloua curtipendula	1.10
Blue Grama	Bouteloua gracilis	0.25
Galleta Grass	Pleuraphis jamesii	1.10
Green Sprangletop	Leptochloa dubia	0.20
Plains Bristlegrass	Setaria vulpiseta	0.30
Sand Dropseed	Sporobolus cryptandrus	0.04
Indian Ricegrass	Oryzopsis hymenoides	1.30
Plains Lovegrass	Eragrostis trichodes	0.04
Sand Lovegrass		
NM Feathergrass	Hesperostipa comata	0.50
Needle and Thread		
Four-Wing Saltbush	Atriplex canescens	1.75
Rubber Rabbitbrush	Ericameria nauseosa	0.35
Apache Plume	Rhus trilobata	0.10
Sub. Three-Leaf Sumac		
Winterfat	Krascheninnikovia lanata	0.70
White Prairie Clover	Dalea purpurea	0.40
Sub. Purple Prairie Clover		
Blue Flax	Linum lewisii	0.35
Prairie Coneflower	Ratibida columnifera	0.10
Desert Globemallow	Sphaeralcea ambigua	0.40

THIS QUOTE IS GOOD FOR 10 DAYS

THIS QUOTE IS GOOD FOR 10 DAYS

ALL PRICES SUBJECT TO AVAILABILITY**SUBJECT TO BEING UNSOLD

Here is our quotation on the goods named, subject to the conditions noted:

The prices and terms on this quotation are not subject to verbal changes or other agreements unless approved in writing by the Home Office of the Seller. All quotations and agreements are contingent upon strikes, accidents, fires, availability of materials and all other causes beyond our control. Prices are based on costs and conditions existing on date of quotation and are subject to change by the Seller before final acceptance.

Typographical and stenographic errors are subject to correction. Purchaser agrees to accept either overage or shortage not in excess of ten percent to be charged for prorata. Purchaser assumes liability for patent and copyright infringement when goods are made to Purchaser's specifications. When quotation specifies material to be furnished by the purchaser, ample allowance must be made for reasonable spoilage and material must be of suitable quality to facilitate efficient production. Conditions not specifically stated herein shall be governed by established trade customs. Terms inconsistent with those stated herein, which may appear on Purchaser's formal order will not be binding on the Seller.

QUOTE



Tren Hagman 1697 West 2100 North Lehi, UT 84043 tren@graniteseed.com Phone: (801) 768-4422 Fax: (801) 701-9413

Date:March 15, 2018To:Katie EmmerCompany:Themac ResourcesFrom:Tren HagmanRe:Seed Quote

Katie,

We can provide the mix below for \$186.50/acre

Species	PLS lbs./acre
Cane beardgrass (Bothriochloa barbinodis)	0.20
Sideoats grama (Bouteloua curtipendula)	1.10
Blue grama (Bouteloua gracilis)	0.25
Galleta grass (Pleuraphis jamesii)	1.10
Green sprangletop (Leptochloa dubia)	0.20
Plains bristlegrass (Setaria vulpiseta)	0.30
Sand dropseed (Sporobolus cryptandrus)	0.04
Indian ricegrass (Achnatherum hymenoides)	1.30
Fourwing saltbush (Atriplex canescens)	1.75
Rubber rabbitbrush (Ericameria nauseosa)	0.35
Apache plume (Fallugia paradoxa)	0.10
Winterfat (Krascheninnikovia lanata)	0.70
White prairie clover (Dalea candida)	0.40
Blue flax (Linum perenne)	0.35
Prairie coneflower (Ratibida columnifera)	0.10
Desert globemallow (Sphaeralcea ambigua)	0.40
Toal:	8.64

If you have any questions, please contact me at the number above or by email $\underline{\text{tren}@\text{qraniteseed.com}}$.

Thanks

Katie Emmer

From: Colby Scroggins <cscroggins@bamertseed.com>

Sent: Friday, March 16, 2018 12:18 PM

To: Katie Emmer
Subject: RE: Seed mix quote

Katie,

I would estimate that the attached blend may be near \$750 per acre.

Please let me know if I may be of help in the future!

Have a great day,

Colby F. Scroggins

Reclamation Specialist

cscroagins@BamertSeed.com

Office | 800.262.9892 Fax | 888.378.0419 www.BarnertSeed.com





Sign Up for Our Newsletter!

From: Katie Emmer [mailto:kemmer@themacresourcesgroup.com]

Sent: Wednesday, March 14, 2018 4:25 PM
To: Colby Scroggins cscroggins@bamertseed.com

Subject: Seed mix quote

Here's the seed mix I'm looking at, see attached.

Katie Emmer | Permitting & Environmental Compliance Manager

M: +1 505.400.7925| F: +1 505.881.4616

A: 4253 Montgomery Blvd. NE, Suite 130, Albuquerque, NM 87109

 $\textbf{W:} \ \underline{ the macresource sqroup.com} \ | \ \textbf{E:} \ \underline{ kemmer@the macresource sqroup.com}$



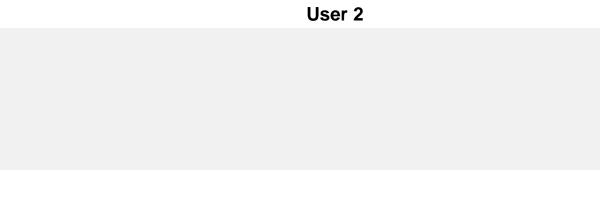
Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data



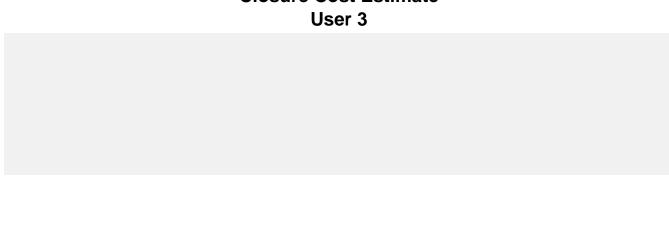
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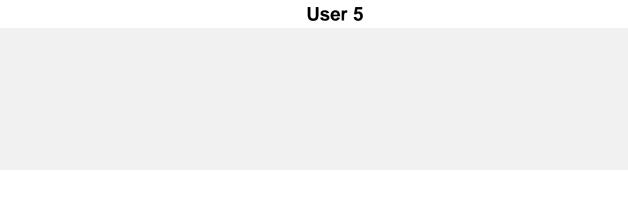
Project Name: Foothill Dolomite Mine - Reclamation Plan

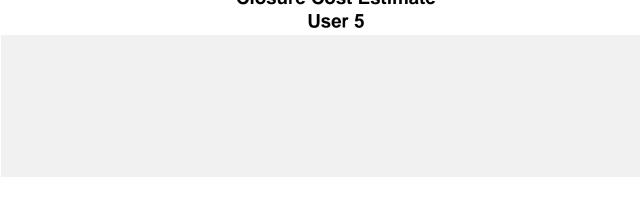
Date of Submittal: 09-29-2020

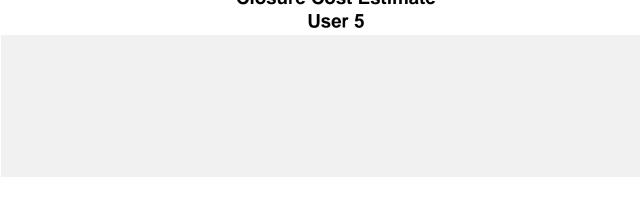
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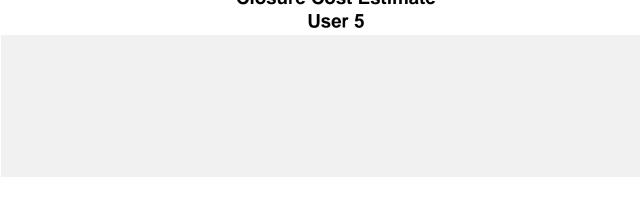
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Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xls
Cost Estimate Type: Surety Cost Basis: American Magnesium - Optior

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 1_Cost Estimate for Reclamation after Exploration.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

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Cost Data: User Data

Enter Data Below in Green and Blue Spaces

STANDARDIZED RECLAMATION COST ESTIMATOR

Version 1.4.1 Build 017b (Revised 16 May 2019)

Approved for use in Nevada, August 1, 2012

	1,1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
COST DATA FILE INFORMATION	ON CONTRACTOR OF THE CONTRACTO
File Name:	Att 2_Cost Estimate for Reclamation at End of Mining.xlsm
Cost Data File:	SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Data Date:	September 29, 2020
Cost Data Basis:	User Data Cost Units: Imperial
Author/Source:	Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801_SRCE_Cook
PROJECT INFORMATION	
Property/Mine Name:	Foothill Dolomite Mine Property Code: N/A
Project Name:	Foothill Dolomite Mine
Date of Submittal:	09-29-2020 Average Altitude: 4865 ft.
Select One:	Notice or Sm Exploration Plan Lg Exploration Plan Mine Operation
Select One:	Private Land Public or Public/Private
Cost Estimate Type:	Surety
Cost Basis Category:	American Magnesium - Option 1
	American Magnesium - Foothill Dolomite Mine - Northern Nevada Equipment
Cost Basis Description:	

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Closure Cost Estimate Table of Contents

Project Name: Foothill Dolomite Mine

Project Date: 09-29-2020

?_Cost Estimate for Reclamation at End of Mining.xlsm Reclamation Plan

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Heap Leach Pads	
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Quarries & Borrow Pits	
Underground Openings	
Material Hauling	
Foundations and Buildings	
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Closure Cost Estimate Cost Summary

Project Name: Foothill Dolomite Mine Project Date: 09-29-2020 Model Version: Version 1.4.1 File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

A. Earthwork/Recontouring	Labor (1)	Equipment (2)	Materials	Total
Exploration	\$0	\$0	\$0	\$0
Exploration Roads & Drill Pads	\$0	\$0	\$0	\$0
Roads	\$543	\$2,929	\$0	\$3,472
Well Abandonment Pits	\$0 \$0	\$0 \$0	\$0 N/A	\$0 \$0
Quarries & Borrow Areas	#NAME?	#NAME?	\$0	#NAME
Underground Openings	\$0	\$0	\$0	\$0
Process Ponds Heaps	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
Waste Rock Dumps	\$0	\$0	\$0	\$(
Landfills	\$0	\$0	\$0	\$
Tailings	\$0	\$0	\$0	\$1
Foundation & Buildings Areas Yards, Etc.	\$26 \$793	\$137 \$4,108	\$0 \$0	\$16 \$4,90
Drainage & Sediment Control	\$0	\$4,108	\$0 \$0	\$4,90
Generic Material Hauling	\$0	\$0	\$0	\$(
Other User Costs (from Other User sheet)	\$0	\$0	\$271,364	\$271,364
Other** Subtotal	#NAME?	#NAME?	\$271,364	#NAME?
oubtotal	#WANE.	PIVAUL I	Ψ211,304	mvauic.
Mob/Demob if included in Other User sheet	\$0	\$0	\$0	\$
Mob/Demob				\$0
Subtotal "A"	#NAME?	#NAME?	\$271,364	#NAME?
D. D	(1)	(2)	B# - 4 2 - 1 -	T.4.1
B. Revegetation/Stabilization	Labor ⁽¹⁾	Equipment (2)	Materials	Total
Exploration Exploration Roads & Drill Pads	\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
Roads	\$0 \$210	\$0 \$75	\$9,601	\$9,886
Well Abandonment				N/A
Pits	\$0	\$0	\$0	\$(
Quarries & Borrow Areas	#NAME?	#NAME?	#NAME?	#NAME?
Underground Openings Process Ponds	\$0	\$0	\$0	N/ <i>F</i>
Heaps	\$0	\$0	\$0	\$(
Waste Rock Dumps	\$0	\$0	\$0	\$0
Landfills	\$0	\$0	\$0	\$0
Tailings Foundation & Buildings Areas	\$0 \$140	\$0 \$50	\$0 \$640	\$6 \$830
Yards, Etc.	\$280	\$100	\$12,802	\$13,182
Drainage & Sediment Control	\$0	\$0	\$0	\$(
Generic Material Hauling	\$0	\$0	\$0	\$(
Other User Costs (from Other User sheet) Other**	\$0	\$0	\$0	\$0 \$0
Subtotal "B"	#NAME?	#NAME?	#NAME?	#NAME?
O Detection (Material Transfer of Material St. Material)	Labor (1)	Equipment (2)	Matariala	Tatal
C. Detoxification/Water Treatment/Disposal of Wastes**	Labor ''	Failinment '-'	Materials	Total
		Equipmont		0.0
Process Ponds/Sludge		Equipment		\$0 \$0
		Equipmont		\$0
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings		Equipmont		\$(\$) \$(
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal		Едагритет		\$0 \$0 \$0 \$0
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring		Equipment		\$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal	\$212	\$1,095	N/A	\$(\$5 \$(\$6) \$5 \$6
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site			N/A	\$(\$(\$(\$(\$) \$(\$1,30) \$1,30)
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials	\$212	\$1,095		\$6 \$6 \$6 \$6 \$6 \$1,30 \$1,30 \$6 \$6 \$6
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Solis	\$212	\$1,095 \$0	\$0	\$6 \$5 \$6 \$6 \$1,300 \$1,300 \$5 \$6 \$6 \$6 \$6 \$6 \$6 \$6 \$6 \$6 \$6 \$6 \$6 \$6
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tallings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials	\$212	\$1,095		\$6 \$6 \$5 \$5 \$5 \$5 \$5 \$1,300 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet)	\$212	\$1,095 \$0	\$0	\$6 \$1 \$6 \$1 \$1 \$1 \$1 \$1,300 \$1 \$1,300 \$1 \$1,300 \$1 \$1,300 \$1 \$1,300 \$1 \$1,300 \$1 \$1,300 \$1,30
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C"	\$212 \$0 \$0 \$212	\$1,095 \$0 \$0 \$1,095	\$0 \$0	\$1,300
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc.	\$212 \$0 \$0 \$212 Labor (1)	\$1,095 \$0 \$0 \$1,095 Equipment (2)	\$0 \$0 \$0 Materials	\$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C"	\$212 \$0 \$0 \$212 Labor (1) \$0 \$0	\$1,095 \$0 \$0 \$1,095 Equipment (2) \$0	\$0 \$0 \$0 Materials \$0 \$0	\$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal	\$212 \$0 \$0 \$212 Labor (1) \$0 \$4,000	\$1,095 \$0 \$0 \$1,095 Equipment (2) \$0 \$7,000	\$0 \$0 \$0 Materials	\$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal	\$212 \$0 \$0 \$212 Labor (1) \$0 \$4,000 \$5,921	\$1,095 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198	\$0 \$0 \$0 Materials \$0 \$0	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - Off Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other" Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Installation	\$212 \$0 \$0 \$212 Labor (1) \$0 \$4,000 \$5,921 \$0	\$1,095 \$0 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$9	\$0 \$0 \$0 Materials \$0 \$0 \$0	\$1,300 \$1
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal	\$212 \$0 \$0 \$212 Labor (1) \$0 \$4,000 \$5,921	\$1,095 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198	\$0 \$0 \$0 Materials \$0 \$0	\$1,300 Total \$1,300
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Of Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other" Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Installation Culvert Removal Pipe Removal Powerline Removal	\$212 \$0 \$0 \$212 Labor (1) \$0 \$0 \$4,000 \$5,921 \$0 \$0 \$0	\$1,095 \$0 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0	\$0 \$0 \$0 Materials \$0 \$0 \$0	\$1,300 Total \$1,300
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Coets (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Installation Culvert Removal Pipe Removal Pipe Removal Pipe Removal Provertine Removal	\$212 \$0 \$0 \$0 \$212 Labor (1) \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0	\$0 \$0 \$0 \$0 \$0 Materials \$0 \$0 \$0 \$0 N/A N/A	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tallings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Pipe Removal Powerline Removal Powerline Removal Transformer Removal	\$212 \$0 \$0 \$0 \$212 Labor (1) \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0	\$0 \$0 \$0 Materials \$0 \$0 \$0 N/A N/A	\$\\ \\$\\ \\$\\ \\$\\ \\$\\ \\$\\ \\$\\ \\$\\
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Installation Culvert Removal Pipe Removal Piper Removal	\$212 \$0 \$0 \$0 \$212 Labor (1) \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0	\$0 \$0 \$0 \$0 \$0 Materials \$0 \$0 \$0 \$0 N/A N/A	\$1,300 Total \$1,300
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tallings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Powerline Removal Powerline Removal Rip-rap, rock lining, gabions Other Misc. Costs Other Misc. Costs Other User Sheet) Other User Sheet) Other User Sheet) Other User Scots Other User Costs Other User Sheet)	\$212 \$0 \$0 \$0 \$212 Labor (1) \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$1,095 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$\\ \\$\\ \\$\\ \\$\\ \\$\\ \\$\\ \\$\\ \\$\\
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other* Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Removal Pipe Removal Pipe Removal Powerline Removal Powerline Removal Transformer Removal Rip-rap. rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet)	\$212 \$0 \$0 \$212 \$212 \$0 \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$\\ \\$\\ \\$\\ \\$\\ \\$\\ \\$\\ \\$\\ \\$\\
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Installation Culvert Removal Pipe Removal Pipe Removal Pipe Removal Pipe Removal Piper Removal Piper Removal Piper Removal Piper Removal Other Misc. Costs Other User Costs (from Other User sheet) Other** Other Misc. Costs Other User Costs (from Other User sheet) Other** Subtotal "D" E. Monitoring	\$212 \$0 \$0 \$0 \$212 Labor (1) \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0 \$0 \$0 \$13,198	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$1,300 Total \$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300 Total \$1,300 \$1,300 \$1,300 \$1,300 Total
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tallings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Pipe Removal Pipe Removal Pipe Removal Rip-rap, rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other** Subtotal "D" E. Monitoring Reclamation Monitoring and Maintenance	\$212 \$0 \$0 \$1 \$212 Labor (1) \$0 \$4,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$0 \$1,095 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0 \$0 \$13,198 Equipment (2)	\$0 \$0 \$0 Materials \$0 \$0 \$0 N/A N/A \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Removal Pipe Removal Pipe Removal Transformer Removal Transformer Removal Transformer Removal Rip-rap, rock lining, gabions Other Wisc. Costs Other User Costs (from Other User sheet) Other** Subtotal "D" E. Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring	\$212 \$0 \$0 \$212 Labor (1) \$0 \$0 \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$1,095 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0 \$0 \$0 \$13,198 Equipment (2) #NAME?	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other* Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Pipe Removal Pipe Removal Pipe Removal Pipe Removal Riprap, rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other** Subtotal "D" E. Monitoring Reclamation Monitoring and Maintenance	\$212 \$0 \$0 \$1 \$212 Labor (1) \$0 \$4,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$0 \$1,095 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0 \$0 \$13,198 Equipment (2)	\$0 \$0 \$0 Materials \$0 \$0 \$0 N/A N/A \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other* Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Pipe Removal Pipe Removal Pipe Removal Powerline Removal Rip-rap, rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other " Subtotal "D" E. Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E"	\$212 \$0 \$0 \$10 \$212 \$10 \$10 \$10 \$10 \$10 \$10 \$10 \$10	\$1,095 \$0 \$0 \$1,095 Equipment (2) \$0 \$0 \$7,000 \$6,198 \$0 \$0 \$0 \$0 \$13,198 Equipment (2) #NAME? \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 Materials \$0 \$0 \$0 \$0 \$0 N/A N/A \$0 \$0 \$0 \$0 \$0 \$0 #NAME?	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Installation Culvert Removal Pipe Removal Pipe Removal Pipe Removal Rip-rap, rock lining, gabions Other Misc. Costs Other User Sic (from Other User sheet) Other** Subtotal "D" E. Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E" F. Construction Management & Support	\$212 \$0 \$0 \$0 \$212 Labor (1) \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$1 \$0 \$1 \$1 \$1 \$2 \$2 \$3 \$4 \$4 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5	\$1,095 \$0 \$1,095 \$1,095 Equipment (2) \$0 \$0,000 \$6,198 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 Materials \$0 \$0 \$0 \$0 \$0 \$0 N/A N/A \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 #NAME? #NAME? Materials	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Installation Culvert Removal Pipe Removal Powerline Removal Transformer Removal Transformer Removal Rip-rap, rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other** Subtotal "D" E. Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E" F. Construction Management & Support Construction Management	\$212 \$0 \$0 \$0 \$0 \$212 Labor (1) \$0 \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 Materials \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 #NAME? \$0 #NAME? Materials \$0 #NAME?	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other* Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Installation Culvert Removal Pje Removal Powerline Removal Rip-rap, rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other** Subtotal "D" E. Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E" F. Construction Management Construction Management Construction Management Construction Management Construction Management Construction Management	\$212 \$0 \$0 \$0 \$0 \$0 \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$1,095 \$1,095 \$1,095 Equipment (2) \$0 \$5,000 \$6,198 \$0 \$0 \$0 \$0 \$13,198 Equipment (2) #NAME? \$0 #NAME? Equipment (2) \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Installation Culvert Removal Pipe Removal Transformer Removal Transformer Removal Rip-rap, rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other " Subtotal "D" E. Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E" F. Construction Management & Support Construction Management	\$212 \$0 \$0 \$0 \$0 \$212 Labor (1) \$0 \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 Materials \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 #NAME? \$0 #NAME? Materials \$0 #NAME?	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Pipe Removal Pipe Removal Pipe Removal Powerline Removal Rip-rap, rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other** Subtotal "D" E. Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E" F. Construction Management & Support Construction Management Construction Management Construction Management Construction Management Construction Management Construction Support Road Maintenance Other User Costs (from Other User sheet) Other**	\$212 \$0 \$0 \$0 \$212 Labor (1) \$0 \$4,000 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$13,198 Equipment (2) #NAME? \$0 #NAME? Equipment (2) \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Installation Culvert Removal Transformer Removal Transformer Removal Rip-rap, rock lining, gabions Other User Costs (from Other User sheet) Other** Subtotal "D" E. Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E" F. Construction Management & Support Construction Management Construction Support Road Maintenance Other User Costs (from Other User sheet)	\$212 \$0 \$0 \$0 \$212 Labor (1) \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$1 \$0 \$1 \$1 \$1 \$2 \$2 \$3 \$4 \$4 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5 \$5	\$1,095 \$0 \$0 \$1,095 Equipment (2) \$0 \$0 \$7,000 \$6,198 \$0 \$0 \$0 \$0 \$13,198 Equipment (2) #NAME? #NAME? Equipment (2) \$13,198	\$0 \$0 \$0 \$0 Materials \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Fence Removal Pipe Removal Transformer Removal Rip-rap, rock lining, gabions Other User Costs (from Other User sheet) Other** Subtotal "D" E. Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E" F. Construction Management & Support Construction Support Road Maintenance Other User Costs (from Other User sheet) Other** Subtotal "E" F. Construction Management & Support Construction Support Road Maintenance Other User Costs (from Other User sheet) Other** Subtotal "F"	\$212 \$0 \$0 \$0 \$0 \$212 Labor (1) \$0 \$0 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$0 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 Materials \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Process Ponds/Sludge Heaps Dumps (Waste & Landfill) Tailings Surplus Water Disposal Monitoring Miscellaneous Solid Waste - On Site Solid Waste - Off Site Hazardous Materials Hydrocarbon Contaminated Soils Other User Costs (from Other User sheet) Other** Subtotal "C" D. Structure, Equipment and Facility Removal, and Misc. Foundation & Buildings Areas Other Demolition Equipment Removal Fence Removal Fence Removal Pipe Removal Pipe Removal Pipe Removal Powerline Removal Rip-rap, rock lining, gabions Other Misc. Costs Other User Costs (from Other User sheet) Other** Subtotal "D" E. Monitoring Reclamation Monitoring and Maintenance Ground and Surface Water Monitoring Other User Costs (from Other User sheet) Subtotal "E" F. Construction Management & Support Construction Management Construction Management Construction Management Construction Management Construction Management Construction Support Road Maintenance Other User Costs (from Other User sheet) Other**	\$212 \$0 \$0 \$0 \$212 Labor (1) \$0 \$4,000 \$4,000 \$5,921 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$1,095 \$0 \$0 \$1,095 Equipment (2) \$0 \$7,000 \$6,198 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$13,198 Equipment (2) #NAME? \$0 #NAME? Equipment (2) \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Closure Cost Estimate Cost Summary

Project Name: Foothill Dolomite Mine Project Date: 09-29-2020 Model Version: Version 1.4.1 File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

 $\ensuremath{^{**}}$ Other Operator supplied costs - additional documentation required.

Closure Cost Estimate Cost Summary

Project Name: Foothill Dolomite Mine Project Date: 09-29-2020 Model Version: Version 1.4.1

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

ndirect Costs				Include?	Total
Engineering, Design and Construction (ED&C) Plan (7)					#NAME?
2. Contingency (8)					#NAME
3. Insurance (9)		#NAME?			#NAME
4. Performance Bond (10)					#NAME
Contractor Profit (11)					#NAME
Contract Administration (12)					#NAME
7. Government Indirect Cost (13)					#NAME
Subtotal Add-On Costs					#NAME?
Total Indirect Costs as % of Direct Cost					#NAME?
GRAND TOTAL					#NAME?
Administrative Cost Rates (%)					
Administrative Cost Rates (%)				-	
Administrative Cost Rates (%)		Cost Range	es for Indirect Cost	Percentages	
Administrative Cost Rates (%)	<=	Cost Range	es for Indirect Cost	Percentages	
1. Engineering, Design and Construction (ED&C) Plan (7)	<= \$1,000,000				Small Pla
		<=		>	
Engineering, Design and Construction (ED&C) Plan (7)	\$1,000,000	<= \$25,000,000		> \$25,000,000	
Engineering, Design and Construction (ED&C) Plan (7)	\$1,000,000 8%	<= \$25,000,000 6%	<=	> \$25,000,000 4%	0%
Engineering, Design and Construction (ED&C) Plan (7) Variable Rate	\$1,000,000 8% <=	<= \$25,000,000 6% <=	<= <=	\$25,000,000 4%	0% Small Plai
Engineering, Design and Construction (ED&C) Plan (7) Variable Rate Contingency (8)	\$1,000,000 8% <= \$500,000 10%	<= \$25,000,000 6% <= \$5,000,000	<= <= \$50,000,000	\$25,000,000 4% > \$50,000,000	0% Small Plar
Engineering, Design and Construction (ED&C) Plan (7) Variable Rate Contingency (8) Variable Rate	\$1,000,000 8% <= \$500,000 10% 1.5% c	<= \$25,000,000 6% <= \$5,000,000 8% of labor costs	<= <= \$50,000,000	\$25,000,000 4% > \$50,000,000	0% Small Plar
Design and Construction (ED&C) Plan (7) Variable Rate Contingency (8) Variable Rate January (8) Variable Rate	\$1,000,000 8% <= \$500,000 10% 1.5% c 3.0% c	<= \$25,000,000 6% <= \$5,000,000 8% of labor costs	<= <= \$50,000,000 6%	\$25,000,000 4% > \$50,000,000	0% Small Plar
1. Engineering, Design and Construction (ED&C) Plan (7) Variable Rate 2. Contingency (8) Variable Rate 3. Insurance (9) 4. Bond (10)	\$1,000,000 8% <= \$500,000 10% 1.5% c 3.0% c	<= \$25,000,000 6% <= \$5,000,000 8% of labor costs of the O&M costs if O	<= <= \$50,000,000 6%	\$25,000,000 4% > \$50,000,000	Small Plar 0% Small Plar 0%
1. Engineering, Design and Construction (ED&C) Plan (7) Variable Rate 2. Contingency (8) Variable Rate 3. Insurance (9) 4. Bond (10) 5. Contractor Profit (11) 6. Contract Administration (12)	\$1,000,000 8% <= \$500,000 10% 1.5% c 3.0% c 10% c <= \$1,000,000	<= \$25,000,000 6% <= \$5,000,000 8% of labor costs of the O&M costs if O ff the O&M costs <= \$25,000,000	<= \$50,000,000 6%	\$ \$25,000,000	0% Small Plar
1. Engineering, Design and Construction (ED&C) Plan (7) Variable Rate 2. Contingency (8) Variable Rate 3. Insurance (9) 4. Bond (10) 5. Contractor Profit (11)	\$1,000,000 8% <= \$500,000 10% 1.5% c 3.0% c 10% c <= \$1,000,000 10%	<= \$25,000,000 6% <= \$5,000,000 8% of labor costs of the O&M costs if O of the O&M costs	<= \$50,000,000 6% 08M costs are >\$100,000	> \$25,000,000 4% > \$50,000,000 4%	0% Small Pla

RECLAMATION COST ESTIMATION SUMMARY SHEET FOOTNOTES

- Federal construction contracts require Davis-Bacon wage rates for contracts over \$2,000. Wage rate estimates may include base pay, payroll loading,
 The reclamation cost estimate must include the estimated plugging cost of at least one drill hole for each active drill rig in the project area. Where the

- The reclamation cost estimate must include the estimated plugging cost of at least one drill hole for each active drill rig in the project area. Where the
 Miscellaneous items should be itemized on accompanying worksheets.
 Fluid management should be calculated only when mineral processing activities are involved. Fluid management represents the costs of maintaining
 Handling of hazardous materials includes the cost of decontaminating, neutralizing, disposing, treating and/or isolating all hazardous materials used,
 Any mitigation measures required in the Plan of Operations must be included in the reclamation cost estimate. Mitigation may include measures to avoid,
 Engineering, design and construction (ED&C) plans are often necessary to provide details on the reclamation needed to contract for the required work. To
 A contingency cost is included in the reclamation cost estimation to cover unforeseen cost elements. Calculate the contingency cost as a percentage of the
 Insurance premiums are calculated at 1.5% of the total labor costs. Enter the premium amount if liability insurance is not included in the itemized unit
 Federal construction contracts exceeding \$100,000 require both a performance and a payment bond (Miller Act, 40 USC 270et seq.). Each bond premium
 For Federal construction contracts, use 10% of estimated O&M cost for the contractor's profit.
 To estimate the contract administration cost, use 6 to 10% of the operational and maintenance (O&M) cost. Calculate the contract administration cost as a
 Government indirect cost rate is 21% of the contract administration costs.

Closure Cost Estimate Other User

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm Model Version: Version 1.4.1

Cost Data: User Data

Oth	Other Cost Items Calculated Elsewhere											
	Description (required)	ID Code	Facility Type	Quantity	Units	Total Capital Cost \$	Material Unit Cost \$	Labor Unit Cost \$	Equipment/ Operating Unit Cost \$	Cost Type (select)	Total Cost \$	Comments
1	Topdressing Purchase and Hauling		Off Site - Other Load Out I	18,529	1	\$70,658.00	\$10.83			A. Earthwork	\$271,364	
						\$70,658	\$200,706	\$0	\$0		\$271,364	

Notes: Capital cost is lump sum (i.e. not multiplied by the quantity).

Material, Labor and Equipment/Operating costs are unit costs (i.e. multiplied by the quantity).

Note: Assumes 20% discount on purchased soil for bulk discount at \$13.54cy original Cost

Note: Assumes Capitol Cost as Delivery cost at \$3.50 per mile using an 18 cy dump truck at 19.6 miles for delivery.

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Page 1 of 1 Other User

Closure Cost Estimate Reclamation Quantities

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Data Cost File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm

Cost Data: User Data

Reclamation Quantity Sum	mary															
													Unit Costs	5		
Description	Total Regrade or Haul Volume cy	Total Regrade or Haul Cost \$	Total Cover Volume cy	Cover Placement Cost \$	Total Growth Media Volume cy	Growth Media Placement Cost \$	Total Surface Area acres	Total Scarify Cost \$	Total Revetation Cost \$	TOTALS \$	Regrade Unit Cost \$/CY	Material Haul or Backfill Unit Cost \$/CY	Cover Unit Cost \$/CY	Growth Media Unit Cost \$/CY	Scarify Unit Cost \$/CY	Area Unit Cost \$/acre
1 Waste Rock Dumps		\$ -		\$ -		\$ -		\$ -	\$ -	\$ -		N/A				
2 Tailings Impoundments		\$ -		\$ -		\$ -		\$ -	\$ -	\$ -		N/A				
3 Heap Leach Pads		\$ -		\$ -		\$ -		\$ -	\$ -	\$ -		N/A				
5 Open Pits		\$ -							\$ -	\$ -		N/A				
4 Quarries & Borrow Pits		\$ -	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?		N/A	#NAME?	#NAME?	#NAME?	#NAME?
6 Roads		\$ -			2,420	\$ 3,309	1.5	\$ 163	\$ 9,886	\$ 13,358		N/A		\$1.37	\$108.67	\$8,905.33
7 Landfills		\$ -		\$ -		\$ -		\$ -	\$ -	\$ -		N/A				
8 Buildings				\$ -		\$ -	0.1	\$ 163	\$ 830	\$ 993		N/A			\$1,630.00	\$9,930.00
9 Yards		\$ -		\$ -	3,227	\$ 4,574	2	\$ 327	\$ 13,182	\$ 18,083		N/A		\$1.42	\$163.50	\$9,041.50
10 Ponds		\$ -				\$ -			\$ -	\$ -	N/A					
11 Exploration Roads		\$ -				\$ -	2.93	\$ -	\$ -	\$ -		N/A			\$0.00	\$0.00
12 Exploration Trenches		\$ -							\$ -	\$ -		N/A				
13 Diversion Ditches		\$ -							\$ -	\$ -		N/A				
14 Sediment Ponds		\$ -				\$ -		\$ -	\$ -	\$ -						
15 Generic Haulage/Backfill	•	\$ -		\$ -		\$ -		\$ -	\$ -	\$ -	N/A					
16 Adit/Decline Backfilling1	•	\$ -						•		\$ -	N/A					
17 Shaft Backfilling	•	\$ -						•	,	\$ -	N/A					
TOTALS	-	\$ -	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?			•	•		
Average Costs	per CY		per CY	#NAME?	per CY	#NAME?	per acre	#NAME?	#NAME?	#NAME?	per acre					

1 of 1 Reclamation Quantities

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Exploration - Cost Summary	,												
	Labor	Equipment	Materials	lotais									
Hole Abandonment Costs	\$0	\$0	\$0	\$0									
Trench Backfilling Costs	\$0	\$0		\$0									
Subtotal Earthworks	\$0	\$0	\$0	\$0									
Trench Revegetation Costs	\$0	\$0	\$0	\$0									
TOTALS	\$0	\$0	\$0	\$0									

Exp	ploration Drillhole Abandonment - User Inpu	ut								
	Facility Description		Hole Plugging							
	Description (required)	ID Code	Hole Type (select)	Diameter in	Total Number of Holes	Max Holes Open at One Time	Casing to Remove ft	Average Depth of Hole ⁽¹⁾ ft bgs	Depth to Water ft bgs	Hole Plug Method (select)
1	Exploration Boreholes	N/A	Rotary Pre-dril	3.0	86.0	0.0	0.0	100.0	250.0	Grout Only

1. If core holes are pre-drilled, use length of hole below pre-drilled length
2. If Top Plug is selected, assumes maximum 1/2hr laborer time to place plug and backfill with cuttings/soil (including move-to/set up time).

Note: Exploration Boreholes will be mined out during life of mine and not be present for final reclamation.

Page 1 of 6 Exploration

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Exploration - Cost Summary	•												
	Labor	Equipment	Materiais	lotais									
Hole Abandonment Costs	\$0	\$0	\$0	\$0									
Trench Backfilling Costs	\$0	\$0		\$0									
Subtotal Earthworks	\$0	\$0	\$0	\$0									
Trench Revegetation Costs	\$0	\$0	\$0	\$0									
TOTALS	\$0	\$0	\$0	\$0									

	Exploration Trenches - User Input												
ĺ	Facility Description		Trench Parameters				Backfill				Revegetation		
	Description (required) ID	Trench Code Length ft	Trench Depth ft	Trench Bottom Width ft	Trench Sideslope Angle degrees	Additional Hrs for Walk-in ⁽¹⁾ hr	Backfill Material (select)	Cut Material Type (select)	Backfilling Fleet (select)	Seed Mix (select)	Mulch (select)	Fertilizer (select)	

- Include <u>one-way</u> hours necessary to walk equipment in from drop-off point to work area
 Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

11/17/2020

Page 2 of 6 Exploration

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Exploration - Cost Summary												
	Labor	Equipment	wateriais	lotais								
Hole Abandonment Costs	\$0	\$0	\$0	\$0								
Trench Backfilling Costs	\$0	\$0		\$0								
Subtotal Earthworks	\$0	\$0	\$0	\$0								
Trench Revegetation Costs	\$0	\$0	\$0	\$0								
TOTALS	\$0	\$0	\$0	\$0								

Exp	xploration Drillhole Abandonment													
	Description (required)	Vol/foot of depth ft3	Hole Plugging Material ⁽¹⁾	Total Grout Volume ⁽²⁾ cy	Total Cuttings Volume cy	Total Top Seal Volume ^(3,4) cy	Drillhole Abandon. Hours ^(6,7) hrs	Casing Removal Labor Cost ⁽⁵⁾	Casing Removal Equipment Cost \$	Plugging Labor Cost \$	Plugging Equipment Cost \$	Plugging Material Cost \$	Top Seal Material Cost ^(2,3)	Total Cost ^(6,7)
1	Exploration Boreholes	0.050	Cuttings	0.19			3	\$0	\$0	\$0	\$0	\$0	\$0	
				0.19			3	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Notes:

- 1. Assumes grout backfill from bottom of hole to 50' (15.24m) above static water level, up to 10' (3m) from top of hole
- 2. Assumes 25% loss to formation for grout backfill
- 3. If "Top Plug" hole plug method is used, assumes physical plug installed without backfill, grout or cement. Not available option for Nevada projects
- 4. Assumes top 20' (6 m) of hole is plugged with cement if "Grout Only", "Backfill + Grout", or "Cement Plug" hole plug method are chosen.
- 5. Assumes that a) casing is not cemented entire length, b) does not include temporary surface casing
- 6. Assumes minimum 1 hr per hole for abandonment (excluding move-to and casing removal)
- 7. Assumes fixed hours per hole for setup & tear-down and moving between holes (see Productivty Sheet) per drill hole (includes rig time if grouting required, labor crew only if cuttings backfill only)

Page 3 of 6 Exploration

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Exploration - Cost Summary				
	Labor	Equipment	Materiais	lotais
Hole Abandonment Costs	\$0	\$0	\$0	\$0
Trench Backfilling Costs	\$0	\$0		\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Trench Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Exploration Trenches - Calculations Exploration Trench Volume Calculation Dozing & Ripping/Scarifying Calculations Dozing: Dozing distance = 1/2 trench length or 400 ft (max push) whichever is less Assumes flat push (grade correction factor = 1) Revegetation: 10 ft added to trench width to account for revegetation under spoil pile

Page 4 of 6 Exploration

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Exploration - Cost Summary				
	Labor	Equipment	Materiais	lotais
Hole Abandonment Costs	\$0	\$0	\$0	\$0
Trench Backfilling Costs	\$0	\$0		\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Trench Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Ехр	loration Trenches - Backfill/Regrading Co	xploration Trenches - Backfill/Regrading Costs										
Proc	roductivity = Dozer Productivity x Grade Correction x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83)											
	Description (required)	Trench Backfill Volume LCY (BCY+30%)	Dozer Push Distance	Equipment Productivity yd3/hr	Dozing Material	Density Correction	Backfilling Fleet	Corrected Hourly Productivity yd3/hr	Total Dozer Hours hr	Trench Backfill Labor Cost	Trench Backfill Equipment Cost	Total Trench Backfill Cost
										\$0	\$0	\$0

Page 5 of 6 Exploration

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Exploration - Cost Summary				
	Labor	Equipment	Materials	lotais
Hole Abandonment Costs	\$0	\$0	\$0	\$0
Trench Backfilling Costs	\$0	\$0		\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Trench Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Ехр	loration Trenches - Revegetation Costs					
			Revegetation	Revegetation	Revgetation	Total
	Description	Surface	Labor	Equipment	Material	Revegetation
	(required)	Area	Cost	Cost	Cost	Cost
		acres	\$	\$	\$	\$
			\$0	\$0	\$0	\$0

Page 6 of 6 Exploration

Closure Cost Estimate Expl. Roads & Pads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0		\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Exp	xploration Roads & Pads - User Input You must fill in ALL green cells and relevant blue cells in this section for each road																
	Facility Description		Physical (1) - MANDATORY								User O	User Overrides		Growth Media			
	Description (required)	ID Code	Underlying Ground Slope % grade	Ungraded Slope _H:1V	Cut Slope degrees	Road + Drill Pad Length ft	Road Width ft	Number of Drill Pads	Individual Sump Volume Cy	Drill Pad Width ft	Drill Pad Length ft	Slope Replacement Percent %	Regrade Volume (if calculated elsewhere) Cy	Disturbed Area (if calculated elsewhere) acres	Growth Media Thickness in	Distance to Growth Media Stockpile ft	Slope from Road to Stockpile % grade
1	Exploration Roads	N/A	15.0	2.0	66.7	0	12.0	86	0	12.0	10	115%		2.93	12	1,379	15.0

- 1. All Physical parameters must be input even if manual overrides for volume or area are used.
- 2. Slope replacement refers to the percentage of cut volumn replaced during regrading.
- 3. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)
- 4. Sump volume will be applied to all roads on slopes <20%. On slopes >20% pad width (i.e. cut volume) should be adequate to account for sump volume.

 Note: Exploration Roads will be mined out during life of mine and not be present for final reclamation.

Page 1 of 7 Expl. Roads & Pads

Closure Cost Estimate Expl. Roads & Pads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0		\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Exp	xploration Roads & Pads - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each road													
		Grading				Growth Media				Revegetation				
	Description (required)	Regrade Material Condition (select)	Cut Material Type (select)	Recontouring Equipment Fleet (select)	Additional Hrs for Walk-in ⁽¹⁾	Growth Media Material Type (select)	Growth Media Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Additional Hrs for Walk-in ⁽¹⁾	Seed Mix (select)	Mulch (select)	Fertilizer (select)	Scarifying/ Ripping? (select)	Ripping Fleet (select)
1	Exploration Roads													

- Notes:

 1. Include one-way hours necessary to walk equipment in from drop-off point to work area

 2. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Page 2 of 7 Expl. Roads & Pads Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

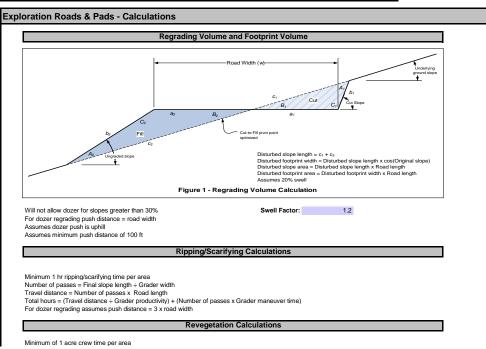
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0		\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0



Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

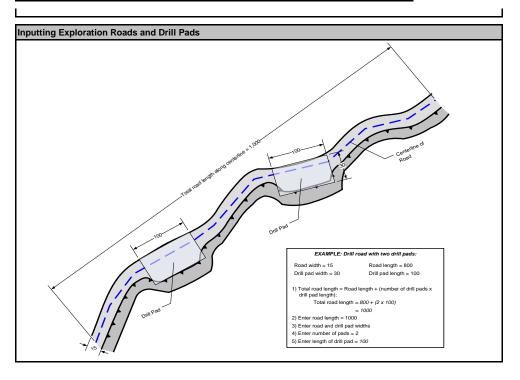
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

ploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0		\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0



Closure Cost Estimate Expl. Roads & Pads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0		\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Expl	oration Roads & Pads - Regrading Costs									
	Description (required)	Total Road Length ft	Total Drill Pad Length ft	Regrading Volume cy	Recontouring Fleet	Equipment Productivity cy/hr	Total Equipment Hours ⁽¹⁾ hr	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
1	Exploration Roads	Excess Pads!	860			Material Type!		\$0	\$0	\$0
			860					\$0	\$0	\$0

(1) Includes walk-in time based on distance and travel speed (see Productivity sheet for speeds)

Page 5 of 7 Expl. Roads & Pads

Closure Cost Estimate Expl. Roads & Pads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0		\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Exp	Exploration Roads & Pads - Growth Media Costs												
	Description (required)	Growth Media Volume Cy	Growth Media Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$				
1	Exploration Roads	0					\$0	\$0	\$0				
							\$0	\$0	\$0				

Closure Cost Estimate Expl. Roads & Pads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0		\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Ехр	oloration Roads & Pads - Scarifying/Revege	tation Cos	ts						Exploration Roads & Pads - Scarifying/Revegetation Costs												
	Description (required)	Surface Area acres	Ripping/ Scarifying Fleet	Ripping Hours hrs	Ripping Labor Costs \$	Ripping Equipment Cost \$	Total Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$										
1	Exploration Roads	2.93						\$0	\$0	\$0	\$0										
		2.93			\$0	\$0	\$0	\$0	\$0	\$0	\$0										

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Estimate Type: Surety

Waste Rock Dumps - Cost Summary				
	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Wa	Waste Rock Dumps - User Input You must fill in ALL green cells in this section for each dump, lift or dump category																			
	Facility Description					Phys	sical - MAND	ATORY					С	over			Growth	n Media		
				Underlying						Average Flat Area Long Dimension	Final (Regraded)	Regrade Volume (1)	Cover	Cover	Distance from	Slope from	Slope Growth	Flat Area	Distance from	Slope from
	Description (required)	ID Code	Type	Ground Slope	Ungraded Slope	Final Slope	Final Top Slope	Lift (dump) Height	Mid-Bench Length	(ripping distance)	Dump Footprint	(if calculated elsewhere)	Thickness Slopes	Thickness Flat Areas	Cover	Dump to Cover Borrow	Media Thickness	Growth Media Thickness	Growth Media Stockpile	Dump to Stockpile
	()		.,,,	% Grade	_H:1V	_H:1V	% Grade	ft	ft	ft	acres	cy	in	in	ft	% grade	in	in	ft	% grade

Notes:

1. All Physical parameters must be input even if manual overrides for volume or area are used.

2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivy Sheet)

11/17/2020

Page 1 of 6 Waste Rock Dumps

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	l otals
Grading Costs	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$(
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	SI

Wa	Waste Rock Dumps - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each dump, lift or dump category																	
	Grading Cover Growth Media Revegetation																	
		Regrading	Regrading	Regrading		Cover	Cover Placement	Growth Media	Growth Media									
	Description	Material	Material	Equipment	Slot/Side-by-	Material	Equipment	Material	Equipment	Seed Mix	Seed Mix Flat	Mulch	Mulch	Fertilizer	Fertilizer	Slope Scarify/	Flat Area	Scarify/
	(required)	Condition (select)	Type (select)	Fleet (select)	Side (select)	Type (select)	Fleet (select)	Type (select)	Fleet (select)	Slopes (select)	Areas (select)	Slopes (select)	Flat Areas (select)	Slopes (select)	Flat Areas (select)	Rip? (select)	Scarify/ Rip? (select)	Ripping Fleet (select)

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Page 2 of 6 Waste Rock Dumps

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

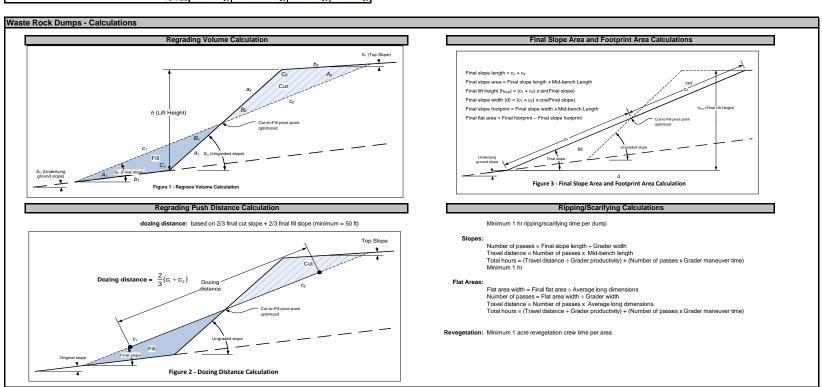
Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Rock Dumps - Cost Summary										
	Labor	Equipment	Materials	l otals						
Grading Costs	\$0	\$0	N/A	\$0						
Cover Placement Cost	\$0	\$0	N/A	\$0						
Topsoil Placement Cost	\$0	\$0	N/A	\$0						
Ripping/Scarifying Cost		\$0	N/A	\$0						
Subtotal Earthworks	\$0	\$0	\$0	\$0						
Revegetation Cost	\$0	\$0	\$0	\$0						
TOTALS	\$0	\$0	\$0	\$0						



Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

aste Rock Dumps - Cost Summary	Vaste Rock Dumps - Cost Summary										
	Labor	Equipment	Materials	lotals							
Grading Costs	\$0	\$0	N/A	\$0							
Cover Placement Cost	\$0	\$0	N/A	\$0							
Topsoil Placement Cost	\$0	\$0	N/A	\$0							
Ripping/Scarifying Cost		\$0	N/A	\$0							
Subtotal Earthworks	\$0	\$0	\$0	\$0							
Revegetation Cost	\$0	\$0	\$0	\$0							
TOTALS	\$0	\$0	\$0	\$0							

Waste Rock Dumps - Regrading Costs Productivity = Dozer Productivity x Grade Correction x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83) x (Slot/Side-by-Side) x (Altitude Deration)														
Description (required)	Regrading Volume cy	Dozing Distance (see above)	Regrading Fleet	Uncorrected Dozer Productivity cy/hr	Grade Correction	Dozing Material	Density Correction	Side-by-Side or Slot Dozing	Total Hourly Productivity cy/hr	Total Dozer Hours hr	Total Labor Cost	Total Equipment Cost \$	Total Regrading Cost \$	
											\$0	\$0	\$	

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Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor Equipme		Materials	l otals	
Grading Costs	\$0	\$0	N/A	\$1	
Cover Placement Cost	\$0	\$0	N/A	\$0	
Topsoil Placement Cost	\$0	\$0	N/A	\$0	
Ripping/Scarifying Cost		\$0	N/A	\$(
Subtotal Earthworks	\$0	\$0	\$0	\$0	
Revegetation Cost	\$0	\$0	\$0	\$0	
TOTALS	\$0	\$0	\$0	\$0	

Wast	Waste Rock Dumps - Cover and Growth Media Costs																	
	Cover (lower layer)									Growth Media Placement								
	Description (required)	Cover Volume cy	Cover Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Cover Labor Cost	Cover Equipment Cost \$	Total Cover Cost \$	Growth Media Volume cy	Growth Media Replacement Fleet	Fleet Productivity BCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$	
	\$0 \$0							\$0						\$0	\$0	\$0		

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost		\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Was	Waste Rock Dumps - Scarifying/Revegetation Costs															
	Description (required)	Slope Area acres	Flat Area acres	Total Surface Area acres	Final Slope Length ft	Flat Area Long Dimension ft	Ripping/ Scarifying Fleet	Slope Scarifying/ Ripping Hours hrs	Flat Area Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Costs \$		Total Scarifying/ Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$
											\$0	\$0	\$0	\$0	\$0	

Notes: 1) Minimum total ripping hours = 1 (i.e. If total ripping hrs (slope + flat) < 1, then one hour of fleet time is assumed, regardless of acres shown in in scarifying table.)

