

Closure Cost Estimate
Property Information

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

COST DATA FILE INFORMATION	
File Name:	3671I.GrassyMtn Plan.RCE.V1.xlsm
Cost Data File:	SRCE_Cost_Data_File_1_12_Std_2019.xlsm
Cost Data Date:	August 1, 2019
Cost Data Basis:	User Data Data Cost Units: Imperial
Author/Source:	Nevada Division of Environmental Protection (NDEP) & NV BLM

PROJECT INFORMATION	
Property/Mine Name:	Grassy Mountain Property Code:
Project Name:	Grassy Mountain Mine
Date of Submittal:	November 2019 Average Altitude: 3700 ft.
Select One:	<input type="radio"/> Notice or Sm Exploration Plan <input type="radio"/> Lg Exploration Plan <input checked="" type="radio"/> Mine Operation
Select One:	<input type="radio"/> Private Land <input checked="" type="radio"/> Public or Public/Private
Cost Estimate Type:	Surety
Cost Basis Category:	Northern Nevada Churchill, Douglas, Elko, Eureka, Humboldt, Lander, Lyon, Mineral, Pershing, Storey, Washoe, and White Pine Counties
Cost Basis Description:	

**Closure Cost Estimate
Cost Summary**

Project Name: Grassy Mountain Mine
Project Date: November 2019
Model Version: Version 1.4.1
File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm

A. Earthwork/Recontouring	Labor (1)	Equipment (2)	Materials	Total
Exploration	\$335	\$99	\$2	\$436
Exploration Roads & Drill Pads	\$3,900	\$5,258	\$0	\$9,158
Roads	\$52,556	\$96,065	\$0	\$148,621
Well Abandonment	\$7,144	\$19,032	\$1,936	\$28,112
Pits	\$0	N/A	\$0	\$0
Quarries & Borrow Areas	\$3,482	\$5,155	\$0	\$8,637
Underground Openings	\$5,266	\$2,313	\$2,104	\$9,683
Process Ponds	\$5,152	\$3,382	\$0	\$8,534
Heaps	\$0	\$0	\$0	\$0
Waste Rock Dumps	\$0	\$0	\$0	\$0
Landfills	\$0	\$0	\$0	\$0
Tailings	\$363,626	\$917,146	\$0	\$1,280,772
Foundation & Buildings Areas	\$9,513	\$24,588	\$0	\$34,101
Yards, Etc.	\$35,206	\$88,520	\$0	\$123,726
Drainage & Sediment Control	\$115,881	\$69,850	\$41,556	\$227,287
Generic Material Hauling	\$0	\$0	\$0	\$0
Other User Costs (from Other User sheet)	\$0	\$0	\$0	\$0
Other**	\$0	\$0	\$0	\$0
Subtotal	\$602,061	\$1,231,408	\$45,598	\$1,879,067
Mob/Demob if included in Other User sheet	\$0	\$0	\$0	\$0
Mob/Demob	\$2,125	\$2,125	\$0	\$4,250
Subtotal "A"	\$604,186	\$1,233,533	\$45,598	\$1,883,317
B. Revegetation/Stabilization	Labor (1)	Equipment (2)	Materials	Total
Exploration	\$0	\$0	\$0	\$0
Exploration Roads & Drill Pads	\$1,000	\$380	\$3,328	\$4,708
Roads	\$4,244	\$1,612	\$10,965	\$16,821
Well Abandonment	\$0	\$0	\$0	N/A
Pits	\$0	\$0	\$0	\$0
Quarries & Borrow Areas	\$5,447	\$2,070	\$18,124	\$25,641
Underground Openings	\$0	\$0	\$0	N/A
Process Ponds	\$100	\$38	\$133	\$271
Heaps	\$0	\$0	\$0	\$0
Waste Rock Dumps	\$0	\$0	\$0	\$0
Landfills	\$0	\$0	\$0	\$0
Tailings	\$10,919	\$4,125	\$35,345	\$50,389
Foundation & Buildings Areas	\$2,300	\$874	\$827	\$4,001
Yards, Etc.	\$11,639	\$4,423	\$33,813	\$49,875
Drainage & Sediment Control	\$180	\$68	\$599	\$847
Generic Material Hauling	\$0	\$0	\$0	\$0
Other User Costs (from Other User sheet)	\$0	\$0	\$0	\$0
Other**	\$0	\$0	\$0	\$0
Subtotal "B"	\$35,829	\$13,590	\$103,134	\$152,553
C. Detoxification/Water Treatment/Disposal of Wastes**	Labor (1)	Equipment (2)	Materials	Total
Process Ponds/Sludge	\$0	\$0	\$0	\$0
Heaps	\$0	\$0	\$0	\$0
Dumps (Waste & Landfill)	\$0	\$0	\$0	\$0
Tailings	\$0	\$0	\$0	\$0
Surplus Water Disposal	\$0	\$0	\$0	\$0
Monitoring	\$0	\$0	\$0	\$0
Miscellaneous	\$0	\$0	\$0	\$0
Solid Waste - On Site	\$0	\$0	N/A	\$0
Solid Waste - Off Site	\$0	\$0	\$0	\$1,131
Hazardous Materials	\$0	\$0	\$0	\$5,317
Hydrocarbon Contaminated Soils	\$0	\$0	\$4,498	\$4,498
Other User Costs (from Other User sheet)	\$0	\$0	\$0	\$0
Other**	\$50,048	\$1,662,906	\$17,407	\$1,730,361
Subtotal "C"	\$50,048	\$1,662,906	\$21,905	\$1,741,307
D. Structure, Equipment and Facility Removal, and Misc.	Labor (1)	Equipment (2)	Materials	Total
Foundation & Buildings Areas	\$29,261	\$20,258	\$0	\$49,519
Other Demolition	\$0	\$0	\$0	\$0
Equipment Removal	\$2,787	\$4,720	\$0	\$7,507
Fence Removal	\$41,588	\$15,286	\$0	\$56,874
Fence Installation	\$0	\$0	\$0	\$0
Culvert Removal	\$1,132	\$398	N/A	\$1,530
Pipe Removal	\$0	\$0	N/A	\$0
Powerline Removal	\$57,342	\$0	\$0	\$57,342
Transformer Removal	\$56,086	\$0	\$0	\$56,086
Rip-rap, rock lining, gabions	\$0	\$0	\$0	\$0
Other Misc. Costs	\$0	\$0	\$0	\$0
Other User Costs (from Other User sheet)	\$0	\$0	\$0	\$0
Other**	\$0	\$0	\$0	\$0
Subtotal "D"	\$188,196	\$40,662	\$0	\$228,858
E. Monitoring	Labor (1)	Equipment (2)	Materials	Total
Reclamation Monitoring and Maintenance	\$19,244	\$2,583	\$9,929	\$31,756
Ground and Surface Water Monitoring	\$0	\$0	\$0	\$0
Other User Costs (from Other User sheet)	\$0	\$0	\$0	\$0
Subtotal "E"	\$19,244	\$2,583	\$9,929	\$31,756
F. Construction Management & Support	Labor	Equipment (2)	Materials	Total
Construction Management	\$32,000	\$6,109	N/A	\$38,109
Construction Support	\$0	\$3,542	\$0	\$3,542
Road Maintenance	\$9,000	\$12,425	\$0	\$21,425
Other User Costs (from Other User sheet)	\$0	\$0	\$0	\$0
Other**	\$0	\$0	\$0	\$0
Subtotal "F"	\$41,000	\$22,076	\$0	\$63,076
Subtotal Operational & Maintenance Costs	Labor (1)	Equipment (2)	Materials (3)	Total
Subtotal A through F	\$938,503	\$2,975,350	\$180,566	\$4,100,867