Page 6 of 6 Waste Rock Dumps

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

eap Leach Pads - Cost Summary													
	Labor	Equipment	Materials	Totals									
Drain Installation	\$0	\$0	\$0	\$0									
Grading Costs	\$0	\$0	N/A	\$0									
Cover Placement Cost	\$0	\$0	N/A	\$0									
Topsoil Placement Cost	\$0	\$0	N/A	\$0									
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0									
Subtotal Earthworks	\$0	\$0	\$0	\$0									
Revegetation Cost	\$0	\$0	\$0	\$0									
TOTALS	\$0	\$0	\$0	SO.									

Heap	Heap Leach Pads - User Input You must fill in ALL green cells and relevant blue cells in this section for each heap, lift or heap category																			
	Facility Description		Physical (1) - MANDATORY							Cover				Growth Media						
				Underlying						Average Flat Area Long Dimension	Final (Regraded)	Regrade Volume	Cover	Cover Thickness	Distance from	Slope from	Slope Growth	Flat Area	Distance from Growth	Slope from
	Description (required)	ID Code	Туре	Ground Slope	Ungraded Slope	Final Slope	Final Top Slope	Lift (heap) Height	Mid-Bench Length	(ripping distance)	Heap Footprint	(if calculated elsewhere)	Thickness Slopes	Flat Areas	Cover Borrow	Heap to Cover Borrow	Media Thickness	Growth Media Thickness	Material Stockpile	Heap to Stockpile
				% grade	_H:1V	_H:1V	% grade	ft	ft	ft	acres	су	in	in	ft	% grade	in	in	ft	% grade

- Notes:

 1. All Physical parameters must be input even if manual overrides for volume or area are used.

 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

Page 1 of 8 Heap Leach

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

leap Leach Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	\$0
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Hea	Heap Leach Pads - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each heap, lift or heap category																	
	Grading Cover Growth Media Revegetation																	
	Description (required)	Regrading Material Condition (select)	Regrading Material Type (select)	Regrading Equipment Fleet (select)	Slot/ Side-by-Side (select)	Cover Material Type (select)	Cover Placement Equipment Fleet (select)	Growth Media Material Type (select)	Growth Media Equipment Fleet (select)	Seed Mix Slopes (select)	Seed Mix Flat Areas (select)	Mulch Slopes (select)	Mulch Flat Areas (select)	Fertilizer Slopes (select)	Fertilizer Flat Areas (select)	Slope Scarify/ Rip? (select)	Flat Area Scarify/ Rip? (select)	Scarifying/ Ripping Fleet (select)

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Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	S
Grading Costs	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$(
Topsoil Placement Cost	\$0	\$0	N/A	\$(
Ripping/Scarifying Cost	\$0	\$0	N/A	\$(
Subtotal Earthworks	\$0	\$0	\$0	\$(
Revegetation Cost	\$0	\$0	\$0	\$(
TOTALS	\$0	\$0	\$0	\$(

Heap	Leach Pads - User Input (cont.)													
		Solution Collection Ditch Fill								Piping				
	Description (required)	Collection Ditch Length ft	Collection Ditch Top Width ft	Collection Ditch Depth ft	Volume (if calculated elsewhere)	Distance from Borrow ft	Slope to Borrow % grade	Drain Rock Equipment Fleet (select)	Solid Pipe Length ft	Solid Pipe Type (select)	Drainage Pipe Length ft	Drainage Pipe Type (select)		

Notes:

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

eap Leach Pads - Cost Summary													
	Labor	Equipment	Materials	Totals									
Drain Installation	\$0	\$0	\$0	\$0									
Grading Costs	\$0	\$0	N/A	\$0									
Cover Placement Cost	\$0	\$0	N/A	\$0									
Topsoil Placement Cost	\$0	\$0	N/A	\$0									
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0									
Subtotal Earthworks	\$0	\$0	\$0	\$0									
Revegetation Cost	\$0	\$0	\$0	\$0									
TOTALS	\$0	\$0	\$0	\$0									

Heap Leach Pads - Calculations Final Slope Area and Footprint Area Calculations Regrading Volume Calculation Final slope area = Final slope length x Mid-bench Length Final lift height (h_{final}) = (c₁ + c₂) x sin(Final slope) Final slope width (d) = (c₁ + c₂) x cos(Final slope) Final slope footprint = Final slope width x Mid-bench Length Final flat area = Final footprint - Final slope footprint h (Lift Height) Figure 3 - Final Slope Area and Footprint Area Calculation Figure 1 - Regrading Volume Calculation Solution Collection Ditch Calculations Regrading Push Distance Calculation Use when existing heap material is not suitable drain rock Assume to be constructed in existing solution channels dozing distance: based on 2/3 final cut slope + 2/3 final fill slope (minimum = 50 ft) Assume 2H:1V ditch sideslopes Drain rock assumed to be Gravel - Dry at 2,550 lb/cy (1,510 kg/m3) from CAT Handbook 35th Ed. Final Slope Drain Pipe Gravel Backfill Solution Collection Ditch Figure 2 - Dozing Distance Calculation Figure 4 - Drainage Ditch Construction Ripping/Scarifying Calculations Minimum 1 hr ripping/scarifying per area Number of passes = Final slope length ÷ Grader width Travel distance = Number of passes x Mid-bench length Total hours = (Travel distance - Grader productivity) + (Number of passes x Grader maneuver time) Flat area width = Final flat area ÷ Average long dimensions Number of passes = Flat area width ÷ Grader width Travel distance = Number of passes x Average long dimensions Total hours = (Travel distance ÷ Grader productivity) + (Number of passes x Grader maneuver time) Revegetation: Minimum 1 acre revegetation crew time per area

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	S
Grading Costs	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$(
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$(
Subtotal Earthworks	\$0	\$0	\$0	\$(
Revegetation Cost	\$0	\$0	\$0	\$(
TOTALS	\$0	\$0	\$0	\$(

Heap	Heap Leach Pad - Drainage Channel Fill & Drainage Pipe Installation													
				D	rain Rock Pla	cement					Dra	inpipe Installa	ation	
	Description (required)	Drain Rock Volume cy	Drain Rock Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours hrs	Drainage Labor Cost \$	Drainage Equipment Cost \$	Total Drainage Cost \$	Piping Crew Hours hrs	Piping Labor Cost \$	Piping Equipment Cost \$	Piping Material Cost \$	Total Pipe Installation Cost \$
	<u> </u>					0	\$0	\$0	\$0		\$0	\$0	\$0	\$0

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Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	\$0
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Heap	Leach Pad - Regrading Costs													
Produ	uctivity = Dozer Productivity x Grade Correction x	Density Corr	ection x Opera	tor (0.75) x Ma	aterial x Visib	ility x Job E	fficiency (0.	83) x (Slot/S	ide-by-Side) x (Altitude	Deration)			
	Description (required)	Regrading Volume cy	Dozing Distance (see above) ft	Regrading Fleet	Uncorrected Dozer Productivity cy/hr	Grade Correction	Dozing Material	Density Correction	Side-by-Side or Slot Dozing	Total Hourly Productivity cy/hr	Total Dozer Hours hr	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
												\$0	\$0	\$0

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Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	S
Grading Costs	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$(
Topsoil Placement Cost	\$0	\$0	N/A	\$(
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Heap	leap Leach Pad - Cover and Growth Media Costs																
	Cover (lower layer) Growth Media Placement																
	Description (required)	Cover Volume cy	Cover Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Cover Labor Cost \$	Cover Equipment Cost \$	Total Cover Cost \$	Growth Media Volume cy	Growth Media Replacement Fleet	Fleet Productivity BCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$
							\$0	\$0	\$0						\$0	\$0	\$0

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Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Heap Leach Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Drain Installation	\$0	\$0	\$0	\$0
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Неар	Heap Leach Pad - Scarifying/Revegetation Costs															
	Description (required)	Slope Area acres	Flat Area acres	Total Surface Area acres	Final Slope Length ft	Flat Area Long Dimension	Ripping/ Scarifying Fleet	Slope Scarifying/ Ripping Hours hrs	Flat Area Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Costs \$	Scarifying/ Ripping Equipment Cost \$	Total Scarifying/ Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost	Revgetation Material Cost	Total Revegetation Cost \$
										\$0	\$0	\$0	\$0	\$0	\$0	\$0

¹⁾ Minimum total ripping hours = 1 (i.e. If total ripping hrs (slope + flat) < 1, then one hour of fleet time is assumed, regardless of acres shown in in scarifying table.)

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$0
Tailings Surface Grading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Tailings - User Input		You must fill in ALL green cells and relevant blue cells in this section for each tailings impoundment															
Facility Description			Physical - MANDATORY							Cover					Growth Media		
Description (required)	Underlying Final (Regraded) Final Ground Ungraded Embankment Embankment S								Surtace Regrade Volume (calculated elsewhere)	Embankment Cover Thickness in	Tailings Surface Cover Thickness in	Distance from Cover Borrow ft	Slope from Tailings to Borrow % grade	Embankment Growth Media Thickness in	Tailings Surface Growth Media Thickness in	Distance from Growth Material Stockpile ft	

Notes:

All Physical parameters must be input even if manual overrides for volume or area are used.
 If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet).

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Page 1 of 14 Tailings

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Failings - Cost Summary				
	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$0
Tailings Surface Grading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Taili	Tailings - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each tailings impoundment															
			Co	ver	Grow	Growth Media				F	Revegetation					
	Description (required)	Regrading Embankment Regrading Material Equipment Slot/Side-by-Condition Type Fleet Side (select) (select) (select) (select)				Cover Material Type (select)	Cover Placement Equipment Fleet (select)	Growth Media Material Type (select)	Growth Media Equipment Fleet (select)		Seed Mix Tailings Surface (select)		Mulch Tailings Surface (select)	Fertilizer Embankment Slopes (select)	Embankment Slope Scarify/ Rip? (select)	Tailings Surface Scarify/ Rip? (select)

Page 2 of 14 Tailings

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

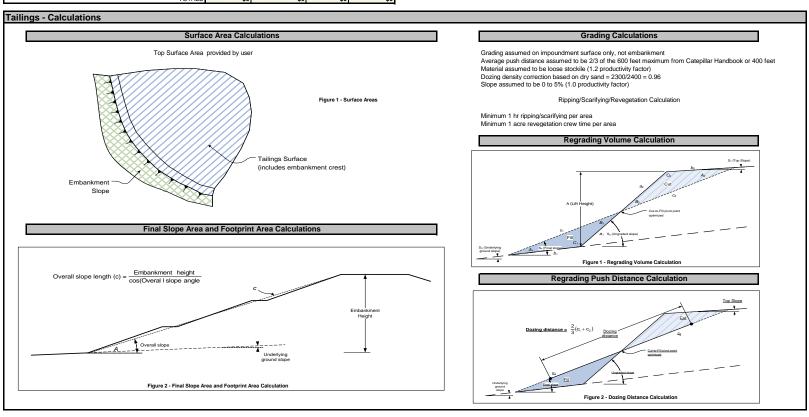
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$
Tailings Surface Grading Cost	\$0	\$0	N/A	\$
Cover Placement Cost	\$0	\$0	N/A	\$
Topsoil Placement Cost	\$0	\$0	N/A	\$
Ripping/Scarifying Cost	\$0	\$0	N/A	\$
Subtotal Earthworks	\$0	\$0	\$0	\$
Revegetation Cost	\$0	\$0	\$0	\$
TOTALS	\$0	\$0	\$0	\$



Page 3 of 14

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$0
Tailings Surface Grading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Tailings - Embankment Regrading Costs														
Prod	luctivity = Dozer Productivity x Grade Correction x	Density Cor	rection x Opera	tor (0.75) x	Material x Vis	sibility x Job	Efficiency	(0.83) x (Slo	t/Side-by-Sid	e) x (Altitude	e Deration)			
	Description (required)	Regrading Volume cy	Dozing Distance (see above)	Regrading Fleet	Uncorrected Dozer Productivity cy/hr	Grade Correction	Dozing Material Condition	Density Correction	Side-by-Side or Slot Dozing	Total Hourly Productivity cy/hr	Total Dozer Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
												\$0	\$0	\$0

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$0
Tailings Surface Grading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Tailings - Surface Regrading Costs Productivity = Dozer Productivity x Grade Correction x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83) x (Slot/Side-by-Side) x (Altitude Deration)													
Description (required)	Regrading Volume cy	Dozing Distance (see above)	Regrading Fleet	Uncorrected Dozer Productivity cy/hr	Grade Correction	Density Correction	Dozing Material	Side-by-Side or Slot Dozing	Total Hourly Productivity cy/hr	Total Dozer Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
											\$0	\$0	\$0

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Page 5 of 14 Tailings

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

ings - Cost Summary				
	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$0
Tailings Surface Grading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

T	ailin	gs - Cover and Growth Media Costs																
	Cover Placement Growth Media Placement																	
				Cover	Cover	Number of		Total	Total				Growth Media	Number of		Total	Total	Total
		Description		Placement	Fleet	Trucks/	Total Fleet	Labor	Equipment	Total Cover	Growth Media	Growth Media	Fleet	Trucks/	Total Fleet	Labor	Equipment	Growth Media
		(required)	Cover Volume	Fleet	Productivity	Scrapers	Hours	Cost	Cost	Placement Cost	Volume	Placement Fleet	Productivity	Scrapers	Hours	Cost	Cost	Cost
		·	cy		LCY/hr			\$	\$	\$	cy		LCY/hr			\$	\$	\$
_		_						\$0	\$0	\$0						\$0	\$0	\$0

Page 6 of 14

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

lings - Cost Summary				
	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$0	\$0	N/A	\$0
Tailings Surface Grading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Taili	ngs - Scarifying/Revegetation Costs														
		Embankment	Tailings Surface	Total Surface	Final Slope	Ripping/ Scarifying	Slope Scarifying/	Flat Area Scarifying/	Scarifying/ Ripping Labor	Scarifying/ Ripping Equipment	Total Scarifying/ Ripping	Revegetation Labor	Revegetation Equipment	Revgetation Material	Total Revegetation
	(required)	Slope Area acres	Area acres	Area acres	Length ft	Fleet	Ripping Hours hrs	Ripping Hours hrs	Cost \$	Cost \$	Cost \$	Cost \$	Cost \$	Cost \$	Cost \$
									\$0	\$0	\$0	\$0	\$0	\$0	\$0

Page 7 of 14

Slope from Tailings to Stockpile % grade Scarifying/ Ripping Fleet (select)

Closure Cost Estimate Roads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Roads - Cost Summary										
	Labor	Equipment	Materials	Totals						
Grading Costs	\$0	\$0	N/A	\$0						
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309						
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163						
Subtotal Earthworks	\$543	\$2,929		\$3,472						
Revegetation Cost	\$210	\$75	\$9,601	\$9,886						
TOTALS	\$753	\$3,004	\$9,601	\$13,358						

Ro	Roads - User Input You must fill in ALL green cells and relevant blue cells in this section for each road												
	Facility Description		Physical (1) - MANDATORY						User Overrides		Growth Media		
	Description (required) ID	Underlying Ground Slope % grade	Ungraded Slope _H:1V	Cut Slope degrees	Road Width	Road Length ft	Slope Replacement Percent %	Regrade Volume (if calculated elsewhere)	Disturbed Area (if calculated elsewhere) acres	Growth Media Thickness in	Haul Distance from Growth Media Stockpile ft	Slope from Road to Stockpile % grade	
1	1 Access Roads	Haul Road	2.0	3.0	50.0	16.0	1,350	115%		1.50	12.0	1,379	-2%

- 1. All Physical parameters must be input even if manual overrides for volume or area are used.
- 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)
- 2. In soper from required for building roads with a dozer is similar to that required to regrade a road with a dozer, this sheet could be used to provide a rough estimate of road construction costs if a dozer is selected as the grading fleet.

 Note: Assumes any improments made to existing BML road will be left in place and not require reclamation.

Page 1 of 7 Roads

Closure Cost Estimate Roads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Roads - Cost Summary										
	Labor	Equipment	Materials	Totals						
Grading Costs	\$0	\$0	N/A	\$0						
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309						
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163						
Subtotal Earthworks	\$543	\$2,929		\$3,472						
Revegetation Cost	\$210	\$75	\$9,601	\$9,886						
TOTALS	\$753	\$3,004	\$9,601	\$13,358						

Road	Roads - User Input (cont.)										
	Haul Road Safety Berms										
	Description (required)	Berm Length ft	Berm Height ft	Berm Base Width ft	Berm Sideslope Angle _H:1V	Number of Berms (2) (1 or 2 sides)					
1	Access Roads	0.0	2.0	6.0	1.3	2					

⁽²⁾ Enter 1 if berm on only one side of road, 2 if both sides of road are bermed.

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Closure Cost Estimate Roads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Roads - Cost Summary										
	Labor	Equipment	Materials	Totals						
Grading Costs	\$0	\$0	N/A	\$0						
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309						
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163						
Subtotal Earthworks	\$543	\$2,929		\$3,472						
Revegetation Cost	\$210	\$75	\$9,601	\$9,886						
TOTALS	\$753	\$3,004	\$9,601	\$13,358						

R	Roads - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each road												
			Growth Media			Revegetation							
	Description (required)	Regrading Material Condition (select)	Regrading Material Type (select)	Equipment Fleet (select)	No. of Excavators if grade >30% (select)	Material Type (select)	Cover Placement Equipment Fleet (select)	Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)	Scarifying/ Ripping? (select)	Ripping Fleet (select)
	1 Access Roads	1	Alluvium	Sm Dozer		Alluvium	Small Truck		User Mix 1	Straw Mulch	None	Yes	Small Dozer

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

2. If original slope >30% only excavators are allowed.

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Closure Cost Estimate Roads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2 Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Roads - Cost Summary										
	Labor	Equipment	Materials	Totals						
Grading Costs	\$0	\$0	N/A	\$0						
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309						
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163						
Subtotal Earthworks	\$543	\$2,929		\$3,472						
Revegetation Cost	\$210	\$75	\$9,601	\$9,886						
TOTALS	\$753	\$3,004	\$9,601	\$13,358						

Roads - Calculations

Regrading Volume and Footprint Volume

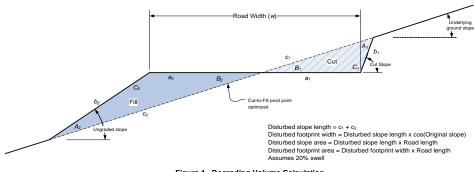


Figure 1 - Regrading Volume Calculation

Will not allow dozer for slopes greater than 30% For dozer regrading push distance = road width Assumes dozer push is uphill

Assumes minimum push distance of 100 ft

Ripping/Scarifying Calculations

Minimum 1 hr ripping/scarifying time per area Number of passes = Final slope length ÷ Grader width Travel distance = Number of passes x Road length

Total hours = (Travel distance ÷ Grader productivity) + (Number of passes x Grader maneuver time)

For dozer regrading assumes push distance = 3 x road width

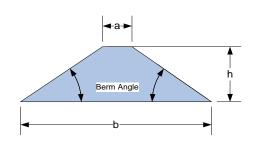
Revegetation Calculations

Minimum of 1 acre crew time per area

Safety Berm Volume Calculation

Cross Sectional Area = $\frac{(a+b)}{2} \times h$

Berm Volume = Berm Length x Cross Sectional Area x No. Sides



Total berm volume doubled if both sides of road are bermed.

If length of berm on each side of road is different, input total length of both berms and input 1 for number of sides

Page 4 of 7 Roads

Closure Cost Estimate Roads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

· ·	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$543	\$2,929		\$3,472
Revegetation Cost	\$210	\$75	\$9,601	\$9,886
TOTALS	\$753	\$3,004	\$9,601	\$13,358

Road	Roads - Regrading Costs											
	Description (required)	Regrading Volume cy	Recontouring Fleet	Fleet Productivity cy/hr	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$				
1	Access Roads	0				\$0		\$0				
						\$0	\$0	\$0				

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Closure Cost Estimate Roads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

· ·	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$543	\$2,929		\$3,472
Revegetation Cost	\$210	\$75	\$9,601	\$9,886
TOTALS	\$753	\$3,004	\$9,601	\$13,358

Roa	ds - Growth Media Costs								
	Description (required)	Growth Media Volume cy	Growth Media Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$
1	Access Roads	2,420	725/966G/D7R	548	3	4	\$517	\$2,792	\$3,309
		2,420				4	\$517	\$2,792	\$3,309

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Closure Cost Estimate Roads

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$517	\$2,792	N/A	\$3,309
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$543	\$2,929		\$3,472
Revegetation Cost	\$210	\$75	\$9,601	\$9,886
TOTALS	\$753	\$3,004	\$9,601	\$13,358

Road	ds - Scarifying/Revegetation Costs											
	Description (required)	Total Surface Area acres	Final Slope Length ft	Ripping/ Scarifying Fleet	Ripping Hours hrs	Ripping Labor Costs \$	Ripping Equipment Cost \$	Total Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$
1	Access Roads	1.50	48.0	D7R	1	\$26	\$137	\$163	\$210	\$75	\$9,601	\$9,886
		1.50			1	\$26	\$137	\$163	\$210	\$75	\$9,601	\$9,886

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Closure Cost Estimate Pits

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Pits - Cost Summary				
	Labor	Equipment	Materials	Totals
Safety Berm Construction Cost	\$0	\$0	N/A	\$(
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Pits	Pits - User Input																	
	Facility Description					Pit Berms			Berm Cor		Excavate or Doze	н	auling (if se	lected meth	od)		Revegetatio	n
	Description (required)	ID Code	Туре	Berm (or Highwall) Length ft	Berm Height ft	Berm Base Width ft	Berm Sideslope Angle _H:1V	Volume (if calculated elsewhere)	Construction Method (select)		Berm Construction Equipment Fleet (select)	Berm Hauling Fleet (select)	Distance to Borrow Source ft	Slope to Borrow Source % grade	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)

- Notes:
 1. All Physical parameters must be input even if manual overrides for volume or area are used.
 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)
 3. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

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Page 1 of 4

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

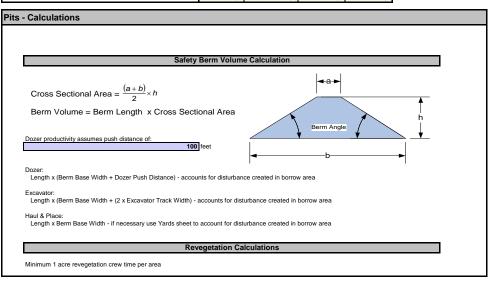
Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Pits - Cost Summary				
	Labor	Equipment	Materials	Totals
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0



Closure Cost Estimate Pits

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Pits - Cost Summary				
	Labor	Equipment	Materials	Totals
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Pits	Pits - Safety Berm Construction Costs											
		Safety Berm										
	Description (required)	Safety Berm Volume Cy	Selected Fleet	Number of Trucks/ Scrapers	Corrected Fleet Productivity cy/hr	Total Hours	Safety Berm Labor Cost \$	Safety Berm Equipment Cost \$	Total Safety Berm Cost \$			
							\$0	\$0	\$0			

Page 3 of 4

Closure Cost Estimate Pits

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020 File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Pits - Cost Summary										
	Labor	Equipment	Materials	Totals						
Safety Berm Construction Cost	\$0	\$0	N/A	\$0						
Safety Berm Revegetation Cost	\$0	\$0	\$0	\$0						
TOTALS	\$0	\$0	\$0	\$0						

Pits ·	Pits - Safety Berms - Revegetation Costs											
	Description (required)	Flat Area acres	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$						
			\$0	\$0	\$0	\$0						

Page 4 of 4

Closure Cost Estimate **Quarries & Borrow Pits**

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	#NAME?	#NAME?	N/A	#NAME?
Topsoil Placement Cost	#NAME?	#NAME?	N/A	#NAME?
Ripping/Scarifying Cost	#NAME?	\$0	N/A	#NAME?
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	#NAME?	#NAME?	\$0	#NAME?
Revegetation Cost	#NAME?	#NAME?	#NAME?	#NAME?
Safety Berm Revegetation Cost	\$140	\$50	\$0	\$190
	#NAME?	#NAME?	#NAME?	#NAME?
TOTAL S	#NAME?	#NAME?	#NAME?	#NAME?

Qua	tuarries & Borrow Pits - User Input You must fill in ALL green cells in this section for each dump, lift or dump category																			
	Facility Description			Physical - MANDATORY							Cover				Growth Media					
	Description (required)	ID Code	Туре	Underlying Ground Slope	Ungraded Slope	Final Slope	Final Top Slope	Bench or Highwall Height	Mid-Bench Length	Average Flat Area Long Dimension (ripping distance)	Final (Regraded) Footprint	Regrade Volume (1) (if calculated elsewhere)	Cover Thickness Slopes	Cover Thickness Flat Areas	Distance from Cover Borrow	Slope from Dump to Cover Borrow	Slope Growth Media Thickness	Flat Area Growth Media Thickness	Distance from Growth Media Stockpile	Slope from Dump to Stockpile
				% Grade	_H:1V	_H:1V	% Grade	ft	ft	ft	acres	су	in	in	ft	% grade	in	in	ft	% grade
1	Main Quarry		Quarry	1.0	3.0	3.0	1.0	20	8,411	1,089	21.75		0.0	0.0	1,379	-2.0	12.0	12.0	1,379	-2.0

- Notes:
 1. All Physical parameters must be input even if manual overrides for volume or area are used.
 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

Page 1 of 7

Closure Cost Estimate Quarries & Borrow Pits

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Vaste Rock Dumps - Cost Summary														
	Labor	Equipment	Materials	lotals										
Grading Costs	\$0	\$0	N/A	\$0										
Cover Placement Cost	#NAME?	#NAME?	N/A	#NAME?										
Topsoil Placement Cost	#NAME?	#NAME?	N/A	#NAME?										
Ripping/Scarifying Cost	#NAME?	\$0	N/A	#NAME?										
Safety Berm Construction Cost	\$0	\$0	N/A	\$0										
Subtotal Earthwork	#NAME?	#NAME?	\$0	#NAME?										
Revegetation Cost	#NAME?	#NAME?	#NAME?	#NAME?										
Safety Berm Revegetation Cost	\$140	\$50	\$0	\$190										
	#NAME?	#NAME?	#NAME?	#NAME?										
TOTALS	#NAME?	#NAME?	#NAME?	#NAME?										

Qua	Quarries & Borrow Pits - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each dump, lift or dump category																	
Grading				Cover Growth Media			Revegetation											
	Description	Regrading Material	Regrading Material	Regrading	Slot/Side-by-	Cover Material	Cover Placement Equipment	Growth Media Material	Growth Media Equipment	Seed Mix	Seed Mix Flat	Mulch	Mulch	Fertilizer	Fertilizer	Slope Scarify/	Flat Area	Scarify/
	(required)	Condition (select)	Type (select)	Equipment Fleet (select)	Side (select)	Type (select)	Fleet (select)	Type (select)	Fleet (select)	Slopes (select)	Areas (select)	Slopes (select)	Flat Areas (select)	Slopes (select)	Flat Areas (select)	Rip? (select)	Scarify/ Rip? (select)	Ripping Fleet (select)
1	Main Quarry	0.8	LS - broken	Small		Alluvium	Small Truck	Alluvium	Small Truck	User Mix 1	User Mix 1	Straw Mulch	Straw Mulch	None	None	Yes	Yes	Small Dozer

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

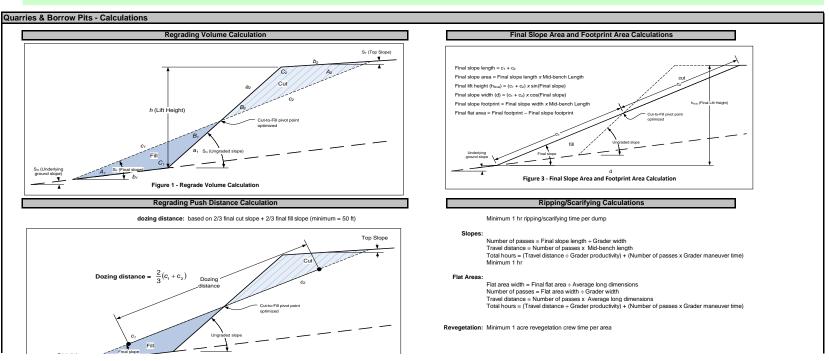
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	#NAME?	#NAME?	N/A	#NAME?
Topsoil Placement Cost	#NAME?	#NAME?	N/A	#NAME?
Ripping/Scarifying Cost	#NAME?	\$0	N/A	#NAME?
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	#NAME?	#NAME?	\$0	#NAME?
Revegetation Cost	#NAME?	#NAME?	#NAME?	#NAME?
Safety Berm Revegetation Cost	\$140	\$50	\$0	\$190
	#NAME?	#NAME?	#NAME?	#NAME?
TOTALS	#NAME?	#NAME?	#NAME?	#NAME?

Qua	tuarries & Borrow Pits - User Input (cont.)															
Facility Description			Hi	ghwall Berms			Berm Co	nstruction	Excavate or Doze		lauling (if selec	ted method)		Revegetatio	n
	Description (required)	Berm (or Highwall) Length ft	Berm Height ft	Berm Base Width ft	Berm Sideslope Angle _H:1V	Volume (if calculated elsewhere)	Construction Method (select)	Berm Material Type (select)	Berm Construction Equipment Fleet (select)	Berm Hauling Fleet (select)	to Borrow Source ft	Slope to Borrow Source % grade	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)
1	Main Quarry	3,917.0	0.0	0.0	2.0		Haul & Place	Alluvium	Small	Small Truck	1,379	-5.0		User Mix 1	Straw Mulch	None

- Notes:

 1. All Physical parameters must be input even if manual overrides for volume or area are used.
- 1. All Prijoscal paralliteries insist der input evert in inaural overtiest sind vollimet oil artea are used.
 2. Il Slope from facility to borrow source is 2-20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)
 3. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table
 Note: Assumes no berm will be required due to regraded 3:1 slopes.



Page 3 of 7 Quarries & Borrow Pits Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

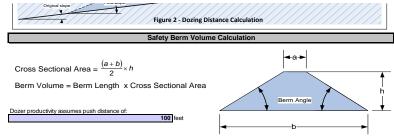
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	#NAME?	#NAME?	N/A	#NAME?
Topsoil Placement Cost	#NAME?	#NAME?	N/A	#NAME?
Ripping/Scarifying Cost	#NAME?	\$0	N/A	#NAME?
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	#NAME?	#NAME?	\$0	#NAME?
Revegetation Cost	#NAME?	#NAME?	#NAME?	#NAME?
Safety Berm Revegetation Cost	\$140	\$50	\$0	\$190
	#NAME?	#NAME?	#NAME?	#NAME?
TOTALS	HNIAMES	#MAMES	#NIAMES	#NIA MEG



Length x (Berm Base Width + Dozer Push Distance) - accounts for disturbance created in borrow area

Length x (Berm Base Width + (2 x Excavator Track Width) - accounts for disturbance created in borrow area

Length x Berm Base Width - if necessary use Yards sheet to account for disturbance created in borrow area

Closure Cost Estimate Quarries & Borrow Pits

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotais
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	#NAME?	#NAME?	N/A	#NAME?
Topsoil Placement Cost	#NAME?	#NAME?	N/A	#NAME?
Ripping/Scarifying Cost	#NAME?	\$0	N/A	#NAME?
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	#NAME?	#NAME?	\$0	#NAME?
Revegetation Cost	#NAME?	#NAME?	#NAME?	#NAME?
Safety Berm Revegetation Cost	\$140	\$50	\$0	\$190
	#NAME?	#NAME?	#NAME?	#NAME?
TOTALS	#NAME?	#NAME?	#NAME?	#NAME?

	Quarries & Borrow Pits - Regrading Costs Productivity = Dozer Productivity x Grade Correction x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83) x (Slot/Side-by-Side) x (Altitude Deration)													
	Description Regrading (see above) Volume (see above) Cox (t. Cox (c. c. c													
1	Main Quarry	0	N.	D7R	- Oyiiii					- Cynn		\$0	\$0	\$0
												\$0	\$0	\$0

Closure Cost Estimate Quarries & Borrow Pits

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

/aste Rock Dumps - Cost Summary				
	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	#NAME?	#NAME?	N/A	#NAME?
Topsoil Placement Cost	#NAME?	#NAME?	N/A	#NAME?
Ripping/Scarifying Cost	#NAME?	\$0	N/A	#NAME?
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	#NAME?	#NAME?	\$0	#NAME?
Revegetation Cost	#NAME?	#NAME?	#NAME?	#NAME?
Safety Berm Revegetation Cost	\$140	\$50	\$0	\$190
	#NAME?	#NAME?	#NAME?	#NAME?
TOTALS	#NAME?	#NAME?	#NAME?	#NAME?

Qua	arries & Borrow Pits - Cover and Growth Med	dia Costs															
Cover (lower layer)										Growth Med	dia Placeme	nt					
	Description (required)	Cover Volume cy	Cover Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Cover Labor Cost	Cover Equipment Cost \$	Total Cover Cost \$	Growth Media Volume cy	Growth Media Replacement Fleet	Fleet Productivity BCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$
1	Main Quarry	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
		#NAME?				#NAME?	#NAME?	#NAME?	#NAME?	#NAME?				#NAME?	#NAME?	#NAME?	#NAME?

Closure Cost Estimate Quarries & Borrow Pits

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	#NAME?	#NAME?	N/A	#NAME?
Topsoil Placement Cost	#NAME?	#NAME?	N/A	#NAME?
Ripping/Scarifying Cost	#NAME?	\$0	N/A	#NAME?
Safety Berm Construction Cost	\$0	\$0	N/A	\$0
Subtotal Earthwork	#NAME?	#NAME?	\$0	#NAME?
Revegetation Cost	#NAME?	#NAME?	#NAME?	#NAME?
Safety Berm Revegetation Cost	\$140	\$50	\$0	\$190
	#NAME?	#NAME?	#NAME?	#NAME?
TOTALS	#NAME?	#NAME?	#NAME?	#NAME?

Qua	rries & Borrow Pits - Scarifying/Revegetatio		#NAME?	#NAME !	#NAME?												1
				Total		Flat Area	Ripping/	Slope	Flat Area	Scarifying/	Scarifying/ Ripping	Total	Revegetation	Revegetation	Revgetation	Total	
	Description (required)	Slope Area	Flat Area	Surface Area	Final Slope Length	Long Dimension	Scarifying Fleet	Scarifying/ Ripping Hours	Scarifying/ Ripping Hours	Ripping Labor Costs	Equipment Cost	Scarifying/ Ripping Costs	Labor Cost	Equipment Cost	Material Cost	Revegetation Cost	
L.,		acres	acres	acres	ft	ft		hrs	hrs	\$	\$	\$	\$	\$	\$	\$	
_ 1	Main Quarry	#NAME? #NAME?	#NAME? #NAME?	#NAME? #NAME?	#NAME?	1,089	D7R	#NAME? #NAME?	#NAME? #NAME?	#NAME? #NAME?	\$0 \$0		#NAME?	#NAME? #NAME?	#NAME? #NAME?	#NAME?	#NAME

Notes: 1) Minimum total ripping hours = 1 (i.e. If total ripping hrs (slope + flat) < 1, then one hour of fleet time is assumed, regardless of acres shown in in scarifying table.)

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Quarries & Borrow Pits

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Underground Openings Cost Summary													
	Labor	Equipment	Materials	Totals									
Adits, Portals & Declines Plugging	\$0	\$0	\$0	\$0									
Shaft Backfill/Cover	\$0	\$0	N/A	\$0									
Shaft Capping	\$0	\$0	\$0	\$0									
TOTALS	\$0	\$0	\$0	\$0									

Adits	s, Portals & Declines - User Input									
	Facility Description		Backfill Material							
	Description (required)	ID Code	Height ft	Width ft	Backfill/ Plug Type	Distance to Bulkhead ft	Backfill Material Condition (select)	Backfill Material Type (select)	Distance to Backfill Borrow ft	Slope from Adit to Borrow Area % grade

Notes: 1) Foam (adit) option is for smaller openings that can be plugged with simple forms and a 5 ft thick plug.

- 2) Foam (production) option is for larger production openings (declines, etc.) and requires larger form construction and minimum 10 ft thick plug.
- 3) All foam plugs include minimum 15ft of backfill from opening to plug.
- 4) Bat gate option is for small openings and the material cost is the same for any size opening.
- 5) Backfilling assumes that small dozer will push material from nearby stockpile or dump
 6) Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Inderground Openings Cost Summary											
	Labor	Equipment	Materials	Totals							
Adits, Portals & Declines Plugging	\$0	\$0	\$0	\$0							
Shaft Backfill/Cover	\$0	\$0	N/A	\$0							
Shaft Capping	\$0	\$0	\$0	\$0							
TOTALS	\$0	\$0	\$0	\$0							

Shaf	t Openings - User Input			You must fill in ALL green cells and relevant blue cells in this section for each shaft										
	Facility Description		Phys	ical Characteris	Backfill or Foundation Cover									
	Description (required)	ID Code	Diameter ft	Shaft Depth (for backfill method) ft	Backfill/ Plug Type (select)	Backfill Material Type (select)	Cover/ Backfill Fleet (select)	Thickness (if not complete backfill) ft	Distance to Backfill Borrow ft	Slope from Shaft to Borrow Area % grade	Maximum Fleet Size (user override)			

Notes:

1. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

2. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

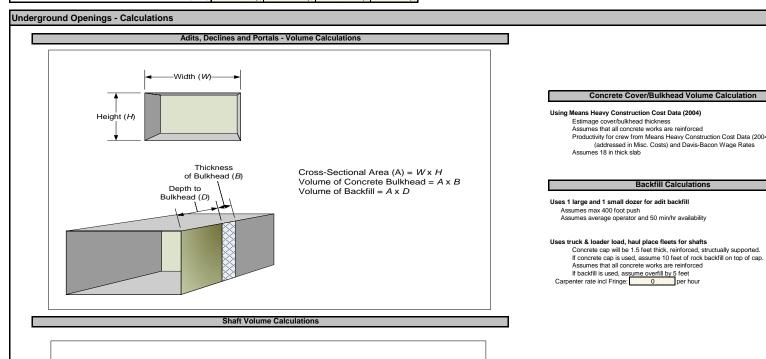
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

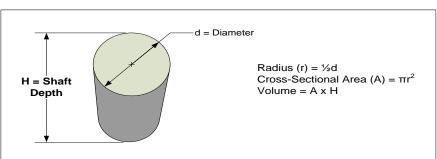
Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Inderground Openings Cost Summary	nderground Openings Cost Summary											
	-	Labor	Equipment	Materials	Totals							
Adits, Portals & Declines Plugging		\$0	\$0	\$0	\$0							
Shaft Backfill/Cover	100	\$0	\$0	N/A	\$0							
Shaft Capping		\$0	\$0	\$0	\$0							
Ţ	OTALS	\$0	\$0	\$0	\$0							





Concrete Cover/Bulkhead Volume Calculation

Using Means Heavy Construction Cost Data (2004)

Estimage cover/bulkhead thickness

Assumes that all concrete works are reinforced

Productivity for crew from Means Heavy Construction Cost Data (2004) adjusted for supervision

(addressed in Misc. Costs) and Davis-Bacon Wage Rates

Backfill Calculations

Uses 1 large and 1 small dozer for adit backfill

Assumes average operator and 50 min/hr availability

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Inderground Openings Cost Summary					
		Labor	Equipment	Materials	Totals
Adits, Portals & Declines Plugging		\$0	\$0	\$0	\$0
Shaft Backfill/Cover		\$0	\$0	N/A	\$0
Shaft Capping		\$0	\$0	\$0	\$0
	TOTALS	\$0	\$0	\$0	\$0

Ad	dits, Portals & Declines Plugging						Uses RS Mea	ans Heavy Cor	struction Co	st Data for bul	khead product	ion rate, mate	rial costs and	crews				
					Bulkhead C	onstruction	n		Backfill or	Foam (1)		В	at Gate or (Culvert (2,3	,4)			
	Description (required)	Bulkhead Volume cy	Backfill (rock) Volume cy	Backfill Equipment Fleet	Backfill Productivity LCY/hr	Backfill Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Bulkhead Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Material (Foam) Cost \$	Total Backfill Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Bat Gate Cost \$
	·						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

- 1) Foam costs include 1 hour move to and setup + 1 hr. minimum crew time 2) Assumes 1 hr walk-in/walk-out time for equipment

- 3) Batgate assumes 8 hr install time each
 4) Bat culvert backfill costs based on one 8-hr day (i.e. backfilling hours = 8 hrs).

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Underground Openings Cost Summary				
	Labor	Equipment	Materials	Totals
Adits, Portals & Declines Plugging	\$0	\$0	\$0	\$0
Shaft Backfill/Cover	\$0	\$0	N/A	\$0
Shaft Capping	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Sha	aft Plugging													
						Cover/Cap						В	ackfill/Cove	er
	Description (required)	Cover Area ft2	Backfill or Cover Volume cy	Backfill Equipment Fleet	Number of Trucks	Backfill Productivity LCY/hr	Backfill Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Shaft Cap Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Backfill Cost \$
								\$0	\$0	\$0	\$0	\$0	\$0	\$0



Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

neric Material Hauling - Cost Summary	Labor	Equipment	Materials	Totals
Hauling/Crush/Screen/Compact	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

eric Material Hauling - User Input																	
Facility Description			Phys	ical	Н	auled Mater	ial		Cri	ushing & Screer	ning			Cover			Growth Medi
			Final	Average	Material	Distance	Slope				Distance	Clana		Distance	Clone		Distance to
Description			Surface	Ripping	Volume	Borrow	Borrow	Crush	Screen	Loss to Crushing/	Placement	to	Cover	Cover	to	Growth Media	Growth Material
(required)	ID Code	Туре	Area	Distance	Required	Source (1)	Source	Material	Material	Screening	Location (2)	Placement	Thickness	Borrow	Borrow	Thickness	Stockpile
	Facility Description Description	Facility Description Description	Facility Description Description	Facility Description Phys Final Description Surface	Facility Description Physical Final Average Surface Ripping (required) ID Code Type Area Distance	Facility Description Physical Final Average Material Description Surface Ripping Volume (required) ID Code Type Area Distance Required	Facility Description Physical Hauled Mater Description Final Surface Ripping (required) Average from Surface Ripping Source (1) Material from Surface Required Source (1)	Facility Description	Facility Description Physical Hauled Material Final Average Material from to Description (required) ID Code Type Area Distance Required Source (1) Source Material	Facility Description Physical Hauled Material Cru Final Average Material from to Description (required) ID Code Type Area Distance Required Source (1) Source Material Material	Facility Description Physical Hauled Material Crushing & Screen Final Average Material from to Surface Ripping Volume Borrow Borrow Crush Screen Loss to Crushing/ (required) ID Code Type Area Distance Required Source (1) Source Material Material Screening	Facility Description Physical Hauled Material Distance to Description (required) ID Code Type Final Surface Ripping Average Area Distance Ripping Volume Borrow Required Source (1) Source Required Source (1) Source Material Material Material Material Material Material Screening Crushing Distance to To Source Material	Facility Description Physical Hauled Material Crushing & Screening Final Average Material from to Description Description Surface Ripping Volume Borrow Crush Screen Loss to Crushing to Toss to Crushing to Slope (required) ID Code Type Area Distance Required Source (1) Source Material Material Screening Location (2) Placement	Facility Description Physical Hauled Material Distance Stope from to Description (required) Description Description Description (required) Description Description Description (required) Description Surface Ripping Volume Required Source (1) Source Required Source (1) Source Material Material Material Material Material Material Screening Location (2) Placement Thickness	Facility Description Physical Hauled Material Crushing & Screening Cover Final Average Final Average Material Final Distance Stope To	Facility Description Physical Hauled Material Crushing & Screening Cover Final Average Material Distance Slope Uistance To Slope Surface Ripping Volume Borrow Borrow Grequired Source (1) Source Material Material Screening Location (2) Placement Thickness Borrow Borrow Borrow Borrow Crush Cru	Facility Description Physical Hauled Material Crushing & Screening Cover Final Average Final Average Material Final Borrow Borrow Crush Screen Loss to Crushing Placement To Cover Cover

Notes:

- Input distance to crusher if material to be crushed
- 1. Input distance from crusher to placement if material to be crushed
 2. Input distance from crusher to placement if material to be crushed
 3. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

Page 1 of 10 Haul Material

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Generic Material Hauling - Cost Summary				
	Labor	Equipment	Materials	Totals
Hauling/Crush/Screen/Compact	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Gen	eric Material Hauling - User Input (cont.)															
			Hauling	g Material			Cover			Growth Me	dia			Revegetatio	n	
			Material	Each	Compact		Cover Placement		Growth Media	Growth Media					1	
	Description (required)	Haul Material Type	Hauling Fleet	Fleet Size (from/to crusher)	After Placement?	Cover Material Type	Equipment Fleet	Maximum Fleet Size	Material Type	Equipment Fleet	Maximum Fleet Size	Seed Mix	Mulch Type	Fertilizer Type	Scarify/ Rip?	Scarifying/ Ripping Fleet
		(select)	(select)	(user override)		(select)	(select)	(user override)	(select)	(select)	(user override)	(select)	(select)	(select)	(select)	(select)

Page 2 of 10 Haul Material

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

neric Material Hauling - Cost Summary				
	Labor	Equipment	Materials	Totals
Hauling/Crush/Screen/Compact	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Gene	eric Material Hauling - Load, Haul, Place ar	nd Grade											
					Material Hau	lage					Crush and/or	Compact	
	Description (required)	Material Volume to Crusher	Final Material Volume cy	Material Haulage Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Hauling Labor Cost \$	Hauling Equipment Cost \$	Total Crush/ Screen Cost \$	Compact Labor Cost \$	Compact Equipment Cost \$	Total Load/Haul/ Place Cost \$
								\$0	\$0	\$0	\$0	\$0	\$0

Notes: Final Material Volume includes allowance for additional material hauled to crushing/screening plant based on Loss to Crushing/Screening input above.

Page 3 of 10 Haul Material

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Generic Material Hauling - Cost Summary				
	Labor	Equipment	Materials	Totals
Hauling/Crush/Screen/Compact	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

G	ene	eric Material Hauling - Cover and Growth M	ledia Costs	S														
		Cover Placement Growth Media Placement																
Г				Cover	Cover			Total	Total	Total Cover			Growth Media	Number of		Total	Total	Total
		Description		Placement	Fleet	Number of	Total Fleet	Labor	Equipment	Placement	Growth Media	Growth Media	Fleet	Trucks/	Total Fleet	Labor	Equipment	Growth Media
		(required)	Cover Volume	Fleet	Productivity	Trucks/ Scrapers	Hours	Cost	Cost	Cost	Volume	Placement Fleet	Productivity	Scrapers	Hours	Cost	Cost	Cost
			cy		LCY/hr			\$	\$	\$	cy		LCY/hr	-		\$	\$	\$
								\$0	\$0	\$0						\$0	\$0	\$0

Page 4 of 10 Haul Material

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Generic Material Hauling - Cost Summary				
	Labor	Equipment	Materials	Totals
Hauling/Crush/Screen/Compact	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Gene	eric Material Hauling - Scarifying/Revegeta	tion Costs									
	Description	Total Surface Area	Ripping/ Scarifying Fleet		Scarifying/ Ripping Labor Cost	Scarifying/ Ripping Equipment	Total Scarifying/ Ripping Cost	Revegetation Labor Cost	Revegetation Equipment		Total Revegetation Cost
	(required)	acres	rieet	Hours hrs	\$	Cost \$	\$	\$	Cost \$	\$	\$
					\$0	\$0	\$0	\$0	\$0	\$0	\$0



Haul Material

Haul Material

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Building Demolition Cost	\$0	\$0	N/A	\$0
Wall Demolition Cost	\$0	\$0	N/A	\$0
Slab Demolition	\$0	\$0	N/A	\$(
Subtotal Demolition	\$0	\$0	\$0	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$26	\$137	\$0	\$163
Revegetation Cost	\$140	\$50	\$640	\$830
TOTALS	\$166	\$187	\$640	\$993

Buil	dings & Foundation - User Input				You must fill in ALL green cells and relevant blue cells in this section for each building or facility													
	Facility Description						Physical -	MANDATORY				Fou	Indation Cove	er (1)	Growth Me	edia (1) (entire	footprint)	
	Description (required)	ID Code	Туре	Length ft	Width ft	Eve Height ft	Slab Thickness in	Foundation Wall Thickness in	Foundation Wall Height ft	Average Flat Area Long Dimension (ripping distance) ft	Footprint (including surrounding facilities) acres	Foundation Cover Thickness in	Distance from Foundation Cover Borrow Area ft	Slope from Facility to Borrow Area % grade	Growth Media Thickness in	Distance from Growth Media Stockpile ft	Slope from Facility to Stockpile % grade	
1	Concrete slab ford across the arroyo		Other Facilities	70	16	0	8	0	0	70	0.00	0	1	1.0	12	35	1.0	

Notes:

1. Foundation cover only calculated to cover slab. Growth media estimated over entire footprint area

2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

NOTE: Arroyo concrete slab ford crossing will be broken in place and concrete will be removed and disposed off site.

NOTE: All on site facilities will be mobile equipment and only require demobilization.

Page 1 of 6 Foundations & Buildings

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020 File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Building Demolition Cost	\$0	\$0	N/A	\$0
Wall Demolition Cost	\$0	\$0	N/A	\$0
Slab Demolition	\$0	\$0	N/A	\$0
Subtotal Demolition	\$0	\$0	\$0	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$26	\$137	\$0	\$163
Revegetation Cost	\$140	\$50	\$640	\$830
TOTALS	\$166	\$187	\$640	\$993

Buil	Idings & Foundation - User Input (cont.)	er Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each building or facility														
	Construction Materials			Slab D	emolition	F	Foundation Cover			Growth Medi	а	Revegetation				
	Description (required)	Building Type (select)	Foundation Wall Type (select)	Slab Demo Method (select)	Slab Breaking Equipment Fleet (select)	Cover Material Type (select)	Cover Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Growth Media Material Type (select)	Growth Media Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)	Scarify/ Rip? (select)	Ripping Fleet (select)
1	Concrete slab ford across the arroyo	Sm. concrete	Conc 8 in (200 mm) thick		Sm Excavator	Alluvium	Small Truck		Alluvium	Small Truck		User Mix 1	Straw Mulch	None	Yes	Small Dozer

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Page 2 of 6 Foundations & Buildings Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Building Demolition Cost	\$0	\$0	N/A	\$0
Wall Demolition Cost	\$0	\$0	N/A	\$0
Slab Demolition	\$0	\$0	N/A	\$0
Subtotal Demolition	\$0	\$0	\$0	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$26	\$137	\$0	\$163
Revegetation Cost	\$140	\$50	\$640	\$830
TOTALS	\$166	\$187	\$640	\$993

Buildings & Foundation - Calculations

Building Volume Calculations

Using Means Heavy Construction Cost Data (2004) calculates cubic feet from building dimensions

teams reary Construction Cost Data (2004) calculates count reen from binding universions Estimage slab hickness and wall thickness in not known Assumes that all concrete slabs are reinforced Productivity for crew from Means Heavy Construction Cost Data (2004) adjusted for supervision

(addressed in Misc. Costs) and Davis-Bacon Wage Rates

Demolition costs do not include hauling or disposing if debris - Use Waste Disposal module

Slab Demolition Calculations

Minimum 1 hr excavator time for slab demolition

Cover Volume Calculation

If "Bury in Place" is selected as slab demolition method, cover thickness is adjusted such that

total cover (cover + growth media) equals value entered in "Minimum thickness of cover over unbroken slab" cell above

Ripping/Scarifying Calculations

Flat area width = Final flat area ÷ Average long dimensions Number of passes = Flat area width ÷ Grader width

Travel distance = Number of passes x Average long dimensions

Total hours = (Travel distance ÷ Grader productivity) + (Number of passes x Grader maneuver time)

Revegetation

Minimum 1 acre revegetation crew time per area

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Page 3 of 6 Foundations & Buildings

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020 File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Building Demolition Cost	\$0	\$0	N/A	\$0
Wall Demolition Cost	\$0	\$0	N/A	\$0
Slab Demolition	\$0	\$0	N/A	\$0
Subtotal Demolition	\$0	\$0	\$0	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$26	\$137	\$0	\$163
Revegetation Cost	\$140	\$50	\$640	\$830
TOTALS	\$166	\$187	\$640	\$993

Build	ling & Foundation Demolition Costs			Uses RS Mean	s Heavy Constru	ection Cost Data	a for building and	wall demolition	cost calculation	ons. Uses CAT Ha	ndbook for sla	b breaking product	tion.						
								Bui	ilding Demol	ition		Wall Demolition	1		Slab Demoliti	on		Total Costs	
	Description (required)	Building Footprint (slab area) sqft	Building Volume cuft	Wall Length	Wall Area sq ft	Slab Demolition Fleet	Slab Volume	Total Labor Cost \$	Total Equipment Cost \$	Total Building Demolition Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Wall Demolition Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Slab Breaking Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Demolition Costs \$
1	Concrete slab ford across the arroyo	1,120	0	172	0	325C	28	\$0	\$0	\$0		\$0 \$0	\$0		\$0 \$0	\$0	\$0	\$0	\$0
	<u> </u>						28	\$0	\$0	\$0		\$0 \$0	\$0		\$0 \$0	\$0	\$0	\$0	\$0

Page 4 of 6 Foundations & Buildings

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020 File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Building Demolition Cost	\$0	\$0	N/A	\$0
Wall Demolition Cost	\$0	\$0	N/A	\$0
Slab Demolition	\$0	\$0	N/A	\$0
Subtotal Demolition	\$0	\$0	\$0	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$26	\$137	\$0	\$163
Revegetation Cost	\$140	\$50	\$640	\$830
TOTALS	\$166	\$187	\$640	\$993

Build	ding & Foundation - Foundation Cover and	Growth Me	edia Costs																	
	Foundation Cover						Growth Media Total Cover & Gro						r & Growth M	ledia Costs						
	Description (required)	Cover Volume	Cover Repacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Cover Cost \$	Growth Media Volume cy	Growth Media Repacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Costs
1	Concrete slab ford across the arroyo						\$0	\$0	\$0						\$0	\$0	\$0	\$0	\$0	\$0
							\$0	\$0	\$0						\$0	\$0	\$0	\$0	\$0	\$0

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020 File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Building Demolition Cost	\$0	\$0	N/A	\$0
Wall Demolition Cost	\$0	\$0	N/A	\$0
Slab Demolition	\$0	\$0	N/A	\$(
Subtotal Demolition	\$0	\$0	\$0	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$26	\$137	N/A	\$163
Subtotal Earthworks	\$26	\$137	\$0	\$163
Revegetation Cost	\$140	\$50	\$640	\$830
TOTALS	\$166	\$187	\$640	\$993

Buil	ding & Foundation - Scarifying/Revegetation	n Costs													
					Sca	rifying/Rippiı	ng		Revegetation Total Scarify & Revegati				evegation Co	sts	
	Description (required)	Flat Area acres	Ripping/ Scarifying Fleet	Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Costs \$	Scarifying/ Ripping Equipment Cost \$	Total Scarifying/ Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Costs
1	Concrete slab ford across the arroyo	0.10	D7R	1	\$26	\$137	\$163	\$140	\$50	\$640	\$830	\$166	\$187	\$640	
	<u> </u>	0.10		1	\$26	\$137	\$163	\$140	\$50	\$640	\$830	\$166	\$187	\$640	\$993

Page 6 of 6 Foundations & Buildings

Closure Cost Estimate Other Demo & Equip Removal

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Other Demoltion and Equipment Removal - Cost Summary				
	Labor	Equipment	Materials	l otals
Other Demolition	\$0	\$0	\$0	\$0
Equipment Removal	\$4,000	\$7,000	\$0	\$11,000
TOTALS	\$4,000	\$7,000	\$0	\$11,000

Othe	Other Demolition											
	Facility Description											
	Description (required)	ID Code	Туре	Quantity	Units	Labor Unit Cost \$	Equipment Unit Cost \$	Material Unit Cost \$	Total Cost \$			
						\$0	\$0	\$0				

1 of 2

Closure Cost Estimate Other Demo & Equip Removal

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Other Demoltion and Equipment Removal - Cost Summary				
	Labor	Equipment	Materials	lotals
Other Demolition	\$0	\$0	\$0	\$0
Equipment Removal	\$4,000	\$7,000	\$0	\$11,000
TOTALS	\$4,000	\$7,000	\$0	\$11,000

Equ	equipment & Material Removal											
	Facility Description											
	Description (required)	ID Code	Туре	Quantity	Units	Labor Unit Cost (\$)	Equipment Unit Cost (\$)	Material Unit Cost (\$)	Total Cost (\$)			
1	Portable 5000 Gallon Mobile Water Tank		Site Facilities - Mobile/Fixed Equip	1	1	\$1,000.00	\$1,000.00	\$0.00	\$2,000			
2	Portable Office Trailer		Site Facilities - Mobile/Fixed Equip	1	1	\$1,000.00	\$1,000.00	\$0.00	\$2,000			
3	Mobile Tracked Crusher		Site Facilities - Mobile/Fixed Equip	1	1	\$2,000.00	\$5,000.00	\$0.00				
						\$4,000	\$7,000	\$0	\$11,000			

2 of 2

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$
Diversion Ditch Liner	\$0	\$0	\$0	\$
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$(
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$(
Liner Installation	\$0	\$0	\$0	\$(
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$(
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Di	Diversion Ditches - User Input															
					Dive	ersions Ditch	es			Revegetation Liner and Rip-Rap Installation				ion		
	Description (required)	ID Code	Diversion Length ft	Diversion Depth ft	Ditch Bottom Width ft	Ditch Sideslope Angle _H:1V	Excavate Volume (if calculated elsewhere) Cy	Excavating Material Condition (select)	Excavating Equipment Fleet (select)	Seed Mix (select)	Mulch (select)	Fertilizer (select)	Liner Area S.Y.	Liner Type (select)	Rip-Rap Area S.Y.	Rip-Rap Type (select type)

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotais
Diversion Ditch Construction	\$0	\$0	N/A	\$0
Diversion Ditch Liner	\$0	\$0	\$0	\$0
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$0
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

	Sediment/E	Evaporation Pond Construction/Re	moval - Us	er Input										
Sediment Ponds													Growth Media	
		Description (required)	ID Code	Pond Width ft	Pond/Berm Length ft	Berm Height ft	Crest Width ft	Sideslope Angle _H:1V	Final Area (if calculated elsewhere) acres	Regrade Volume (if calculated elsewhere) Cy	Cover Volume (if calculated elsewhere) cy	Growth Media Thickness in	Distance from Growth Media Stockpile ft	Slope from Pond to Borrow % grade

Notes:

1. All Physical parameters must be input even if manual overrides for volume or area are used.

2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

3. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

rainage Control - Cost Summary				
	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$0
Diversion Ditch Liner	\$0	\$0	\$0	\$0
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$0
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Sec	Sediment/Evaporation Pond Construction/Removal - User Input (cont.)												
Sediment Ponds Growth Media Revegetation Ripping/Scarifying												Scarifying	
	Description (required)	Excavating Material Condition (select)	Material Type (select)	Excavating Equipment Fleet (select)	Liner Type (select)	Growth Media Material Type (select)	Growth Media Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)	Scarify/ Rip? (select)	Scarify/ Ripping Fleet (select)

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

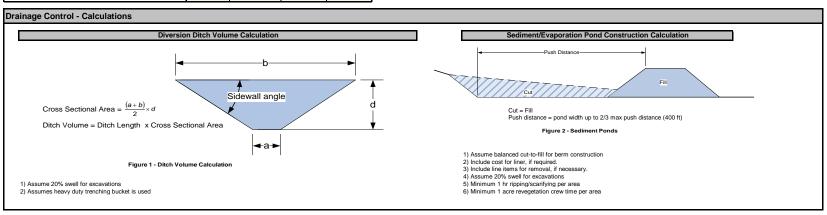
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

rainage Control - Cost Summary				
	Labor	Equipment	Materials	lotais
Diversion Ditch Construction	\$0	\$0	N/A	\$0
Diversion Ditch Liner	\$0	\$0	\$0	\$(
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$(
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0



Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Estimate Type: Surety

	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$0
Diversion Ditch Liner	\$0	\$0	\$0	\$0
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$0
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Div	Diversion Ditches - Excavation Costs															
			Liner Installation				Rip-Rap Installation									
	Description (required)	Diversion Ditch Volume LCY	Diversion Ditch Equipment	Corrected Excavator Productivity LCY/hr	Total Hours	Diversion Ditch Labor Cost \$	Diversion Ditch Equipment Cost \$	Total Diversion Ditch Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Liner Cost	Labor Cost \$	Equipment Cost \$	Material Cost \$	Total Cost \$
	_					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$(

Notes: LCM assumes 20% swell from ditch volume

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	9
Diversion Ditch Liner	\$0	\$0	\$0	9
Diversion Ditch Rip-Rap	\$0	\$0	\$0	9
Sed Pond Construct/Regrade	\$0	\$0	N/A	9
Liner Installation	\$0	\$0	\$0	9
Sed Pond Cover	\$0	\$0	N/A	9
Ripping/Scarifying Cost	\$0	\$0	N/A	9
Subtotal Earthworks	\$0	\$0	\$0	
Diversion Ditch Revegetation	\$0	\$0	\$0	9
Sediment Pond Revegetation	\$0	\$0	\$0	9
Subtotal Revegetation	\$0	\$0	\$0	
TOTALS	\$0	\$0	\$0	

Div	version Ditches - Revegetation Costs				Diversion Ditches - Revegetation Costs											
			Revegetation	Revegetation	Revgetation	Total										
	Description	Surface	Labor	Equipment	Material	Revegetation										
	(required)	Area	Cost	Cost	Cost	Cost										
		acres	\$	\$	\$	\$										
			\$0	\$0	\$0	\$0										

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$
Diversion Ditch Liner	\$0	\$0	\$0	\$
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$0
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Sediment/Evaporation Ponds - Construction/Regrading Costs																
Pro	Productivity = Dozer Productivity x Grade Correction x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83)												ner			
						Excavating Material	Corrected Productivity LCY/hr	Total Dozer Hours hr	Total Labor Cost \$	Total Equipment Cost \$	Total Constr/ Regrading Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$		
											\$0	\$0	\$0	\$0	\$0	\$0

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$
Diversion Ditch Liner	\$0	\$0	\$0	\$
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$
Liner Installation	\$0	\$0	\$0	\$
Sed Pond Cover	\$0	\$0	N/A	\$
Ripping/Scarifying Cost	\$0	\$0	N/A	\$
Subtotal Earthworks	\$0	\$0	\$0	\$
Diversion Ditch Revegetation	\$0	\$0	\$0	\$
Sediment Pond Revegetation	\$0	\$0	\$0	\$
Subtotal Revegetation	\$0	\$0	\$0	\$
TOTALS	\$0	\$0	\$0	9

Sediment/Evaporation Ponds - Growth Media	Costs							
				Growth	Media			
Description (required)	Growth Media Volume cy	Growth Media Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Cover Placement Cost \$
						\$0	\$0	\$0

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotals
Diversion Ditch Construction	\$0	\$0	N/A	\$(
Diversion Ditch Liner	\$0	\$0	\$0	\$(
Diversion Ditch Rip-Rap	\$0	\$0	\$0	\$0
Sed Pond Construct/Regrade	\$0	\$0	N/A	\$0
Liner Installation	\$0	\$0	\$0	\$0
Sed Pond Cover	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$0	\$0	\$0	\$0
Subtotal Revegetation	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Se	diment/Evaporation Ponds - Revegetation	Costs											
	Description (required)	Surface Area acres	Long Ripping Distance ft	Ripping/ Scarifying Fleet	Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Costs \$	Scarifying/ Ripping Equipment Cost \$	Total Scarifying/ Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$	
_	•				0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Basis: American Magnesium - Option 1 Cost Estimate Type: Surety

Process Ponds - Cost Summary				
·	Labor	Equipment	Materials	Totals
Backfilling Costs	\$0	\$0	N/A	\$0
Growth Media Placement Costs	\$0	\$0	N/A	\$0
Liner Cutting & Folding Costs	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

F	Process Ponds - User Input You must fill in ALL green cells and relevant blue cells in this section for each pond												
	Facility Description		Poi	Backfill - (If trucks are used) (1)				Growth Media					
	Description (required) ID 0	Po ode Len	ond Pond ogth Width	Pond Depth ft	Pond Sideslope Angle _H:1V	Disturbed Area (if calculated elsewhere) acres	Percent Backfill (100% if blank)	Distance from Backfill Borrow ft	Slope from Facility to Borrow Area % grade	Pond Volume (if calculated elsewhere)	Growth Media Thickness in	Distance from Growth Media Stockpile ft	

- 1. All Physical parameters must be input even if manual overrides for volume or area are used.
 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

Page 1 of 12 Process Ponds

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Process Ponds - Cost Summary				
· ·	Labor	Equipment	Materials	Totals
Backfilling Costs	\$0	\$0	N/A	\$0
Growth Media Placement Costs	\$0	\$0	N/A	\$0
Liner Cutting & Folding Costs	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Proc	Process Ponds - User Input (cont.)												
		Liner	Backfill			Growth Media			Revegetation				
	Description (required)	Crew Cut & Fold Time ⁽²⁾ hrs	Backfill Material Type (select)	Backfill Equipment Fleet (select)	Maximum Fleet Size (user override)	Growth Media Material Type	Growth Media Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)		

Notes

Page 2 of 12 Process Ponds

^{1.} Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

⁽²⁾ Pond liner removal crew (2Clab + excavator) = 2 General Laborers + 325C Excavator

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

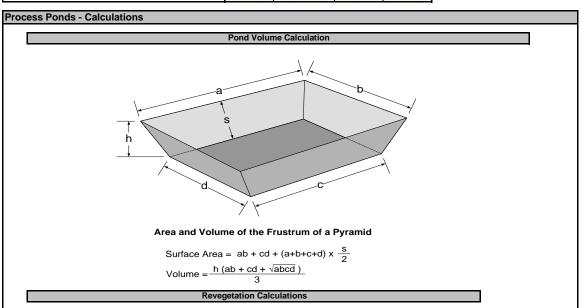
Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Backfilling Costs	\$0	\$0	N/A	\$(
Growth Media Placement Costs	\$0	\$0	N/A	\$0
Liner Cutting & Folding Costs	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0



Minimum 1 acre revegetation crew time per area

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

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Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Process Ponds - Cost Summary				
	Labor	Equipment	Materials	Totals
Backfilling Costs	\$0	\$0	N/A	\$0
Growth Media Placement Costs	\$0	\$0	N/A	\$0
Liner Cutting & Folding Costs	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Proc	ess Ponds - Liner Cutting and Folding				
			Total	Total	Total Liner
	Description (required)	Crew Hours hrs	Labor Cost \$	Equipment Cost \$	Removal Cost \$
	•		\$0	\$0	\$0

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Process Ponds

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Process Ponds - Cost Summary				
	Labor	Equipment	Materials	Totals
Backfilling Costs	\$0	\$0	N/A	\$0
Growth Media Placement Costs	\$0	\$0	N/A	\$0
Liner Cutting & Folding Costs	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Prod	Process Ponds - Backfill and Growth Media Costs															
	Pond Backfill Growth Medi							Media								
	Description (required)	Backfill Volume cy	Backfill Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours hrs	Total Labor Cost \$	Total Equipment Cost \$	Total Backfill Cost \$	Growth Media Volume cy	Growth Media Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$
							\$0	\$0	\$0						\$0	\$0

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Backfilling Costs	\$0	\$0	N/A	\$(
Growth Media Placement Costs	\$0	\$0	N/A	\$0
Liner Cutting & Folding Costs	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Proc	ess Ponds - Revegetation Costs					
	Description	Surface	Revegetation Labor	Revegetation Equipment	Revgetation Material	Total Revegetation
	(required)	Area acres	Cost \$	Cost \$	Cost \$	Cost \$
			\$0	\$0	\$0	\$0

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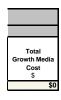
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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Basis: American Magnesium - Option 1 Cost Estimate Type: Surety

Landfills - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Lanc	Ifills - User Input			You must fill	in ALL green	cells and rele	ant blue cells	in this section	n for each lan	dfill	
Facility Description		Physical (1)			Cover			Growth Media			
	Description (required)	ID Code	Final Landfill Footprint acres	Average Long Dimension (ripping distance) ft	Regrade Volume (calculated elsewhere)	Cover Thickness in	Distance from Cover Borrow ft	Slope from Landfill to Cover Borrow % grade	Growth Media	Distance from Growth Media Stockpile ft	Slope from Landfill to Stockpile % grade

- 1. All Physical parameters must be input even if manual overrides for volume or area are used.
 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Landfills - Cost Summary				
·	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Landfills - User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each landfill																
	Grading					Cover				Growth Me	dia	Revegetation				
	Regrading Regrading Regrading				Cover Material Type (select)	Cover Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Growth Media Material Type (select)	Growth Media Equipment Fleet (select)	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch Type (select)	Fertilizer (select)	Scarify/ Rip? (select)	Scarifying/ Ripping Fleet (select)	

Notes:

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^{1.} Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Basis: American Magnesium - Option 1 Cost Estimate Type: Surety

andfills - Cost Summary				
·	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Landfills - Calculations

Dozing, Ripping/Scarifying & Revegetation Calculations

Dozing: Dozing distance = 2/3 of the 600 feet maximum from Catepillar Handbook or 400 feet

Assumes flat push (grade correction factor = 1)

Minimum 1 hr per area

Ripping: Flat area width = Final flat area ÷ Average long dimensions

Number of passes = Flat area width ÷ Grader width

Travel distance = Number of passes x Average long dimensions

Total hours = (Travel distance ÷ Grader productivity) + (Number of passes x Grader maneuver time)
Minimum 1 hr per area

Revegetation: Minimum 1 acre revegetation crew time per area

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Landfills - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Lanc	Landfills - Regrading Costs												
Produ	Productivity = Dozer Productivity x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83) x (Slot/Side-by-Side)												
	Description (required)	Regrading Volume cy	Dozing Distance (see above)	Regrading Fleet	Uncorrected Dozer Productivity cy/hr	Dozing Material		Side-by-Side or Slot Dozing		Total Dozer Hours hr	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
											\$0	\$0	\$0

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Land	andfills - Cover and Growth Media Costs															
	Cover Placement Growth Media Placement															
	Description (required)	Cover Volume	Cover Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Cover Labor Cost \$	Cover Equipment Cost \$	Total Cover Cost \$	Growth Media Volume ft	Growth Media Replacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$
							\$0	\$0	\$0						\$0	\$0

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Expression 2004
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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	Totals
Grading Costs	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$0
Topsoil Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$0	\$0	\$0	\$0
Revegetation Cost	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Land	Landfills - Scarifying/Revegetation Costs												
	Description (required)	Surface Area	Long Dimension	Ripping/ Scarifying Fleet	Scarifying/ Ripping Hours	Scarifying/ Ripping Labor Costs		Total Scarifying/ Ripping Costs	Labor	Revegetation Equipment Cost	Revgetation Material Cost	Total Revegetation Cost	
	(required)	acres	ft ft	rieet	hrs	\$	\$	\$	\$	\$	\$	\$	
						\$0	\$0	\$0	\$0	\$0	\$0	\$0	

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Page 7 of 12 Landfills

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Page 10 of 12 Landfills



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Page 11 of 12 Landfills

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Closure Cost Estimate Yards, Etc.

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

rds, Etc Cost Summary				
	Labor	Equipment	Materials	Iotais
Regrading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$741	\$3,833	N/A	\$4,574
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327
Subtotal Earthworks	\$793	\$4,108		\$4,901
Revegetation Cost	\$280	\$100	\$12,802	\$13,182
TOTALS	\$1,073	\$4,208	\$12,802	\$18,083

Υ	ar	ds, Etc User Input			You must fill in ALL green cells and relevant blue cells in this section for each building or facility										
		Facility Description				Physical			Cover		Growth Media				
		Description (required) ID Code Type				Average Flat Area Long Dimension (ripping distance) ft	Regrade Volume (calculated elsewhere)	Cover Thickness in	Distance from Cover Borrow Area ft	Slope from Facility to Borrow Area % grade	Growth Media Thickness in	Distance from Growth Media Stockpile ft	Slope from Facility to Stockpile % grade		
	1	Laydown Yard		Other Facilities	2.00	400		0	100	1.0	12	100	1.0		

- Notes:

 1. All Physical parameters must be input even if manual overrides for volume or area are used.
- 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

Yards, Etc.

Closure Cost Estimate Yards, Etc.

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

ds, Etc Cost Summary	Labor	Equipment	Materials	lotais
Regrading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$741	\$3,833	N/A	\$4,574
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327
Subtotal Earthworks	\$793	\$4,108		\$4,901
Revegetation Cost	\$280	\$100	\$12,802	\$13,182
TOTALS	\$1,073	\$4,208	\$12,802	\$18,083

Yaı	Yards, Etc User Input (cont.) You must fill in ALL green cells and relevant blue cells in this section for each building or facility														
				Cover Growth Media						Revegetation					
	Description (required)	Regrading Material Condition	Regrading Material Type	Regrading Equipment Fleet	Cover Material Type	Cover Placement Equipment Fleet	Maximum Fleet Size	Growth Media Material Type	Growth Media Equipment Fleet	Maximum Fleet Size	Seed Mix	Mulch	Fertilizer	Scarify/ Rip?	Ripping Fleet
	(roquirou)	(select)	(select)	(select)	(select)	(select)	(user override)		(select)	(user override)		(select)	(select)	(select)	(select)
1	Laydown Yard	Small	Alluvium	Small Truck		Alluvium	Small Truck		User Mix 1	Straw Mulch	None	Yes	Small Dozer		

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Yards, Etc.

Notes:

1. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	lotais
Regrading Cost	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$741	\$3,833	N/A	\$4,574
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327
Subtotal Earthworks	\$793	\$4,108		\$4,901
Revegetation Cost	\$280	\$100	\$12,802	\$13,182
TOTALS	\$1,073	\$4,208	\$12,802	\$18,083

Yards, Etc. - Calculations

Grading Calculations

Average push distance assumed to be 2/3 of the 600 feet maximum from Catepillar Handbook or 400 feet Material assumed to be loose stockile (1.2 productivity factor)

Slope assumed to be 0 to 5% (1.0 productivity factor)

Cover Volume Calculation

Yard area x cover thickness

Ripping/Scarifying Calculations

Flat area width = Final flat area ÷ Average long dimensions

Number of passes = Flat area width ÷ Grader width

Travel distance = Number of passes x Average long dimensions
Total hours = (Travel distance + Grader productivity) + (Number of passes x Grader maneuver time)
Minimum 1 h ripping/scarffying per area

Revegetation

Minimum 1 acre revegetation crew time per area

Yards, Etc.

Closure Cost Estimate Yards, Etc.

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotais
Regrading Cost	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$741	\$3,833	N/A	\$4,574
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327
Subtotal Earthworks	\$793	\$4,108		\$4,901
Revegetation Cost	\$280	\$100	\$12,802	\$13,182
TOTALS	\$1,073	\$4,208	\$12,802	\$18,083

	Yards, Etc Regrading Costs Productivity = Dozer Productivity x Grade Correction x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83) x (Slot/Side-by-Side)												
	Description (required)	Regrading Volume cy	Dozing Distance (see above)	Regrading Fleet	Uncorrected Dozer Productivity cy/hr	Grade Correction	Dozing Material	Density Correction	Total Hourly Productivity cy/hr	Total Dozer Hours hr	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
1	Laydown Yard			D7R							\$0	\$0	\$0
	_										\$0	\$0	\$0

Closure Cost Estimate Yards, Etc.

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

ards, Etc Cost Summary										
	Labor	Equipment	Materials	lotais						
Regrading Cost	\$0	\$0	N/A	\$0						
Cover Placement Cost	\$0	\$0	N/A	\$0						
Growth Media Placement Cost	\$741	\$3,833	N/A	\$4,574						
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327						
Subtotal Earthworks	\$793	\$4,108		\$4,901						
Revegetation Cost	\$280	\$100	\$12,802	\$13,182						
TOTALS	\$1,073	\$4,208	\$12,802	\$18,083						

Yaı	Yards, Etc Cover and Growth Media Costs																
			Cover								Growth Media						
	Description (required)	Cover Volume cy	Topsoil Repacement Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Cover Cost \$	Growth Media Volume cy	Growth Media Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	
1	Laydown Yard						\$0 \$0	\$0 \$0	\$0 \$0		725/966G/D7R	483	2	7 7	\$741 \$741	\$3,833 \$3,833	

Closure Cost Estimate Yards, Etc.

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Materials	lotais
Regrading Cost	\$0	\$0	N/A	\$(
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$741	\$3,833	N/A	\$4,574
Ripping/Scarifying Cost	\$52	\$275	N/A	\$327
Subtotal Earthworks	\$793	\$4,108		\$4,901
Revegetation Cost	\$280	\$100	\$12,802	\$13,182
TOTALS	\$1,073	\$4,208	\$12,802	\$18,083

Yaı	Yards, Etc Scarifying/Revegetation Costs												
	Description (required)	Surface Area acres	Area Long Dimension ft	Ripping/ Scarifying Fleet	Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Costs \$	Scarifying/ Ripping Equipment Cost \$	Total Scarifying/ Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revgetation Material Cost \$	Total Revegetation Cost \$	
1	Laydown Yard	2.00	400	D7R	2	\$52	\$275		\$280	\$100	\$12,802		
		2.00			2	\$52	\$275	\$327	\$280	\$100	\$12,802	\$13,182	

Closure Cost Estimate Yards, Etc.

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$212	\$1,095	N/A	\$1,307
Solid Waste - Off Site				\$0
Hazardous Materials				\$0
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0
TOTALS	\$212	\$1,095	\$0	\$1,307

Waste	Waste Disposal - User Input - Solid Waste										
Landfill (Bulk) Disposal Du											
								Number	Months		
	Description		Waste	Disposal		Distance	Slope to	of	Dumpster		
	(required)	ID Code	Type	Method	Quantity	to Landfill	Landfill	Trucks	Rental		
			(select)	(select)	су	ft	% grade	(user override)	months		
1	Concrete slab ford across the arroyo		Waste Mgmt & Disposal	Landfill (bulk)	28	210000	0.0	2	0		

Notes

- 1. All Physical parameters must be input even if manual overrides for volume or area are used.
- 2. If Slope from facility to borrow source is >20, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivty Sheet)

 Note: SW Solid Waste Authority cost to dispose concrete = \$22.00 per ton. Assumes 56 Tons to dispose of off site.

Page 1 of 7 Waste Disposal

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$212	\$1,095	N/A	\$1,307
Solid Waste - Off Site				\$0
Hazardous Materials				\$0
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0
TOTALS	\$212	\$1,095	\$0	\$1,307

Waste	Waste Disposal - User Input - Hazardous Materials									
	Description (required)	ID Code	Waste Type (select)	Container Type (select)	Vacuum Truck Size (select)	Liquid Quantity gallons	Soild Quantity Cy	One Way Travel Distance to Disposal Site mi	One Way Travel Time to Disposal Site hr	

Notes:

Page 2 of 7 Waste Disposal

^{1.} Use Other Demo & Equip Removal Sheet for tank removal

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$212	\$1,095	N/A	\$1,307
Solid Waste - Off Site				\$0
Hazardous Materials				\$0
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0
TOTALS	\$212	\$1,095	\$0	\$1,307

Waste Disposal - User Input - Hydrocarbon Contaminated Soils								
Description (required)	ID Code	Waste Type (select)	Disposal Method (select)	Quantity Cy	Travel Distance to Offsite Disposal mi			

Notes:

Page 3 of 7 Waste Disposal

^{1.} Use Yards or Landfills Sheets for bioremediation facility reclamation

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary									
	Labor	Equipment	Fees	Totals					
Solid Waste - On Site	\$212	\$1,095	N/A	\$1,307					
Solid Waste - Off Site				\$0					
Hazardous Materials				\$0					
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0					
TOTALS	\$212	\$1,095	\$0	\$1,307					

Waste Disposal - Assumptions & Calculations

Solid Waste Disposal

Off site disposal assumes use of average rolloff dumpster [30 cy (m3), 10 ton (tonne)]

On site disposal assumes use of small loader/truck fleet for haulage

Average density for on site disposal = 2,600 lb/cy (1,540 kg/m3)

For on site disposal only 1 truck is required unless total truck hours > 8, only 2 trucks unless total truck hours are > 16

Hazardous Materials Disposal

Assumes all hazardous materials are known

Enter EITHER solid or liquid quantity each line.

If container type = 55 gallon (200 liter) drum then solid waste hauling costs apply

Average density for solids assumed to be 2,600 lb/cy (1,540 kg/m3)

Vacuum truck sizes: small = 2,200 gal (~8,300 litres), large = 5,000 gal (~19,000 litres)

Vacuum truck on site for 4 hours for each load

Hydrocarbon Contaminated Soils Disposal

Assumes all hazardous materials are known

On site disposal assumes biopad treatment

Exavation productivity =45 cy./hr (35 m3/hr) (Means Heavy Construction, 2006: 02315-424-0360)

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$212	\$1,095	N/A	\$1,307
Solid Waste - Off Site				\$0
Hazardous Materials				\$0
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0
TOTALS	\$212	\$1,095	\$0	\$1,307

Waste	Waste Disposal - Solid Waste Disposal										
	Description (required)	Waste Volume cy	Number of Off Site Dumpster Loads	Landfill Fleet Equipment	Landfill Fleet Productivity LCY/hr	Number of Trucks	Total Fleet Hours	Total Dumpster Cost \$	Total Labor Cost \$	Total Equipment Cost	
1	Concrete slab ford across the arroyo	28		725/966G/D7R	14	2	2	\$0	\$212	\$1,095	
		28					2	\$0	\$212	\$1,095	

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$212	\$1,095	N/A	\$1,307
Solid Waste - Off Site				\$0
Hazardous Materials				\$0
Hydrocarbon Contaminated Soils	\$0	\$0	\$0	\$0
TOTALS	\$212	\$1,095	\$0	\$1,307

Waste I	Waste Disposal - Hazardous Materials Disposal								
	Description (required)	Liquid Waste Volume gallons	Solid Waste Volume cy	Number of Truck Loads	Tons of Waste Tons	Pick-up Fees \$	Transport Fees \$	Disposal Fees \$	Total Hazardous Material Cost
						\$0	\$0	\$0	\$0

Page 6 of 7 Waste Disposal

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal - Cost Summary									
		Labor	Equipment	Fees	Totals				
Solid Waste - On Site Solid Waste - Off Site		\$212	\$1,095	N/A	\$1,307				
					\$0				
Hazardous Materials					\$0				
Hydrocarbon Contaminated Soils		\$0	\$0	\$0	\$0				
	TOTALS	\$212	\$1,095	\$0	\$1,307				

Waste I	Waste Disposal - Hydrocarbon Contaminated Soils												
	Total												
				Total				Total	Total	Waste			
	Description			Fleet	Treatment	Transport	Disposal	Labor	Equipment	Disposal			
	(required)	Quantity cv	Disposal Equipment Fleet	Hours	Cost \$	Fees \$	Fees \$	Cost \$	Cost \$	Cost \$			
		,			\$0	\$0	\$0	\$0	\$0	\$0			

Page 7 of 7 Waste Disposal

Closure Cost Estimate Well Abandonment

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Basis: American Magnesium - Option 1 Cost Estimate Type: Surety

Well Abandonment				
	Labor	Equipment	Materials	Totals
Production, Dewatering, Infiltration Wells	\$0	\$0	\$0	\$0
Monitoring Wells	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0

Production, Dewatering and Infiltration Well Closure																				
Description	ber Casing Diam	Depth ⁽¹⁾ W	Original Static to First Water ter Level gs ft bgs	Slotted	Casing Below Top of Screen ⁽²⁾ ft (se	pe of ump Depth any) Pump elect) ft bgs	Hole to Plug Method (select)	Casing Volume per ft cf	Perforation Length ^(3,4) ft	Grout Volume per Hole ^(4,5) cy	Cement Volume per Hole ⁽⁶⁾ cy	Media Volume per Hole ⁽⁷⁾ cy	Pump Removal Labor Cost \$	Pump Removal Equip Cost \$	Perf Labor Cost \$	Perf Equip Cost ⁽⁸⁾ \$	Grout + Cement Labor Cost ⁽⁹⁾ \$	Grout + Cement Equip Cost ⁽⁹⁾ \$	Grout + Cement Material Cost \$	Inert Media Labor Cost ⁽¹⁰⁾ \$

- (1) For previously abandoned holes enter "0" for depth
- (2) Wells abandoned per Nevada Administrative Code (NAC 534.420). Hole grouted and perforated from bottom to 50 feet (15.24m) above the top of the screen, or first water encountered or original static water level, depending on vertical hydraulic gradient and well construction parameters. Inert media (cuttings or alluvium) used from top of grout to top seal.
- (3) Perforation length = amount of blank casing below first water (for confined aquifers) or predicted recovered water table (unconfined aquifers) + 50 feet (15.24m) of blank casing above water table

- (3) Perforation length = amount of blank casing below first water (for confined aquifers) or predicted recovered water table (unconfined aquifers) + 50 feet (15.24m) of (4) Assumes 50' (15.24m) sanitary seal at top of hole. Therefore, perforation and grouting only required to bottom of sanitary seal.
 (5) Assumes 100% loss to formation for grout (abandonite) for screened and perforated sections.
 (6) Assumes 20' (6m) top seal of cement in casing only. See note 4.
 (7) Inert material is cuttings or alluvium sourced locally.
 (8) Includes perforation tool wear cost/ft of perforation (see Productivty Sheet).
 (9) See Productivity Sheet for hourly production. Minimum 1 hr per hole + fixed hours per hole for move and setup. If no perforation required, use standard drill rig.
 (10) See Productivity Sheet for hourly production. Minimum 1 hr per hole.

Notes:

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Media Equip
Cost⁽⁹⁾
\$

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Page 2 of 4 Well Abandonment

Closure Cost Estimate Well Abandonment

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Well Abandonment	\$0 \$0 \$0 \$			
	Labor	Equipment	Materials	Totals
Production, Dewatering, Infiltration Wells	\$0	\$0	\$0	\$(
Monitoring Wells	\$0	\$0	\$0	\$(
TOTALS	\$0	\$0	\$0	\$(

M	Monitoring Well Closure																	
										Cement	Inert	Total	Total	Grout +	Grout +	Grout +	Inert	Inert
			Number			Тор	Hole	Casing	Grout	Volume	Backfill	Grouting	Inert Media	Cement	Cement	Cement	Material	Material
	Description		of	Casing	Average	of	Plug	Volume	Volume/	per	Volume	Hours/	Hours/	Labor	Equip	Material	Labor	Equip
	(required)	ID Code	Holes	Diam	Depth	Screen ⁽¹⁾	Method	per ft	Well ^(2,3)	Hole ⁽⁴⁾	per Hole ⁽⁵⁾	Hole	Hole	Cost ⁽⁶⁾	Cost ⁽⁶⁾	Cost	Cost ⁽⁷⁾	Cost ⁽⁷⁾
				in	ft bgs	ft bgs	(select)	ft3	cy	су	су	hr	hr	\$	\$	\$	\$	\$
		•	•		•	5	•	•	•	•	•	•		\$0	\$0	\$0	\$0	\$0

Wells abandoned per NAC 534.420 with bentonite grout placed to 50 feet above the top of the screen (see note 1).

- (1) Assumes top of screen is at or above the static water level (in unconfined aquifers) or the depth of first water encountered (in confined aquifers).

- Assumes top of screen is at or above the static water level (in unconfined aquifers) or the depth of first water encountered (in confined at (2) Assumes 25% loss to formation for grouting
 Grouting only required to 50' (15.24m) above the top of screen because monitor wells are constructed with a seal in the annular space.
 Assumes top 20' (6m) plugged with cement.
 Assumes hole plugged with inert material (cuttings or alluvium) above grout up to cement surface plug.
 See Productivity Sheet for hourly production. Minimum 1 hr per hole + fixed hours per hole for move and setup (see Productivity Sheet).
 See Productivity Sheet for hourly production. Minimum 1 hr per hole.

Notes:

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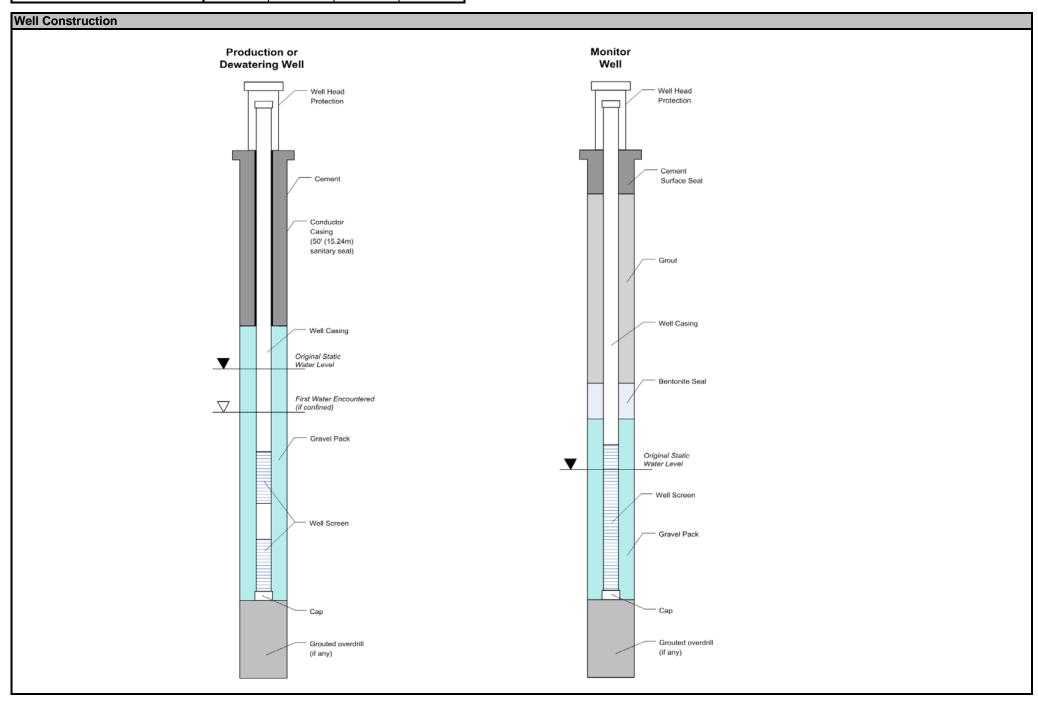
Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Well Abandonment				
	Labor	Equipment	Materials	Totals
Production, Dewatering, Infiltration Wells	\$0	\$0	\$0	\$0
Monitoring Wells	\$0	\$0	\$0	\$0
TOTALS	\$0	\$0	\$0	\$0



Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1 Cost Data: User Data

 $\textbf{Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm}$ Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Labor	Equipment	Materials	l otals
Fence Removal	\$5,921	\$6,198	N/A	\$12,119
Fence Installation	\$0	\$0	\$0	\$(
Culvert & Buried Pipe Removal	\$0	\$0	N/A	\$0
Surface Pipe Removal	\$0	\$0	N/A	\$(
Power Lines	\$0	N/A	N/A	\$(
Substations/Transformers	\$0	N/A	N/A	\$(
Rip-rap, rock lining, gabions	\$0	\$0	\$0	\$0
Other Costs	\$0	\$0	\$0	\$0
TOTALS	\$5,921	\$6,198	\$0	\$12,119

Fenc	e Removal			You must fill in Al	LL green and blue	cells				
					Costs					
	Description (required) ID Code Length Type Cost Cost Cost ft (select type) \$ \$ \$									
1	Main Gate		400	Barbed 5-strand	\$348	\$356	\$704			
2	Main Quarry Perimeter		3920	Barbed 5-strand	\$3,410	\$3,489	\$6,899			
3	3 Laydown Yard 600 Chain link 8-10 ft \$684 \$840 \$1,52-									
4	Vegetation Reference Area Perimeter		1700	Barbed 5-strand	\$1,479	\$1,513	\$2,992			
					\$5,921	\$6,198	\$12,119			

Notes: Note: Main gate assumes 200 linear feet of fencing on each side of the main gate.