** Other Operator supplied costs - additional documentation required.

**Closure Cost Estimate
Cost Summary**

**Project Name: Grassy Mountain Mine
Project Date: November 2019
Model Version: Version 1.4.1
File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm**

Indirect Costs		Include?	Total
1. Engineering, Design and Construction (ED&C) Plan (7)			\$246,052
2. Contingency (8)			\$328,069
3. Insurance (9)	\$14,078		\$14,078
4. Performance Bond (10)			\$123,026
5. Contractor Profit (11)			\$410,087
6. Contract Administration (12)			\$328,069
7. Government Indirect Cost (13)			\$68,894
Subtotal Add-On Costs			\$1,518,275
Total Indirect Costs as % of Direct Cost			37%
GRAND TOTAL			\$5,619,142

Administrative Cost Rates (%)						
		Cost Ranges for Indirect Cost Percentages				
		<=	<=	<=	>	
1. Engineering, Design and Construction (ED&C) Plan (7)		\$1,000,000	\$25,000,000		\$25,000,000	Small Plan
	Variable Rate	8%	6%		4%	0%
2. Contingency (8)		\$500,000	\$5,000,000	\$50,000,000	\$50,000,000	Small Plan
	Variable Rate	10%	8%	6%	4%	0%
3. Insurance (9)		1.5% of labor costs				
4. Bond (10)		3.0% of the O&M costs if O&M costs are >\$100,000				
5. Contractor Profit (11)		10% of the O&M costs				
6. Contract Administration (12)		\$1,000,000	\$25,000,000		\$25,000,000	
	Variable Rate	10%	8%		6%	
Government Indirect Cost (13)		21% of contract administration				

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 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
Exploration**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Exploration - Cost Summary				
	Labor	Equipment	Materials	Totals
Hole Abandonment Costs	\$335	\$99	\$2	\$436
Trench Backfilling Costs	\$0	\$0		\$0
Subtotal Earthworks	\$335	\$99	\$2	\$436
Trench Revegetation Costs	\$0	\$0	\$0	\$0
TOTALS	\$335	\$99	\$2	\$436

Exploration Drillhole Abandonment - User Input										
Facility Description			Hole Plugging							
ID	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	Drill Holes		Core	3.0	20.0	1.0	0.0	100.0	500.0	Grout + Backfill

- Notes:
- If core holes are pre-drilled, use length of hole below pre-drilled length
 - 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).

Drilling depth will range between 40 -100 feet bgs.

Exploration Trenches - User Input													
Facility Description		Trench Parameters					Backfill			Revegetation			
ID	Description (required)	ID Code	Trench 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)

- Notes:
- Include one-way 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

Exploration Drillhole Abandonment															
ID	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	Total 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	Drill Holes	0.050	Cuttings	0.00	0.15	0.05	3	\$0	\$0	\$335	\$99	\$0	\$2	\$436	
					0.15	0.05	3	\$0	\$0	\$335	\$99	\$0	\$2	\$436	

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

**Closure Cost Estimate
Expl. Roads & Pads**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$3,900	\$5,258	N/A	\$9,158
Cover Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$3,900	\$5,258		\$9,158
Revegetation Cost	\$1,000	\$380	\$3,328	\$4,708
TOTALS	\$4,900	\$5,638	\$3,328	\$13,866

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 Overrides		Growth Media		
ID Code	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 %	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 Surface Disturbance		5.0	1.3	53.0	31,950	12.0	65	60	30.0	30	100%		10.00			

- Notes:
- All Physical parameters must be input even if manual overrides for volume or area are used.
 - Slope replacement refers to the percentage of cut volume replaced during regrading.
 - 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 Productivity Sheet)
 - 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.