Note: Main Quarry Perimeter assumes the external perimeter of mining phases will be fenced.

Note: Laydown yard assumes 150 feet by 150 feet.

Fend	Fence Installation You must fill in ALL green and blue cells								
			Input			sts			
	Description (required)	ID Code	Length ft	Type (select type)	Labor Cost \$	Equipment Cost \$	Material Cost (\$)		
					\$0	\$0	\$0		

Notes:

11/17/2020

1 of 5 Misc. Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1 Cost Data: User Data

		Labor	Equipment	Materials	l otals
Fence Removal		\$5,921	\$6,198	N/A	\$12,119
Fence Installation		\$0	\$0	\$0	\$
Culvert & Buried Pipe Removal		\$0	\$0	N/A	\$
Surface Pipe Removal		\$0	\$0	N/A	\$
Power Lines		\$0	N/A	N/A	\$
Substations/Transformers		\$0	N/A	N/A	\$
Rip-rap, rock lining, gabions		\$0	\$0	\$0	\$
Other Costs		\$0	\$0	\$0	\$
	TOTALS	\$5,921	\$6,198	\$0	\$12,11

Culv	ert & Buried Pipe Removal	e cells					
				Input			Costs
	Description (required)	ID Code	Length ft	Type (select type)	Location (select)	Labor Cost \$	Equipment Cost \$
			•	•		\$0	\$0

Notes:

Surfa	ace Pipe Removal	ie cells					
				Input			Costs
	Description (required)	ID Code	Length ft	Type (select type)	Location (select)	Labor Cost \$	Equipment Cost \$
		•	•	•	•	\$0	\$0

Notes:

2 of 5 Misc. Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1 Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

		Labor	Equipment		Materials	l otals
Fence Removal		\$5,921		\$6,198	N/A	\$12,11
Fence Installation		\$0		\$0	\$0	\$
Culvert & Buried Pipe Removal		\$0		\$0	N/A	9
Surface Pipe Removal		\$0		\$0	N/A	9
Power Lines		\$0	N/A		N/A	9
Substations/Transformers		\$0	N/A		N/A	9
Rip-rap, rock lining, gabions		\$0		\$0	\$0	\$
Other Costs		\$0		\$0	\$0	(
	TOTALS	\$5,921		\$6,198	\$0	\$12,1

Pow	er Line and Substation Removal				You must fill in A	LL green and blu	e cells
		Input					
	Description (required)	ID Code	Power Line Length miles	Power Line Type (select)	Number of Substations #	Location (select)	Power Line Removal \$
-	•		-	•			\$0

Notes: If substation owned by operator, use Other Demo & Equipment Removal sheet
User may need to add line items in Foundations & Buildings for substation slab demolition and fence removal
Labor/Equipment costs assume approximately 80% of cost are equipment and 20% are labor related costs

3 of 5 Misc. Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1 Cost Data: User Data

		Labor	Equipment	Materials	l otals
Fence Removal		\$5,921	\$6,198	N/A	\$12,119
Fence Installation		\$0	\$0	\$0	\$
Culvert & Buried Pipe Removal		\$0	\$0	N/A	\$
Surface Pipe Removal		\$0	\$0	N/A	\$
Power Lines		\$0	N/A	N/A	\$
Substations/Transformers		\$0	N/A	N/A	\$
Rip-rap, rock lining, gabions		\$0	\$0	\$0	\$
Other Costs		\$0	\$0	\$0	\$
	TOTALS	\$5,921	\$6,198	\$0	\$12,11

Rip-Rap &	p-Rap & Rock Lining You must fill in ALL green and blue cells						
			Input			Co	sts
	Description (required)	ID Code	Area S.Y.	Type (select type)	Labor Cost \$	Equipment Cost \$	Material Cost \$
			-		\$0	\$0	\$0

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4 of 5 Misc. Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020 File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1 Cost Data: User Data

	Labor	Equipment	Materials	l otals
Fence Removal	\$5,921	\$6,198	N/A	\$12,119
Fence Installation	\$0	\$0	\$0	\$0
Culvert & Buried Pipe Removal	\$0	\$0	N/A	\$0
Surface Pipe Removal	\$0	\$0	N/A	\$0
Power Lines	\$0	N/A	N/A	\$0
Substations/Transformers	\$0	N/A	N/A	\$0
Rip-rap, rock lining, gabions	\$0	\$0	\$0	\$0
Other Costs	\$0	\$0	\$0	\$0
	TOTALS \$5,921	\$6,198	\$0	\$12,119

Misc. Costs 5 of 5

1 of 2

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020 File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Reclamation Monitoring & Maintenance - Cost Summary							
	Labor	Equipment	Lab & Materials	Totals			
Revegetation Maintenance	#NAME?	#NAME?	#NAME?	#NAME?			
Erosion Maintenance	#NAME?	#NAME?	N/A	#NAME?			
Reclamation Monitoring	\$8,910	\$374	N/A	\$9,284			
Subtotal Reclamation Monitoring	#NAME?	#NAME?	#NAME?	#NAME?			
Water Quality Monitoring	\$0	\$0	\$0	\$0			
TOTAL MONITORING	#NAME?	#NAME?	#NAME?	#NAME?			

Description	Total Revegetation Surface Area (1,2) acres	% Area Requiring Reseeding	Seed Mix (select)	Area Requiring Reseeding acres	Seed \$/acres	Labor \$/acres	Equipment \$/acres	Totals \$
evegetation Maintenance	#NAME?	25%	User Mix 1	#NAME?	\$250.00	\$140.00	\$50.00	
Labor Equipment Materials Cost/Acre							Subtotal	#NAME #NAME #NAME \$
	Total	% Volume	Average	Volume				
	Total Volume Growth Media cy	% Volume Requiring Maintenance	Average Growth Media Placement Cost S/CY	Volume Requiring Replacement cy		Labor (assume: 25%) \$/acres	Equipment (assume: 75%) \$/acres	Total \$
Erosion Maintenance	Volume Growth Media	Requiring	Growth Media Placement Cost	Requiring Replacement		(assume: 25%)	(assume: 75%)	

Reclamation Monitoring					
Description	Hrs/Day	Days/Year	Number of Years	Rate \$/hr	
Field Work					
Field Geologist/Engineer Range Scientist	- 8	1	3	\$134.99 \$119.42	\$3,24 \$
Reporting					
Field Geologist/Engineer Range Scientist	14	1	3	\$134.99 \$119.42	\$5,67 \$ Subtotal \$8,91
Travel					Amminimization
	Hrs/Trip hr	Trips/Year	Years	Truck Cost \$/hr	
Travel	4	1	3	\$31.13	\$37 Subtotal \$37
					Total Reclamation Monitoring \$9,28
Notes	Assumes Engine Assumes 10 hou	eer will travel from irs for reporting a			d demobilization

2 of 2

Project Name: Foothill Dolomite Mine - Reclamation Plan Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

	Labor	Equipment	Lab & Materials	Totals
Revegetation Maintenance	#NAME?	#NAME?	#NAME?	#NAME?
Erosion Maintenance	#NAME?	#NAME?	N/A	#NAME?
Reclamation Monitoring	\$8,910	\$374	N/A	\$9,284
Subtotal Reclamation Monitoring	#NAME?	#NAME?	#NAME?	#NAME?
Water Quality Monitoring	\$0	\$0	\$0	\$0
TOTAL MONITORING	#NAME?	#NAME?	#NAME?	#NAME?

Description	Samples	Events/Year	No. Years	First Sample Year closure year	No. of Samplers	Days/Event	Hrs/Day	Analysis Cost	Supplies	Lab Cos
	#			(1-100)				\$/sample	\$/sample	\$
										\$0

Notes: Sampling labor cost = No. Samplers x Years x Events/year x Days/event x Hour/Day x Labor Rate Sampling equipment costs include 1 pickup truck for every two samplers

ımp Costs				
Description	No. of units		Years	Cost S
Pump (purchased)		Replacement period (yrs):		
			Subtotal Fig	
Description	Hrs/Event	Rate	Cost	
eporting	Hrs/Event	Pate	Cost	
		\$/hr	\$	
Field Geologist/Engineer				
		ubtotal Reporting		
Not	88:			

Closure Cost Estimate Constr. Mgmt

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Construction Management & Road Maintenance - Cost Summary									
	Labor	Equipment	Materials	lotals					
Construction Management	\$20,671	\$2,974	N/A	\$23,645					
Construction Support		\$428		\$428					
Road Maintenance	\$2,694	\$13,835	\$726	\$17,255					
TOTAL CONSTRUCTION MANAGEMENT	\$23,365	\$17,237	\$726	\$41,328					

		Constr	uction Manage	ment Staff			
Description	Duration mo.	Hours/ Month hr.	Number of Supervisors	Supervisor Rate \$/hr	Labor Cost \$	Equipment Cost ⁽¹⁾ \$	Totals \$
Active Reclamation	1	160	1	\$89.10	\$14,256	\$2,051	\$16,30
	36	2	1	\$89.10	\$6,415	\$923	\$7,33
Monitoring & Maintenance	30						
Monitoring & Maintenance Construction Manageme	•			Total Staff	\$20,671	\$2,974	\$23,64
	•	Number of Units		Rental Rate \$/mo	\$20,671 Generator Cost \$/mo	\$2,974 Equipment Cost ⁽¹⁾ \$	\$23,64 Totals
Construction Manageme	ent Support Duration			Rental Rate	Generator Cost	Equipment	Totals \$
Construction Manageme	ent Support Duration			Rental Rate	Generator Cost	Equipment Cost ⁽¹⁾ \$	Totals \$

Description	Fleet Size (select)	Number	Duration mo.	Hours/ Month hr.	Labor Cost \$	Equipment Cost \$	Totals \$
Active Reclamation							
Water Truck	Small	1	1	80	\$1,863	\$10,546	\$12,409
Grader	Small	1	1	32	\$831	\$3,289	\$4,120
Monitoring & Maintena	ance						
Water Truck	Small	1	36	0	\$0	\$0	\$0
Grader	Small	1	36	0	\$0	\$0	\$0
	Gallons/	Days/		Cost/			
Description	Day	Month	Duration mo.	Gallon \$			Totals \$
Water Fees							
Water Fees	6000	14	1	0.01			\$726
	•	•	Total Pro	ject Maintenance	\$2,694	\$13,835	\$17,255

Notes: 1) Supervisor equipment = pickup truck
Note: Assumes water from City of Demning at \$8.64 per 1,000 gallons.

1 of 1 Constr. Mgmt

Closure Cost Estimate Labor Rates

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm
Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm

Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Color Code Key	
User Input - Direct Input	Direct Input
User Input - Pull Down List	Pull Down Selection
Program Constant (can override)	Alternate Input
Program Calculated Value	Locked Cell - Formula or Reference

ZONE ADJUSTMENTS		
Cost Basis/Project Region	American Magnesium - Option 1	American Magnesium - Foothill Dolomite Mine - Northern Nevada Equipment
Power Equipment Operators	50-150 miles	\$0.00
Truck Drivers	50-150 miles	\$0.00
Laborers	50-150 miles	\$0.00
INDIRECT COSTS		
Unemployment (%)	1.84%	
Retirement/SS/Medicare (%)	7.65%	
Workman's Compensation (%)	13.30%	
Other Indirects		
State Payroll Tax (13),(15),(17),		
Total Other Indirects	0.00%	

Total Other maneets										
HOURLY LABOR RATE	TABLE									
EQUIPMENT TYPE (1) OR JOB DESCRIPTION	Labor Group	Base Rate (\$/hr)	Zone Adjustment (\$/hr)	Hourly Wage (\$/hr)	Fringe (\$/hr)	Retirement/ Medicare (\$/hr)	Unemployment Insurance (\$/hr)	Workman's Compensation (\$/hr)	Other Indirect Costs (\$/hr)	Total (\$/hr)
Equipment Operators (\$/hr) (2)									
Bulldozers	,,,									
D6R		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25.96
D6R w/ Winch		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25.9
D7R		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25.9
D8R		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25.9
D9R D10R		\$21.14 \$21.14	\$0.00 \$0.00	\$21.14 \$21.14		\$0.39 \$0.39	\$1.62 \$1.62	\$2.81 \$2.81	\$0.00 \$0.00	\$25.9i \$25.9i
D11R		\$21.14	\$0.00			\$0.39	\$1.62	\$2.81	\$0.00	\$25.9
Wheeled Dozers		, , , , , , , , , , , , , , , , , , , ,	44.44	7		*****	*	*	*****	X=4.4
824G										
834G										
844										
854G										
Motor Graders										
120H		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25.9
14G/H		\$21.14	\$0.00	\$21.14		\$0.39	\$1.62	\$2.81	\$0.00	\$25.9
16G/H 24M		\$21.14 \$21.14	\$0.00 \$0.00	\$21.14 \$21.14		\$0.39 \$0.39	\$1.62 \$1.62	\$2.81 \$2.81	\$0.00 \$0.00	\$25.96 \$25.96
Track Excavators		φ21.14	\$0.00	\$21.14		\$0.35	φ1.02	φ2.01	\$0.00	\$20.50
312C		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
320C		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
325C		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
330C		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
345B		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
365BL		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
385BL		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
Scrapers										
631G 637G		\$14.03 \$14.03	\$0.00 \$0.00	\$14.03 \$14.03		\$0.26 \$0.26	\$1.07 \$1.07	\$1.87 \$1.87	\$0.00 \$0.00	\$17.23 \$17.23
Wheeled Loaders		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.23
924G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
928G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
950G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
966G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
972G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
980G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
988G		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
990 992G		\$27.12 \$27.12	\$0.00 \$0.00	\$27.12 \$27.12		\$0.50 \$0.50	\$2.07 \$2.07	\$3.61 \$3.61	\$0.00 \$0.00	\$33.30 \$33.30
994D		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
L2350		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
Shovels			,					******		
PC2000										
PC3000										
PC4000										
PC5500										
PC8000				<u> </u>						
Hydraulic Hammers	_									
H-120 (fits 325) H-160 (fits 345)	1									
H-160 (fits 345) H-180 (fits 365/385)	1									
Demolition Shears										
S340 (fits 322/325/330)	1									
S365 (fits 330/345)	1									
S390 (fits 365/385)	1									
Demolition Grapples										
G315 (fits 322/325)										
G315 (fits 322/325) G320 (fits 325/330) G330 (fits 345/365)										

Closure Cost Estimate Labor Rates

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm
Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Color Code Key	
User Input - Direct Input	Direct Input
User Input - Pull Down List	Pull Down Selection
Program Constant (can override)	Alternate Input
Program Calculated Value	Locked Cell - Formula or Reference

	American Magnesium -		
Cost Basis/Project Region	Option 1	American Mag	gnesium - Foothill Dolomite Mine - Northern Nevada Equipment
Power Equipment Operators	50-150 miles	\$0.00	
Truck Drivers	50-150 miles	\$0.00	
Laborers	50-150 miles	\$0.00	
NDIRECT COSTS			
Unemployment (%)	1.84%		
Retirement/SS/Medicare (%)	7.65%		
Workman's Compensation (%)	13.30%		
Other Indirects			
State Payroll Tax (13),(15),(17),			
Total Other Indirects	0.00%		

	0.00%									
HOURLY LABOR RATE	TABLE									
Other Equipment										
420D 4WD Backhoe		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.23
428D 4WD Backhoe		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.23
CS533E Vibratory Roller		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.23
CS633E Vibratory Roller		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.23
CP533E Sheepsfoot Compacto		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.23
CP633E Sheepsfoot Compacto		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.23
Light Truck - 1.5 Ton		\$0.00		\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Supervisor's Truck		\$0.00		\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Flatbed Truck										
Air Compressor + tools		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.23
Welding Equipment		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
Heavy Duty Drill Rig		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.23
Pump (plugging) Drill Rig		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.23
Concrete Pump										
Gas Engine Vibrator		\$14.03	\$0.00	\$14.03		\$0.26	\$1.07	\$1.87	\$0.00	\$17.23
Generator 5KW		Ţ	40.00	4		¥0	4	¥	70.00	*****
HDEP Welder (pipe or liner)										
5 Ton Crane		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
20 Ton Crane		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
50 Ton Crane		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
120 Ton Crane		\$27.12	\$0.00	\$27.12		\$0.50	\$2.07	\$3.61	\$0.00	\$33.30
(1) Equipment Type:	Catepillar model or equivaler Davis-Bacon Act WD#NM20									
(2) Equipment Operator Source:										
(2) Equipment Operator Source: (3) Zone Basis:	Davis-Bacon Act WD#NM20									
(2) Equipment Operator Source: (3) Zone Basis: Truck Drivers (\$/hr) (4)	Davis-Bacon Act WD#NM20 From Deming	200012	00.00	\$49.07	\$0.00	\$0.25	¢4.45	\$2.50	to oo	\$22.20
(2) Equipment Operator Source: (3) Zone Basis: Truck Drivers (\$/hr) (4) 725	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds	\$18.97	\$0.00	\$18.97	\$0.00	\$0.35	\$1.45	\$2.52	\$0.00	
(2) Equipment Operator Source: (3) Zone Basis: Truck Drivers (\$/hr) (4) 725 730	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds ruck Driver > 25 yds	\$18.97 \$18.97	\$0.00	\$18.97	\$0.00	\$0.35	\$1.45	\$2.52	\$0.00	\$23.29
(2) Equipment Operator Source: (3) Zone Basis: Truck Drivers (\$/hr) (4) 725 730 735	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds	\$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00	\$18.97 \$18.97	\$0.00 \$0.00	\$0.35 \$0.35	\$1.45 \$1.45	\$2.52 \$2.52	\$0.00 \$0.00	\$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: (3) Zone Basis: (3) Zone Basis: (3) Zone Basis: (4) Truck Drivers (\$/hr) (4) (725 (730 (735 (740)	Davis-Bacon Act WD#NM2C From Deming ruck Driver > 25 yds	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: Truck Drivers (\$/hr) (4) 725 730 735 740 769D	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: (3) Zone Basis: (3) Zone Basis: (3) Zone Basis: (4) 725 (730 (735 (740 (769D (773E)	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: (4) T25 (730 (735 (740 (769D (773E (777D	Davis-Bacon Act WD#NM2C From Deming ruck Driver > 25 yds	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: Truck Drivers (\$/hr) (4) 725 730 735 740 769D 773E 777D 785C	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: Truck Drivers (\$/hr) (4) 725 730 735 740 769D 777D 785C	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 25 yds	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: (4) T25 (730 (735 (740 (769D (773E (777D (785C (797B	Davis-Bacon Act WDeNN20 From Deming ruck Driver > 25 yds - ruck Driver > 60 yds -	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: Truck Drivers (\$/hr) (4) 725 730 735 740 769D 7773E 777D 785C 793C 797B 613E (5,000 gal) Water Wagon	Davie-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds - ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 60 yds - ruck Driver > 60 yds - ter Truck > 2,500 galf	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: (4) T25 (730 (735 (740 (769D (773E (777D (785C (793C (797B (613E (5,000 gal) Water Wagon (621E (6,000 gal) Water Wagon (621E (6,000 gal) Water Wagon (621E (6,000 gal) Water Wagon	Davie-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds - ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 60 yds - ruck Driver > 60 yds - ter Truck > 2,500 galf	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: (4) Zone Basis: (4) Zone Basis: (5) Zone Basis: (6) Zone Basis: (7) Zone Basis:	Davie-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds - ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 60 yds - ruck Driver > 60 yds - ter Truck > 2,500 galf	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: Truck Drivers (\$/hr) (4) 725 730 735 740 769D 7773E 777D 785C 793C 797B 613E (5,000 gal) Water Wagon 621E (8,000 gal) Water Wagon 777D Water Truck 785C Water Truck	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds - ruck Driver > 60 yds - ruck Driver > 60 yds - ter Truck > 2,500 gal ter Truck > 2,500 gal	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29 \$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: (4) Zone Basis: (4) Zone Basis: (5) Zone Basis: (6) Zone Basis: (7) Zone Basis:	Davie-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds - ruck Driver > 25 yds ruck Driver > 25 yds ruck Driver > 60 yds - ruck Driver > 60 yds - ter Truck > 2,500 galf	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: Truck Drivers (\$/hr) (4) 725 730 735 740 769D 7775 785C 793C 797B 613E (5,000 gal) Water Wagon 621E (8,000 gal) Water Wagon 777D Water Truck 785C Water Truck Dump Truck (10-12 yd3)	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds - ruck Driver > 60 yds - ruck Driver > 60 yds - ter Truck > 2,500 gal ter Truck > 2,500 gal	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29 \$23.29 \$23.29 \$23.29
(2) Equipment Operator Source: (3) Zone Basis: Truck Drivers (\$/hr) (4) 725 730 735 740 769D 7773E 777D 785C 793C 797B 613E (5,000 gal) Water Wagon 621E (8,000 gal) Water Wagon 777D Water Truck 785C Water Truck	Davis-Bacon Act WD#NM20 From Deming ruck Driver > 25 yds - ruck Driver > 60 yds - ruck Driver > 60 yds - ter Truck > 2,500 gal ter Truck > 2,500 gal	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97 \$18.97	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35 \$0.35	\$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45 \$1.45	\$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52 \$2.52	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$23.29 \$23.29 \$23.29 \$23.29 \$23.29 \$23.29

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Labor Rates

Closure Cost Estimate Labor Rates

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm
Model Version: Version 1.4.1

Cost Data: User Data

Color Code Key	
User Input - Direct Input	Direct Input
User Input - Pull Down List	Pull Down Selection
Program Constant (can override)	Alternate Input
Program Calculated Value	Locked Cell - Formula or Reference

ZONE ADJUSTMENTS		
Cost Basis/Project Region	American Magnesium - Option 1	American Magnesium - Foothill Dolomite Mine - Northern Nevada Equipment
Power Equipment Operators	50-150 miles	\$0.00
Truck Drivers	50-150 miles	\$0.00
Laborers	50-150 miles	\$0.00
INDIRECT COSTS		
Unemployment (%)	1.84%	
Retirement/SS/Medicare (%)	7.65%	
Workman's Compensation (%)	13.30%	
Other Indirects		
State Payroll Tax (13),(15),(17),		
		1
		1
Total Other Indirects	0.00%	1

Total Other Indirects	0.00%									
IOURLY LABOR RATE	TABLE									
aborers (\$/hr) (6,7)										
General Laborer	Group 1	\$12.37	\$0.00	\$12.37	\$0.00	\$0.23	\$0.95	\$1.65	\$0.00	\$15.
Skilled Laborer	Group 4	\$17.97	\$0.00	\$17.97	\$0.00	\$0.33	\$1.37	\$2.39	\$0.00	\$22.
Driller's Helper	Group 3	\$17.83	\$0.00	\$17.83	\$0.00	\$0.33	\$1.36	\$2.37	\$0.00	\$21.
Rodmen (reinforcing concrete)	Group 1	\$17.74	\$0.00	\$17.74	\$0.00	\$0.33	\$1.36	\$2.36	\$0.00	\$21.
Cement finisher	Group 3	\$17.83	\$0.00	\$17.83	\$0.00	\$0.33	\$1.36	\$2.37	\$0.00	\$21.
Carpenter		\$22.26	\$0.00	\$22.26	\$13.48	\$0.41	\$1.70	\$2.96	\$0.00	\$40.
OTES:										
(6) Laborer Source:	D-B LABO0169-034 10/1/		ct WD#NM2020	0012						
	D-B Projected from South	ern Nevada								
(8) Zone Basis:	From Deming									
Project Management an	d Technical La	abor (\$/hr) (9)							
Project Manager		\$72.56		\$72.56	\$0.00	\$1.34	\$5.55	\$9.65	\$0.00	\$89.
Foreman		\$67.50		\$67.50	\$0.00	\$1.24	\$5.16	\$8.98	\$0.00	\$82.
Field Geologist/Engineer		\$109.94		\$109.94	\$0.00	\$2.02	\$8.41	\$14.62	\$0.00	\$134.
Field Tech/Sampler		\$76.11		\$76.11	\$0.00	\$1.40	\$5.82	\$10.12	\$0.00	\$93.
Range Scientist		\$97.25		\$97.25	\$0.00	\$1.79	\$7.44	\$12.93	\$0.00	\$119.
Senior Planning Engineer					\$0.00					
Project Engineer					\$0.00					
Mechanic/Fitter					\$0.00					
					\$0.00					
					\$0.00					
					\$0.00					
					\$0.00					
IOTES:										
(9) Project Manager:	R.S.Means 2020 Q2 (01 3	11 1320 0200 Total Incl	.O&P-10%) Adju	sted for Elko, NV						
(9) Foreman Source:	R.S.Means 2020 Q2 (01 3		.O&P-10%) Adju	sted for Elko, NV						
(9) Techical Labor Source:	Wood plc 2020 Adjusted for	or Zone,Tax and Ins.								
Other Labor Source:										
Other Labor Source:		, , , , , , , , , , , , , , , , , , , ,								
†Additional User Markups		,		,						
(These are added by the user to the										
base rate to account for site-specific										
conditions or corporate requirements)										

Closure Cost Estimate Equipment Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan
Date of Submittal: 09-29-2020
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm
Monthly Rental Basis: 1600 hrs month

EQUIPMENT TYPE (1)	Monthly Owner/Rental Rate	Equipment Hourly Rate	Fuel/Lube/ Wear	Total Rate
Bulldozers D6R	60 570 00	644.00	650.00	£04.0
D6R w/ Winch	\$6,570.00 \$6,570.00	\$41.06 \$41.06	\$50.90 \$50.90	\$91.9 \$91.9
D7R	\$18,300.00	\$114.38	\$22.95	\$137.3
D8R	\$20,180.00	\$126.13	\$29.70	\$155.8
D9R D10R	\$30,100.00 \$44.500.00	\$188.13 \$278.13	\$41.41 \$51.43	\$229.5 \$329.5
D10R D11R	\$56,234.00	\$351.46	\$235.44	\$586.9
Wheeled Dozers				
824G	\$19,849.00	\$124.06	\$113.00	\$237.0
834G	\$24,929.00	\$155.81	\$138.70	\$294.5
844 854G	\$33,734.00 \$33,802.00	\$210.84 \$211.26	\$184.06 \$221.85	\$394.9 \$433.1
Motor Graders	\$00,00 <u>2.</u> 00	\$211.20	\$22.1.00	\$100.1
120H	\$8,670.00	\$54.19	\$48.60	\$102.7
14G/H	\$14,790.00	\$92.44	\$94.28	\$186.7
16G/H	\$18,806.00	\$117.54	\$129.63	\$247.1
24M Track Excavators	\$20,686.00	\$129.29	\$158.47	\$287.7
312C	\$5,610.00	\$35.06	\$7.59	\$42.6
320C	\$7,750.00	\$48.44	\$15.05	\$63.4
325C	\$10,750.00	\$67.19	\$18.57	\$85.7
330C	\$11,500.00	\$71.88	\$23.64	\$95.5
345B 365BL	\$16,730.00 \$23,119.00	\$104.56 \$144.49	\$29.42 \$113.51	\$133.9 \$258.0
385BL	\$28,472.00	\$177.95	\$134.75	\$312.7
Scrapers				
631G	\$27,700.00	\$173.13	\$70.61	\$243.7
637G Wheeled Loaders	\$36,819.00	\$230.12	\$200.40	\$430.5
924G	\$5,610.00	\$35.06	\$19.78	\$54.8
928G	\$6,530.00	\$40.81	\$36.90	\$77.7
950G	\$9,520.00	\$59.50	\$32.45	\$91.9
966G	\$11,500.00	\$71.88	\$37.28	\$109.1
972G 980G	\$13,480.00 \$15,690.00	\$84.25 \$98.06	\$43.86 \$61.05	\$128.1 \$159.1
988G	\$15,690.00 \$19,589.00	\$98.06 \$122.43	\$61.05 \$151.77	\$159.1 \$274.2
990	\$28,299.00	\$176.87	\$233.36	\$410.2
992G	\$47,500.00	\$296.88	\$225.73	\$522.6
994D 1 2350	\$45,175.00 \$82,607.00	\$282.34	\$350.03	\$632.3
Shovels	\$82,007.00	\$516.29	\$625.53	\$1,141.8
PC2000	\$70,917.00	\$443.23	\$278.28	\$721.5
PC3000	\$72,526.00	\$453.29	\$345.19	\$798.4
PC4000	\$74,135.00	\$463.34	\$427.42	\$890.7
PC5500	\$81,548.00	\$509.68	\$562.14	\$1,071.8
PC8000 Hydraulic Hammers	\$89,703.00	\$560.64	\$658.00	\$1,218.6
H-120 (fits 325)	\$3,420.00	\$21.38	\$11.57	\$32.9
H-160 (fits 345)	\$7,028.00	\$43.93	\$23.24	\$67.1
H-180 (fits 365/385)	\$8,168.00	\$51.05	\$24.96	\$76.0
Demolition Shears				
S340 (fits 322/325/330) S365 (fits 330/345)	\$3,524.00 \$4,131.00	\$22.03 \$25.82	\$20.50 \$25.23	\$42.5 \$51.0
S390 (fits 365/385)	\$6,593.00	\$41.21	\$31.61	\$72.8
Demolition Grapples				
G315 (fits 322/325)				\$0.0
G320 (fits 325/330)				\$0.0 \$0.0
G330 (fits 345/365) Other Equipment				\$0.0
420D 4WD Backhoe	\$3,240.00	\$20.25	\$22.10	\$42.3
428D 4WD Backhoe	\$3,870.00	\$24.19	\$22.59	\$46.7
CS533E Vibratory Roller	\$4,402.00	\$27.51	\$27.54	\$55.0
CS633E Vibratory Roller	\$4,291.00	\$26.82	\$31.05	\$57.8
CP533E Sheepsfoot Compactor CP633E Sheepsfoot Compactor	\$4,085.00 \$6,588.00	\$25.53 \$41.18	\$33.08 \$40.18	\$58.6 \$81.3
CP633E Sheepsfoot Compactor Light Truck - 1.5 Ton	\$6,588.00 \$2,184.00	\$41.18 \$13.65	\$40.18 \$17.48	\$81.3 \$31.1
Supervisor's Truck	\$834.00	\$5.21	\$7.61	\$12.8
Flatbed Truck	\$621.00	\$3.88	\$21.62	\$25.5
Air Compressor + tools	\$597.00	\$3.73	\$5.57	\$9.3
Welding Equipment Heavy Duty Drill Rig	\$405.00 \$52,018.00	\$2.53 \$325.11	\$6.30 \$314.83	\$8.8 \$639.9
Pump (plugging) Drill Rig	\$52,018.00 \$52,018.00	\$325.11	\$310.45	\$635.5
Concrete Pump	\$14,864.20	\$92.90	\$21.90	\$114.8
Gas Engine Vibrator	\$357.00	\$2.23	\$3.65	\$5.8
Generator 5KW	\$938.00	\$5.86	\$6.87	\$12.7
HDEP Welder (pipe or liner) 5 Ton Crane	\$7,022.96 \$7,159.50	\$43.89 \$44.75	\$4.38 \$42.14	\$48.2 \$86.8
20 Ton Crane	\$7,955.00	\$49.72	\$48.28	\$98.0
50 Ton Crane	\$15,154.00	\$94.71	\$88.82	\$183.5
120 Ton Crane	\$28,943.00	\$180.89	\$177.03	\$357.9
Trucks	640.007.00	207.00	200.00	6456 -
725 730	\$10,824.00 \$14,640.00	\$67.65 \$91.50	\$82.89 \$62.31	\$150.5 \$153.8
735	\$16,730.00	\$104.56	\$70.00	\$174.5
740	\$18,820.00	\$117.63	\$74.01	\$191.6
769D	*** ***		\$23.86	\$23.8
773E 777D	\$18,267.00 \$37,750.00	\$114.17 \$235.94	\$160.85 \$325.91	\$275.0 \$561.8
785C	\$37,750.00 \$40,948.00	\$235.94 \$255.93	\$325.91 \$366.30	\$561.8 \$622.2
793C	\$49,547.00	\$309.67	\$470.39	\$780.0
797B	\$89,160.00	\$557.25	\$817.64	\$1,374.8
613E (5,000 gal) Water Wagon	\$8,726.00	\$54.54	\$77.29	\$131.8
621E (8,000 gal) Water Wagon	\$10,006.00	\$62.54 \$232.66	\$103.42	\$165.9 \$554.0
777D Water Truck 785C Water Truck	\$37,226.00 \$40,948.00	\$232.66 \$255.93	\$321.40 \$366.30	\$554.0 \$622.2
Dump Truck (10-12 yd ³)	\$3,752.00	\$23.45	\$32.89	\$56.3
NOTES:				
(1) Power Equipment Source:		hadaat 1 - T	ander Kan	-1-
(1) Power Equipment Source: (2) Power Equipment Type: (3) Drilling Equipment Source:	Catepillar model or equ		oader, Komatsu shov	els

Closure Cost Estimate Equipment Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan
Date of Submittal: 09-29-2020
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xIsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data: User Data
Cost Data: User Data

EQUIPMENT TYPE	PM Cost Per Hour ⁽¹⁾	Under carriage or Tires (2)	G.E.T Consumption (3)	Fuel Use Rate gal/hr (4)	Cost@ 2.19/gal	Total Hourly Equipment Cost
ulldozers D6R	604.00		60.04	c or l	640.00	ero c
D6R w/ Winch	\$34.60 \$34.60		\$2.61 \$2.61	6.25 6.25	\$13.69 \$13.69	\$50.9 \$50.9
D7R	\$2.69		\$3.84	7.50	\$16.43	\$22.9
D8R	\$3.49		\$4.86	9.75	\$21.35	\$29.7
D9R D10R	\$3.61 \$3.79		\$6.59 \$8.22	14.25 18.00	\$31.21 \$39.42	\$41.4 \$51.4
D11R	\$160.74		\$16.66	26.50	\$58.04	\$235.4
/heeled Dozers						
824G 834G	\$49.58 \$59.69	\$38.56 \$49.72	\$1.32 \$1.70	10.75 12.60	\$23.54 \$27.59	\$113.0 \$138.7
844	\$77.91	\$70.88	\$2.42	15.00	\$32.85	\$184.0
854G	\$90.20	\$87.64	\$2.40	19.00	\$41.61	\$221.8
lotor Graders 120H	\$20.32	\$18.90	\$0.62	4.00	\$8.76	\$48.6
14G/H	\$37.21	\$42.00	\$1.38	6.25	\$13.69	\$94.2
16G/H	\$50.42	\$60.78	\$2.00	7.50	\$16.43	\$129.6
24M rack Excavators	\$55.46	\$66.86	\$2.20	15.50	\$33.95	\$158.4
312C	\$2.14		\$1.33	1.88	\$4.12	\$7.5
320C	\$2.38		\$1.94	4.90	\$10.73	\$15.0
325C	\$2.64		\$1.48	6.60	\$14.45	\$18.5
330C 345B	\$3.01 \$3.36		\$2.67 \$2.85	10.60	\$17.96 \$23.21	\$23.6 \$29.4
365BL	\$80.63		\$3.97	13.20	\$28.91	\$113.5
385BL	\$91.31		\$5.11	17.50	\$38.33	\$134.7
crapers		***		1227		
631G 637G	\$3.22 \$116.00	\$32.68 \$30.28	\$1.86 \$2.11	15.00 23.75	\$32.85 \$52.01	\$70.6 \$200.4
/heeled Loaders	\$110.30	\$00.20	V1	_0.10	-JJZ01	ψ <u>2</u> 00.
924G	\$9.33	\$4.24	\$0.19	2.75	\$6.02	\$19.
928G	\$16.35 \$2.30	\$12.28 \$20.52	\$0.60 \$0.87	3.50	\$7.67 \$9.76	\$36.
950G 966G	\$2.30 \$2.42	\$20.52 \$21.40	\$0.87 \$0.87	4.00 5.75	\$8.76 \$12.59	\$32. \$37.
972G	\$2.53	\$26.56	\$1.08	6.25	\$13.69	\$43.
980G	\$2.57	\$40.64	\$1.41	7.50	\$16.43	\$61.
988G 990	\$57.81 \$85.58	\$65.20 \$106.84	\$2.26 \$3.71	12.10 17.00	\$26.50 \$37.23	\$151.° \$233.°
992G	\$11.87	\$130.76	\$32.73	23.00	\$50.37	\$225.
994D	\$122.36	\$143.84	\$4.99	36.00	\$78.84	\$350.
L2350 hovels	\$203.53	\$268.16	\$9.30	66.00	\$144.54	\$625.5
PC2000	\$183.38		\$13.87	37.00	\$81.03	\$278.2
PC3000	\$218.80		\$16.89	50.00	\$109.50	\$345.
PC4000	\$254.21		\$19.91	70.00	\$153.30	\$427.
PC5500 PC8000	\$279.63 \$307.59		\$21.90 \$24.09	119.00 149.00	\$260.61 \$326.31	\$562. \$658.
ydraulic Hammers	4001.08		\$24.05	143.00	QUZU.31	\$656.0
H-120 (fits 325)	N/A		\$11.57			\$11.5
H-160 (fits 345)	N/A		\$23.24			\$23.2
H-180 (fits 365/385) emolition Shears	N/A		\$24.96			\$24.9
S340 (fits 322/325/330)	N/A		\$20.50			\$20.5
S365 (fits 330/345)	N/A		\$25.23			\$25.
S390 (fits 365/385) emolition Grapples	N/A		\$31.61			\$31.
G315 (fits 322/325)	N/A					\$0.0
G320 (fits 325/330)	N/A					\$0.
G330 (fits 345/365)	N/A					\$0.
ther Equipment	644.04	60.40	60.54	2.00	60.57	600
420D 4WD Backhoe 428D 4WD Backhoe	\$11.81 \$12.20	\$3.18 \$3.22	\$0.54 \$0.60	3.00	\$6.57 \$6.57	\$22. \$22.
CS533E Vibratory Roller	\$19.33			3.75	\$8.21	\$27.
CS633E Vibratory Roller	\$20.65			4.75	\$10.40	\$31.
CP533E Sheepsfoot Compactor CP633E Sheepsfoot Compactor	\$24.87 \$29.78			3.75 4.75	\$8.21 \$10.40	\$33.0 \$40.
Light Truck - 1.5 Ton	\$8.67	\$5.52		1.50	\$3.29	\$40. \$17.
Supervisor's Truck	\$3.62	\$1.80		1.00	\$2.19	\$7.
Flatbed Truck	\$3.85 \$3.85	\$7.48	N/A	4.70	\$10.29 \$2.10	\$21. \$5.
Air Compressor + tools Welding Equipment	\$3.38 \$1.92		N/A N/A	1.00 2.00	\$2.19 \$4.38	\$5. \$6.
Heavy Duty Drill Rig	\$278.95		\$9.60	12.00	\$26.28	\$314.
Pump (plugging) Drill Rig	\$278.95		\$9.60	10.00	\$21.90	\$310.
Concrete Pump Gas Engine Vibrator	\$1.46		N/A N/A	10.00	\$21.90 \$2.19	\$21. \$3.
Generator 5KW	\$3.58		N/A	1.50	\$3.29	\$6.
HDEP Welder (pipe or liner)			N/A	2.00	\$4.38	\$4.
5 Ton Crane 20 Ton Crane	\$23.22 \$25.80	\$12.35 \$13.72		3.00 4.00	\$6.57 \$8.76	\$42. \$48.
50 Ton Crane	\$25.80 \$45.47	\$13.72 \$33.06		4.70	\$10.29	\$48. \$88.
120 Ton Crane	\$80.14	\$85.50		5.20	\$11.39	\$177.
rucks			-			
725 730	\$28.22 \$2.76	\$41.16 \$44.94	\$3.22 \$3.22	4.70 5.20	\$10.29 \$11.39	\$82. \$62.
735	\$2.86	\$47.82	\$3.22	7.35	\$16.10	\$70.
740	\$2.97	\$51.72	\$3.22	7.35	\$16.10	\$74.
769D 773E	\$47.92	\$83.16	\$3.60 \$4.04	9.25 11.75	\$20.26 \$25.73	\$23.i \$160.i
773E 777D	\$47.92 \$95.60	\$83.16 \$189.12	\$4.04 \$4.51	11.75 16.75	\$25.73 \$36.68	\$160. \$325.
785C	\$105.16	\$208.03	ŢU1	24.25	\$53.11	\$366.
793C	\$127.24	\$251.72		41.75	\$91.43	\$470.
797B 613E (5 000 gal) Water Wagon	\$204.78 \$45.31	\$484.20		58.75	\$128.66 \$13.14	\$817.
613E (5,000 gal) Water Wagon 621E (8,000 gal) Water Wagon	\$45.31 \$50.66	\$18.84 \$29.22		6.00 10.75	\$13.14 \$23.54	\$77. \$103.
777D Water Truck	\$95.60	\$189.12		16.75	\$36.68	\$321.
785C Water Truck	\$105.16	\$208.03		24.25	\$53.11	\$366.
Dump Truck (10-12 yd3) (5)	N/A	\$21.50	N/A	5.20	\$11.39	\$32.
otes: (1) PM Source:						
(2) Undercarriage Source:						

Closure Cost Estimate Equipment Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan
Date of Submittal: 09-29-2020
File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data: User Data
Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_Mine_1_12.xlsm

		# of Tires Per Piece	Cost	443.67**	Life Expectency Hours	Tire Cost per
Equipment	Tire Size	of Equipment	Per Tire	Tire Cost (1)(2)	(Low/Zone A) (3)	Hour
Bulldozers D6R	T .		N/A			
D6R w/ Winch			N/A			
D7R			N/A			
D8R D9R	-		N/A N/A			
D10R			N/A			
D11R			N/A			
Nheeled Dozers 824G	29.5R25	4	\$33,740,00	\$134,960.00	3.500	\$38.5
834G	35/65-R33	4	\$43,505.00	\$174,020.00	3,500	\$49.7
844	45/65-R39	4	\$62,020.00	\$248,080.00	3,500	\$70.8
854G Motor Graders	45/65-R45	4	\$76,685.00	\$306,740.00	3,500	\$87.6
120H	13PR24	6	\$11,025.00	\$66,150.00	3,500	\$18.9
14G/H	20.5R25	6	\$24,500.00	\$147,000.00	3,500	\$42.0
16G/H	23.5R25 23.5R25	6	\$35,455.00	\$212,730.00 \$234,003.00	3,500	\$60.7
24M Frack Excavators	23.5K25	6	\$39,000.50	\$234,003.00	3,500	\$66.8
312C			N/A			
320C			N/A			
325C			N/A			
330C 345B	-		N/A N/A			
365BL			N/A			
385BL			N/A			
Scrapers 631G	37.25R35	4	\$32,680.00	\$130.720.00	4,000	\$32.6
631G 637G	37.25R35 37.25R35	4	\$30,280.00	\$130,720.00 \$121,120.00	4,000	\$32.0
Wheeled Loaders						
924G	17.5R25	4	\$4,770.00	\$19,080.00	4,500	\$4.2
928G 950G	17.5R25 26.5R25	4	\$13,815.00 \$23,085.00	\$55,260.00 \$92,340.00	4,500 4,500	\$12.2 \$20.5
966G	26.5R25	4	\$23,085.00	\$96,300.00	4,500	\$20.5 \$21.4
972G	26.5R25	4	\$29,880.00	\$119,520.00	4,500	\$26.5
980G 988G	29.5R25 35/65-33	4	\$45,720.00 \$73,350.00	\$182,880.00 \$293,400.00	4,500 4,500	\$40.6 \$65.2
990	41.25/70-39	4	\$120,195.00	\$480,780.00	4,500	\$106.8
992G	45/65R45	4	\$147,105.00	\$588,420.00	4,500	\$130.7
994D L2350	55/85R57 55/85R57	4	\$161,815.50 \$301,680.00	\$647,262.00 \$1,206,720.00	4,500 4,500	\$143.8 \$268.1
Shovels	33/83R37	4	\$301,000.00	\$1,200,720.00	4,300	\$200.11
PC2000			N/A			
PC3000			N/A			
PC4000 PC5500	-		N/A N/A			
PC8000			N/A			
lydraulic Hammers						
H-120 (fits 325)			N/A			
H-160 (fits 345) H-180 (fits 365/385)	-		N/A N/A			
Demolition Shears						
S340 (fits 322/325/330)			N/A			
S365 (fits 330/345) S390 (fits 365/385)			N/A N/A			
Demolition Grapples			INA			
G315 (fits 322/325)			N/A			
G320 (fits 325/330)			N/A			
			N/A			
G330 (fits 345/365)						
Other Equipment	340/80R18-19.5LR24	2	\$4,770.00	\$9,540.00	3.000	\$3.1
Other Equipment 420D 4WD Backhoe 428D 4WD Backhoe	340/80R18-19.5LR24 340/80R18-16.9R28	2 2	\$4,770.00 \$4,830.00	\$9,540.00 \$9,660.00	3,000 3,000	
Other Equipment 420D 4WD Backhoe 428D 4WD Backhoe CS533E Vibratory Roller			\$4,830.00 N/A			
Dther Equipment 420D 4WD Backhoe 428D 4WD Backhoe CS533E Vibratory Roller CS633E Vibratory Roller			\$4,830.00 N/A N/A			
Other Equipment 420D 4WD Backhoe 428D 4WD Backhoe CS533E Vibratory Roller			\$4,830.00 N/A			
Dther Equipment 420D 4WD Backhoe 428D 4WD Backhoe CS533E Vibratory Roller CS633E Vibratory Roller CP533E Sheepsfoot Compactor CP633E Sheepsfoot Compactor Light Truck - 1.5 Ton		2	\$4,830.00 N/A N/A N/A N/A 4140	\$9,660.00 \$16,560.00	3,000	\$3.2 \$5.5
Dther Equipment 4200 4WD Backhoe 4280 4WD Backhoe CS533E Vibratory Roller CS533E Vibratory Roller CP533E Sheepsfoot Compactor CP533E Sheepsfoot Compactor Light Truck - 1,5 Ton Supervisor's Truck		4 4	\$4,830.00 N/A N/A N/A N/A 4140 1350	\$9,660.00 \$16,560.00 \$5,400.00	3,000 3,000 3,000	\$3.2 \$5.5 \$1.8
Dther Equipment 420D 4WD Backhoe 428D 4WD Backhoe CS533E Vibratory Roller CS633E Vibratory Roller CP533E Sheepsfoot Compactor CP633E Sheepsfoot Compactor Light Truck - 1.5 Ton		2	\$4,830.00 N/A N/A N/A N/A 4140	\$9,660.00 \$16,560.00	3,000	\$3.2 \$5.5 \$1.8
Dither Equipment 4200 4WD Backhoe 4280 4WD Backhoe CSS33E Vibratory Roller CSS33E Vibratory Roller CPS33E Sheepsfoot Compactor CPS33E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flathed Truck Air Compressor + tools Welding Equipment		4 4 22	\$4,830.00 N/A N/A N/A N/A 4140 1350 1020	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00	3,000 3,000 3,000 3,000	\$3.2 \$5.5 \$1.8
Dther Equipment 4200 4WD Backhoe 4280 4WD Backhoe C\$533E Wbratory Roller C\$633E Whatory Roller C\$633E Sheepsfoot Compactor CP633E Sheepsfoot Compactor Light Truck -1.5 Ton Supervisor's Truck Flatbed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig		4 4 22	\$4,830.00 N/A N/A N/A N/A 4140 1350 1020 N/A	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00	3,000 3,000 3,000 3,000 3,000	\$3.2 \$5.5 \$1.8
Dither Equipment 4200 4WD Backhoe 4280 4WD Backhoe CSS33E Vibratory Roller CSS33E Vibratory Roller CPS33E Sheepsfoot Compactor CPS33E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flathed Truck Air Compressor + tools Welding Equipment		4 4 22	\$4,830.00 N/A N/A N/A N/A 4140 1350 1020 N/A	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00	3,000 3,000 3,000 3,000	\$3.2 \$5.5 \$1.8
Dither Equipment 4200 4WD Backhoe 4200 4WD Backhoe 4200 4WD Backhoe 625038 Wibratory Roller C55338 Wibratory Roller C55338 Sheepsfoot Compactor CP5338 Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flathed Truck Alf Compressor + tools Welding Equipment Heavy Dury Drill Rig Pump (plugging) Drill Rig Concrete Pump Gas Engine Vibrator		4 4 22	\$4,830.00 N/A N/A N/A N/A N/A 14140 1350 1020 N/A N/A N/A N/A	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00	3,000 3,000 3,000 3,000 3,000	\$3.2 \$5.5 \$1.8
Dther Equipment 4200 4WD Backhoe 4280 4WD Backhoe C\$533E Vibratory Roller C\$533E Vibratory Roller C\$533E Sheepsfoot Compactor CP633E Sheepsfoot Compactor Light Truck + 1.5 Ton Supervisor's Truck Flatbed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Pump (plugging) Drill Rig Concrete Pump Gas Engine Vibrator Generator SKW		4 4 22	\$4,830.00 NI/A NI/A NI/A NI/A 14140 1350 1020 NI/A NI/A NI/A NI/A NI/A NI/A	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00	3,000 3,000 3,000 3,000 3,000	\$3.1 \$3.2 \$5.5 \$1.8 \$7.4
Dther Equipment 4200 4WD Backhoe 4280 4WD Backhoe CS533E Vibratory Roller CS533E Vibratory Roller CP533E Sheepsfoot Compactor CP633E Sheepsfoot Compactor Light Truck + 1.5 Ton Supervisor's Truck Flathed Truck Air Compressor + tools Welding Equipment Heavy Duty Opti Rig Pump (plugging) Drill Rig Concrete Pump Gas Engine Vibrator Generator SKW HDEP Welder (pipe or liner)		4 4 22 22	\$4.830.00 N/A N/A N/A N/A 140 1350 1020 N/A N/A N/A N/A N/A N/A N/A N/A	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00 \$0.00	3,000 3,000 3,000 3,000 3,000 3,000	\$3.2 \$5.5 \$1.8 \$7.4
Dther Equipment 4200 4WD Backhoe 4280 4WD Backhoe C\$533E Vibratory Roller C\$533E Vibratory Roller C\$533E Sheepsfoot Compactor CP633E Sheepsfoot Compactor Light Truck + 1.5 Ton Supervisor's Truck Flatbed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Pump (plugging) Drill Rig Concrete Pump Gas Engine Vibrator Generator SKW		4 4 22	\$4,830.00 NI/A NI/A NI/A NI/A 14140 1350 1020 NI/A NI/A NI/A NI/A NI/A NI/A	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00	3,000 3,000 3,000 3,000 3,000	\$3.2 \$5.5 \$1.8 \$7.4
Dither Equipment 4200 AWD Backhoe 4280 AWD Backhoe CSS33E Vibratory Roller CSS33E Vibratory Roller CSS33E Vibratory Roller CP533E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flatbed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Concrete Pump Gas Engine Vibrator Generator SKW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane		4 4 22 4 4 4 4 4 6	\$4,830,00 N/A N/A N/A N/A N/A 1140 1350 1020 N/A N/A N/A N/A N/A S9,261.00 \$10,290.00 \$16,630,00 \$16,630,00	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00 \$0.00 \$37,044.00 \$41,160.00 \$99,180.00	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000	\$3.2 \$5.5 \$1.8 \$7.4 \$12.3 \$13.7 \$33.7
Dither Equipment 4200 4WD Backhoe 4280 4WD Backhoe C\$533E Vibratory Roller C\$533E Vibratory Roller C\$533E Sheepsfoot Compactor CP633E Sheepsfoot Compactor Light Truck + 1.5 Ton Supervisor's Truck Flatbed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Pump (plugging) Drill Rig Concrete Pump Gas Engine Vibrator Generator SKW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane 50 Ton Crane 50 Ton Crane		4 4 22 24 4 4 4 4 4 4 4	\$4.830.00 N/A N/A N/A N/A N/A 4140 1350 1020 N/A N/A N/A N/A N/A N/A S9,261.00 \$10,290.00	\$16,560.00 \$16,560.00 \$5,400.00 \$22,440.00 \$0.00 \$0.00 \$37,044.00 \$41,160.00	3,000 3,000 3,000 3,000 3,000 3,000 3,000	\$3.2 \$5.5 \$1.8 \$7.4 \$12.3 \$13.7 \$33.7
Dither Equipment 4200 AWD Backhoe 4280 AWD Backhoe CSS33E Vibratory Roller CSS33E Vibratory Roller CSS33E Vibratory Roller CP533E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flatbed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Concrete Pump Gas Engine Vibrator Generator SKW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane		4 4 22 4 4 4 4 4 6	\$4,830,00 N/A N/A N/A N/A N/A 1140 1350 1020 N/A N/A N/A N/A N/A S9,261.00 \$10,290.00 \$16,630,00 \$16,630,00	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00 \$0.00 \$37,044.00 \$41,160.00 \$99,180.00	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000	\$3.2 \$5.5 \$1.8 \$7.4 \$12.3 \$13.7 \$33.0 \$86.5
Diber Equipment 4200 4WD Backhoe 4280 4WD Backhoe 4280 4WD Backhoe CSS33E Wibratory Roller CSS33E Wibratory Roller CP533E Sheepsfoot Compactor CP533E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flatbed Truck Alf Compressor + tools Welding Equipment Heavy Duty Drill Rig Pump (plugging) Drill Rig Concrete Pump Gas Engine Vibrator Generator 5KW HDEP Welder (pipe or liner) 5 Ton Crane 50 Ton Crane 725 726 730	340/86/R18-16.9R28	4 4 4 22 4 4 4 6 6 6	\$4,830,00 N/A N/A N/A N/A N/A 14140 13550 1020 N/A N/A N/A N/A N/A N/A S9,261,00 \$11,290,00 \$42,750,00 \$13,720,00	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00 \$0.00 \$11,160.00 \$91,180.00 \$256,00.00	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 2,000 2,000	\$3.2 \$5.55 \$1.8 \$7.4 \$13.3 \$33.0 \$33.0 \$41.1 \$44.9
Dither Equipment 4200 4WD Backhoe 4280 4WD Backhoe CSS33E Vibratory Roller CSS33E Vibratory Roller CSS33E Vibratory Roller CPS33E Sheepsfoot Compactor CPS33E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flathed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Pump (plugging) Drill Rig Concrete Pump Gas Engine Vibrator Gaenerator SkW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 1725 730 730 735	23.5R25 23.5R25 23.5R25	4 4 4 22 4 4 4 4 6 6 6 6	\$4,830,00 N/A N/A N/A N/A 1350 1020 N/A N/A N/A N/A N/A N/A N/A N/A S9,261.00 \$10,290.00 \$42,750.00 \$13,720.00 \$13,720.00 \$15,5940.00	\$9,660.00 \$16,560.00 \$540.00 \$5,400.00 \$22,440.00 \$0.00 \$37,044.00 \$391,180.00 \$256,500.00 \$89,180.00 \$89,880.00	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 2,000 2,000 2,000	\$3.2 \$5.5 \$1.8 \$7.4 \$13.7 \$33.0 \$85.5 \$41.1 \$44.9 \$47.8
Dither Equipment 4200 4WD Backhoe 4280 4WD Backhoe C\$533E Vibratory Roller C\$533E Vibratory Roller C\$533E Sheepsfoot Compactor CP633E Sheepsfoot Compactor Light Truck + 1.5 Ton Supervisor's Truck Flatbed Truck Air Compressor + tools Welding Equipment Heavy Dury Drill Rig Pump (plugging) Drill Rig Concrete Pump Gas Engine Vibrator Generator SKW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane 50 Ton Crane 120 Ton Crane 120 Ton Crane 730 735 730 735	23.5R25 23.5R25 23.5R25 26.5R25 29.5R25	4 4 4 22 4 4 4 6 6 6 6 6	\$4,830,00 N/A N/A N/A N/A N/A 14140 13550 1020 N/A N/A N/A N/A N/A N/A S9,261,00 \$11,290,00 \$42,750,00 \$13,720,00	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00 \$0.00 \$37,044.00 \$99,180.00 \$256,000 \$99,180.00 \$256,000 \$89,880.00 \$95,980.00 \$95,980.00 \$95,980.00	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 2,000 2,000 2,000 2,000	\$3.2 \$5.5 \$1.8 \$7.4 \$12.3 \$13.7 \$33.0 \$85.5 \$44.1
Dither Equipment 4200 4WD Backhoe 4280 4WD Backhoe CSS33E Vibratory Roller CSS33E Vibratory Roller CSS33E Vibratory Roller CPS33E Sheepsfoot Compactor CPS33E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flathed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Pump (plugging) Drill Rig Concrete Pump Gas Engine Vibrator Gaenerator SkW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 1725 730 730 735	23.5R25 23.5R25 23.5R25	4 4 4 22 4 4 4 4 6 6 6 6	\$4,830,00 N/A N/A N/A N/A 1350 1020 N/A N/A N/A N/A N/A N/A N/A N/A S9,261.00 \$10,290.00 \$42,750.00 \$13,720.00 \$13,720.00 \$15,5940.00	\$9,660.00 \$16,560.00 \$540.00 \$5,400.00 \$22,440.00 \$0.00 \$37,044.00 \$391,180.00 \$256,500.00 \$89,180.00 \$89,880.00	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 2,000 2,000 2,000	\$3.2 \$5.5 \$1.8 \$7.4 \$13.7 \$33.0 \$85.5 \$41.1 \$44.9 \$47.8
Dither Equipment 4200 4WD Backhoe 4200 4WD Backhoe 4280 4WD Backhoe CS533E Vibratory Roller CS533E Vibratory Roller CS533E Vibratory Roller CP533E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Concrete Pump Gas Engine Vibrator Generator 5KW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 1275 735 740 7759 7776 7777	23.5R25 23.5R25 23.5R25 26.5R25 29.5R25 18.0R33 24.0R35 27.0R49	4 4 4 22 4 4 4 6 6 6 6 6 6 6 6 6	\$4,830,00 N/A N/A N/A N/A N/A 1350 1020 N/A	\$9,660.00 \$16,560.00 \$5,400.00 \$5,400.00 \$22,440.00 \$0.00 \$0.00 \$37,044.00 \$99,180.00 \$256,500.00 \$98,230.00 \$103,440.00 \$103,440.00 \$415,800.00 \$415,800.00	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 2,000 2,000 2,000 2,000 6,000 5,000 5,000	\$3.2 \$5.5 \$1.8 \$7.4 \$12.3 \$13.7 \$33.0 \$85.5 \$41.1 \$44.9 \$47.8 \$51.7 \$33.1 \$13.7 \$13.
Dither Equipment 4200 4WD Backhoe 4280 4WD Backhoe CS533E Vibratory Roller CS533E Vibratory Roller CS533E Vibratory Roller CP533E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flatbed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Concrete Pump Gas Engine Vibrator Generator StW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 1735 740 769D 773E 7777D 785C	23.5R25 23.5R25 23.5R25 23.5R25 26.5R25 29.5R25 24.00R39 24.00R35 27.00R49 33.00R51	4 4 4 22 4 4 4 4 6 6 6 6 6 6 6 6 6	\$4,830.00 N/A N/A N/A N/A 1410 1350 1020 N/A N/A N/A N/A N/A N/A N/A N/A N/A S9,261.00 \$16,530.00 \$113,720.00 \$113,720.00 \$17,240.00 \$15,740.00 \$15,740.00 \$15,740.00 \$15,740.00 \$15,740.00 \$15,740.00 \$15,740.00 \$15,740.00	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00 \$0.00 \$37,044.00 \$91,180.00 \$256,500.00 \$89,880.00 \$103,440.00 \$415,800.00 \$415,800.00 \$415,800.00	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 2,000 2,000 2,000 2,000 2,000 5,000 5,000 4,000	\$3.2 \$5.5 \$1.8 \$7.4 \$1.2 \$1.3 \$1.3 \$3.3 \$4.9 \$4.9 \$4.7 \$3.7 \$5.1 \$5.1 \$5.1 \$5.1 \$5.1 \$5.1 \$5.1 \$5.1
Dither Equipment 4200 4WD Backhoe 4200 4WD Backhoe 4280 4WD Backhoe CS533E Vibratory Roller CS533E Vibratory Roller CS533E Vibratory Roller CP533E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Concrete Pump Gas Engine Vibrator Generator 5KW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 1275 735 740 7759 7776 7777	23.5R25 23.5R25 23.5R25 26.5R25 29.5R25 18.0R33 24.0R35 27.0R49	4 4 4 22 4 4 4 6 6 6 6 6 6 6 6 6	\$4,830,00 N/A N/A N/A N/A N/A 1350 1020 N/A	\$9,660.00 \$16,560.00 \$5,400.00 \$5,400.00 \$22,440.00 \$0.00 \$0.00 \$37,044.00 \$99,180.00 \$256,500.00 \$98,230.00 \$103,440.00 \$103,440.00 \$415,800.00 \$415,800.00	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 2,000 2,000 2,000 2,000 6,000 5,000 5,000	\$3.2 \$5.55 \$1.8 \$7.4 \$13.3 \$33.0 \$45.5 \$44.9 \$44.9 \$47.6 \$51.7 \$51.7
Dither Equipment 4200 AWD Backhoe 4200 AWD Backhoe 4280 AWD Backhoe CSS33E Vibratory Roller CSS33E Vibratory Roller CSS33E Vibratory Roller CP533E Sheepsfoot Compactor CP533E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flathed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Concrete Pump Gas Engine Vibrator Generator SKW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 1776 773E 7770 785C 7778 7778 7779 785C 7793C 77978 613E (5,000 gal) Water Wagon	23.5R25 23.5R25 23.5R25 23.5R25 26.5R25 27.00R49 33.00R57 40.00R57 23.5R25 23.5R25 24.00R35 27.00R49 33.00R51 40.00R57 23.5R25 23.5R25	4 4 4 22 4 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6	\$4,830.00 N/A N/A N/A N/A 14140 13550 1020 N/A	\$9,660.00 \$16,560.00 \$54,00.00 \$22,440.00 \$0.00 \$37,044.00 \$0.00 \$41,160.00 \$99,180.00 \$256,60.00 \$10,000 \$44,500.00 \$389,880.00 \$30,000 \$45,000.00 \$31,006,874,880.00 \$31,006,874,880.00 \$31,006,874,880.00	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 2,000 2,000 2,000 2,000 5,000 4,000 4,000 4,000 4,000 6,000	\$3.2 \$5.55.5 \$1.8 \$7.4 \$1.2 \$3.3 \$3.3 \$4.1 \$4.1 \$1.2 \$1.2 \$1.2 \$1.2 \$1.2 \$1.2 \$1.2 \$1
Dither Equipment 4200 4WD Backhoe 4200 4WD Backhoe 4280 4WD Backhoe CSS33E Vibratory Roller CSS33E Vibratory Roller CPS33E Sheepsfoot Compactor CPS33E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flathed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Concrete Pump Gas Engine Vibrator Generator StW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane 1775 730 735 740 7690 7776 785C 783C 783C 7878 613E (5,000 gal) Water Wagon 621E (6,000 gal) Water Wagon	23.5R25 23.5R25 23.5R25 26.5R25 29.5R25 29.5R25 40.00R33 40.00R57 40.00R57 23.3SR25	4 4 4 22 4 4 4 4 6 6 6 6 6 6 6 6 6 6 6 6	\$4,830,00 N/A N/A N/A N/A 1360 1020 N/A	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00 \$0.00 \$37,044.00 \$37,044.00 \$256,500.00 \$256,500.00 \$41,500.00 \$40,500.00 \$40,500.00 \$40,500.00 \$40,500.00 \$40,500.00 \$41,5	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 2,000 2,000 2,000 2,000 5,000 4,000 4,000 4,000 6,000 8,000	\$3.2 \$5.5 \$1.8 \$7.4 \$12.3 \$15.7 \$3.3 \$3.3 \$3.3 \$3.3 \$3.3 \$3.3 \$3.3 \$3
Dither Equipment 4200 4WD Backhoe 4280 4WD Backhoe CS533E Vibratory Roller CS533E Vibratory Roller CS533E Vibratory Roller CP533E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flatbed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Concrete Pump Gas Engine Vibrator Generator SKW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 120 Ton Crane 1725 730 740 769D 777B 777C 7785 739 613E (5,000 gal) Water Wagon 621E (6,000 gal) Water Wagon 621E (6,000 gal) Water Wagon 627E (6,000 gal) Water Wagon	23.5R25 23.5R25 23.5R25 23.5R25 26.5R25 26.5R25 24.00R35 27.00R49 20.00E57 23.5R25 33.00E51 40.00E57 23.5R25 33.5R25 33.5R25 23.5R25 33.5R25 24.00R35 27.00R49	4 4 4 22 4 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6	\$4,830.00 N/A N/A N/A N/A 140 13560 1020 N/A	\$9,660.00 \$16,560.00 \$5,400.00 \$5,400.00 \$22,440.00 \$0,00 \$37,044.00 \$39,100 \$41,160.00 \$256,500.00 \$39,800.00 \$39,800.00 \$41,500.00	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 2,000 2,000 2,000 2,000 5,000 4,000 4,000 4,000 6,000 8,000 8,000	\$3.2 \$3.2 \$3.2 \$3.2 \$3.2 \$3.2 \$3.2 \$3.2
Dither Equipment 4200 AWD Backhoe 4200 AWD Backhoe 4280 AWD Backhoe CSS33E Wibratory Roller CSS33E Wibratory Roller CPS33E Sheepsfoot Compactor CPS33E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flatbed Truck Alf Compressor + tools Welding Equipment Heavy Duty Drill Rig Pump (plugging) Drill Rig Concrete Pump Gas Engine Vibrator Generator SKW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane 50 Ton Crane 50 Ton Crane 510 Ton Crane 725 730 735 736 7378 7379 738 777D 785C 7788 7770 785C 7783C 77878 7770 785C 7778 7876 613E (5,000 gal) Water Wagon 621E (6,000 gal) Water Wagon	23.5R25 23.5R25 23.5R25 26.5R25 29.5R25 29.5R25 40.00R33 40.00R57 40.00R57 23.3SR25	4 4 4 22 4 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6	\$4,830,00 N/A N/A N/A N/A 1360 1020 N/A	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00 \$0.00 \$37,044.00 \$37,044.00 \$256,500.00 \$256,500.00 \$41,500.00 \$40,500.00 \$40,500.00 \$40,500.00 \$40,500.00 \$40,500.00 \$41,5	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 2,000 2,000 2,000 2,000 5,000 4,000 4,000 4,000 6,000 8,000	\$3.2 \$5.5 \$1.8 \$7.4 \$12.3 \$15.7 \$3.3 \$3.3 \$3.3 \$3.3 \$3.3 \$3.3 \$3.3 \$3
Dither Equipment 4200 4WD Backhoe 4200 4WD Backhoe 4280 4WD Backhoe CSS33E Vibratory Roller CSS33E Vibratory Roller CSS33E Vibratory Roller CP533E Sheepsfoot Compactor Light Truck - 1.5 Ton Supervisor's Truck Flathed Truck Air Compressor + tools Welding Equipment Heavy Duty Drill Rig Pump (plugging) Drill Rig Concrete Pump Gas Engine Vibrator Generator SKW HDEP Welder (pipe or liner) 5 Ton Crane 20 Ton Crane 120 Ton Crane 120 Ton Crane 127 Ton Cr	23.5R25 23.5R25 23.5R25 26.5R25 29.5R25 18.00R33 24.00R35 27.00R49 33.00R51 40.00R57 40.00R57 40.00R57 33.5R25 33.5R25 27.00R49 33.00R51	4 4 4 22 4 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6	\$4,830,00 N/A N/A N/A N/A 1350 1020 N/A	\$9,660.00 \$16,560.00 \$5,400.00 \$22,440.00 \$0.00 \$30	3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 2,000 2,000 2,000 2,000 4,000 4,000 4,000 4,000 5,000	\$3.2 \$5.5 \$1.8 \$7.4 \$1.2 \$1.2 \$3.0 \$6.5 \$3.1 \$4.1 \$1.2 \$1.2 \$1.2 \$1.2 \$1.2 \$1.2 \$1.2 \$1

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Revegetation Materials					
	Seed Mixes				
Seed MIX	Descri	ption	Cost/Acre		
None					
Mix 1 Mix 2	Basins		\$302.50		
Mix 3	Low Hills Uplands	\$332.75 \$363.00			
Mix 4					
User Mix 1	Site Specific Seed I	Aiv	\$393.25 \$250.00		
User Mix 2	Site Specific Seed i	\$250.00			
User Mix 3					
User Mix 4					
	Cost/lb	lbs/Acre	Cost/Acre		
User Mix 5 (from Seed Mix sheet	\$0.00	\$9.18	\$0.00		
Notes:					
	Mulch				
ltem	Cost/lb	lbs/Acre	Cost/Acre		
			-		
None					
Straw Mulch	\$0.17 \$0.25	36300	\$6,150.83		
Hydro Mulch Fimber Mulch	\$0.25				
imber wuich					
Notes:					
	Granite Seed \$500 p	er Ton in 50 lb bag \	Nood (Hydro) Mulch (

1 of 6 Material Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Amendments					
ltem	Cost/lb	lbs/Acre	Cost/Acre		
None					
Organic Matter	\$0.70		\$0.00		
Treated Sludge					
Chemical	\$0.59		\$0.00		
Notes:	Western Nevada Su	pply \$29.34 per 50 lb	. bag 15-15-15 (June 20)		

2 of 6 Material Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

	Cost/50lb bag	Units	Cost/unit*
Cement	\$7.57	су	\$36.07
Grout (Low Grade Bentonite)	\$8.85	су	\$42.14
nert Material/Cuttings		су	
		су	
		су	
1) Jentech Drilling Supply quote (June 2020) Type I,II C	ement at \$14.24 pe	er 94 lb. bag
2) Jentech Drilling Supply (June 2	2020) 3/8 in. Chunk Be	ntonite Hole Plug a	it \$8.85 per 50 lb. bag (

Monitoring Costs					
Description	Units	Cost/unit			
Monitor Well Pump	ea.	\$2,788.41			
Sampling Supplies	ea.	\$6.51			
Water Analysis (Profile I) (1)	ea.	\$411.00			
Leach Test (MWMP) w/ analysis	ea.	\$483.40			
ABA + S speciation	ea.	\$150.00			
WAD Cyanide in water	ea.	\$56.00			
Water Analysis (Profile II) (1)	ea.	\$461.00			
	ea.				
(1) WET Lab, Reno, Nevada (July	2020)				
Well pump and Sample supply cos	sts adjusted to 2020				
Original source unknown.	2.0 44,40.04 10 2020.				
<u> </u>					

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

4 of 6 Material Costs

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm Cost Estimate Type: Surety Cost Basis: American Magnesium - Option 1

Fuel, Etc.						
Description	Units	Cost/unit				
Off-road Diesel - delivered (1)	\$/gal	\$2.190				
Pickup Truck Mileage	\$/mi	\$0.575				
Electical Power	\$/kWh	\$0.079				
(1) Source: Oil Price Infomration Service, average annual cost including freio						

(1) Source: Oil Price Infomration Service, average annual cost including freight to Nevada (July 2020).

Source: Federal Government Vehicle Allowance Rate 2020

Source: NV Energy (July 2020) \$0.07872

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Material Costs

Revegetation Method								
Slopes								
Disturbance Type	Seed Application Method	Labor	Equipment	Total				
		Cost/Acre	Cost/Acre	Cost/Acre				
Waste Rock Dumps	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Heap Leach	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Tailings	Hand Broadcast	\$140.00	\$50.00	\$190.00				
Quarries & Borrow Pits	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
	Flat Areas and Undifferentiated							
Disturbance Type	Seed Application Method	Labor Cost/Acre	Equipment Cost/Acre	Total Cost/Acre				
Exploration Trenches	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Exploration Roads	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Waste Rock Dumps	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Heap Leach	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Tailings	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Quarries & Borrow Pits	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Roads	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Pits	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Haul Material	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Foundations & Buildings	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Sediment & Drainge Control	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Process Ponds	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Landfills	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Yards, Etc.	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				
Revegetation Maintenance	Mechanical Broadcast	\$140.00	\$50.00	\$190.00				

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Revegetation										
	Means Number	Unit	Crew	Daily Output	Daily Output User	Materials	Labor	Equipment	Total	Notes
Seeding - Broadcast Hand (1)		acres					\$140.00	\$50.00	\$190.00	
Seeding - Broadcast Mechanical (1)		acres					\$140.00	\$50.00	\$190.00	
Seeding - Drill (1)		acres		365			\$140.00	\$120.00	\$260.00	
Seeding - Hydroseeding (1)				365			\$250.00	\$150.00	\$400.00	
Shrub Planting - bare root 6-10 in (150- 250mm) (2)	02910-400-0561	ea.	1 Clab	365					\$0.00	
Tree Planting - bare root 11-16 in (270- 400mm) (3)	02910-400-0562	ea.	1 Clab	260					\$0.00	
Cactus Planting (4)		ea.	1 Clab						\$0.00	
NOTES:										
(1) Seeding Source:	Source: Kelley Erosion	Control (J	uly 2020).							
(2) Shrub Source:										
(3) Tree Source:										
(4) Cactus Source:										

Building and Wall Demolition

 $Hourly\ productivity\ rates\ and\ crew\ composition\ from\ Means\ Heavy\ Construction\ 2005\ Edition\ by\ permission\ of\ R.S. Means/Reed\ Construction\ Data\ .$

All equipment, labor and material unit costs are from Labor Costs, Equipment Costs and Material Costs spreadsheets

	Means Number	Unit	Crew	Daily Output	Daily Output User	Labor	Equipment	Premium	Total	Notes
Building Demolition										
Lg. steel	02220-110-0012	C.F.	B-8	21500		\$0.08	\$0.11		\$0.19	
Lg. concrete	02220-110-0050	C.F.	B-8	15300		\$0.11	\$0.15		\$0.26	
Lg. masonry	02220-110-0080	C.F.	B-8	20100		\$0.08	\$0.11		\$0.19	
Lg. mixed	02220-110-0100	C.F.	B-8	20100		\$0.08	\$0.11		\$0.19	
Sm. steel	02220-110-0500	C.F.	B-3	14800		\$0.10	\$0.10		\$0.20	
Sm. concrete	02220-110-0600	C.F.	B-3	11300		\$0.12	\$0.13		\$0.25	
Sm. masonry	02220-110-0650	C.F.	B-3	14800		\$0.10	\$0.10		\$0.20	
Sm. wood	02220-110-0700	C.F.	B-3	14800		\$0.10	\$0.10		\$0.20	
Wall Demolition										
Block 4 in (100 mm) thick	02220-130-2000	S.F.	1 Clab	180		\$0.68	•	20%	\$0.82	
Block 6 in (150 mm) thick	02220-130-2040	S.F.	1 Clab	170		\$0.71	\$0.00	20%	\$0.85	
Block 8 in (200 mm) thick	02220-130-2080	S.F.	1 Clab	150		\$0.81	\$0.00	20%	\$0.97	
Block 12 in (300 mm) thick	02220-130-2100	S.F.	1 Clab	150		\$0.81	\$0.00	20%	\$0.97	
Conc 6 in (150 mm) thick	02220-130-2400	S.F.	B-9	160		\$8.04	\$0.47	10%	\$9.36	
Conc 8 in (200 mm) thick	02220-130-2420	S.F.	B-9	140		\$9.19	\$0.53	10%	\$10.69	
Conc 10 in (250 mm) thick	02220-130-2440	S.F.	B-9	120		\$10.72	\$0.62	10%	\$12.47	
Conc 12 in (300 mm) thick	02220-130-2500	S.F.	B-9	100		\$12.87	\$0.74	10%	\$14.97	

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Waste Disposal									
Unit rates from Means Heavy Construction 2006 Edition	by permission of R.S.Me	ans/Reed	Construct	ion Data .					
	Means Number	Unit	Crew	Daily Output	Materials	Labor	Equipment	Total	Notes
Rubbish Handling									
Dumpster delivery (average for all sizes)	02220-350-0910	ea.			\$51.5	0		\$51.50	
Haul (average for all sizes)	02220-350-0920	ea.			\$161.0	0		\$161.00	
Rent per month (average for all sizes)	02220-350-0940	ea.			\$55.0	0		\$55.00	
Disposal fee per ton (tonne) (average for all sizes)	02220-350-0950	ton			\$60.5	0		\$60.50	
NOTES:									
Dumpster Cost Source									
Dumpster Disposal Fee Source:		struction (2020 Q2).						
Hazardous Material Handling - Solids (+ Liqu	ids in drums)								
Pickup fees 55 gal (200 L). drums	02110-300-1100	ea.			\$251.0	0		\$251.00	
Bulk material (average)	02110-300-1220/1230	ton			\$409.5	0		\$409.50	
Transport - truck load (80 drums, 25 cy (m3), 18 tons)	02110-300-1260/1270	mile			\$5.8	8		\$5.88	
Dump site solid disposal fee	02110-300-6000/6020	ton			\$288.5	0		\$288.50	
NOTES:									
Solid Handling Cost Source									
Solid Disposal Fee Source:	2019 Q2 R.S. Means He	eavy Cons	st. ave. 02	81					
Hazardous Material Handling - Liquids									
Vacuum Truck Pickup (2200 gal/8300 L)	02110-300-3110	hr.			\$147.0	0		\$147.00	
Vacuum Truck Pickup (5000 gal/19000 L)	02110-300-3120	hr.			\$213.0	0		\$213.00	
Dump site liquid disposal fee	02110-300-6000/6020	ton			\$288.5	0		\$288.50	
NOTES:									
Liquid Handling Cost Source									
Liquid Disposal Fee Source:	2020 Q2 R.S. Means He	eavy Cons	st. ave. 02	81					
lydrocarbon Contaminated Soils (HCS)									
Insitu Biotreatment	02115-200-2020/2021	C.Y.			\$17.6	4		\$17.64	
HCS disposal fee	02115-200-2050/2055	C.Y.			\$278.5	0		\$278.50	
NOTES:									
Insitu Treatement Cost Source	2020 Q2 R.S. Means He	eavy Cons	st., ave. 02	65					
HCS Disposal Fee Source:	2020 Q2 R.S. Means He	eavy Cons	st., ave. 02	65					

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Concrete Structure Installation										
Weekly dumpster rental rates from Means Heavy Constru	uction 2005 Edition with	permission	n by R.S.N	leans/Reed	Construction Dat	a .				
Weekly dumpster rental rates include haul to off-site dispos	sal site and disposal fe	es .	•							
	Means Number	Unit	Crew	Daily Output	Materials	Labor	Equipment	Premium	Total	Notes
Reinforced Concrete Bulkheads and Shaft Co	vers									
Grade walls - 15 in (400mm) thick, 8 ft (2.5m) high	03310-240-4300	C.Y.	C-14D	80.02	\$163.00	\$93.03	\$13.35		\$269.38	includes reinforcing
Grade walls - 15 in (400mm) thick, 12 ft (3.7m) high	03310-240-4350	C.Y.	C-14D	26.2	\$163.00	\$284.13	\$40.76		\$487.89	includes reinforcing
Elevated conc, 1-way beam & slab - 15ft (4.6m) span	03310-240-2700	C.Y.	C-14B	20.59	\$278.00	\$355.26	\$51.87		\$685.13	includes reinforcing
Elevated conc, 1-way beam & slab - 25ft (7.5m) span	03310-240-2750	C.Y.	C-14B	28.36	\$265.00	\$257.93	\$37.66		\$560.59	includes reinforcing
Bat Gate/Foam Plug Installation										
Bat Gate (5)		ea.			\$3,367.61					materials \$/ea. Installed
Culvert Gate (5)		ea.			\$6,735.21					materials \$/ea. Installed
Adit Foam Plug (6)		ea./C.Y.			\$336.76					materials \$/cy placed
Production Opening Foam Plug (6)		ea./C.Y.			\$336.76					materials \$/cy placed
NOTES:										_
(5) Bat Gate Source:	NV BLM, 2/2006: 8 hr -	+ 1hr mob/o	demob + 1	hr setup per	gate (adjusted to	2020)				
(6) Foam Plug Source:	NV BLM, 2/2006: 8 hr+	1hr mob/d	emob + 1h	nr setup per	adit; 16 hrs per p	roduction ope	ening (adjusted to	2020)		

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

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Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Misc. Linear Projects										
Hourly productivity rates and crew composition from Mea	ns Heavy Construction	2005 Editi	on by perm	ission of R.S	S.Means/Reed C	onstruction Da	ata .			
All equipment, labor and material unit costs are from Labor	or Costs, Equipment Co	osts and M	laterial Cos	sts spreadsh	eets					
	Means Number	Unit	Crew	Daily Output	Materials	Labor	Equipment	Premium	Total	Notes
Fencing Installation		•								
Barbed 3-strand	02820-170-1650	L.F.	B-80A	760	\$0.51	\$0.48	\$0.33		\$1.32	
Barbed 4-strand	extrapolated	L.F.	B-80A	570	\$0.68	\$0.64	\$0.44		\$1.76	
Barbed 5-strand	02820-130-0920	L.F.	B-80A	456	\$0.85	\$0.80	\$0.55		\$2.20	
Chain link 8-10ft (2.5-3m) Install	02820-130-0920	L.F.	B-80C	180	\$38.00	\$2.03	\$1.38		\$41.41	
Wood stockade fence 6 ft (2 m) high - Install	02820-510-1240	L.F.	B-80C	150	\$16.00	\$2.43	\$1.66		\$20.09	
	user	L.F.							\$0.00	
	user	L.F.							\$0.00	
	user	L.F.							\$0.00	
	user	L.F.							\$0.00	
Fencing Removal										
Barbed 3-strand Removal	02220-220-1600	L.F.	2 Clab	430		\$0.57	\$0.58		\$1.15	
Barbed 4-strand Removal	extrapolated	L.F.	2 Clab	355		\$0.68	\$0.70		\$1.38	
Barbed 5-strand Removal	02220-220-1650	L.F.	2 Clab	280		\$0.87	\$0.89		\$1.76	
Chain link 8-10 ft (2.5-3 m) Removal	02220-220-1700	L.F.	B-6	445		\$1.14	\$1.40		\$2.54	
Wood, all types 4-6 ft ("1.5-2 m) high - Removal	02220-220-1775	L.F.	2 Clab	430		\$0.57	\$0.58		\$1.15	
	user	L.F.								
	user	L.F.							\$0.00	
	user	L.F.							\$0.00	
	user	L.F.							\$0.00	
Culvert Removal										
12 in (300 mm) Diameter	02220-220-2900	L.F.	B-6	175		\$2.91	\$3.55		\$6.46	
18 in (450 mm) Diameter	02220-220-2930	L.F.	B-6	150		\$3.40	\$4.14		\$7.54	
24 in (600 mm) Diameter	02220-220-2960	L.F.	B-6	120		\$4.25	\$5.18		\$9.43	
36 in (1m) Diameter	02220-220-3000	L.F.	B-6	90		\$5.66	\$6.91		\$12.57	
Pipeline Removal										
0.75 in (20mm) - 4 in (100 mm) diameter	02220-381-1600	L.F.	B-20	700		\$1.37	\$0.36		\$1.73	
6 in (150 mm) - 8 in (200 mm)	02220-381-1700	L.F.	B-20	500		\$1.92	\$0.50		\$2.42	
10 in (250 mm) - 18 in (450 mm)	02220-381-1800	L.F.	B-20	300		\$3.20	\$0.83		\$4.03	
20 in (500 mm) - 36 in (1 m)	02220-381-1900	L.F.	B-20	200		\$4.81	\$1.25		\$6.06	
Pipe and Drainpipe Installation										
Water 4in (100mm) 40ft (12m) length, welded HDPE	02510-760-0100	L.F.	B-22A	400	\$2.70	\$1.91	\$5.44		\$10.05	
Water 6in (150mm) 40ft (12m) length, welded HDPE	02510-760-0200	L.F.	B-22A	380	\$5.85	\$2.01	\$5.72		\$13.58	
Water 12in (300mm) 40ft (12m) length, welded HDPE	02510-760-0500	L.F.	B-22A	260		\$2.94	\$8.36		\$11.30	
Drain 4in (100mm) perforated PVC	02620-630-2100	L.F.	B-14	315	\$1.74	\$4.09	\$1.87		\$7.70	
Drain 6in (150mm) perforated PVC	02620-630-2110	L.F.	B-14	300	\$4.22	\$4.29	\$1.96		\$10.47	
Drain 4in (100mm) corrugated, perf or plain	02620-660-0040	L.F.	2 Clab	1200	\$0.78	\$0.20	\$0.21		\$1.19	
Drain 6in (150mm) corrugated., perf or plain	02620-660-0060	L.F.	2 Clab	900	\$2.18	\$0.27	\$0.28		\$2.73	
				<u> </u>				<u> </u>	<u> </u>	

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Drain Rock Preparation						
Crushing	C.Y.				\$0.50	
Screening	C.Y.				\$0.50	
TOTAL					\$1.00	
Misc.						
Backhoe work	02210-700-0120 C.Y.	B-11M 28	\$4.92	\$12.10	\$17.02	
Powerline and Transformer Removal						
Single Pole	mile				\$46,803.69	
Double Pole	mile				\$53,489.93	
Transformer (9)	ea.				\$58,997.31	
NOTES:						
	NV Energy estimate (2009) Adjus					
(8) Double Pole Source:	NV Energy estimate (2009) Adjus	sted to 2020				
(9) Transformer Source:	NV Energy estimate (2018) adjus	sted to 2020				

Erosion and Sedimentation Control

Hourly productivity rates and crew composition from Means Heavy Construction 2005 Edition by permission of R.S.Means/Reed Construction Data .

All equipment, labor and material unit costs are from Labor Costs, Equipment Costs and Material Costs spreadsheets

	Means Number	Unit	Crew	Daily Output	Materials	Labor	Equipment	Premium	Total	Notes
lip-Rap & Rock Lining										
Rip-Rap 3/8 to 1/4 CY (m3) pieces, grouted	02370-450-0110	S.Y.	B-13	80	\$25.00	\$17.69	\$9.80		\$52.49	assumes on-site source of rip-rap
Rip-Rap 18 in (450 mm) min thick, no grout	02370-450-0200	S.Y.	B-13	53	\$7.65	\$26.71	\$14.79		\$49.15	assumes on-site source of rip-rap
Gabions, 6 in (150 mm) deep	02370-450-0400	S.Y.	B-13	200	\$7.05	\$7.08	\$3.92		\$18.05	assumes on-site source rock fill for gabions
Gabions, 9 in (250 mm) deep	02370-450-0500	S.Y.	B-13	163	\$9.85	\$8.68	\$4.81		\$23.34	assumes on-site source rock fill for gabions
Gabions, 12 in (300 mm) deep	02370-450-0200	S.Y.	B-13	153	\$14.30	\$9.25	\$5.12		\$28.67	assumes on-site source rock fill for gabions
Gabions, 18 in (450 mm) deep	02370-450-0200	S.Y.	B-13	102	\$18.35	\$13.88	\$7.69		\$39.92	assumes on-site source rock fill for gabions
Gabions, 36 in (1m) deep	02370-450-0200	S.Y.	B-13	60	\$31.00	\$23.59	\$13.07		\$67.66	assumes on-site source rock fill for gabions
IDEP Liner Installation										
Finish grading large area	2310-100-0100	S.F.	B-11L	18000		\$0.02	\$0.08		\$0.10	
Compaction-riding, vibrating roller - 12in (300mm) lifts	2315-310-5100	C.Y.	B-10Y	2600		\$0.10	\$0.17		\$0.27	
60 mil HDPE	2660-610-0010	S.F.	3 Skwk	1600	\$0.57	\$0.42	\$0.45		\$1.44	
80 mil HDPE	user	S.F.	3 Skwk	149		\$4.48	\$4.87		\$9.35	
40 mil VLDPE	user	S.F.	3 Skwk	150		\$4.45	\$4.83		\$9.28	
	user	S.F.	3 Skwk	149		\$4.48	\$4.87		\$9.35	
	user	S.F.	3 Skwk	149		\$4.48	\$4.87		\$9.35	

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

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Cost Data: User Data

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Cost Estimate Type: Surety

Cost Basis: American Magnesium - Option 1

Construction Management Suppo	t							
Office Trailer, Furnished, no hoo	k-ups 0150-500-0250	mo.	\$198.00			\$	198.00	
Toilet Portable, che	mical 1590-400-6410	mo.	\$214.20			\$	214.20	
TOTAL			\$412.20			\$	412.20	
Pump and Casing Removal								
Pump Type	Measurement	Unit		Labor	Equipment	To	otal	Notes
Pump Removal								
Subme	rsible ft to pump	L.F.		\$7.65	\$18.86		\$26.51	
Line	Shaft ft to pump	L.F.		\$7.65	\$18.86		\$26.51	
	TES:							
(10) Pump Removal Sc	urce: Boart Longyear Quote:	June 2020						

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

				EQUIPMENT	TOTAL LABOR	TOTAL
ACTIVITY AND ELEFT			Standard	UNIT COST	UNIT COST	COST
ACTIVITY AND FLEET PPING			Crew Size	(Hourly)	IT COST UNIT COST	(Hourly)
Rip road						
Waste rock dumps, heaps, tails - rip flat surface Surface preparation Scarify	s					
	Sma	ıll Dozer	w/ multi-sha			
D7R	Totals		1			\$163 \$163
	Mediu	ım Dozer	w/ multi-sh	ank		
D9R			1			\$255.
	Totals				\$25.96	\$255.
D10R	Larg	e Dozer v	v/ multi-sha		\$25.961	\$355.
	Totals		<u> </u>			\$355.
	Gı	rader w/	multi-shank			
16G/H	Totals		1			\$273. \$273.
	rotaio	l		Ψ2-17:10	Ψ20.00	Ψ210.
RADING Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms						
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills		Small Do	ozer Fleet			
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills		Small Do	ozer Fleet			
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms	Totals	Small De				
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms			1 Dozer Fleet	\$137.33	\$25.96	\$163.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms			1	\$137.33 \$229.54	\$25.96 \$25.96	\$163. \$255.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms		Medium [Dozer Fleet	\$137.33 \$229.54	\$25.96 \$25.96	\$163. \$255.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms		Medium [1 Dozer Fleet	\$137.33 \$229.54 \$229.54	\$25.96 \$25.96 \$25.96	\$163. \$255. \$255.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms D7R D9R		Medium [Dozer Fleet 1 Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96	\$163. \$255. \$255.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms D7R D9R	Totals	Medium [Dozer Fleet 1 Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96	\$163. \$255. \$255.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms D7R D9R D10R	Totals	Medium [Dozer Fleet 1 Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96	\$163. \$255. \$255.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms D7R D9R D10R XPLORATION GRADING Backfilling and grading exploration trenches	Totals	Medium I	Dozer Fleet 1 Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96	\$163. \$163. \$255. \$255. \$355. \$365.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms D7R D9R D10R XPLORATION GRADING Backfilling and grading exploration trenches	Totals	Medium I	Dozer Fleet 1 Dozer Fleet 1	\$137.33 \$229.54 \$229.54 \$329.55 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$163. \$255. \$255. \$355. \$355.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms D7R D9R D10R XPLORATION GRADING Backfilling and grading exploration trenches Grading flat exploration roads	Totals Totals	Large Do	Dozer Fleet 1 Dozer Fleet 1	\$137.33 \$229.54 \$229.54 \$329.55 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$163. \$255. \$255. \$355. \$365.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms D7R D9R D10R XPLORATION GRADING Backfilling and grading exploration trenches Grading flat exploration roads D6R	Totals Totals	Large Do	Dozer Fleet 1 Dozer Fleet 1 Dozer Fleet 1 Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55 \$329.55 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$163. \$255. \$255. \$355. \$355. \$117.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms D7R D9R D10R XPLORATION GRADING Backfilling and grading exploration trenches Grading flat exploration roads	Totals Totals	Large Do	Dozer Fleet 1 Dozer Fleet 1	\$137.33 \$229.54 \$229.54 \$329.55 \$329.55	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$163. \$255. \$255. \$355. \$355.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms D7R D9R D10R XPLORATION GRADING Backfilling and grading exploration trenches Grading flat exploration roads D6R	Totals Totals	Large Do	Dozer Fleet 1 Dozer Fleet 1 Dozer Fleet 1 Dozer Fleet 1	\$137.33 \$229.54 \$229.54 \$329.55 \$329.55 \$91.96 \$91.96	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$163. \$255. \$255. \$355. \$355. \$117. \$117.
Grading storage and structure areas Grading waste rock dumps and heaps Grading landfills Constructing pit safety berms D7R D9R D10R XPLORATION GRADING Backfilling and grading exploration trenches Grading flat exploration roads D6R	Totals Totals	Large Do	Dozer Fleet 1 Dozer Fleet 1 Dozer Fleet 1 Dozer Fleet	\$137.33 \$229.54 \$229.54 \$329.55 \$329.55 \$91.96 \$91.96	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$163. \$255. \$255. \$355. \$355. \$117. \$117.

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

QUIPMENT FLEETS				
ACTIVITY AND FLEET	Standard Crew Size	EQUIPMENT UNIT COST (Hourly)	TOTAL LABOR UNIT COST (Hourly)	TOTAL COST (Hourly)
XCAVATING	<u> </u>			
Earthen Berms Diversion ditch excavation and backfill Underground openings backfill - excavate and place Pit berm construction (excavator option)				
	Small Excavator			
325C	1	\$85.76	\$33.30	\$119.0
Totals		\$85.76	\$33.30	\$119.
M	ledium Excavator			
345B	1	\$133.99	\$33.30	\$167.
Totals		\$133.99	\$33.30	\$167.
I	Large Excavator			
385BL	1	\$312.70	\$33.30	\$346.0
Totals		\$312.70	\$33.30	\$346.0
XCAVATE AND RECONTOUR				
Recontour large roads (haul roads, access roads, etc.) Ponds - Excavate and pull liner and bury				
Smal 325C	II Excavator + Doze		#20.00l	£440
D7R	1	\$85.76 \$137.33	\$33.30 \$25.96	\$119. \$163.
Total Equipment		\$223.09	\$59.26	\$282.
B# addition	ım Excavator + Doz			
345B Mediu	IM Excavator + Doz	er \$133.99	\$33.30	\$167.:
D9R	1	\$229.54	\$25.96	\$255.5
Totals		\$363.53	\$59.26	\$422.
Large	e Excavator + Doze	r		
385BL	1	\$312.70	\$33.30	\$346.
D10R	1	\$329.55	\$25.96	\$355.
Totals		\$642.25	\$59.26	\$701.
XPLORATION ROAD/PAD RECONTOUR				
Recontour small roads (exploration roads, service roads,	etc.)			
Cut and Fill reclamation on slopes Drill pad recountour				
Drill sump backfill				
	Owell Desert			
Drill sump backfill	Small Dozer	\$01.06	\$25.06	¢117.
	Small Dozer	\$91.96 \$91.96	\$25.96 \$25.96	
Drill sump backfill D6R				
Drill sump backfill D6R Totals	Large Dozer	\$91.96	\$25.96	\$117.
Drill sump backfill D6R Totals D8R	1	\$91.96 \$155.83	\$25.96 \$25.96	\$117. \$181.
Drill sump backfill D6R Totals	Large Dozer	\$91.96	\$25.96	\$117.9 \$117.9 \$181.1
Drill sump backfill D6R Totals D8R Totals	Large Dozer	\$91.96 \$155.83 \$155.83	\$25.96 \$25.96 \$25.96	\$117. \$181. \$181.
Drill sump backfill D6R Totals D8R Totals 14G/H	Large Dozer	\$91.96 \$155.83 \$155.83 \$186.72	\$25.96 \$25.96 \$25.96	\$117. \$181. \$181.
Drill sump backfill D6R Totals D8R Totals	Large Dozer	\$91.96 \$155.83 \$155.83	\$25.96 \$25.96 \$25.96	\$117. \$181. \$181.
Drill sump backfill D6R Totals D8R Totals 14G/H Totals	Large Dozer	\$91.96 \$155.83 \$155.83 \$186.72	\$25.96 \$25.96 \$25.96	\$117. \$181. \$181.
Drill sump backfill D6R Totals D8R Totals 14G/H Totals	Large Dozer 1 Grader	\$91.96 \$155.83 \$155.83 \$186.72 \$186.72	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$117. \$181. \$181. \$212. \$212.
Drill sump backfill D6R Totals D8R Totals 14G/H Totals	Large Dozer 1 Grader 1 Small Excavator	\$91.96 \$155.83 \$155.83 \$186.72 \$186.72	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$117. \$181. \$181. \$212. \$212.
Drill sump backfill D6R Totals 14G/H Totals 320C Totals	Large Dozer 1 Grader 1 Small Excavator	\$91.96 \$155.83 \$155.83 \$186.72 \$186.72	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$117. \$181. \$181. \$212. \$212.
Drill sump backfill D6R Totals 14G/H Totals 320C Totals	Large Dozer 1 Grader 1 Small Excavator	\$91.96 \$155.83 \$155.83 \$186.72 \$186.72	\$25.96 \$25.96 \$25.96 \$25.96 \$25.96	\$117. \$181. \$181.

Project Name: Foothill Dolomite Mine - Reclamation Plan

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QUIPMENT FLEETS				T	
AOTHUTY AND SUFFE		Standard	EQUIPMENT UNIT COST	TOTAL LABOR UNIT COST	TOTAL
ACTIVITY AND FLEET		Crew Size	(Hourly)	(Hourly)	(Hourly)
DAD, HAUL AND PLACE MATERIAL Rock placement					
Haul overburden for backfill					
Haul borrow for backfill					
Haul cover or growth media					
	ll Truck/L	oader Flee			2
725 966G	Loader	Calculated	\$150.54 \$109.16	\$23.29 \$33.30	\$173 \$142
D7R	Loauei	1	\$137.33	\$25.96	\$163
Totals			\$397.03	\$82.55	\$479
Mediu	ım Truck/	Loader Fle	et		
740		Calculated	\$191.63	\$23.29	\$214
988G	Loader	1	\$274.20	\$33.30	\$307
D8R Totals		1	\$155.83 \$621.66	\$25.96 \$82.55	\$181 \$70/
Totals			\$621.66	\$82.55	\$704
Large	e Truck/L	oader Flee	et		
769D		Calculated	\$23.86	\$23.29	\$47
988G D7R	Loader	1	\$274.20 \$137.33	\$33.30 \$25.96	\$307 \$163
Totals		'	\$435.39	\$82.55	\$517
Fortuna II-	araa T	lell acrier 5	loct		
777D Extra La	arge iruc	k/Loader F Calculated	*1 eet \$561.85	\$23.29	\$585
992G	Loader	1	\$522.61	\$33.30	\$555
D7R		1	\$137.33	\$25.96	\$163
Totals			\$1,221.79	\$82.55	\$1,304
Sc	craper/Do	zer Fleet			
631G		Calculated	\$243.74	\$17.23	\$260
D10R D7R		1	\$329.55 \$137.33	\$25.96 \$25.96	\$355 \$163
Totals		1	\$710.62	\$69.15	\$779
		F1			
	ndem Scr	aper Fleet	6400 50	#47.00L	0.4.4-
637G D7R		1	\$430.52 \$137.33	\$17.23 \$25.96	\$447 \$163
Totals		·	\$567.85	\$43.19	\$611
SC. LOAD AND HAUL AND EARTHWORKS					
Sludge removal					
Drainage controls					
Misc Cat 325	B Excav	ator / 10-12	vd3 Truck		
325C WISC Cat 323	LACAVO	1	\$85.76	\$33.30	\$119
Dump Truck (10-12 yd3)		1	\$56.34	\$14.61	\$70
Totals			\$142.10	\$47.91	\$190
Misc Cat D9R Doz	er/ Loade	er (5 yd3) /	10-12 yd3 Truci	(
D9R		1	\$229.54	\$25.96	\$255
966G	-	1	\$109.16	\$33.30	\$142
Dump Truck (10-12 yd3) Totals		1	\$56.34 \$395.04	\$14.61 \$73.87	\$70 \$468
<u></u>			•	•	φ-γοι
Misc Cat D6 Doze	r / Cat 96		•		
D6R 966G		1	\$91.96 \$109.16	\$25.96 \$33.30	\$117 \$142
Dump Truck (10-12 yd3)		1	\$56.34	\$14.61	\$70
Totals			\$257.46	\$73.87	\$331

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ACTIVITY AND FLEET	Standard Crew Size	EQUIPMENT UNIT COST (Hourly)	TOTAL LABOR UNIT COST (Hourly)	TOTAL COST (Hourly)
ONCRETE BREAKING	Crew Size	(Hourly)	(Hourly)	(Hourly)
Slab demolition				
Footing demolition Wall demolition				
Small - Cat 325B Ex	cavator w/ H140	DD s Hammer		
325C	1	\$85.76	\$33.30	\$119
H-120 (fits 325)	1	\$32.95	\$0.00	\$32
D9R Totals	1	\$229.54 \$348.25	\$25.96	\$255 \$407
Totals		\$348.25	\$59.26	\$407
Medium - Cat 345B E			¢22.201	¢107
H-160 (fits 345)	1	\$133.99 \$67.17	\$33.30 \$0.00	\$167 \$67
D9R	1	\$229.54	\$25.96	\$255
Totals		\$430.70	\$59.26	\$489
Large - Cat 385B Ex	cavator w/ H180	D s Hammer		
385BL	1	\$312.70	\$33.30	\$346
H-180 (fits 365/385)	1	\$76.01	\$0.00	\$76
D9R	1	\$229.54	\$25.96	\$255
Totals		\$618.25	\$59.26	\$677
RILL HOLE ABANDONMENT				
Pump (plugging) Drill Rig	- Grout or Ceme	ent \$635.56	\$17.23	\$652
Driller's Helper	2	\$0.00	\$43.78	\$43
Totals		\$635.56	\$61.01	\$696
Drill Hole - Inert Media	(Means Crew B-	11M+ 1 Laborer)	
420D 4WD Backhoe	1	\$42.35	\$17.23	\$59
General Laborer	1	\$0.00	\$15.19	\$15
Totals		\$42.35	\$32.42	\$74
Drill Hole - Casin	g Perforation or	r Removal		
Heavy Duty Drill Rig	1	\$639.94	\$17.23	\$657
Driller's Helper	2	\$0.00	\$43.78	\$43
Totals		\$639.94	\$61.01	\$700
AINTENANCE FLEET				
pad Grading, Dust Suppression, Clean Up Maintenance - Small W	Vater Truck and	Cat 14G Grader		
613E (5,000 gal) Water Wagon	1	\$131.83	\$23.29	\$155
120H	1	\$102.79	\$25.96	\$128
Totals		\$234.62	\$49.25	\$283
Maintenance - Medium V	Water Truck and	d Cat 16G Grade	r	
	1	\$131.83	\$23.29	\$155
613E (5,000 gal) Water Wagon		\$186.72	\$25.96	\$212
14G/H	1		\$49.25	\$367
1 : 2 :	1	\$318.55		
14G/H Totals Maintenance - Large W	Vater Truck and	Cat 16G Grader		
14G/H Totals Maintenance - Large W 621E (8,000 gal) Water Wagon	Vater Truck and	Cat 16G Grader \$165.96	\$23.29	\$189
Maintenance - Large W 621E (8,000 gal) Water Wagon 16G/H	Vater Truck and	Cat 16G Grader \$165.96 \$247.16	\$25.96	\$273
Maintenance - Large W 621E (8,000 gal) Water Wagon 16G/H Totals	Vater Truck and	Cat 16G Grader \$165.96		\$273
Maintenance - Large W 621E (8,000 gal) Water Wagon 16G/H Totals	Vater Truck and	Cat 16G Grader \$165.96 \$247.16 \$413.12	\$25.96 \$49.25	\$273 \$462
Maintenance - Large W 621E (8,000 gal) Water Wagon 16G/H Totals	Vater Truck and	Cat 16G Grader \$165.96 \$247.16	\$25.96	\$273

Project Name: Foothill Dolomite Mine - Reclamation Plan

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		EQUIPMENT	TOTAL LABOR	TOTAL
ACTIVITY AND FLEET	Standard	UNIT COST	UNIT COST	COST
ACTIVITY AND FLEET	Crew Size	(Hourly)	(Hourly)	(Hourly)
INS CREW DEFINITIONS				
Crew composition from Means Heavy Construction 2005 Editi For use with misc. unit costs where Means is the source for pr		R.S.Means/Reed C	onstruction Data .	
1 Clab - Seedling Pla	nting/Block Wo	II Domolition		
General Laborer	1	\$0.00	\$15.19	\$1:
Totals		\$0.00	\$15.19	\$1:
2 Clab - Barbed Wire/Wood Fence Remove	val Drainnine In	stallation Pum	ning Evanoratio	n
General Laborer	2	\$0.00	\$30.38	\$3
Light Truck - 1.5 Ton	1	\$31.13	\$0.00	\$3
Totals		\$31.13	\$30.38	\$6
2 Clab + Excavator	r - Pond Liner C	ut and Fold		
General Laborer	2	\$0.00	\$30.38	\$3
325C	1	\$85.76	\$33.30	\$11
Totals		\$85.76	\$63.68	\$14
2 Clab + V	Velder - Bat Gat	es		
General Laborer	2	\$0.00	\$30.38	\$3
Welding Equipment	1	\$8.83	\$33.30	\$4:
Light Truck - 1.5 Ton	1	\$31.13	\$0.00	\$3
Totals		\$39.96	\$63.68	\$10
	Foam Adit Plugs			
General Laborer	2	\$0.00	\$30.38	\$3
420D 4WD Backhoe	1	\$42.35	\$17.23	\$5
Light Truck - 1.5 Ton Totals	1	\$31.13 \$73.48	\$0.00 \$47.61	\$3 \$12
			φ47.01	21 ټ
0 01000	der - Culvert Bat			
General Laborer	2	\$0.00 \$8.83	\$30.38 \$33.30	\$3 \$4
Welding Equipment 420D 4WD Backhoe	1 1	\$8.83 \$42.35	\$33.30 \$17.23	\$4. \$5
Light Truck - 1.5 Ton	1	\$31.13	\$0.00	\$3
Totals		\$82.31	\$80.91	\$16
3 Clab D - 3 Laborers	- Foreman Do	contamination		
General Laborer	3	\$0.00	\$45.57	\$4
Foreman	1	\$0.00	\$82.88	\$8:
Supervisor's Truck	1	\$12.82	\$0.00	\$1:
Light Truck - 1.5 Ton	1	\$31.13	\$0.00	\$3
Totals		\$43.95	\$128.45	\$17
3 SKWK -	Liner Installation	on		
Skilled Laborer	3	\$0.00	\$66.18	\$6
HDEP Welder (pipe or liner)	1	\$48.27	\$0.00	\$4
420D 4WD Backhoe	1	\$42.35	\$17.23	\$5
		\$0.00		\$
		\$0.00 \$0.00		\$(\$(
Totals		\$90.62	\$83.41	\$174

Project Name: Foothill Dolomite Mine - Reclamation Plan

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QUIPMENT FLEETS				
ACTIVITY AND FLEET	Standard Crew Size	EQUIPMENT UNIT COST (Hourly)	TOTAL LABOR UNIT COST (Hourly)	TOTAL COST (Hourly)
B-3 - Small I	Building Demol	tion		
	LABOR			
General Laborer	2	\$0.00	\$30.38	\$30
Foreman	1	\$0.00	\$82.88	\$82
		\$0.00		\$0
		\$0.00		\$0
FC	QUIPMENT	\$0.00		\$0
928G	1 1 1	\$77.71	\$33.30	\$111
Dump Truck (10-12 yd3)	2	\$112.68	\$29.22	\$141
	_	\$0.00	, -,	\$0
		\$0.00		\$0
		\$0.00		\$0
		\$0.00		\$(
		\$0.00 \$0.00		\$(\$(
		\$0.00		\$(
Totals		\$190.39	\$175.78	\$366
Totalo	l I	Ψ100.00	ψ170.70	φοσο
B-6 - Chain Link	Fence/Culvert I	Removal		
General Laborer	2	\$0.00	\$30.38	\$30
928G	1	\$77.71	\$33.30	\$111
Totals		\$77.71	\$63.68	\$141
D.O. Laure F	Building Demoli	41		
	LABOR	ition		
General Laborer	2	\$0.00	\$30.38	\$30
Foreman	1	\$0.00	\$82.88	\$82
		\$0.00		\$(
		\$0.00		\$0
F	QUIPMENT	\$0.00		\$(
928G	1 1	\$77.71	\$33.30	\$111
20 Ton Crane	1	\$98.00	\$33.30	\$131
Dump Truck (10-12 yd3)	2	\$112.68	\$29.22	\$14
		\$0.00	·	\$(
		\$0.00		\$(
		\$0.00		\$0
		\$0.00 \$0.00		\$0
		\$0.00		\$0 \$0
		\$0.00		\$0
		\$0.00		\$0
		\$0.00		\$0
		\$0.00		\$0
		\$0.00		\$0
		\$288.39	\$209.08	\$497
Totals				
	oto Wall Domali	tion		
B-9 - Concre	ete Wall Demoli		¢60.701	*
B-9 - Concre General Laborer	4	\$0.00	\$60.76	
B-9 - Concre			\$60.76 \$82.88 \$17.23	\$60 \$82 \$26

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UIPMENT FLEETS		ı r	ı	
ACTIVITY AND FLEET	Standard Crew Size	EQUIPMENT UNIT COST (Hourly)	TOTAL LABOR UNIT COST (Hourly)	TOTAL COST (Hourly)
B-10Y - Ge	neral Compact	ion		
General Laborer	1	\$0.00	\$15.19	\$15
CS533E Vibratory Roller	1	\$55.06	\$17.23	\$72
Totals		\$55.06	\$32.42	\$87
B-11L - Fine Grading fo	r Evaporation F	ond Liner Base	!	
General Laborer	1	\$0.00	\$15.19	\$15
14G/H	1	\$186.72	\$25.96	\$212
Totals		\$186.72	\$41.15	\$22
B-11M -	Backhoe Work	(
420D 4WD Backhoe	1	\$42.35	\$17.23	\$59
Totals		\$42.35	\$17.23	\$59
B-12G - Rip-Rap M	lachine Placed	(Modified)		
966G	1	\$109.16	\$33.30	\$142
325C	1	\$85.76	\$33.30	\$119
Light Truck - 1.5 Ton	1	\$31.13 \$226.05	\$0.00 \$66.60	\$3° \$29°
Totals			φου.σσ	ΨΖΘ
B-13 - Grouted Ri			\$00.70	C CC
General Laborer Foreman	4	\$0.00 \$0.00	\$60.76 \$82.88	\$60 \$82
20 Ton Crane	1	\$98.00	\$33.30	\$13
Totals		\$98.00	\$176.94	\$274
P 14 PVC Dr	ain Pipe Install	ation		
Foreman B-14 FVC DI		\$0.00	\$82.88	\$82
General Laborer	4	\$0.00	\$60.76	\$60
420D 4WD Backhoe	1	\$42.35	\$17.23	\$59
Light Truck - 1.5 Ton	1	\$31.13	\$0.00	\$3
Totals		\$73.48	\$160.87	\$23
B-20 - Re	emove Pipeline	S		
Foreman	1	\$0.00	\$82.88	\$82
Skilled Laborer	1	\$0.00	\$22.06	\$2
General Laborer	1	\$0.00	\$15.19	\$1
Light Truck - 1.5 Ton	1	\$31.13	\$0.00	\$3
Totals		\$31.13	\$120.13	\$15
B-22A - HDEP In:	stallation - Pipe	e or Liner		
Skilled Laborer	1	\$0.00	\$22.06	\$2
General Laborer	2	\$0.00	\$30.38	\$30
D7R	1	\$137.33	\$25.96	\$163
Light Truck - 1.5 Ton 420D 4WD Backhoe	1	\$31.13 \$42.35	\$0.00 \$17.23	\$3° \$59
Generator 5KW	1	\$42.35 \$12.73	\$0.00	\$12
	1	\$48.27	\$0.00	\$48
HDEP Weiger (Dibe or liner)		\$271.81	\$95.63	\$36
HDEP Welder (pipe or liner) Totals				
Totals	I Barbed Wire I	Fence		
Totals	I Barbed Wire I	Fence \$0.00	\$45.57	\$45
Totals B-80A - Instal			\$45.57 \$0.00	\$45 \$31

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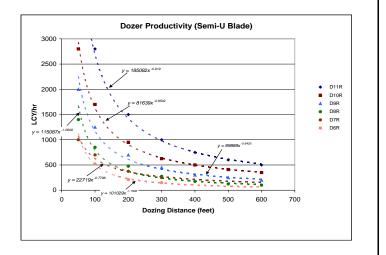
Cost Data: User Data

UIPMENT FLEETS				
	Standard	EQUIPMENT UNIT COST	TOTAL LABOR UNIT COST	TOTAL COST
ACTIVITY AND FLEET	Crew Size	(Hourly)	(Hourly)	(Hourly)
B-80C - Install Chain Link Fe	ence (Flatbed tr	uck has small c	rane)	
General Laborer	3	\$0.00	\$45.57	\$4
Light Truck - 1.5 Ton	1	\$31.13	\$0.00	\$3
Totals		\$31.13	\$45.57	\$7
C-14B - Elevated Concrete Sla	bs (Reinforced	Concrete Shaft	Covers)	
Foreman	1	\$0.00	\$82.88	\$8
Supervisor's Truck	1	\$12.82	\$0.00	\$1
Carpenter	16	\$0.00	\$652.96	\$65
General Laborer	2	\$0.00	\$30.38	\$3
Rodmen (reinforcing concrete)	4	\$0.00	\$87.12	\$8
Cement finisher	2	\$0.00	\$43.78	\$4
Gas Engine Vibrator	1	\$5.88	\$17.23	\$2
Concrete Pump	1	\$114.80	\$0.00	\$11
Totals		\$133.50	\$914.35	\$1,04
C-14D - Concrete Walls Formed in F	Place (Reinforce	ed Concrete Adi	t Bulkheads)	
Foreman	1	\$0.00	\$82.88	\$8
Supervisor's Truck	1	\$12.82	\$0.00	\$1.
Carpenter	18	\$0.00	\$734.58	\$73
General Laborer	2	\$0.00	\$30.38	\$3
Rodmen (reinforcing concrete)	2	\$0.00	\$43.56	\$4
Cement finisher	1	\$0.00	\$21.89	\$2
Gas Engine Vibrator	1	\$5.88	\$17.23	\$2
Concrete Pump	1	\$114.80	\$0.00	\$11
Totals		\$133.50	\$930.52	\$1.06

Productivity - Bulldozers

Dozer Specifications								
Description	D11R	D10R	D9R	D8R	D7R	D6R		
Blade Width (SU) (ft)	18.33	15.92	14.17	12.92	12.08	10.67		
Shank Guage (3 shanks) (ft)	9.83	8.67	7.67	7.08	6.5	6.5		
Pocket Spacing (ft)	4.75	4.33	3.87	3.58	3.25	3.25		
Ripping Width (Ripper + 1 Pocket) (ft)	14.58	13	11.54	10.66	9.75	9.75		
Ripping Speed (mph)	1	1	1	1	1	1		
Ripping Maneuver (turn) Time (min)	0.25	0.25	0.25	0.25	0.25	0.25		
Altitude Deration Factor	1	1	1	1	1	1		
Ripping Hourly Production (excluding								
maneuvering time) (ft)	5.280	5.280	5.280	5.280	5.280	5.280		

	Dozer Productiv	vity vs. Gradin	g Distance					
	Production (LCY/hr)							
Average Dozing Distance (feet)	D11R	D10R	D9R	D8R	D7R	D6R		
50	4,800	2,800	2,000	1,400	1,000			
100	2,800	1,700	1,250	850	700	520		
200	1,500	950	700	475	375	210		
300	1,000	625	450	275	250	150		
400	750	500	300	175				
500	600	410	250	125				
600	500	350	200	100				
dozer productivity = k (see graph)	x Dozing Distance ^p		Source:	Caterpillar Perfo	rmance Handboo	k Edition 35		
k =	185082	81639	89889	115087	22719	101029		
p =	-0.919	-0.8502	-0.9425	-1.0809	-0.7796	-1.1506		



Productivity - Bulldozers (cont.)

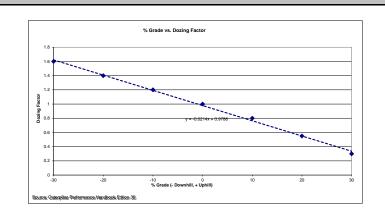
% Grade vs. Dozing Factor							
% Grade	Dozing Factor						
-30	1.6						
-20	1.4						
-10	1.2						
0	1						
10	0.8						
20	0.55						
30	0.3						

Source: Caterpillar Performance Handbook Edition 35 % Grade Dozing Factor = -0.0214x + 0.9786 (see graph)

OPERATOR	
Average	0.75
MATERIAL (1)	
Loose stockpile	1.2
Normal	1
Hard to cut; frozen —	
with tilt cylinder	0.8
Hard to drift; "dead" (dry,non-cohesive	
material) or very sticky material	0.8
Rock, ripped or blasted	0.6
SLOT DOZING OR SIDE BY SIDE (1)	1.2
VISIBILITY	
Good conditions	1
JOB EFFICIENCY	
50 min/hr	0.83
 Selected in facility worksheets. 	

Material Densities(1)						
Material	lb/cy	kg/m³				
Alluvium	2,900	1,720				
Basalt	3,300	1,960				
Clay - Dry	2,500	1,480				
Granite - broken	2,800	1,660				
Gravel	2,550	1,510				
LS - broken	2,600	1,540				
LS - crushed	2,600	1,540				
Sandstone	2,550	1,510				
Shale	2,100	1,250				
Stone - crushed	2,700	1,600				
Tailings - Coarse (dry, loose sand)	2,400	1,420				
Tailings - Slimes (loose sand & clay)	2,700	1,600				
Topsoil	1,600	950				

(1) Source: Caterpillar Performance Handbook Edition 35



Note: uses Sand & Gravel - Dry from Caterpillar Handbook

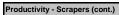
Productivity - Scrapers

Scraper Specifications						
Description	631G	637G				
Empty Weight	100,600	112,760				
Payload Capacity (cy)						
Struck	24	24				
Heaped	34	34				
Average	29	29				
Loaded by	One D10R	Self*				
Load Time (min)	1	1				
Maneuver and Spread (min)	1	1				
Job Efficiency	1	1				
Rolling Resistance**	3	3				
Altitude Deration Factor	1	1				

* Requires pair

**A firm, smooth, rolling roadway with dirt or light surfacing, flexing slightly under load or undulating, maintained fairly regularly, watered

				Downhill Scraper Speed - Grade Retarding vs. Effect					tive Grade ((Grade - F	Rolling Res	istance)		
Weight of M	laterials		631G 637G PP				PP							
Material	lb/cy	Scraper Load	Loaded Weight (lbs)	22	16	10	5	1	Loaded Weight (lbs)	25	15	10	5	1
Alluvium	2,900	84,100	184,700	7.5	10	13	33	33	196,860	7	10	18.5	34	34
Basalt	3,300	95,700	196,300	7.5	10	13	24.5	33	208,460	7	10	18.5	25	34
Clay - Dry	2,500	72,500	173,100	7.5	10	13	33	33	185,260	7	10	18.5	34	34
Granite - broken	2,800	81,200	181,800	7.5	10	13	33	33	193,960	7	10	18.5	34	34
Gravel	2,550	73,950	174,550	7.5	10	13	33	33	186,710	7	10	18.5	34	34
LS - broken	2,600	75,400	176,000	7.5	10	13	33	33	188,160	7	10	18.5	34	34
LS - crushed	2,600	75,400	176,000	7.5	10	13	33	33	188,160	7	10	18.5	34	34
Sandstone	2,550	73,950	174,550	7.5	10	13	33	33	186,710	7	10	18.5	34	34
Shale	2,100	60,900	161,500	7.5	10	18	33	33	173,660	10	13.5	18.5	34	34
Stone - crushed	2,700	78,300	178,900	7.5	10	13	33	33	191,060	7	10	18.5	34	34
Tailings - Coarse (dry, loose sand)	2,400	69,600	170,200	7.5	10	13	33	33	182,360	7	10	18.5	34	34
Tailings - Slimes (loose sand & clay)	2,700	78,300	178,900	7.5	10	13	33	33	191,060	7	10	18.5	34	34
Topsoil	1,600	46,400	147,000	7.5	10	18	33	33	159,160	10	13.5	18.5	34	34
·			Empty	10	18	24.5	33	33	Empty	10	13.5	18.5	34	34
											Source: Ca	terpillar Perforn	nance Handbo	ok Edition 34



631G Scraper Travel Time - Uphill Loaded									
Total Resistance (%) (rolling + grade)	0.5	1	Time (mi	n) 3	4	5	k	р	
0	825	2,250	5,300				2142.7	1.3	
2	750	1,800	4,600				1838.1	1.3	
4	550	1,400	3,000	4,800	6,700		1310.7	1.1	
6	490	1,000	2,200	3,300	4,500	5,600	1022.1	1.0	
8	375	750	1,600	2,500	3,300	4,200	769.01	1.0	
10	300	700	1,300	2,000	2,750	3,450	645.84	1.0	
12	250	550	1,100	1,700	2,250	2,800	531.04	1.0	
14	225	450	900	1.400	1.850	2.250	452.07	1.0	

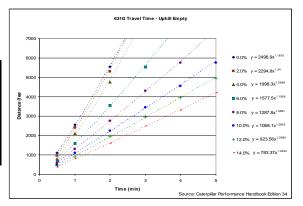
Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

Source: Caterpillar Performance Handbook Edition 35

		63	1G Travel Time	- Loaded		
7000			7	-Á		
6000		-4	/	1		◆ 0.0% = 2142.7x ^{1.3418}
5000		1	ممعري		<u> </u>	■ 2.0% = 1838.1x ^{1.3083}
		11	1	المعمد		▲ 4.0% = 1310.7x ^{1.1893}
9) 4000	j.	1/ /		en e		■ 6.0% = 1022.1x ^{1.066}
器 3000	1		and the second		200	 8.0% ' = 769.01x^{1.0558} 10.0% / = 645.84x^{1.0424}
2000	*/* /* //	and on the second of the seco	العملية المعمود العمالية المعمود		Lance Control	+ 12.0% / = 531.04x ^{1.0453}
1000	A					- 14.0% y = 452.07x ^{1.0089}
		1411				
0	1	2	3	4	5	

	6	31G Scraper Ti	ravel Time - I	Uphill Empty				
Total Resistance (%)			Time (mi	in)				
(rolling + grade)	0.5	1	2	3	4	5	k	р
0	1,100	2,550	5,550				2496.9	1.1675
2	950	2,400	5,300				2294.8	1.24
4	800	2,100	4,750				1998.3	1.2849
6	700	1,600	3,550	5,550			1557.5	1.1566
8	600	1,300	2,750	4,300	5,750		1287.8	1.0891
10	500	1,100	2,250	3,450	4,550	5,750	1068.1	1.0552
12	450	900	1,950	2,950	3,950	4,950	923.56	1.0492
14	375	800	1,600	2,500	3,300	4,200	783.37	1.0444
							-	

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ Source: Caterpillar Performance Handbook Edition 35



1.5

0.5

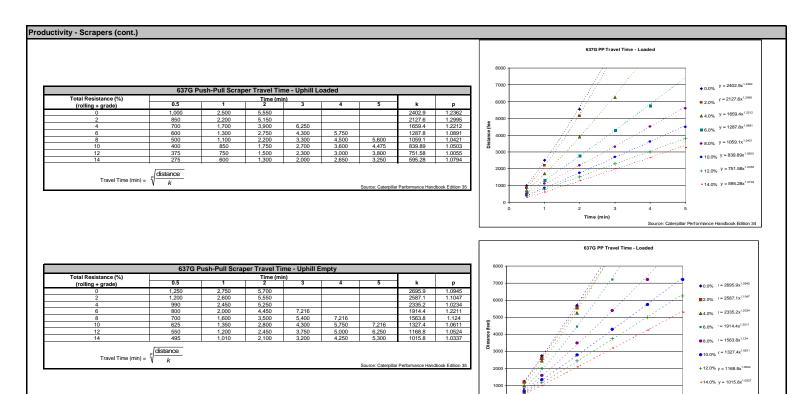
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2.5

Time (min)

3.5

4.5



Productivity - Haul Trucks

	Haul 1	Truck Specification	ations			
Description	769D	773E	777D	785C	793C	797B
Chassis Weight (lb)	53,506	70,330	113,160	170,000	259,500	473,600
Body Weight (lb)	17,350	20,300	34,785	36,788	70,785	104,200
Standard Liner Weight (lb)	7,000	8,600	12,040	16,846	24,418	8,800
Total Truck Weight (lb)	77,856	99,230	159,985	223,634	354,703	586,600
Payload Capacity (cy)						
Struck	21.6	34.8	55	78.5	126	228
Heaped	31.7	46	78.6	102	169	290
Average	26.65	40.4	66.8	90.25	147.5	259
Maneuver to Load Time (min)	0.7	0.7	0.7	0.7	0.7	0.7
Maneuver and Dump Time (min)	1.1	1.1	1.1	1.1	1.1	1.1
Job Efficiency	0.83	0.83	0.83	0.83	0.83	0.83
Rolling Resistance**	2.5	2.5	2.5	2.5	2.5	2.5
Altitude Deration Factor	1	1	1	1	1	1

**A firm, smooth, rolling roadway with dirt or light surfacing, flexing slightly under load or undulating, maintained fairly regularly, watered

Source: Caterpillar Performance Handbook Edition 35

							Downhil	l Haul Truck	Speed - G	rade Retai	ding vs. E	ffective G	rade (Gra	ade - Roll	ing Resis	tance)			
	Weight of Mate	rials					769D					773E					777D		
Material	lb/cy	Truck (769D) Load lb	Truck (773E) Load lb	Truck (777D) Load lb	Loaded Weight (lbs)	20	15	10	5	Loaded Weight (lbs)	20	15	10	5	Weight (lbs)	20	15	10	5
Alluvium	2,900	77,285	117,160	193,720	155,141	11	11	15	26	216,390	7	7	13	23	353,705	7	9	12	29
Basalt	3,300	87,945	133,320	220,440	165,801	11	11	11	20	232,550	7	7	13	23	380,425	7	7	12	21
Clay - Dry	2,500	66,625	101,000	167,000	144,481	11	11	15	26	200,230	7	9	13	23	326,985	7	9	16	29
Granite - broken	2,800	74,620	113,120	187,040	152,476	11	11	15	26	212,350	7	7	13	23	347,025	7	9	12	29
Gravel	2,550	67,958	103,020	170,340	145,814	11	11	15	26	202,250	7	9	13	23	330,325	7	9	16	29
LS - broken	2,600	69,290	105,040	173,680	147,146	11	11	15	26	204,270	7	9	13	23	333,665	7	9	12	29
LS - crushed	2,600	69,290	105,040	173,680	147,146	11	11	15	26	204,270	7	9	13	23	333,665	7	9	12	29
Sandstone	2,550	67,958	103,020	170,340	145,814	11	11	15	26	202,250	7	9	13	23	330,325	7	9	16	29
Shale	2,100	55,965	84,840	140,280	133,821	11	11	15	26	184,070	7	9	13	31	300,265	7	9	16	29
Stone - crushed	2,700	71,955	109,080	180,360	149,811	11	11	15	26	208,310	7	7	13	23	340,345	7	9	12	29
Tailings - Coarse (dry, loose sand)	2,400	63,960	96,960	160,320	141,816	11	11	15	26	196,190	7	9	13	23	320,305	7	9	16	29
Tailings - Slimes (loose sand & clay)	2,700	71,955	109,080	180,360	149,811	11	11	15	26	208,310	7	7	13	23	340,345	7	9	12	29
Topsoil	1,600	42,640	64,640	106,880	120,496	11	11	15	26	163,870	7	9	17	31	266,865	9	12	16	29
					Empty	15	15	26	36	Empty	13	17	23	42	Empty	16	16	29	39

							Downhill	Haul Truck	Speed - C	Frade Retai	ding vs. E	ffective C	Grade (Gra	ade - Roll	ing Resis	tance)			
	Weight of Mate	rials					785C					793C					797B		
Material	lb/cy	Truck (785C) Load lb	Truck (793C) Load lb	Truck (797B) Load lb	Loaded Weight (lbs)	20	15	10	5	Loaded Weight (lbs)	20	15	10	5	Weight (lbs)	20	15	10	5
Alluvium	2,900	261,725	427,750	751,100	485,359	8	8	14	27	782,453	7	7	10	17	#######	7	7	9	17
Basalt	3,300	297,825	486,750	854,700	521,459	8	8	14	27	841,453	7	7	10	17	#######	7	7	9	17
Clay - Dry	2,500	225,625	368,750	647,500	449,259	8	11	14	36	723,453	7	7	10	25	#######	7	7	9	23
Granite - broken	2,800	252,700	413,000	725,200	476,334	8	8	14	27	767,703	7	7	10	17	#######	7	7	9	17
Gravel	2,550	230,138	376,125	660,450	453,772	8	8	14	36	730,828	7	7	10	25	#######	7	7	9	23
LS - broken	2,600	234,650	383,500	673,400	458,284	8	8	14	27	738,203	7	7	10	25	#######	7	7	9	23
LS - crushed	2,600	234,650	383,500	673,400	458,284	8	8	14	27	738,203	7	7	10	25	#######	7	7	9	23
Sandstone	2,550	230,138	376,125	660,450	453,772	8	8	14	36	730,828	7	7	10	25	#######	7	7	9	23
Shale	2,100	189,525	309,750	543,900	413,159	8	11	14	36	664,453	7	7	10	25	#######	7	7	13	23
Stone - crushed	2,700	243,675	398,250	699,300	467,309	8	8	14	27	752,953	7	7	10	17	#######	7	7	9	23
Tailings - Coarse (dry, loose sand)	2,400	216,600	354,000	621,600	440,234	8	11	14	36	708,703	7	7	10	25	#######	7	7	9	23
Tailings - Slimes (loose sand & clay)	2,700	243,675	398,250	699,300	467,309	8	8	14	27	752,953	7	7	10	17	#######	7	7	9	23
Topsoil	1,600	144,400	236,000	414,400	368,034	8	11	19	36	590,703	7	10	13	25	#######	7	9	13	23
	•	•	•	•	Empty	14	19	36	36	Empty	10	13	17	33	Empty	13	17	23	42
															So	urce: Cater	pillar Perform	ance Handboo	k Edition 35

Productivity - Haul Trucks (cont.)

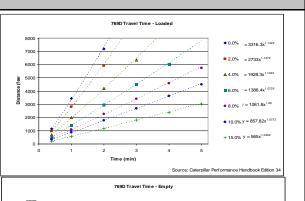
	769	D Haul Truck	ravel Time -	Uphill Loade	ed			
Total Resistance (%)			Time (mi	n)				
(rolling + grade)	0.4	1	2	3	4	5	k	р
0	1,148	3,428	7,183				3316.3	1.1422
4	689	1,984	4,198	6,330			1928.3	1.1033
6	508	1,427	2,952	4,510	6,002		1386.4	1.0725
8	394	1,082	2,263	3,411	4,592	5,740	1061.8	1.06
10	328	869	1,771	2,690	3,608	4,510	857.82	1.0373
15	213	574	1,181	1,804	2,394	3,018	565	1.0482

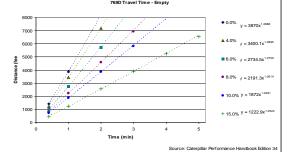
Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

Source: Caterpillar Performance Handbook Edition 35

	769	9D Haul Truck	Travel Time	- Uphill Empt	ty			
Total Resistance (%)			Time (mi	in)				
(rolling + grade)	0.4	1	2	3	4	5	k	р
0	1,427	3,870					3870	1.0888
4	1,246	3,444	7,183				3400.1	1.0895
6	1,017	2,755	5,740				2734.5	1.0759
8	820	2,230	4,592	6,954			2191.3	1.0614
10	722	1,870	3,870	5,838			1872	1.0391
15	459	1 246	2 558	3 903	5 248	6.560	1222 9	1.0523

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{\kappa}}$





Productivity - Haul Trucks (cont.)

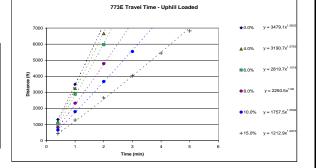
	773	E Haul Truck T	ravel Time -	Uphill Loads	ed .			
Total Resistance (%)			Time (mi	n)				
(rolling + grade)	0.4	1	2	3	4	5	k	р
0	1,066	3,117	6,496				3027.4	1.1254
4	656	1,952	4,035	6,168			1863.1	1.1109
6	492	1,312	2,756	4,167	5,577	6,955	1304.2	1.0507
8	394	1,017	2,100	3,182	4,265	5,315	1018.2	1.0326
10	328	853	1,804	2,690	3,609	4,528	856.36	1.041
15	226	525	1,083	1,673	2,231	2,789	549.25	1.0038

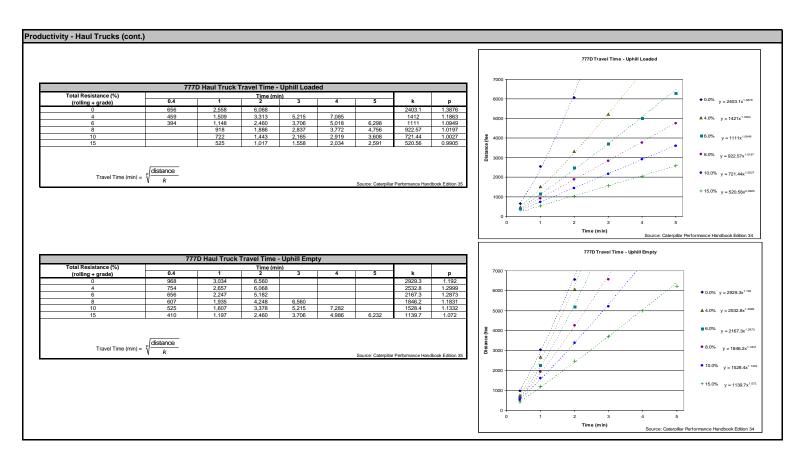
Travel Time (min) = $\sqrt[g]{\frac{\text{distance}}{k}}$ Source: Caterpillar Performance Handbook Edition 35

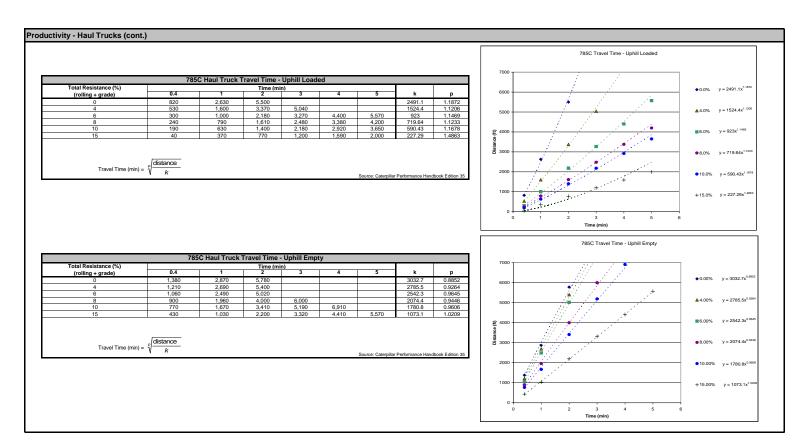
773E Travel Time - Uphill L	_oaded	
7000	♦0.0%	y = 3027.4x ^{1.1254}
6000	▲ 4.0%	y = 1863.1x ^{1.1108}
\$4000 \$	■6.0%	y = 1304.2x ^{1.0503}
3000	●8.0%	y = 1018.2x ^{1.0328}
2000	•10.0%	y = 856.36x ^{1.041}
1000	+15.0%	y = 549.25x ^{1.003}
0 1 2 3 4	5 6	

	773	BE Haul Truck 1	ravel Time -	Uphill Empt	у			
Total Resistance (%)			Time (mir	n)				
(rolling + grade)	0.4	1	2	3	4	5	k	р
0	1,312	3,510	7,218	,			3479.1	1.0602
4	1,181	3,248	6,660	,	,		3190.7	1.0763
6	1,017	2,887	5,971				2819.7	1.1018
8	820	2,329	4,790	7,218			2250.5	1.08
10	656	1,804	3,675	5,545	,		1757.5	1.0592
15	427	1,280	2,657	4,035	5,446	6,824	1212.9	1.0915

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ Source: Caterpillar Performance Handbook Edition







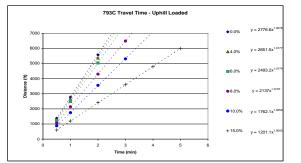
Productivity - Haul Trucks (cont.)

	793	C Haul Truck 1	Fravel Time -	Uphill Load	ed			
Total Resistance (%)			Time (mi	n)				
(rolling + grade)	0.5	1	2	3	4	5	k	р
0	1,230	2,570	5,300				2558.8	1.0537
4	800	1,600	3,400	5,190	7,000		1634.8	1.0485
6	520	1,090	2,300	3,560	4,760	5,970	1091.9	1.0635
8	390	810	1,760	2,700	3,630	4,570	820.99	1.0743
10	260	630	1,200	2,180	2,930	3,690	589.82	1.1481
15	150	380	810	1,300	1,760	2,210	355.44	1.1605

 $\mathsf{Travel}\,\mathsf{Time}\,(\mathsf{min}) = \sqrt[6]{\frac{\mathsf{distance}}{k}}$ Source: Caterpillar Performance Handbook Edition 35

		79	3C Travel T	ime - Uphil	Loaded			
7000			,				♦0.0%	y = 2558.8x ^{1.053}
6000		- /	* 	<u> </u>			▲4.0%	y = 1634.8x ^{1.040}
5000		<u> </u>					■ 6.0%	y = 1091.9x ^{1.063}
0000 Distance (f)	1				er e •		●8.0%	y = 820.99x ^{1.074}
2000		•		+	+		• 10.0%	y = 589.82x ^{1.140}
1000		+	+***				+15.0%	y = 355.44x ^{1.160}
0 +	1	2	3	4	5	6		

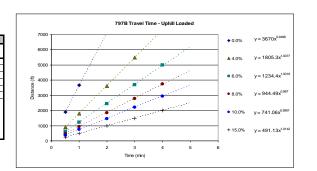
	793C Haul Truck Travel Time - Uphill Empty											
Total Resistance (%)		Time (min)										
(rolling + grade)	0.5	0.5 1 2 3 4 5										
0	1,380	2,780	5,580				2776.6	1.0078				
4	1,310	2,650	5,370				2651.5	1.0177				
6	1,230	2,500	5,040				2493.2	1.0174				
8	1,060	2,140	4,300	6,490			2137	1.0107				
10	880	1,750	3,560	5,310			1762.1	1.0059				
15	600	1,200	2,410	3,610	4,800	6,000	1201.1	1.0003				



Productivity - Haul Trucks (cont.)

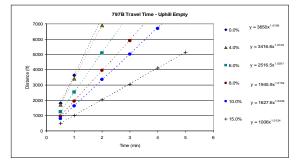
797B Haul Truck Travel Time - Uphill Loaded											
Total Resistance (%)		Time (min)									
(rolling + grade)	0.5	1	2	3	4	5	k	р			
0	1,900	3,670					3670	0.9498			
4	900	1,800	3,620	5,480			1805.3	1.0077			
6	620	1,230	2,450	3,700	5,000		1234.4	1.0019			
8	480	940	1,850	2,790	3,750		944.49	0.987			
10	370	750	1,460	2,220	2,950		741.06	0.9957			
15	240	500	1,000	1,480	2,000		491.13	1.0142			

Travel Time (min) = $\sqrt[g]{\frac{\text{distance}}{k}}$ Source: Caterpillar Performance Handbook Edition 35



797B Haul Truck Travel Time - Uphill Empty											
Total Resistance (%)		Time (min)									
(rolling + grade)	0.5	1	2	3	4	5	k	р			
0	1,800	3,650					3650	1.0199			
4	1,700	3,400	6,900				3416.6	1.0105			
6	1,240	2,520	5,100				2516.5	1.0201			
8	960	1,950	3,960	5,900			1945.9	1.0152			
10	800	1,620	3,350	5,000	6,700		1627.6	1.0239			
15	500	1,000	2,040	3,050	4,100	5,130	1006	1.0124			

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ Source: Caterpillar Performance Handbook Edition 35



Productivity - Articulated Trucks

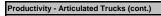
Description	725	730	735	740
Chassis Weight (lb)				
Body Weight (lb)				
Standard Liner Weight (lb)				
Operating Weight (Empty) (lb)	50,120	51,220	65,830	72,07
Payload Capacity (cy)				
Struck	14.5	17.1	19.3	23.3
Heaped	18.8	22.1	31.8	30.2
Average	16.65	19.6	25.55	26.75
Maneuver to Load Time (min)	0.7	0.7	0.7	0.7
Maneuver and Dump Time (min)	1.1	1.1	1.1	1.1
Job Efficiency	0.83	0.83	0.83	0.83
Rolling Resistance**	2.5	2.5	2.5	2.5
Altitude Deration Factor	1	1	1	1

**A firm, smooth, rolling roadway with dirt or light surfacing, flexing slightly under load or undulating, maintained fairly regularly, watered

Source: Caterpillar Performance Handbook Edition 35

				De	ownhill Haul	Truck Speed	- Grade Reta	rding vs. Eff	ective Grad	e (Grade -	Rolling Re	sistance)		
Weigh	nt of Materials				725						730			
Material	lb/cy	Truck (725) Load lb	Truck (730) Load lb	Loaded Weight (lbs)	20	15	10	5	Loaded Weight (lbs)	20	15	10	5	
Alluvium	2,900	48,285	56,840	98,405	9	9	13	30	108,060	5	8	13	29	
Basalt	3,300	54,945	64,680	105,065	5	9	13	22	115,900	5	8	13	29	
Clay - Dry	2,500	41,625	49,000	91,745	9	13	13	30	100,220	8	8	13	29	
Granite - broken	2,800	46,620	54,880	96,740	9	13	13	30	106,100	5	8	13	29	
Gravel	2,550	42,458	49,980	92,578	9	13	13	30	101,200	8	8	13	29	
LS - broken	2,600	43,290	50,960	93,410	9	13	13	30	102,180	8	8	13	29	
LS - crushed	2,600	43,290	50,960	93,410	9	13	13	30	102,180	8	8	13	29	
Sandstone	2,550	42,458	49,980	92,578	9	13	13	30	101,200	8	8	13	29	
Shale	2,100	34,965	41,160	85,085	9	13	22	30	92,380	8	13	13	29	
Stone - crushed	2,700	44,955	52,920	95,075	9	13	13	30	104,140	8	8	13	29	
Tailings - Coarse (dry, loose sand)	2,400	39,960	47,040	90,080	9	13	13	30	98,260	8	8	13	29	
Tailings - Slimes (loose sand & clay)	2,700	44,955	52,920	95,075	9	13	13	30	104,140	8	8	13	29	
Topsoil	1,600	26,640	31,360	76,760	9	13	22	30	82,580	8	13	22	35	
				Empty	13	13	22	30	Empty	13	13	22	35	

				D	ownhill Hau	Truck Speed	- Grade Reta	rding vs. Eff	ective Grade	e (Grade -	Rolling Res	sistance)	
Weig	ht of Materials				740								
Material	lb/cy	Truck (735) Load lb	Truck (740) Load lb	Loaded Weight (lbs)	20	15	10	5	Weight (lbs)	20	15	10	5
Alluvium	2,900	74,095	77,575	139,925	7	9	13	27	149,645	7	9	17	23
Basalt	3,300	84,315	88,275	150,145	7	9	13	27	160,345	7	9	13	23
Clay - Dry	2,500	63,875	66,875	129,705	7	9	13	27	138,945	9	13	17	31
Granite - broken	2,800	71,540	74,900	137,370	7	9	13	27	146,970	7	9	17	23
Gravel	2,550	65,153	68,213	130,983	7	9	13	27	140,283	7	9	17	31
LS - broken	2,600	66,430	69,550	132,260	7	9	13	27	141,620	7	9	17	31
LS - crushed	2,600	66,430	69,550	132,260	7	9	13	27	141,620	7	9	17	31
Sandstone	2,550	65,153	68,213	130,983	7	9	13	27	140,283	7	9	17	31
Shale	2,100	53,655	56,175	119,485	9	9	18	27	128,245	7	13	17	31
Stone - crushed	2,700	68,985	72,225	134,815	7	9	13	27	144,295	7	9	17	23
Tailings - Coarse (dry, loose sand)	2,400	61,320	64,200	127,150	7	9	13	27	136,270	9	13	17	31
Tailings - Slimes (loose sand & clay)	2,700	68,985	72,225	134,815	7	9	13	27	144,295	7	9	17	23
Topsoil	1,600	40,880	42,800	106,710	9	13	18	36	114,870	9	13	17	31
				Empty	13	18	27	42	Empty	17	17	23	31
										Source: 0	Caterpillar Perforr	mance Handbo	ok Edition 35



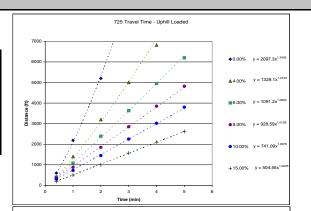
725 Articulated Truck Travel Time - Uphill Loaded											
Total Resistance (%)											
(rolling + grade)	0.5	1	2	3	4	5	k	р			
0	600	2,190	5,200				2097.3	1.3455			
4	420	1,400	3,200	5,000	6,820		1329.1	1.2109			
6	400	1,080	2,390	3,630	4,950	6,200	1091.2	1.0904			
8	380	880	1,850	2,850	3,850	4,820	928.59	1.0158			
10	300	729	1,450	2,250	3,020	3,800	741.09	1.0076			
15	200	500	1,000	1,570	2,100	2,620	504.55	1.0225			

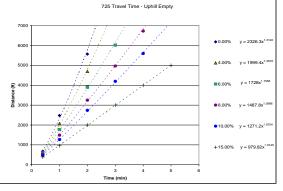
Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

Source: Caterpillar Performance Handbook Edition 35

725 Haul Truck Travel Time - Uphill Empty												
Total Resistance (%)		Time (min)										
(rolling + grade)	0.5	1	2	3	4	5	k	р				
0	680	2,480	5,570				2326.3	1.3122				
4	620	2,070	4,700				1999.4	1.2616				
6	590	1,770	3,900	6,020			1728	1.1556				
8	540	1,490	3,250	4,970	6,730		1487.8	1.0986				
10	470	1,270	2,740	4,200	5,600	7,050	1271.2	1.0754				
15	390	960	2.000	3,000	4.000	5.000	979.82	1.0145				

Travel Time (min) = $\sqrt[\rho]{\frac{\text{distance}}{k}}$



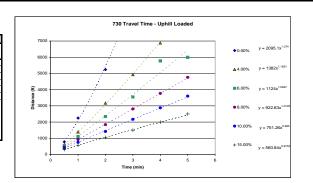


Productivity - Articulated Trucks (cont.)

	730 Articulated Truck Travel Time - Uphill Loaded											
Total Resistance (%)		Time (min)										
(rolling + grade)	0.5	1	2	3	4	5	k	р				
0	780	2,250	5,240				2095	1.374				
4	610	1,390	3,170	4,930	6,880		1382	1.1651				
6	540	1,100	2,340	3,550	5,780	6,000	112	1.0847				
8	460	920	1,840	2,810	3,770	4,760	922.63	1.0145				
10	390	750	1,420	2,170	2,880	3,600	751.26	0.965				
15	300	560	1,050	1,500	1,995	2,500	560.84	0.9152				

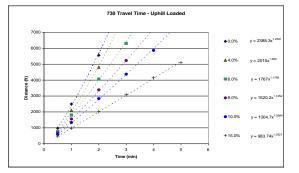
Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$

Source: Caterpillar Performance Handbook Edition 35



730 Haul Truck Travel Time - Uphill Empty											
Total Resistance (%)		Time (min)									
(rolling + grade)	0.5										
0	980	2,500	5,560				2388	1.25621			
4	810	2,100	4,810				2015	1.285			
6	770	1,800	4,060	6,310			1767	1.1766			
8	680	1,560	3,390	5,230	7,070		1520.2	1.1252			
10	595	1,340	2,840	4,370	5,870		1304.7	1.0994			
15	480	980	2,020	3,090	4,150	5,090	983.74	1.0321			

Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$



Productivity - Articulated Trucks (cont.) 735 Travel Time - Uphill Loaded 735 Articulated Truck Travel Time - Uphill Loaded Total Resistance (%) Time (min) ♦0.00% y = 2166x^{1.2254} (rolling + grade) 700 550 2166 1410.5 1.2254 1.0528 ▲4.00% y = 1410.5x^{1.05} 5,770 1095.6 1.0223 4,200 879.73 0.9546 3,500 754.84 0.9332 2,390 519.31 0.9268 2,200 1,650 1,400 3,400 2,530 2,100 1,400 4,570 3,370 2,800 1,900 450 390 340 1,020 810 700 ■6.00% y = 1095.6x^{1.022} ●8.00% y = 879.73x^{0.95} Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ ● 10.00% y = 754.84x^{0.90} Source: Caterpillar Performance Handbook Edition 35 +15.00% y = 519.31x^{0.93} Time (min) 735 Travel Time - Uphill Empty 735 Haul Truck Travel Time - Uphill Empty Total Resistance (%) Time (min) 0.5 (rolling + grade) 2,300 2,070 1,770 1,370 2200.2 1999.7 1751.7 1414.4 1.2606 1.2795 1.1953 1.0306 5,140 4,760 ♦0.00% /= 2200.2x^{1.2600} 6,370 4,400 580 560 4,100 2,900 5,950 ▲4.00% /= 1999.7x^{1.279} 1,200 2,600 1,660 4,030 2,540 6,900 4,200 1203 871.57 1.0924 0.969 5000 440 370 5,450 3,390 ■6.00% /= 1751.7x^{1.1953} € 4000 Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ ●8.00% r = 1414.4x^{1.0306} • 10.00% y = 1203x^{1.0924} 1000 +15.00% y = 871.57x^{0.969}

Time (min)

1000

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3 Time (min)

Productivity - Articulated Trucks (cont.) 740 Travel Time - Uphill Loaded 740 Articulated Truck Travel Time - Uphill Loaded Total Resistance (%) Time (min) (rolling + grade) 600 500 2,340 1,390 5,500 3,190 2190.6 1415 1.3823 1.1389 ▲ 4.00% y = 1415x^{1.1385} 5.700 1066.4 1.0438 4,300 842.87 1.0012 3,410 686.02 0.9889 2,340 474.86 0.9789 2,200 1,650 1,350 940 3,400 2,560 2,040 1,400 4,580 3,400 2,750 1,830 420 350 290 1,020 800 640 ■6.00% v = 1066.4x^{1.0} ● 8.00% y = 842.87x^{1.00} Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ ●10.00% y = 686.02x^{0.98} Source: Caterpillar Performance Handbook Edition 3 +15.00% y = 474.86x^{0.93} 740 Travel Time - Uphill Empty 740 Haul Truck Travel Time - Uphill Empty Total Resistance (%) Time (min) 0.5 (rolling + grade) 5,820 5,400 4,230 3,400 2,790 1,900 2413.6 2170.4 1804.5 1541.5 1308.2 951.69 2,570 2,230 1,840 1,510 1.3214 1.3372 1.2048 1.1112 ♦0.00% y = 2413.6x^{1.3214} 6,630 5,250 4,300 2,920 590 560 7,120 ▲4.00% y = 2170.4x^{1.3372} 500 390 1,250 5,800 1.074 1.0146 4,930 ■6.00% /= 1804.5x^{1.2048} € 4000 Travel Time (min) = $\sqrt[p]{\frac{\text{distance}}{k}}$ ●8.00% y = 1541.5x^{1.11}

Productivity

• 10.00% y = 1308.2x^{1.074}

Productivity - Wheel Loaders

				Whee	I Loader Spe	ecifications								
Description	924G	928G	950G	966G	972G	972G (2)	980G	988G	988G(2)	990	992G	992G(2)	994D	L2350
Payload Capacity (cy)														
Struck	2.2	2.5	3.46	4.46	4.71	4.71	6.34	6.9	6.9	9.5	13.2	13.2	18	
Heaped	2.7	3.25	4	5.25	5.5	5.5	7.25	8.33	8.33	11.25	16	16	22.5	
Average	2.45	2.875	3.73	4.855	5.105	5.105	6.795	7.615	7.615	10.375	14.6	14.6	20.25	53
Matched Truck	N/A	N/A	N/A	725	730	735	N/A	740	769D	773D	777D	785C	793C	797B
Average Cycle Time (min)	0.45	0.45	0.5	0.5	0.5	0.5	0.55	0.55	0.55	0.55	0.6	0.6	0.6	0.75
Passes to Fill Truck	N/A	N/A	N/A	3	4	5	N/A	4	3	4	5	6	7	5
Altitude Deration Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Operator Efficiency	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Job Efficiency	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Time to Fill Truck	N/A	N/A	N/A	1.5	2	2.5	N/A	2.2	1.65	2.2	3	3.6	4.2	3.75
Rolling Resistance**	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Loader matched to small truck fleet Loader matched to medium truck fleet Loader matched to large truck fleet Loader matched to extra large truck fleet



**A firm, smooth, rolling roadway with dirt or light surfacing, flexing slightly under load or undulating, maintained fairly regularly, watered 992G (2) - can be used to load 785 with 6 passes

Source: Caterpillar Performance Handbook Edition 35; LeTourneau/actual Chilean mine operating data for L2350

		Spade Nose-
Wheeled Loaders	General Purpose	Rock
928G	3.25 cubic yard	not available
966G	5.0 cubic yard	not available
972G	5.5 cubic yard	not available
988G	not available	8.3 cubic yard
992G	not available	16.0 cubic yard

note: capacities are 2:1 heaped, SAE standards
NOTES: Buckets for both Track Excurators and Wheel Loaders are offered by CECo &
available for the rental rates quoted. Bucket sizes and capacities obtained from CATERPILLAR
PERFORMANDE HANDSOOK, ED 34; Section 12, Wheel Loader and Section 4, Excurators

Bucket capacity and width dictated by material weight and configuration, i.e., shot, loose, light bank, stockpile, rock, etc. Typical Newada applications were used to determine above bucket capacities are related to materials & densities. Och site specifics may alter specific bucket requirements. (Cashman Equipment, Elko, Nevada - February 21, 2005)

Productivity - Shovels

Shovel	Specification	s (Komatsu eq	uivalent)		
Description	PC2000	PC3000	PC4000	PC5500	PC8000
Payload Capacity (cy)					
Struck	10.46	18.84	26.16	33.48	47.09
Heaped	14.39	25.9	35.97	46.04	64.75
Average	12.43	22.37	31.07	39.76	55.92
Matched Truck	740	777D	785C	793C	797B
Average Cycle Time (min)	0.49	0.49	0.59	0.59	0.69
Passes to Fill Truck	2.05	2.84	3.38	4.69	5.11
Altitude Deration Factor	1	1	0.9	1	1
Operator Efficiency	1	1	1	1	1
Job Efficiency	0.83	0.83	0.83	0.83	0.83
Time to Fill Truck	1.68	2.33	3.32	4.61	5.86
Rolling Resistance**	2.5	2.5	2.5	2.5	2.5

Shovel matched to small truck fleet Shovel matched to medium truck fleet Shovel matched to large truck fleet



*A firm, smooth, rolling roadway with dirt or light surfacing, flexing slightly under load or undulating, maintained fairly regularly, watered 992G (2) - can be used to load 785 with 6 passes

Source: Caterpillar Performa ance Handbook Edition 35; Komatsu actual Peruvian mine (Lagunas Norte) operating data for PC4000

11/17/2020

Page 18 of 23 Productivity

Productivity - Motor Graders

Description	120H	14G/H	16G/H	24
Grader Width (ft)	8	9.25	10.08	14.0
Blade Width (ft)	12	14	16	16
Ripper Width (7 shanks) (ft)	7.6	8.5	9.75	12.
Road Maintence Speed (mph)				
Minimum	3	3	3	3
Maximum	9.5	9.5	9.5	9.5
Average	6.25	6.25	6.25	6.2
Hourly Production	33,000	33,000	33,000	33,0
Ripping Speed (mph)	1	1	1	1
Minimum	0	0	0	0
Maximum	3	3	3	3
Average	1.5	1.5	1.5	1.5
Altitude Deration Factor	1	1	1	- 1
Hourly Production (with job efficiency correction & altitude deration factors)				
(excluding manuever time)	6,574	6,574	6,574	6,5
Maneuver time per pass (min)	0.5	0.5	0.5	0.
Operator Efficiency	1	1	1	- 1
Job Efficiency	0.83	0.83	0.83	3.0

Productivity - Excavators

	Tra	ck Excavator	Specification	IS			
Description	312C	320C	325C	330C	345B	365BL	385
Bucket Capacity (cy)	0.68	1.57	2.22	2.22	3	4.6	7.
Fill Factor	0.9	0.9	0.9	0.9	0.9	0.9	0.
Average Bucket Load (cy)	0.612	1.413	1.998	1.998	2.7	4.14	6.5
Soil Type	packed earth	hard clay	hard clay	hard clay	hard clay	hard clay	hard
Job Condition	med-hard	med-hard	med-hard	med-hard	med-hard	med-hard	med-
Cycle Times (minutes) - based on hard c	lay						
Load Bucket	0.07	0.09	0.09	0.09	0.13	0.1	0.1
Swing Loaded	0.06	0.06	0.06	0.07	0.07	0.09	0.0
Dump Bucket	0.03	0.03	0.04	0.04	0.02	0.04	0.0
Swing Empty	0.05	0.05	0.06	0.07	0.06	0.07	0.0
Total Cycle Time	0.21	0.23	0.25	0.27	0.28	0.3	0.3
Job Efficiency	0.83	0.83	0.83	0.83	0.83	0.83	0.8
Operator Efficiency	1	1	1	1	1	1	1
Altitude Deration Factor	1	1	1	1	1	1	1
Corrected Productivity (LCY/hr)	145	306	398	369	480	687	93
Exploration Road Cycle Time (1) (min)	N/A	0.38	0.4	N/A	0.42	N/A	N/
Exploration Road Corr Prod (LCY/hr)	N/A	185	249	N/A	320	N/A	N/
Track Width (ft)	8.17	9.17	9.83	10.5	11.42	11.5	11
Ditch/Trench Excavation							
Bucket Capacity (cy)	0.42	0.58	0.88	0.89	2.09	3.27	2.
Fill Factor	0.5	0.5	0.5	0.5	0.5	0.5	0
Corrected Productivity (LCY/hr)	50	63	88	82	186	271	19

Source: Caterpillar Performance Handbook Edition 3

Track Excavators	Hvy Duty Rock	Extreme Service Exc (e.g. haulroad recontour)	Hvy Duty Trench
312C	30", 0.68 cubic yd	47", 0.94 cubic yd	22*, .42 cubic yd
320C	30", 0.90 cubic yd	55.1", 1.57 cubic yd	23.6", .58 cubic yd
325C	36", 1.25 cubic yd	60", 2.22 cubic yd	30", .88 cubic yd
330C	36", 1.25 cubic yd	60", 2.22 cubic yd	30", .89 cubic yd
345B	43.2", 1.69 cubic yd	65", 3.0 cubic yd	48", 2.09 cubic yd
365BL	60", 3.25 cubic yd	82", 4.6 cubic yd	59", 3.27 cubic yd
385BL	85", 6.30 cubic yd.	96.0, 7.30 cubic yd	57°, 2.75 cubic yd

Note: capacities are 2:1 heaped, SAE standards NOTES: Buckets for both Track Excavators and Wheel Loaders are offered by CECo &

available for the rental rates quoted. Bucket sizes and capacities obtained from CATERPILLAR PEBFORMANCE HANDBOOK, ED 34; Section 12; Wheel Loader and Section 4, Excavators Bucket capacity and width dictated by material weight natio configuration, is, shot, toose, tight bank, stockpile, rode, etc. Typical Newdas applications were used to determine above bucket capacities are related to materials & densilies, Joid size specifics may leave a position bucket repairments (Cashman Equipment, Eliko, Newda - February 21, 2005)

1) Exploration cycle time assumes feathering/smoothing performed by excavator

Concrete Breaking Production

Track Excavator	w/Hammer Specif	ications	
Description	325C	345B	385BL
Hydraulic Hammer	H120D s	H160D s	H180D s
Material	reinforced concrete		
Min Shift Production (yd3/8hr)	160	300	350
Max Shift Production (yd3/8hr)	300	850	1,550
Avg Shift Production (8hr)	230	575	950
Job Efficiency	0.83	0.83	0.83
Altitude Deration Factor	1	1	1

Drill Hole Plugging Productivity

Drill Hole Plugging	Drill Rig	Zumn Die
Description		Pump Rig
Move-to-hole, set-up, tear-down (1)	2	2
Trip in tremmie pipe (1)	500	
cemented) (1)	200	
Single-pass perforating (water wells)	Productivity(all p	Passes
4	60	4
6	60	4
8	50	4
12	45	6
18	40	9
24	28	12
time (2) (hr)	2	
Perforation tool cost (wear cost) ⁽³⁾	2.5	
Inert Material Placement (backfill)		
Grouting/Cement (4) (cy/hr)		5.33
Cuttings (see below) (cy/hr)		3.5
Sources:	Drillers daily log Barrick, New West Go Idaho G	
	Drillers daily log Barrick	gs from Newmo
	 Drillers daily lo WDC Explo 	gs from Newm oration, Dec 20

Cuttings Placement Productivity		
Shift productivity (Means 02210-700-		
0120; Crew B11M)	28	cy / shift
Shift length	8	hours
Estimated Hourly Productivity	3.5	cy / hour

					Elevation								
	0-76		760-150		1500-2	300 m	2300-3	000 m	3000-3	3800 m	3800-4		
	(0-25	(100)	(2500-50		(5000-	7000')	(7500-1	('000,0	(10,000	-12,000')	(12,500-		
MODEL Bulldozers	CAT	User	CAT	User	CAT	User	CAT	User	CAT	User	CAT	User	
D6R	100		100		100		100		92		84		
D6R w/ Winch	100		100		100		100		92		84		
D7R	100		100		100		100		100		96		
D8R	100		100		100		93		85		77		
D9R	100		100		100		93		85		77		
D10R	100		100		100		100		97		89		
D11R Wheeled Dozers	100		100		100		93		85		77		
824G	100		100		100		100		92		84		
834G	100		100		100		100		92		84		
844	100		100		100		100		100		96		
854G	100		100		100		93		85		77		
Graders													
120H 14G/H	100		100		100		100		96		93		
14G/H	100		100		100 100		100		98 98		96 96		
24M	100		100		100		100		98		96		
xcavators	100		100		100		100		- 00		- 55		
312C	100		100		100		83		78		73		
320C	100		100		90		87		83		76		
325C	100		100		100		100		100		100		
330C	100		100		100		100		100		100		
345B 365BL	100		100		100		100		93		93		
365BL 385BL	100		100		100		86		86 85		86		
icrapers	100		100		100		93		85		78		
631G	100		100		100		100		97		90		
637G	100		100		100		95		87		80		
oaders		-	'				•		•				
924G	100		100		100		100		97		89		
928G	100		100		100		100		92		85		
950G 966G	100		100		100		100		100		100		
972G	100		100		100 92		100 84		96 77		88 70		
980G	100		100		100		100		96		88		
988G	100		100		100		95		85		75		
990	100		100		100		100		92		85		
992G	100		100		100		100		93		87		
994D	100		100		100		100		96		88		
L2350	100		100		100		100		96		90		
Shovels	100		400		100		400						
PC2000 PC3000	100 100		100 100		100 100		100 100		96 96		90 90		
PC4000	100		100		100		100		96		90		
PC5500	100		100		100		100		96		90		
PC8000	100		100		100		100		96		90		
Other Equipment													
420D 4WD Backhoe	99		97		95		91		91		91		
428D 4WD Backhoe	99		97		95		91		91		91		
CS533E Vibratory Roller CS633E Vibratory Roller	100		100		98		95		91		86		
CP533E Sheepsfoot Compactor	100		100		100 98		100 95		91 91		86 100		
CP633E Sheepsfoot Compactor	100		100		100		100		91		86		
Light Truck - 1.5 Ton													
Supervisor's Truck													
Flatbed Truck													
Air Compressor + tools													
Welding Equipment									ļ		ļ		
Heavy Duty Drill Rig Pump (plugging) Drill Rig	1						-		ļ		ļ		
Concrete Pump													
Gas Engine Vibrator													
Generator 5KW													
HDEP Welder (pipe or liner)													
5 Ton Crane													
20 Ton Crane													
50 Ton Crane													
120 Ton Crane			ļ <u> </u>										
725	100		100		100		100		100		95		
730	100		100		100		100		100		95		
735	100		100		100		100		99		91		
740	100		100		100		100		99		91		
769D	100		100		100		93		88		82		
773E	100		100		100		100		93		85		
777D 785C	100		100		100		100		93		87		
	100		100 100		100		93		86		80		
			100		100		100		100		93		
793C	100		100		400		400		400				
793C 797B	100		100		100		100		100		93		
793C 797B 613E (5,000 gal) Water Wagon	100 100		100 100		100 100		100 100		100 95		93 87		
793C 797B 613E (5,000 gal) Water Wagon 621E (8,000 gal) Water Wagon	100 100 100		100 100 100		100 100 100		100 100 100		100 95 97		93 87 90		
793C 797B 613E (5,000 gal) Water Wagon	100 100		100 100		100 100		100 100		100 95		93 87		

Closure Cost Estimate Productivity

Dump Truck (10-12 yd3) (5)

Notes

es:
User entered deration value will override values from CAT Performance Handbook, except L2350 Loader: data from actual mine performance in Chile.
Konatsu altitude deration assumed from LeTourneau L2350

STANDARDIZED RECLAMATION COST ESTIMATOR User Tools

Version 1.4.1

These tools allow easy access to some useful VBA routines and macros that are include in this Model Version

Keyboard Shortcuts			
SHORTCUT KEYS	ACTION		
Ctrl-Shift-C	Go to Table of Contents		
Ctrl-Shift-O	Open Toe Offset Calculator		
Ctrl-Shift-P	Go to Property Information Sheet		
Ctrl-Shift-S	Show Slope Conversion Table		
Ctrl-Shift-T	Go to Tools sheet		
Ctrl-Shift-Z	Paste Formulas - First Use Ctrl-C to copy a range, then use the mouse (or keyboard) to select the paste range and then use this shortcut to paste formulas only from the copy range to the paste range. Equivalent to the Paste Special/Formulas command.		

Closure Cost Estimate Seed Mixture

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

		Species Number of	Species % in	T		Т
Common Name	Scientific Name	Seeds / Ib	Mix	PLS/acre	Cost/Lb	Cost/Acr
		Grasses				
Indian ricegrass	Achnatherum hymenoides		14.16	1.30		
Plains lovegrass	Eragrostis intermedia		0.44	0.04		
NM feathergrass	Hesperostipa newmexicana		5.45	0.50		
Sideoats grama	Bouteloua curtipendula		11.98	1.10		
Blue grama	Bouteloua gracilis		2.72	0.25		
Cane beardgrass	Bothriochloa barbinodis		2.18	0.20		
Galleta	Pleuraphis jamesii		11.98	1.10		
Green sprangletop	Leptochloa dubia		2.18	0.20		
Plains bristlegrass	Seteria vulpiseta		3.27	0.30		
Sand dropseed	Sporobolus cryptandrus		0.44	0.04		
		Forbs				
White prairie clover	Dale candida c		4.36	0.40		
Blue flax	Linum lewisii c		3.81	0.35		
Prairie coneflower	Ratibida colomnifera c		1.09	0.10		
Desert globemallow	Sphaeralcea ambugua c		4.36	0.40		
		Shrubs				
Four-wing saltbush	Atriplex canescens		19.06	1.75		
Rubber rabbitbrush	Ericamerica intermedia c		3.81	0.35		
Apache plume	Fallugia paradoxa c		1.09	0.10		
Winterfat	Krascheninnikovia lanata		7.63	0.70		
	Total			\$9.18		

Notes:

Source:

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Option 1

Seed Mix Cost Quotes



TO: Feliz Toprak, Mining Consultant, SRK Consulting, Inc.

CC: Jeff Smith, Chief Operating Officer, NMCC

FROM: Katie Emmer, Permitting & Environmental Compliance Manager, NMCC

DATE: 20 March 2018

SUBJECT: Seed Mix Quotes – Average cost \$175.00/acre PLS

The purpose of this memorandum is to summarize research into seed mix costs for seed mixes identified in the Copper Flat Mine Operation & Reclamation Plan (MORP) and to present the estimated cost of pure live seed (PLS) per acre.

The MORP calls for a specific seed mix and rate of application for interim and final reclamation:

Table E7: Interim and Final Reclamation Seed Mixes

		PL	PLS/ac1		
Scientific Name	Common Name	Interim	Final		
Grasses – Warm Season					
Bothriochloa barbinodis	Cane bluestem	0.15	0.20		
Bouteloua curtipendula	Sideoats grama	1.00	1.10		
Bouteloua gracilis	Blue grama	0.20	0.25		
Pleuraphis jamesii	Galleta	0.75	1.10		
Leptochloa dubia	Green sprangletop	0.15	0.20		
Seteria vulpiseta	Plains bristlegrass	0.20	0.30		
Sporobolus cryptandrus	Sand dropseed	0.03	0.04		
Grasses – Cool, Intermediate S	eason				
Achnatherum hymenoides	Indian ricegrass	0.60	1.30		
Eragrostis intermedia	Plains lovegrass	0.05	0.04		
Hesperostipa newmexicana	NM feathergrass	0.70	0.50		
Shrubs	•) *			
Atriplex canescens	Four-wing saltbush	0.30	1.75		
Ericamerica nauseosus	Rubber rabbitbrush	0.10	0.35		
Fallugia paradoxa	Apache plume		0.10		
Krascheninnikovia lanata	Winterfat	0.15	0.70		
Forbs	•				
Dalea candida	White prairie clover	0.10	0.40		
Linum lewisii	Blue flax	0.15	0.35		
Ratibida colomnifera	Prairie coneflower		0.10		
Sphaeralcea ambigua	Desert globemallow	0.10	0.40		
	Total	4.73	9.18		

Notes:

1-Rate is in pounds of pure live seed (PLS) per acre; Substitutions may change seeding rates.

In the week of 12 March 2018, I requested recommendations for seed mix suppliers from knowledgeable personnel at the Bureau of Land Management (BLM) Las Cruces office and Golder & Associates.

Emily Clark, Soil Scientist at Golder, indicated that they commonly work with Granite Seed. Shannon Gentry, Rangeland Management Specialist, suggested Bamert Seed, Granite Seed, and Curtis & Curtis Seed companies. Based on these recommendations, I contacted all three companies and provided MORP Table E7 and requested quotes on PLS/acre that would be certified weed free at the final reclamation rate. I instructed each company that comparable seed substitutions could be made based on availability. Quotes for PLS/acre were received from each company and are presented in the table below.

Seed Mix Quotes for MORP Table E7, Final Rate, March 2018

Company	Date	Price quote PLS/acre	Notes
Curtis & Curtis, Inc.	15 March 2018	\$174.72	Low acreage
			Quote attached
Curtis & Curtis, Inc.	15 March 2018	\$163.79	100 acres+
			Quote attached
Granite Seed	15 March 2018	\$186.50	Quote attached
Bamert Seed	16 March 2018	\$750.00	Quote via email,
			attached.

In further correspondence with Bamert, the supplier speculated the quote could be decreased "as much as 2/3rds" if strategic substitutions of similar seeds were made based on availability. If the Bamert quote was decreased by 67%, it would be about \$247.50/acre. Based on the difference in price from the other two suppliers, I conclude this quote is an outlier that is based on differing assumptions from those communicated in the quote request and have not included it in our estimated average seed mix cost.

Based on these quotes, attached, I conclude the average cost of PLS that would meet MORP requirements for final seed rates shown in Table E7 would be \$175.00 per acre.

Attachements:

Curtis & Curtis, Inc. Quote Granite Seed Quote Bamert Seed Quote (via email)

CURTIS & CURTIS, INC.

4500 North Prince, Clovis, New Mexico 88101 PH: 575-762-4759 FAX: 575-763-4213

Irrigated Pasture Grasses Mountain Pasture Grasses Native Pasture Grasses Yard and Playground Grasses Golf Course Grasses Alfalfa/Clovers

PRICE QUOTATION

TO: Themac Resources DATE: March 15, 2018 ATTENTION: Katie Emmer SALESPERSON: Tyler Stuemky SHIPPING DATE: PHONE: 505-400-7925 As Directed EMAIL: kemmer@themacresourcesgroup.com FOB: Clovis PROJECT: Sierra County Mine Reclamation TERMS: 30 Days Net

DESCRIPTION PRICE AMOUNT

DESCRIPTION TRUE AMOUNT

Custom Seed Mix: \$174.72/Acre (Low Acreage) \$163.79/Acre (100 Acres+)

COMMON NAME Cane Bluestem Bouteloua dactyloides 0.20 Sub. Buffalograss Sideoats Grama Bouteloua curtipendula 1.10 Blue Grama Bouteloua gracilis 0.25 Galleta Grass Pleuraphis jamesii 1.10 Green Sprangletop Leptochloa dubia 0.20 Plains Bristlegrass Setaria vulpiseta 0.30 Sand Dropseed Sporobolus cryptandrus 0.04 Indian Ricegrass Oryzopsis hymenoides 1.30 Eragrostis trichodes Plains Lovegrass 0.04 Sand Lovegrass NM Feathergrass Hesperostipa comata 0.50 Needle and Thread Four-Wing Saltbush Atriplex canescens 1.75 Rubber Rabbitbrush Ericameria nauseosa 0.35 Apache Plume Rhus trilobata 0.10 Sub. Three-Leaf Sumac Winterfat Krascheninnikovia lanata 0.70 White Prairie Clover 0.40 Dalea purpurea Sub. Purple Prairie Clover Blue Flax Linum lewisii 0.35 Prairie Coneflower Ratibida columnifera 0.10 Desert Globemallow Sphaeralcea ambigua 0.40

THIS QUOTE IS GOOD FOR 10 DAYS

ALL PRICES SUBJECT TO AVAILABILITY**SUBJECT TO BEING UNSOLD

Here is our quotation on the goods named, subject to the conditions noted:

The prices and terms on this quotation are not subject to verbal changes or other agreements unless approved in writing by the Home Office of the Seller. All quotations and agreements are contingent upon strikes, accidents, fires, availability of materials and all other causes beyond our control. Prices are based on costs and control to the property of the propert

conditions existing on date of quotation and are subject to change by the Seller before final acceptance.

Typographical and stenographic errors are subject to correction. Purchaser agrees to accept either overage or shortage ont in excess of ten percent to be charged for prorata. Purchaser assumes liability for patent and copyright infringement when goods are made to Purchaser's specifications. When quotation specifies material to be furnished by the purchaser, ample allowance must be made for reasonable spoilage and material must be of suitable quality to facilitate efficient production. Conditions not specifically stated herein shall be governed by established trade customs. Terms inconsistent with those stated herein, which may appear on Purchaser's formal order will not be binding on the Seller.

QUOTE



Tren Hagman 1697 West 2100 North Lehi, UT 84043 tren@graniteseed.com Phone: (801) 768-4422 Fax: (801) 701-9413

Date:March 15, 2018To:Katie EmmerCompany:Themac ResourcesFrom:Tren HagmanRe:Seed Quote

Katie,

We can provide the mix below for \$186.50/acre

Species	PLS lbs./acre
Cane beardgrass (Bothriochloa barbinodis)	0.20
Sideoats grama (Bouteloua curtipendula)	1.10
Blue grama (Bouteloua gracilis)	0.25
Galleta grass (Pleuraphis jamesii)	1.10
Green sprangletop (Leptochloa dubia)	0.20
Plains bristlegrass (Setaria vulpiseta)	0.30
Sand dropseed (Sporobolus cryptandrus)	0.04
Indian ricegrass (Achnatherum hymenoides)	1.30
Fourwing saltbush (Atriplex canescens)	1.75
Rubber rabbitbrush (Ericameria nauseosa)	0.35
Apache plume (Fallugia paradoxa)	0.10
Winterfat (Krascheninnikovia lanata)	0.70
White prairie clover (Dalea candida)	0.40
Blue flax (Linum perenne)	0.35
Prairie coneflower (Ratibida columnifera)	0.10
Desert globemallow (Sphaeralcea ambigua)	0.40
Toal:	8.64

If you have any questions, please contact me at the number above or by email $\underline{\text{tren} @\text{qraniteseed.com}}$.

Thanks

Katie Emmer

From: Colby Scroggins <cscroggins@bamertseed.com>

Sent: Friday, March 16, 2018 12:18 PM

To: Katie Emmer
Subject: RE: Seed mix quote

Katie,

I would estimate that the attached blend may be near \$750 per acre.

Please let me know if I may be of help in the future!

Have a great day,

Colby F. Scroggins

Reclamation Specialist

cscroagins@BarnertSeed.com

Office | 800.262.9892 Fax | 888.378.0419 www.BamertSeed.com





Sign Up for Our Newsletter!

From: Katie Emmer [mailto:kemmer@themacresourcesgroup.com]

Sent: Wednesday, March 14, 2018 4:25 PM
To: Colby Scroggins cscroggins@bamertseed.com

Subject: Seed mix quote

Here's the seed mix I'm looking at, see attached.

Katie Emmer | Permitting & Environmental Compliance Manager

M: +1 505.400.7925| F: +1 505.881.4616

A: 4253 Montgomery Blvd. NE, Suite 130, Albuquerque, NM 87109

W: themacresourcesgroup.com | E: kemmer@themacresourcesgroup.com



Project Name: Foothill Dolomite Mine - Reclamation Plan

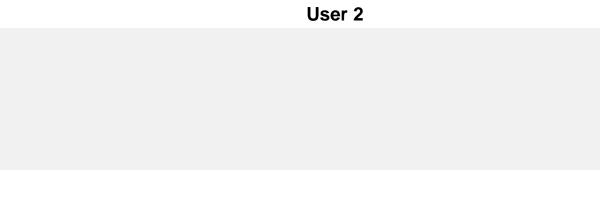
Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xls
Cost Estimate Type: Surety Cost Basis: American Magnesium - Optior



Project Name: Foothill Dolomite Mine - Reclamation Plan

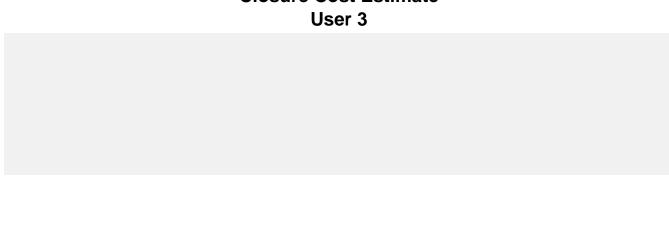
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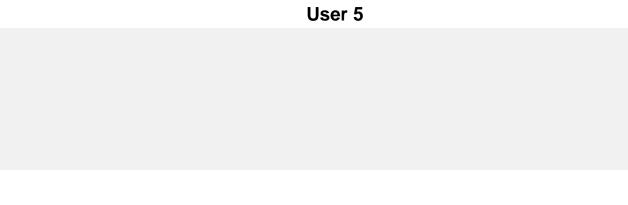
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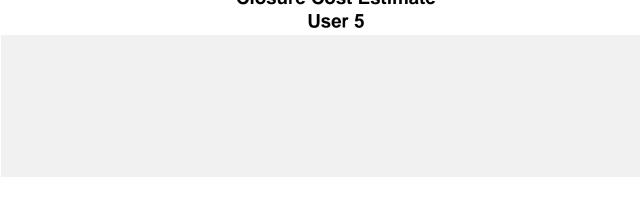
Date of Submittal: 09-29-2020

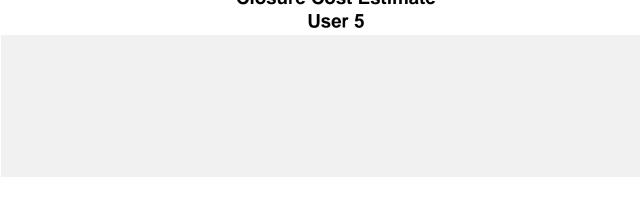
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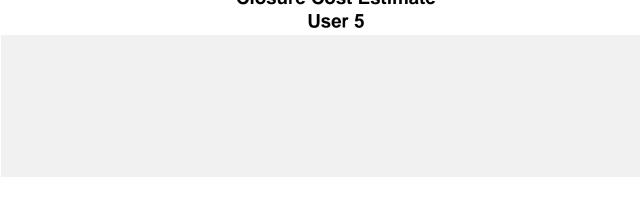
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Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xls
Cost Estimate Type: Surety Cost Basis: American Magnesium - Optior

sm

า 1

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xls
Cost Estimate Type: Surety Cost Basis: American Magnesium - Optior

sm

า 1

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xls
Cost Estimate Type: Surety Cost Basis: American Magnesium - Optior

sm

า 1

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xls
Cost Estimate Type: Surety Cost Basis: American Magnesium - Optior

sm

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xls
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Optior

Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xls
Cost Estimate Type: Surety
Cost Basis: American Magnesium - Optior

sm

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xls
Cost Estimate Type: Surety Cost Basis: American Magnesium - Optior

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Cost Data File: SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xls
Cost Estimate Type: Surety Cost Basis: American Magnesium - Optior

sm

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Project Name: Foothill Dolomite Mine - Reclamation Plan

Date of Submittal: 09-29-2020

File Name: Att 2_Cost Estimate for Reclamation at End of Mining.xlsm

Model Version: Version 1.4.1

Cost Data: User Data

Format Version:	SRCE Data File v1.12	
File Name:	03_SRCE_Cost_data-Am_Mg_Foothill_Dolor	mite_ Mine_1_12.xlsm
Date:	September 29, 2020	
Cost Type:	User Data	
Author/Source:	Nevada Division of Environmental Protection	n (NDEP) & NV BLM & 20200801_SRCE_Coost_Data_File_1_12_Std_2020 & Davis-Bacon Act WD#NM20200012

Units of Measure:	Imperial

No. of Bases/Regions:	1	

Basis/Region	Basis/Region Name	Basis/Region Description
Basis 1	American Magnesium - Option 1	American Magnesium - Foothill Dolomite Mine - Northern Nevada Equipmen
Basis 2		
Basis 3		
Basis 4		
Basis 5		
Basis 6		
Basis 7		
Basis 8		
Basis 9		
Basis 10		
Basis 11		
Basis 12		
Basis 13		
Basis 14		
Basis 15		

File Name:	03_SRCE_Cost_data-Am_Mg_Foothill_Dc	i	
Date:	September 29, 2020		
Cost Basis:	User Data	ĺ	
Author/Source:	Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801_SRCE_	_Coost_Data_File_	_1_'

Monthly Rental Basis	460		
(operating hrs/ period)	160		

(operating his/ period)					
MONTHLY EQUIP	MENT RATE	TABLE [C	ost Per Mon	th] ⁽¹⁾	
EQUIPMENT TYPE (2)	Basis 1 American Magnesium -	Basis 2	Basis 3	Basis 4	Basis 5
Bulldozers	Ontion 1				
D6R	\$6,570				
D6R w/ Winch	\$6,570				
D7R	\$18,300				
D8R	\$20,180				
D9R	\$30,100				
D10R	\$44,500				
D11R	\$56,234				
Wheeled Dozers					
824G	\$19,849				
834G	\$24,929				
844	\$33,734				
854G	\$33,802				
Motor Graders					
120H	\$8,670				
14G/H	\$14,790				
16G/H	\$18,806				
24M	\$20,686				
Track Excavators					
312C	\$5,610				
320C	\$7,750				
325C	\$10,750				
330C	\$11,500				
345B	\$16,730				
365BL	\$23,119				
385BL	\$28,472				
Scrapers					
631G	\$27,700				
637G PP	\$36,819				
Wheeled Loaders					
924G	\$5,610				
928G	\$6,530				
950G	\$9,520				
966G	\$11,500				
972G	\$13,480				

File Name:	03_SRCE_Cost_data	n-Am_Mg_Foothill_D	c			
Date:	September 29, 2020					
Cost Basis:	User Data					
Author/Source:	Nevada Division of E	Coost_Data_File_1_				
	•				•	
Monthly Rental Basis	/00					
(operating hrs/ period)	160					
980G	\$15,690					
988G	\$19,589					
990	\$28,299					
992G	\$47,500					
994D	\$45,175					
L-2350	\$82,607					
Shovels	4.5					
KOM PC2000	\$70,917					
KOM PC3000	\$72,526					
KOM PC4000	\$74,135					
KOM PC5500	\$81,548					
KOM PC8000	\$89,703					
Hydraulic Hammers	φου, του					
H-120 (fits 325)	\$3,420		T	T		
H-160 (fits 345)						
H-180 (fits 365/385)	\$7,028 \$8,168					
Demolition Shears	ψ0,100					
S340 (fits 322/325/330)	\$3,524		T	T		
,						
S365 (fits 330/345) S390 (fits 365/385)	\$4,131 \$6,593					
Demolition Grapples	ψ0,595					
• •						
G315 (fits 322/325)						
G320 (fits 325/330)						
G330 (fits 345/365)						
Other Equipment	^		_			
420D 4WD Backhoe	\$3,240					
428D 4WD Backhoe	\$3,870					
CS533E Vibratory Roller	\$4,402					
CS663E Vibratory Roller	\$4,291					
CP533E Sheepsfoot Compactor	\$4,085					
CP663E Sheepsfoot Compactor	\$6,588					
Light Truck - 1.5 Ton	\$2,184					
Supervisor's Truck	\$834					
Flatbed Truck	\$621					
Air Compressor + tools	\$597					
Welding Equipment	\$405					
Heavy Duty Drill Rig	\$52,018					

File Name:	03_SRCE_Cost_data				
Date:	September 29, 2020				1
Cost Basis:	User Data				1
Author/Source:	Nevada Division of I	Environmental Protect	tion (NDEP) & NV BL	M & 20200801_SRCE	Coost_Data_File_1_
			,		
Monthly Rental Basis					
(operating hrs/ period)	160				
	•	•	•		
Pump (plugging) Drill Rig	\$52,018				
Concrete Pump	\$14,864				
Gas Engine Vibrator	\$357				
Generator 5KW	\$938				
HDEP Welder (pipe or liner)	\$7,023				
5 Ton Crane	\$7,160				
20 Ton Crane	\$7,955				
50 Ton Crane	\$15,154				
120 Ton Crane	\$28,943				
Trucks					
725 (articulated)	\$10,824				
730 (articulated)	\$14,640				
735 (articulated)	\$16,730				
740 (articulated)	\$18,820				
769D					
773E	\$18,267				
777D	\$37,750				
785C	\$40,948				
793C	\$49,547				
797B	\$89,160				
613E (5,000 gal) Water Wagon	\$8,726				
621E (8,000 gal) Water Wagon	\$10,006				
777D Water Truck	\$37,226				
785C Water Truck	\$40,948				
Dump Truck (10-12 yd³) (5)	\$3,752				
NOTES:					
(1) Power Equipment Source:					
	equivalent, LeTourneau loader, Komatsu shovels				
(2) Power Equipment Type:		Catepillar model or	Catepillar model or	Catepillar model or	Catepillar model or
() 121 2 2 3 7 6 2	equivalent, LeTourneau		equivalent, LeTourneau	equivalent, LeTourneau	equivalent, LeTourneau
	loader, Komatsu	loader, Komatsu	loader, Komatsu	loader, Komatsu	loader, Komatsu
(2) Delling Facility 21 Co	shovels	shovels	shovels	shovels	shovels
(3) Drilliing Equipment Source:	RS Means Heavy Construction (2020 Q2)				
(4) Other Equipment Source:					
PREVENTATIVE M	IAINTENAN	CE COST IC	ost Per Hou	ır] ⁽¹⁾	
	Basis 1	Basis 2	Basis 3	Basis 4	Basis 5
EQUIDMENT TYPE	-	•	•	•	•

File Name:	03_SRCE_Cost_data	a-Am_Mg_Foothill_Dc
Date:	September 29, 2020	
Cost Basis:	User Data	
Author/Source:	Nevada Division of E	Environmental Protection (NDEP) & NV BLM & 20200801_SRCE_Coost_Data_File_1_
Monthly Rental Basis (operating hrs/ period)	160	
EQUIPMENT THE	Magnesium -	
Bulldozers		
D6R	\$34.60	
D6R w/ Winch	\$34.60	
D7R	\$2.69	
D8R	\$3.49	
D9R	\$3.61	
D10R	\$3.79	
D11R	\$160.74	
Wheeled Dozers		
824G	\$49.58	
834G	\$59.69	
844	\$77.91	
854G	\$90.20	
Motor Graders		
120H	\$20.32	
14G/H	\$37.21	
16G/H	\$50.42	
24M	\$55.46	
Track Excavators		
312C	\$2.14	
320C	\$2.38	
325C	\$2.64	
330C	\$3.01	
345B	\$3.36	
365BL	\$80.63	
385BL	\$91.31	

File Name:	03_SRCE_Cost_data-Am_Mg_Foothill_Dc				
Date:	September 29, 2020				
Cost Basis:	User Data				
Author/Source:	Nevada Division of E	nvironmental Protec	tion (NDEP) & NV BLI	M & 20200801_SRCE	Coost Data File 1
			, ,		
Monthly Rental Basis					
(operating hrs/ period)	160				
(4) 3 3 3 4 3 3 7					
Scrapers					
•	Φ0.00				
631G 637G PP	\$3.22 \$116.00				
Wheeled Loaders	\$110.00				
924G	\$9.33				
928G	\$16.35				
950G	\$2.30				
966G	\$2.42				
972G	\$2.53 \$2.57				
980G	· ·				
988G 990	\$57.81 \$85.58				
992G	\$11.87				
994D	\$122.36				
L-2350	\$203.53				
Shovels	\$200.00				
KOM PC2000	\$183.38				
KOM PC3000	\$218.80				
KOM PC4000	\$254.21				
KOM PC5500	\$279.63				
KOM PC8000	\$307.59				
Hydraulic Hammers					
H-120 (fits 325)	N/A	N/A	N/A	N/A	N/A
H-160 (fits 345)	N/A			N/A	N/A
H-180 (fits 365/385)	N/A	N/A	N/A	N/A	N/A
Demolition Shears					
S340 (fits 322/325/330)	N/A	N/A	N/A	N/A	N/A
S365 (fits 330/345)	N/A	N/A	N/A	N/A	N/A
S390 (fits 365/385)	N/A	N/A	N/A	N/A	N/A
Demolition Grapples	1471	74/71	. 47.1	. 47.1	. 4/7 (
G315 (fits 322/325)	N/A	N/A	N/A	N/A	N/A
					N/A
					N/A
,	. 47.	. 471	. 47.1	, .	,, ,
	\$11.21				
·					
G315 (fits 322/325) G320 (fits 325/330) G330 (fits 345/365) Other Equipment 420D 4WD Backhoe 428D 4WD Backhoe CS533E Vibratory Roller CS663E Vibratory Roller CP533E Sheepsfoot Compactor CP663E Sheepsfoot Compactor	N/A N/A \$11.81 \$12.20 \$19.33 \$20.65 or \$24.87	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	

File Name:	03_SRCE_Cost_data-Am_Mg_Foothill_Dc		
Date:	September 29, 2020	ĺ	
Cost Basis:	User Data	1	
Author/Source:	Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801_SRCE_	_Coost_Da	ata_File_1_

A - 11 10	Non-la Division of Engineers (all Doctorios (AIDED) & MIV DI M & COCCOCCA CECE CO. (C. E.)									
Author/Source:	Nevada Division of E	Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801_SRCE_Coost_Data_File_1_								
Monthly Rental Basis	460									
(operating hrs/ period)	160									
Light Truck - 1.5 Ton	\$8.67									
Supervisor's Truck	\$3.62									
Flatbed Truck	\$3.85									
Air Compressor + tools	\$3.38									
Welding Equipment	\$1.92									
Heavy Duty Drill Rig	\$278.95									
Pump (plugging) Drill Rig	\$278.95									
Concrete Pump										
Gas Engine Vibrator	\$1.46									
Generator 5KW	\$3.58									
HDEP Welder (pipe or liner)										
5 Ton Crane	\$23.22									
20 Ton Crane	\$25.80									
50 Ton Crane	\$45.47									
120 Ton Crane	\$80.14									
Trucks										
725 (articulated)	\$28.22									
730 (articulated)	\$2.76									
735 (articulated)	\$2.86									
740 (articulated)	\$2.97									
769D										
773E	\$47.92									
777D	\$95.60									
785C	\$105.16	_								

File Name:	03 SRCF Cost data-	Am Ma Foothill Da						
Date:	03_SRCE_Cost_data-Am_Mg_Foothill_Dc September 29, 2020							
Cost Basis:	User Data							
Author/Source:		Occas Data File 4						
Author/Source.	Nevada Division of El	ivironmentai Protec	tion (NDEP) & NV BL	IVI & 20200801_SRCE	_COOSt_Data_File_1_			
Monthly Pontal Pacia								
Monthly Rental Basis	160							
(operating hrs/ period)								
_								
793C	\$127.24							
797B	\$204.78							
613E (5,000 gal) Water Wagon	\$45.31							
621E (8,000 gal) Water Wagon	\$50.66							
777D Water Truck	\$95.60							
785C Water Truck	\$105.16							
Dump Truck (10-12 yd3) (5)	N/A							
(1) PM Source	e:							
		(2)	Woorltoma					
G.E.T CONSUMP	TION [Cost Po	er Hour] 🗥	vvear items)					
				D • 4	5 . 5			
EQUIPMENT TYPE	Basis 1	Basis 2	Basis 3	Basis 4	Basis 5			
	Magnesium -							
Bulldozers								
D6R	\$2.61							
D6R D6R w/ Winch	\$2.61 \$2.61							
D6R D6R w/ Winch D7R	\$2.61 \$3.84							
D6R D6R w/ Winch D7R D8R	\$2.61 \$3.84 \$4.86							
D6R D6R w/ Winch D7R D8R D9R	\$2.61 \$3.84 \$4.86 \$6.59							
D6R D6R w/ Winch D7R D8R D9R D10R	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22							
D6R D6R w/ Winch D7R D8R D9R D10R D11R	\$2.61 \$3.84 \$4.86 \$6.59							
D6R D6R w/ Winch D7R D8R D9R D10R	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22							
D6R D6R w/ Winch D7R D8R D9R D10R D11R	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844 854G	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844 854G Motor Graders	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42 \$2.40							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844 854G Motor Graders 120H	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42 \$2.40							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844 854G Motor Graders 120H 14G/H	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42 \$2.40							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844 854G Motor Graders 120H 14G/H 16G/H	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42 \$2.40 \$0.62 \$1.38 \$2.00							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844 854G Motor Graders 120H 14G/H 16G/H 24M Track Excavators	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42 \$2.40 \$0.62 \$1.38 \$2.00 \$2.20							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844 854G Motor Graders 120H 14G/H 16G/H 24M Track Excavators 312C	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42 \$2.40 \$2.40 \$2.20 \$1.38							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844 854G Motor Graders 120H 14G/H 16G/H 24M Track Excavators 312C 320C	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42 \$2.40 \$2.40 \$2.20							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844 854G Motor Graders 120H 14G/H 16G/H 24M Track Excavators 312C 320C 325C	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42 \$2.40 \$2.40 \$2.20 \$1.38 \$2.00 \$2.20							
D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844 854G Motor Graders 120H 14G/H 16G/H 24M Track Excavators 312C 320C 325C 330C	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42 \$2.40 \$2.40 \$2.20 \$1.38 \$2.00 \$2.20 \$1.33 \$1.94 \$1.48 \$2.67							
D6R D6R w/ Winch D7R D8R D9R D10R D11R Wheeled Dozers 824G 834G 844 854G Motor Graders 120H 14G/H 16G/H 24M Track Excavators 312C 320C 325C	\$2.61 \$3.84 \$4.86 \$6.59 \$8.22 \$16.66 \$1.32 \$1.70 \$2.42 \$2.40 \$2.40 \$2.20 \$1.38 \$2.00 \$2.20							

September 29, 2020							
User Data							
Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801 SRCE Co.							
		,					
160							
\$1.96							
Ψ2.11							
\$0.10							
\$2.26							
\$3.71							
\$32.73							
\$4.99							
\$9.30							
\$13.87							
\$16.89							
\$19.91							
\$24.09							
\$24.96							
\$31.61							
\$0.60							
r							
	\$1.86 \$2.11 \$0.19 \$0.60 \$0.87 \$1.08 \$1.41 \$2.26 \$3.71 \$32.73 \$4.99 \$9.30	Second	User Data Nevada Division of Environmental Protection (NDEP) & NV BI 160	User Data Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801_SRCE. 160			

File Name:	03_SRCE_Cost_data	-Am_Mg_Foothill_Dc							
Date:	September 29, 2020	September 29, 2020							
Cost Basis:	User Data								
Author/Source:	Nevada Division of E	nvironmental Protect	tion (NDEP) & NV BLI	M & 20200801 SPCE	Coost Data File 1				
Author/Source.	IVEVAUA DIVISION OF L	IIVIIOIIIIleillai FTOleci	IOII (NDEF) & NV BEI	W & 20200001_SNCL_	COOSI_Data_I IIe_I_				
Monthly Rental Basis	400								
(operating hrs/ period)	160								
Light Truck - 1.5 Ton									
Supervisor's Truck									
Flatbed Truck									
Air Compressor + tools	N/A	N/A	N/A	N/A	N/A				
Welding Equipment	N/A	N/A	N/A	N/A	N/A				
Heavy Duty Drill Rig	\$9.60								
Pump (plugging) Drill Rig	\$9.60								
Concrete Pump	N/A	N/A	N/A	N/A	N/A				
Gas Engine Vibrator	N/A	N/A	N/A	N/A	N/A				
Generator 5KW	N/A	N/A	N/A	N/A	N/A				
HDEP Welder (pipe or liner)	N/A	N/A	N/A	N/A	N/A				
5 Ton Crane									
20 Ton Crane									
50 Ton Crane									
120 Ton Crane									
Trucks									
725 (articulated)	\$3.22								
730 (articulated)	\$3.22								
735 (articulated)	\$3.22								
740 (articulated)	\$3.22								
769D	\$3.60								
773E	\$4.04								
777D	\$4.51								
785C	7 110 1								
793C									
797B									
613E (5,000 gal) Water Wagon									
621E (8,000 gal) Water Wagon									
777D Water Truck									
785C Water Truck									
Dump Truck (10-12 yd3) (5)	\$3.22								
Notes:	¥0.EE								
(1) G.E.T. Source									
` ,									
TIRE COST TABL	E [Cost Per]	Γire ^(1,2,3)]							
EQUIPMENT TYPE	Basis 1 Magnesium -	Basis 2	Basis 3	Basis 4	Basis 5				
Bulldozers									
D6R	N/A	N/A	N/A	N/A	N/A				
D6R w/ Winch	N/A	N/A	N/A	N/A	N/A				
DOIN W/ WILIGH	IN/A	IN/A	IN/A	IN/A	IN/A				

File Name:	03_SRCE_Cost_data	-Am_Mg_Foothill_Dc							
Date:	September 29, 2020	September 29, 2020							
Cost Basis:	User Data	User Data							
Author/Source:	Nevada Division of E	Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801_SRCE_C							
			,	_					
Monthly Rental Basis									
(operating hrs/ period)	160								
		•	•	•					
D7R	N/A	N/A	N/A	N/A	N/A				
D8R	N/A	N/A	N/A	N/A	N/A				
D9R	N/A	N/A	N/A	N/A	N/A				
D10R	N/A	N/A	N/A	N/A	N/A				
D11R	N/A	N/A	N/A	N/A	N/A				
Wheeled Dozers									
824G	\$33,740.00								
834G	\$43,505.00								
844	\$62,020.00								
854G	\$76,685.00								
Motor Graders	φισισσίσσ								
120H	\$11,025.00								
14G/H	\$24,500.00								
16G/H	\$35,455.00								
24M	\$39,000.50								
Track Excavators	, and the second seco								
312C	N/A	N/A	N/A	N/A	N/A				
320C	N/A	N/A	N/A	N/A	N/A				
325C	N/A	N/A	N/A	N/A	N/A				
330C	N/A	N/A	N/A	N/A	N/A				
345B	N/A	N/A	N/A	N/A	N/A				
365BL	N/A	N/A	N/A	N/A	N/A				
385BL	N/A	N/A	N/A	N/A	N/A				
Scrapers									
631G	\$32,680.00								
637G PP	\$30,280.00								
Wheeled Loaders									
924G	\$4,770.00								
928G	\$13,815.00								
950G	\$23,085.00								
966G	\$24,075.00								
972G	\$29,880.00								
980G	\$45,720.00								
988G	\$73,350.00								
990	\$120,195.00								
992G	\$147,105.00								
994D	\$161,815.50								
L-2350	\$301,680.00								
Shovels									
KOM PC2000	N/A	N/A	N/A	N/A	N/A				

File Name:	03_SRCE_Cost_data	-Am_Mg_Foothill_Dc								
Date:	September 29, 2020									
Cost Basis:	User Data									
Author/Source:		nvironmental Protect	tion (NDFP) & NV RI	M & 20200801 SRCF	Coost Data File 1					
	Norwal Division of L									
Monthly Rental Basis										
(operating hrs/ period)	160									
(operating may period)										
KOM PC3000	N/A	N/A	N/A	N/A	N//					
KOM PC4000	N/A	N/A	N/A	N/A	N/.					
KOM PC5500	N/A	N/A	N/A	N/A	N/.					
KOM PC8000	N/A	N/A	N/A	N/A	N/A					
Hydraulic Hammers										
H-120 (fits 325)	N/A	N/A	N/A	N/A	N//					
H-160 (fits 345)	N/A	N/A N/A	N/A	N/A	N//					
H-180 (fits 365/385)	N/A	N/A	N/A	N/A	N//					
Demolition Shears	1 14/7 (14/11	1.4/71	14/71	13/2					
S340 (fits 322/325/330)	N/A	N/A	N/A	N/A	N//					
S340 (fits 322/325/330) S365 (fits 330/345)	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N//					
S390 (fits 365/385)	N/A N/A	N/A N/A	N/A	N/A	N/A					
Demolition Grapples	IN/A	IN//A	11/71	11/71	1 1//					
	NI/A	N1/A	N1/A	N1/A	N1/					
G315 (fits 322/325)	N/A	N/A	N/A	N/A	N/.					
G320 (fits 325/330) G330 (fits 345/365)	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/. N/.					
· · ·	IN/A	IN/A	IN/A	IN/A	IN/A					
Other Equipment	0.4.770.00									
420D 4WD Backhoe	\$4,770.00									
428D 4WD Backhoe	\$4,830.00	N1/A	NI/A	N1/A	N1/					
CS533E Vibratory Roller	N/A	N/A	N/A	N/A	N/A					
CS663E Vibratory Roller	N/A	N/A	N/A	N/A	N/.					
CP533E Sheepsfoot Compactor CP663E Sheepsfoot Compactor	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/. N/.					
Light Truck - 1.5 Ton		IN/A	IN/A	IN/A	IN/A					
Supervisor's Truck	\$4,140.00 \$1,350.00									
Flatbed Truck	\$1,020.00									
Air Compressor + tools	Ψ1,020.00 N/A	N/A	N/A	N/A	N/A					
Welding Equipment	N/A	N/A	N/A	N/A	N/A					
Heavy Duty Drill Rig	14/7 (14/7	14/71	14/74	14/					
Pump (plugging) Drill Rig										
Concrete Pump	N/A	N/A	N/A	N/A	N/A					
Gas Engine Vibrator	N/A	N/A	N/A	N/A	N/A					
Generator 5KW	N/A	N/A	N/A	N/A	N/A					
HDEP Welder (pipe or liner)	N/A	N/A	N/A	N/A	N/A					
5 Ton Crane	\$9,261.00									
20 Ton Crane	\$10,290.00									
50 Ton Crane	\$16,530.00									
120 Ton Crane	\$42,750.00									
Trucks										
725 (articulated)	\$13,720.00									
730 (articulated)	\$14,980.00									

File Name:	03_SRCE_Cost_data						
Date:	September 29, 2020 User Data						
Cost Basis:							
Author/Source:	Nevada Division of E	invironmental Protection (NDEP) & NV B	LM & 20200801_SRCE	Coost_Data_File_1_			
Monthly Rental Basis							
(operating hrs/ period)	160						
735 (articulated)	\$15,940.00						
740 (articulated)	\$17,240.00						
769D							
773E	\$69,300.00						
777D	\$157,600.00						
785C	\$138,688.00						
793C	\$167,812.48						
797B	\$322,800.00						
613E (5,000 gal) Water Wagon	\$18,840.00						
621E (8,000 gal) Water Wagon	\$38,960.00						
777D Water Truck	\$157,600.00						
785C Water Truck	\$138,688.00						
Dump Truck (10-12 yd3) (5)	\$12,900.00						
Notes:							
(1) Unit Cost Basis:							
(2) Cost Basis:							
(3) Tire Cost Source:							
(4) Tire Wear Source							
(defined in model):							

Labor Rates

File Name:	03_SRCE_Cost_data-Am_Mg_Foothill_Dt	
Date:	September 29, 2020	
Cost Basis:	User Data	

Author/Source: Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801 SRCE_Coost_Data_File_1_12_Std_2020 & Davis-Bacon Act WD#NM20200012

	Basis 1	Basis 2	Basis 3	Basis 4	Basis 5	Basis 6
EQUIPMENT TYPE (1) OR JOB DESCRIPTION	American Magnesium - Option 1	Dasis 2	Dasis 3	Da515 4	Dasis 3	Dasis 0
EQUIPMENT OPERATORS	-	e Pay Rate (\$/hr) (2)				
Bulldozers						
D6R	\$21.14					
D6R w/ Winch	\$21.14					
D7R D8R	\$21.14 \$21.14					
D9R	\$21.14					
D10R	\$21.14					
D11R	\$21.14					
Wheeled Dozers						
324G						
334G 344						
354G						
Motor Graders						
120H	\$21.14					
14G/H	\$21.14					
16G/H 24M	\$21.14 \$21.14					
Track Excavators	Ψ21.14					
312C	\$27.12					
320C	\$27.12					
325C	\$27.12					
330C 345B	\$27.12					
345B 365BL	\$27.12 \$27.12					
385BL	\$27.12					
Scrapers						
631G	\$14.03					
337G PP	\$14.03					
Wheeled Loaders						
924G	\$27.12					
928G 950G	\$27.12 \$27.12					
966G	\$27.12					
972G	\$27.12					
980G	\$27.12					
988G 990	\$27.12 \$27.12					
992G	\$27.12					
994D	\$27.12					
L-2350	\$27.12					
Shovels						
KOM PC2000						
KOM PC3000 KOM PC4000						
KOM PC5500						
KOM PC8000						
Hydrauilc Hammers						
H-120 (fits 325)						
H-160 (fits 345)						
H-180 (fits 365/385) Demolition Shears						
S340 (fits 322/325/330)		ı	I	1		1
S365 (fits 330/345)	 			 		
S390 (fits 365/385)						
Demolition Grapples						
G315 (fits 322/325)						
G320 (fits 325/330) G330 (fits 345/365)				1		
Other Equipment						
420D 4WD Backhoe	\$14.03					
28D 4WD Backhoe	\$14.03					
CS533E Vibratory Roller	\$14.03					
CS663E Vibratory Roller	\$14.03					
CP533E Sheepsfoot Compactor CP663E Sheepsfoot Compactor	\$14.03 \$14.03					
ight Truck - 1.5 Ton	\$0.00					
Supervisor's Truck	\$0.00					
latbed Truck						
Air Compressor + tools	\$14.03 \$27.12					
Velding Equipment Heavy Duty Drill Rig	\$27.12 \$14.03					
Pump (plugging) Drill Rig	\$14.03					
Concrete Pump Gas Engine Vibrator						
	\$14.03					

Labor Rates

File Name:	03_SRCE_Cost_data-Am_Mg_Foothill_Dt	
Date:	September 29, 2020	
Cost Basis:	User Data	

Author/Source: Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801 SRCE_Coost_Data_File_1_12_Std_2020 & Davis-Bacon Act WD#NM20200012

HOURLY LABOR	DATETA	DIE					•					
	Basis		Basis	2	Basis	. 2	Basis	1	Basis	5	Basis	6
EQUIPMENT TYPE (1) OR JOB DESCRIPTION	American Mag	nesium -	Dasis		Dasis		Dasis	4	Dasis	5	Dasis	. 0
HDEP Welder (pipe or liner)	Option	7 1	+					1				1
5 Ton Crane		\$27.12										
20 Ton Crane		\$27.12										
50 Ton Crane		\$27.12										
120 Ton Crane		\$27.12										
Fringe Benefits												•
Equip Op Fringe Benefits (\$/hr)						\$0.00		\$0.00		\$0.00		
Zone and Area Adjustment	ts - Miles and I	Rates (\$k	nr) ⁽³⁾			40.00		40.00		40.00		
				Φ0.00		# 0.00		#0.00		#0.00		1
Equipment Zone 1 Equipment Zone 2	0-50 miles 50-150 miles	\$0.00 \$0.00	none	\$0.00	none	\$0.00	none	\$0.00	none	\$0.00		
Equipment Zone 3	150-300 miles	\$0.00										
Equipment Zone 4	>300 miles	\$0.00										
Equipment Zone 5	2000 Hilliou	ψ0.00										
Equipment Zone 6												
Equipment Zone 7												
•		•		•				•		•		•
NOTES:												
(1) Equipment Type:	Catepillar model		Catepillar model		Catepillar model		Catepillar model		Catepillar model		Catepillar model	
	or equivalent		or equivalent		or equivalent		or equivalent		or equivalent		or equivalent	
(2) Equipment Operator Source:												
	From Deming											
TRUCK DRIVERS - Labor (Froups and B	ase Pay	Rate (\$/hr) (4)									
	Dump Truck	\$18.97										
	Driver > 25 yds <											
725 (articulated)	60 yds	040.00	,									
	Dump Truck Driver > 25 yds <	\$18.97										
730 (articulated)	60 yds											
ree (articulated)	Dump Truck	\$18.97	,									
	Driver > 25 yds <											
735 (articulated)	60 yds											
	Dump Truck	\$18.97										
740 (orticulated)	Driver > 25 yds < 60 yds											
740 (articulated)	Dump Truck	\$18.97	,									
	Driver > 25 yds <											
769D	60 yds											
773E		\$18.97										
777D	Dump Truck	\$18.97	7									
785C												
793C												
797B												
0.405 (5.000 1) 14/ () 14/	Water Truck >	\$18.97										
613E (5,000 gal) Water Wagon	2,500 gallons Water Truck >	\$18.97	,									
621E (8,000 gal) Water Wagon	2,500 gallons	\$10.97										
777D Water Truck	2,000 gallorio											
785C Water Truck												
	Dump Truck	\$11.90)									
D T	Driver > 8 yds <											
Dump Truck (10-12 yd3)	18 yds											
Fringe Benefits												
Truck Driver Fringe Benefits (\$/hr)		\$0.00				\$0.00		\$0.00		\$0.00		
Zone and Area Adjustment	ts (°)											
Truck Zone 1	0-50 miles	\$0.00	none	\$0.00	none	\$0.00	none	\$0.00	none	\$0.00		
Truck Zone 2	50-150 miles	\$0.00										
Truck Zone 3	150-300 miles	\$0.00										
Truck Zone 4	>300 miles	\$0.00										
Fruck Zone 5												
Truck Zone 6 Truck Zone 7												
TIGOR ZOTIC I												
NOTES:												
(4) Truck Driver Source:	Davis-Racon Act											
	From Deming											
LABORERS - Labor Group		av Rate	(\$/hr) (6,7)									
General Laborer	Group 1	\$12.37										
Skilled Laborer	Group 4	\$17.97 \$17.83										
Driller's Helper	Group 3	\$17.83 \$17.74										
Rodmen (reinforcing concrete) Cement finisher	Group 1 Group 3	\$17.74										
Carpenter	Siddp 0	\$22.26										
Fringe Benefits		7										
Laborer Fringe Benefits (\$/hr)		\$0.00										
Carpenter Fringe Benefits (\$/hr)		\$13.48										
Zone and Area Adjustment	ts ⁽⁸⁾	\$.0.40										
	0 FO miles	\$0.00	none	\$0.00	none	00 00	none	\$0.00	none	\$0.00		
Laborer Zone 1 Laborer Zone 2	0-50 miles 50-150 miles	\$0.00	110110	ψ0.00	HOHE	\$0.00	Hone	\$0.00	Hone	ψ0.00		

Labor Rates

File Name:	03_SRCE_Cost_data-Am_Mg_Foothill_Dc
Date:	September 29, 2020
Cost Basis:	User Data

Author/Source: Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801 SRCE_Coost_Data_File_1_12_Std_2020 & Davis-Bacon Act WD#NM20200012

(1)	Basis	1	Basis	2	Basis	3	Basis	4	Basis	5	Basis	s 6
EQUIPMENT TYPE (1) OR JOB DESCRIPTION	American Mag Option	nesium -										
aborer Zone 3	150-300 miles	\$0.00										
aborer Zone 4	>300 miles	\$0.00										
aborer Zone 5												
aborer Zone 6												
aborer Zone 7												
OTES:												
	D-B LABO0169-03											
(7) Carpenter Source:		n Southern										
	From Deming											
ROJECT MANAGEMENT	AND TECHNIC		OR - Base Pa	y Rate (\$/hr) ⁽⁹⁾							
roject Manager		\$72.56										
oreman		\$67.50										
ield Geologist/Engineer		\$109.94										
ield Tech/Sampler		\$76.11										
tange Scientist		\$97.25										
enior Planning Engineer												
roject Engineer												
lechanic/Fitter												
IOTES:	R.S.Means 2020 (72 (01 21										
	R.S.Means 2020 (
(9) Techical Labor Source:												
NDIRECT COSTS		Jacksa for										
SOCIAL SECURITY, WORK	MAN'S COMF	P. INSUR	ANCE, ETC.									
Inemployment (%)	T	1.84%	, -									
etirement/SS/Medicare (%)		7.65%										
Vorkman's Compensation (%)		13.30%										
tate Payroll Tax (13),(15),(17),(18)	8)											
IOTES:												
(10) Workman's Comp Source:	RS Means R0131	13-60 NV										
Inemployment Tax	NRS 612.540, NR											

File Name:	03_SRCE_Cost_data-Am_Mg_F		
Date:	September 29, 2020		
Cost Basis:	User Data		

Author/Source: Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801_SRCE_Coost_Data_File_1_12_Std_2020 & Davis

			ABLE				
	_	Basis 1	Basis 2	Basis 3	Basis 4	Basis 5	Basis 6
MATERIAL TYP	Έ	Magnesium -					
David water in Material	-	Ontion 1					
Revegetation Material	<u> </u>						
Seed Mixes	11.2					1	•
Seed Mix	Units						
None Mix 1	Cost/Acre	\$302.50	\$302.50				
Mix 2	Cost/Acre	\$332.75					
Mix 3	Cost/Acre	\$363.00					
Mix 4	Cost/Acre	\$393.25					
Jser Mix 1	Cost/Acre	φ000.20	φοσο.20				
Jser Mix 2	Cost/Acre						
Jser Mix 3	Cost/Acre						
Jser Mix 4	Cost/Acre						
Jser Mix 5 (see Seed Mix sheet)	Cost/Acre						
	Notes:						
Mulch							
em	Units						
lone							
straw Mulch	Cost/lb	\$0.17	\$0.17				
lydro Mulch	Cost/lb	\$0.25					
imber Mulch	Cost/lb	¥5.20	\$5.20				
	Cost/lb						
	Cost/lb						
	Notes:						
		Straw Spec 60 lb.	Straw Spec 60 lb.				
			bale, Cert. weed				
			free, (June 2019)100				
		bales per load	bales per load				
		Granite Seed \$500	Granite Seed \$500				
		per Ton in 50 lb bag					
			Wood (Hydro) Mulch				
		(June 2020)	(June 2020)				
Amendments							
tem	Units						
None							
Organic Matter	Cost/lb	\$0.70	\$0.70				
Freated Sludge	Cost/lb						
Chemical	Cost/lb	\$0.59	\$0.59				
	Cost/lb						
	Cost/lb						
	Cost/lb						
	Notes:		Granite Seed \$0.70				
			per lb. in 50 lb. bag,				
		1 Ton min order Sustain 4-6-4 (June	1 Ton min order Sustain 4-6-4 (June				
		2020)	2020)				
		Western Nevada	Western Nevada				
		Supply \$29.34 per	Supply \$29.34 per				
		50 lb. bag 15-15-15	50 lb. bag 15-15-15				
		(June 2020)	(June 2020)				
Vell Abandonment Ma	aterials						
escription	Units						
Cement	50lb bag	\$7.57					
Grout (Low Grade Bentonite)	50lb bag	\$8.85	\$8.85				
nert Material/Cuttings	су						
	A1 :	(4) Jontonia Delli	(4) logate de Daille				
	Notes:	(1) Jentech Drilling Supply quote (June	(1) Jentech Drilling Supply quote (June				
		2020) Type I,II	2020) Type I,II				
		Cement at \$14.24	Cement at \$14.24				
		per 94 lb. bag	per 94 lb. bag				
		(2) Jentech Drilling	(2) Jentech Drilling				
		Supply (June 2020)	Supply (June 2020)				
		3/8 in. Chunk	3/8 in. Chunk				
		Bentonite Hole Plug	Bentonite Hole Plug				
			at \$8.85 per 50 lb.				
			bag (5.75 cf/bag at				
			43 gallons slurry and				
		12.1% solids)+ 10%	12.1% solids)+ 10%				
		for hentonita china	for hentonito china				
		for bentonite chips added.	for bentonite chips added.				

Monitoring Costs							
Description	Units	Cost/unit	Cost/unit	Cost/unit	Cost/unit	Cost/unit	Cost/unit
·							
Monitor Well Pump	ea.	\$2,788.41	\$2,788.41				
Sampling Supplies	ea.	\$6.51	\$6.51				
1 9 11							
Water Analysis (Profile I) (1)	ea.	\$411.00	\$411.00				
Leach Test (MWMP) w/ analysis	ea.	\$483.40					
ABA + S speciation	ea.	\$150.00					
WAD Cyanide in water	ea.	\$56.00					
Water Analysis (Profile II) (1)	ea.	\$461.00					
	ea.		·				
	ea.						
	ea.						
	ea.						
	ea.						
	ea.						
	ea.						
	ea.						
	ea.						
	ea.						
	Notes:	(1) WET Lab, Reno,	(1) WET Lab, Reno,				
	110100.		Nevada (July 2020)				
			Well pump and				
			Sample supply costs				
		adjusted to 2020.	adjusted to 2020.				
		Original source unknown.	Original source unknown.				
Fuel, Etc.							
Description	Units	Cost/unit	Cost/unit	Cost/unit	Cost/unit	Cost/unit	Cost/unit
Off-road Diesel - delivered (1)	\$/gal	\$2.19	\$2.19				
Pickup Truck Travel	\$/mi	\$0.58					
Electical Power	\$/kWh	\$0.0787	\$0.0787				
Electical Fower	Φ/KVVII	φυ.υ/ο/	φυ.υ/ο/				
	Note:	(1) Source: Oil Price	(1) Source: Oil Price				
	ivotės:		Infomration Service ,				
		average annual cost					
			including freight to				
			Nevada (July 2020).				
			Source: Federal				
		Government Vehicle	Government Vehicle				
		Allowance Rate	Allowance Rate				
		2020	2020				
		0	0				
			Source: NV Energy (July 2020) \$0.07872				

File Name:	03_SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm	
Date:	September 29, 2020	
Cost Basis:	User Data	
Author/Source:	Nevada Division of Environmental Protection (NDEP) & NV BLM & 2020080	1_SRCE_Coost_Data_File_1_12_Std_2020 & Davis-Bacon Act WD#NM2020001

MISCELLANEOUS COST TABLE Basis 2 Basis 3 Basis 1 Basis 4 Basis 5 Basis 6 JOB DESCRIPTION American Magnesium - Option 1 REVEGETATION Item Units Labor Equip Labor Equip Labor Equip Labor Equip Labor Equip Labor Equip Seeding - Broadcast Manual ⁽¹⁾ \$/acres \$140.00 \$50.0 \$140.00 \$50.0 Seeding - Broadcast Mechanical \$140.00 \$140.00 \$50.0 \$/acres \$50.00 Seeding - Drill (1) \$/acres \$140.00 \$120.00 \$140.00 \$120.0 Seeding - Hydroseeding (1) \$250.00 \$150.00 \$250.00 \$150.00 \$/acres Materials Materials Units Materials Materials Materials Materials Shrub Planting - bare root 6-10 in (150- 250mm) (2) ea Tree Planting - bare root 11-16 in (270- 400mm) (3) ea. Cactus Planting (4 ea. NOTES: (1) Seeding Source: Source: Kelley Erosion Source: Kelley Erosion Control (July 2020). Control (July 2020). (2) Shrub Source (3) Tree Source (4) Cactus Source BUILDING and WALL DEMOLITION Units Premium Premium Premium Premium Premium Premium **Building Demolition** _g. steel C.F. C.F. _g. concrete <u>_g. mas</u>onry C.F. _g. mixed C.F. Sm. steel C.F. C.F. Sm. concrete C.F. Sm. masonrv Sm. wood C.F. Wall Demolition Block 4 in thick S.F. 20% 20% 20% 20% 20% 20% Block 6 in thick S.F. 20% 20% 20% 20% Block 8 in thick S.F. 20% 20% 20% 20% 20% 20% Block 12 in thick S.F. 20% 20% 20% 20% Conc 6 in thick S.F 10% 10% 10% 10% 10% 10% 10% 10% 10% 10% Conc 8 in thick S.F. 10% 10% 10% 10% 10% Conc 10 in thick S.F Conc 12 in thick S.F. 10% 10% 10% 10% 10% WASTE DISPOSAL Materials Materials Materials Materials Units Materials Materials Item **Rubbish and Waste Handling** Dumpster delivery (average for all sizes) \$51.50 \$51.50 ea Haul (average for all sizes) \$161.00 \$161.00 ea. Rent per month (average for all sizes) ea. \$55.00 \$55.00 Disposal fee per ton (tonne) (average for all sizes) ton \$60.50 \$60.50 NOTES: Dumpster Cost Source R.S. Means Heavy R.S. Means Heavy Construction (2020 Q2). Construction (2020 Q2). Disposal Fee Source R.S. Means Heavy Construction (2020 Q2). Construction (2020 Q2). **Hazardous Material Handling - Solids** Pickup fees 55 gal. drums \$251.00 \$251.00 ea. Bulk material (average) \$409.50 \$409.50 ton Fransport - truck load (80 drums, 25 cy (m3), 18 tons) \$5.88 \$5.88 mile Dump site disposal fee \$288.50 \$288.50 ton NOTES: Solid Handling Cost Source R.S. Means Heavy R.S. Means Heavy Construction (2019 Q2). Construction (2019 Q2). 2019 Q2 R.S. Means 2019 Q2 R.S. Means Heavy Const. ave. 02 81 Heavy Const. ave. 02 81 **Hazardous Material Handling - Liquids** Vacuum Truck Pickup (2200 gal or 9,700 litres) \$147.00 \$147.00 \$213.00 \$213.00 Vacuum Truck Pickup (5000 gal or 19,000 litres) hr. Dump site disposal fee \$288.50 \$288.50 ton NOTES: Liquid Handling Cost Source R.S. Means Heavy Construction (2020 Q2). R.S. Means Heavy Construction (2020 Q2). 2020 Q2 R.S. Means Liquid Disposal Fee Source: 2020 Q2 R.S. Means Heavy Const. ave. 02 81 Heavy Const. ave. 02 81 **Hydrocarbon Contaminated Soils (HCS)** nsitu Biotreatment C.Y \$17.64 \$17.64 HCS disposal fee C.Y \$278.50 \$278.50 NOTES: Insitu Treatement Cost Source 2020 Q2 R.S. Means 2020 Q2 R.S. Means Heavy Const., ave. 02 65 Heavy Const., ave. 02 65

File Name:	03_SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm	
Date:	September 29, 2020	
Cost Basis:	User Data	
Author/Source:	Nevada Division of Environmental Protection (NDEP) & NV BLM & 2020080	1 SRCE Coost Data File 1 12 Std 2020 & Davis-Bacon Act WD#NM20200012

MISCELLANEOUS COST TABLE						
	Basis 1	Basis 2	Basis 3	Basis 4	Basis 5	Basis 6
JOB DESCRIPTION	American Magnesium - Option 1					
HCS Disposal Fee Source:		2020 Q2 R.S. Means Heavy Const., ave. 02 65				

File Name:	03_SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xlsm
Date:	September 29, 2020
Cost Basis:	User Data

Author/Source: Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801_SRCE_Coost_Data_File_1_12_Std_2020 & Davis-Bacon Act WD#NM20200012

MISCELLANEOUS COST TAB	LE												
		Bas	is 1	Bas	sis 2	Bas	sis 3	Bas	sis 4	Bas	sis 5	Bas	sis 6
JOB DESCRIPTION		American N - Opt											
UNDERGROUND OPENING CLOSURE													
ltem	Units	Materials	Premium	Materials	Premium	Materials	Premium	Materials	Premium	Materials	Premium	Materials	Premium
Reinforced Concrete Bulkheads and Shaft	Covers												
Grade walls - 15 in thick, 8 ft high	C.Y	\$163.00		\$163.00	 								
Grade walls - 15 in thick, 12 ft high	C.Y	\$163.00		\$163.00									
Elevated conc, 1-way beam & slab - 15ft span Elevated conc, 1-way beam & slab - 25ft span	C.Y C.Y	\$278.00 \$265.00		\$278.00 \$265.00									
Item	Units	Materials		Materials		Materials		Materials		Materials		Materials	
Small Adit Plugging													
Bat Gate (5)	ea.	\$3,367.61		\$3,367.61									
Culvert Gate (5)	C.Y	\$6,735.21		\$6,735.21									
Adit Foam Plug ⁽⁶⁾	C.Y	\$336.76		\$336.76									
Production Opening Foam Plug (6)	C.Y	\$336.76		\$336.76									
NOTES:	(5) Bat Gate Source:	NV BLM, 2/200		NV BLM, 2/200									
		mob/demob + 1 gate (adjusted t		mob/demob + gate (adjusted									
	(6) Foam Plug Source:	mob/demob + 1	hr setup per	NV BLM, 2/200 mob/demob +	1hr setup per								
MICO I INFAR PRO IFOTO		adit; 16 hrs per opening (adiust		adit; 16 hrs per									
MISC. LINEAR PROJECTS Item	Units	Materials	Premium	Materials	Premium	Materials	Premium	Materials	Premium	Materials	Premium	Materials	Premium
Fencing Installation													
Barbed 3-strand	ft	\$0.51		\$0.51									
Barbed 4-strand	ft	\$0.68		\$0.68									
Barbed 5-strand	ft	\$0.85		\$0.85									
Chain link 8 ft -10 ft Install	ft	\$38.00		\$38.00									
Wood stockade fence 6 ft high - Install	ft	\$16.00		\$16.00									
	ft												
	ft												
Fencing Removal													
Barbed 3-strand Removal	ft												
Barbed 4-strand Removal	ft												
Barbed 5-strand Removal	ft												
Chain link 8 ft -10 ft Removal	ft												
Wood, all types 4 ft -6 ft high Removal	ft ft												
	ft												
	, ,												
Culvert Removal													
12 in (300 mm) Diameter	ft												
18 in (450 mm) Diameter	ft												
24 in (600 mm) Diameter 36 in (1m) Diameter	ft ft												
Pipeline Removal	π												
Plastic Pipe 3/4 in (mm) - 4 in (100 mm) diameter	ft												
6 in (150 mm) - 8 in (200 mm)	ft												
10 in (250 mm) - 18 in (450 mm)	ft												
20 in (500 mm) - 36 in (1 m)	ft												
Pipe and Drainpipe Installation													
Water 4in (100mm) 40ft (12m) length, welded HDPE	ft	\$2.70		\$2.70									
Water 6in (150mm) 40ft (12m) length, welded HDPE	ft	\$5.85		\$5.85									
Water 12in (300mm) 40ft (12m) length, welded HDPE Drain 4in (100mm) perforated PVC	ft ft	\$1.74		\$1.74									
Drain 4in (100mm) perforated PVC Drain 6in (150mm) perforated PVC	ft	\$1.74 \$4.22		\$1.74 \$4.22									
Drain 4in (100mm) corrugated, perf or plain	ft	\$4.22		\$0.78									
Drain 6in (150mm) corrugated., perf or plain	ft	\$2.18		\$2.18									
Drain Rock Preparation													
ltem	Units		Total		Total		Total		Total		Total		Total
Crushing	C.Y		\$0.50		\$0.50								
Screening Misc.	C.Y		\$0.50		\$0.50								
Item	Units		Premium		Premium		Premium		Premium		Premium		Premium
Backhoe work	C.Y								7		- J.III WIII		
Powerline and Transformer Removal			Total		Total		Total		Total		Total		Total
Single Pole Powerlines (7)	mile		\$46,804		\$46,804								
Double Pole Powerlines (8)	mile		\$53,490		\$53,490								
Substation (9)	unit		\$58,997		\$58,997								
NOTES:										I		<u> </u>	
NOTES:	(7) Single Pole Source:	NV Energy oction	mate (2000)	NV Energy est	imate (2000)								
	(1) Omgre Pole Source:	Adjusted to 202		Adjusted to 202									
	(8) Double Pole Source:			NV Energy est									
	(0) 7	Adjusted to 202		Adjusted to 202									
	(9) Transformer Source:	NV Energy esting adjusted to 202		NV Energy esti adjusted to 202									
1		,		,, 10 202									

File Name:	03_SRCE_Cost_data-Am_Mg_Foothill_Dolomite_ Mine_1_12.xism	
Date:	September 29, 2020	
Cost Basis:	User Data	
Author/Source:	Nevada Division of Environmental Protection (NDEP) & NV BLM & 2020080	1_SRCE_Coost_Data_File_1_12_Std_2020 & Davis-Bacon Act WD#NM20200012

		Bas	is 1	Bas	is 2	Bas	sis 3	Bas	is 4	Bas	is 5	Bas	sis 6
JOB DESCRIPTION		American II - Opt	Magnesium										
EROSION, EVAPORATION and SEDIMENTATION	ON CONTROL												
Item	Units	Materials	Premium	Materials	Premium	Materials	Premium	Materials	Premium	Materials	Premium	Materials	Premium
Rip-Rap & Rock Lining													
Rip-Rap 3/8 to 1/4 C.Y. pieces, grouted	S.Y.	\$25.00		\$25.00									
Rip-Rap 18 in min thick, no grout	S.Y.	\$7.65		\$7.65									
Gabions, 6 in deep	S.Y.	\$7.05		\$7.05									
Gabions, 9 in deep	S.Y.	\$9.85		\$9.85									
Gabions, 12 in deep	S.Y.	\$14.30		\$14.30									
Gabions, 18 in deep	S.Y.	\$18.35		\$18.35									
Gabions, 36 in deep	S.Y.	\$31.00		\$31.00									
Liner Installation													
Item	Units	Materials	Premium	Materials	Premium	Materials	Premium	Materials	Premium	Materials	Premium	Materials	Premium
Site grading	S.F.												
Compaction	S.F.												
Item	Units		Materials		Materials		Materials		Materials		Materials		Materials
60 mil HDPE Liner	S.F.		\$0.57		\$0.57								
Construction Management Support													
Item	Units		Materials		Materials		Materials		Materials		Materials		Materials
Office Trailer, Furnished, no hook-ups	month		\$198.00		\$198.00							 '	
Toilet Portable, chemical	month		\$214.20		\$214.20								
DDODUCTION OF DEWATERING WELL DUM	D DEMOVAL												
PRODUCTION OR DEWATERING WELL PUMI		Labar	Faurin	Labar	Faurin	Laban	Faurin	Laban	Faurin	Labar	Faurin	Labar	Faurin
Item	Units	Labor	Equip	Labor	Equip	Labor	Equip	Labor	Equip	Labor	Equip	Labor	Equip
Pump Type		A =	A. 0	A-	A. a. a. a.								
Submersible (10)	ft to pump	\$7.65	\$18.86	\$7.65	\$18.86								
Line Shaft ⁽¹⁰⁾	ft to pump	\$7.65	\$18.86	\$7.65	\$18.86								
NOTES.												1	
	Pump Removal Source:	Boart Longvear	Ounte: June	Boart Longves	Ouote: June								
NOTES:	Pump Removal Source:	Boart Longyear	Quote: June	Boart Longyear	Quote: June								ĺ

File Name:	CostData STD 3.xis
Date:	December 1, 2005
Cost Basis:	Standardized Data
Author/Source:	Nevada Division of Environmental Protection (NDEP) & NV BLM & 20200801_SRCE_Coost_Data_File_1_12_Std_2020 & Davis-Bacon Act WD#

	Cost Ranges for Indirect Cost Percentages				
	<=	<=	<=	>	
Engineering, Design and Construction (ED&C) Plan (7)	\$1,000,000	\$25,000,000		\$25,000,000	Small Plan
Variable Rate	8%	6%		4%	
	<=	<=	<=	>	
2. Contingency (8)	\$500,000	\$5,000,000	\$50,000,000	\$50,000,000	Small Plan
/ariable Rate	10%	8%	6%	4%	
3. Insurance (9)		of labor costs			
4. Bond (10)	3.0%	of the O&M costs i	f O&M costs are >\$	100,000	1
5. Contractor Profit (11)	10.0%	of the O&M costs			
	<=	<=	<=	>	
6. Contract Administration (12)	\$1,000,000	\$25,000,000		\$25,000,000	
Variable Rate	10%	8%		6%	
	21%	of contract adminis	etration		

RECLAMATION COST ESTIMATION SUMMARY SHEET FOOTNOTES

- 1. Federal construction CU-201 ESTIMATION SUMMARY SHEET FOOTN.

 1. Federal construction contracts require Davis-Bacon wage rates for contracts over \$2,000. Wage rate estimates may include base pay, payroll loading, overhead and profit. To avoid double counting of any of the identified administrative costs the operator must itemize the components of their labor cost estimates or provide BLM with a signed statement, under penalty of USC 1001, that identifies what specific administrative costs are included in the quoted hourly rate.
- 2. The reclamation cost estimate must include the estimated plugging cost of at least one drill hole for each active drill rig in the project area. Where the submitted Notice or approved Plan of Operations calls for drill holes to be plugged, but doesn't specifically require the drill holes be plugged before the drill rig has been moved from the drill pad, the reclamation cost estimate must include the plugging cost for those drill holes. For all drill holes and wells scheduled to be left open, the estimated plugging cost must be included in the reclamation cost estimate. Where the approved Plan of Operations proposes immediate mining through an area where the drilling is to occur, and the cost of the post-mining reclamation is included in the reclamation cost estimate, the cost estimate does not need to include the plugging costs for those drill holes.
- sugging costs for inces of ni holes.

 3. Miscellaneous items should be telmized on accompanying worksheets.

 4. Fluid management should be calculated only when mineral processing activities are involved. Fluid management represents the costs of maintaining proper fluid management to prevent overflow of solution ponds through premature cessation or abandorment of operations. Calculate a minimum six month direct cost estimate which includes power, supplies, equipment, labor and maintenance.

 5. Handling of hazardous materials includes the cost of decontaminating, neutralizing, disposing, treating and/or isolating all hazardous materials used, produced, or stored on the site.

 6. Any mitigation measures required in the Plan of Operations must be included in the reclamation cost estimate. Mitigation may include measures to avoid, minimize, rectify and reduce or eliminate the impact, or compensate for the impact.

 7. Engineering, design and construction (ED&C) plans are often necessary

- to avoid, minimize, rectify and reduce or eliminate the impact, or compensate for the impact.

 7. Engineering, design and construction (EB&C) plans are often necessary to provide details on the reclamation needed to contract for the required work. To estimate the cost to develop an ED&C plan use 4-8% of the O&M cost. Calculate the EB&C cost as a percentage of the O&M cost as follows: up to and including \$1 million, use 8%; over \$1 million to \$25 million, use 6%, over \$1 million to \$25 millio

- Itemized unit costs.

 10. Federal construction contracts exceeding \$100,000 require both a performance and a payment bond (Miller Act, 40 USC 270et seq.). Each bond premium cast on this line.

 11. For Federal construction contracts, use 10% of estimated O&M cost for the contractor's profit.

 12. To estimate the contract administration cost, use 6 to 10% of the operational and maintenance (O&M) cost. Calculate the contract administration cost, use 6 to 10% of the operational and maintenance (O&M) cost. Calculate the contract administration cost as a percentage of the O&M cost as follows: up to and including \$1 million, use 10%, over \$1 million to \$25 million, use 8%; and greater than \$25 million to \$25 million to \$40 million to \$40