Exploration Roads & Pads - User Input (cont.)														
You must fill in ALL green cells and relevant blue cells in this section for each road														
ID Code	Description (required)	Grading			Growth Media			Revegetation						
		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 Surface Disturbance	1	Alluvium	Small Dozer						Mix 2	None	None	No	Small Dozer

- Notes:
- Include one-way 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

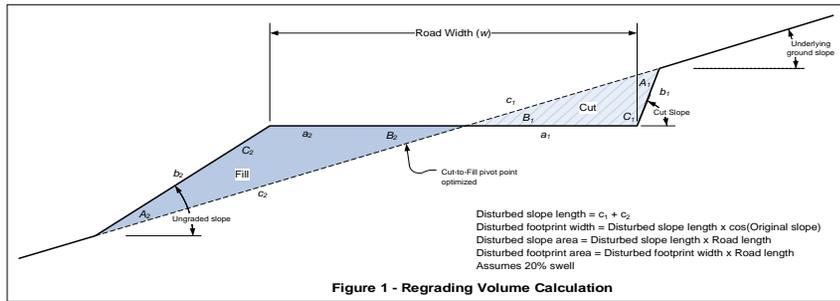
Closure Cost Estimate
Expl. Roads & Pads

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
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 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$3,900	\$5,258	N/A	\$9,158
Cover Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$3,900	\$5,258		\$9,158
Revegetation Cost	\$1,000	\$380	\$3,328	\$4,708
TOTALS	\$4,900	\$5,638	\$3,328	\$13,866

Exploration Roads & Pads - Calculations

Regrading Volume and Footprint Volume



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

Swell Factor: 1.2

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

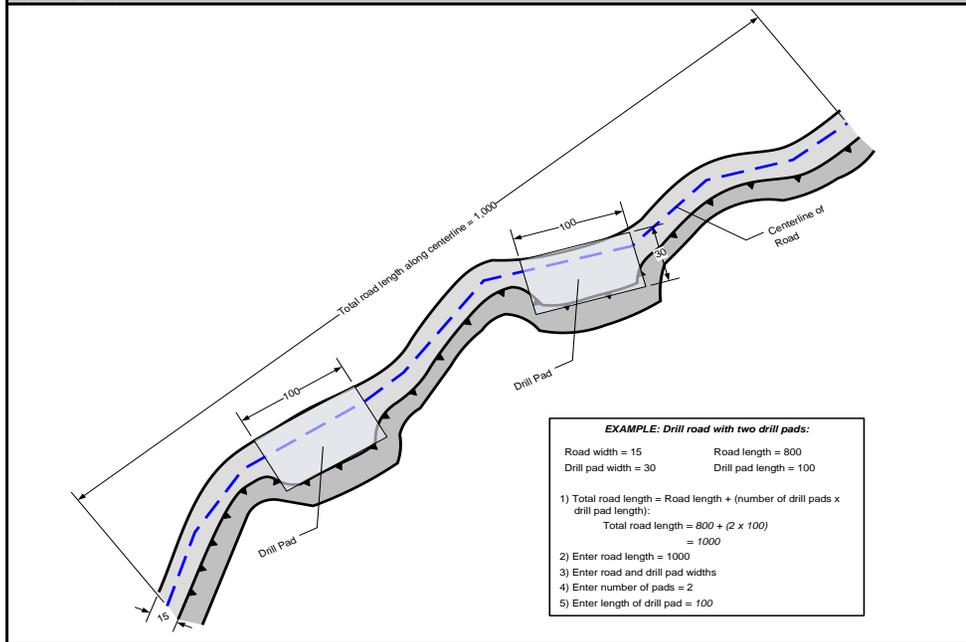
Minimum of 1 acre crew time per area

Closure Cost Estimate
Expl. Roads & Pads

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Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$3,900	\$5,258	N/A	\$9,158
Cover Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$3,900	\$5,258		\$9,158
Revegetation Cost	\$1,000	\$380	\$3,328	\$4,708
TOTALS	\$4,900	\$5,638	\$3,328	\$13,866

Inputting Exploration Roads and Drill Pads



**Closure Cost Estimate
Expl. Roads & Pads**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Exploration Roads & Pads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$3,900	\$5,258	N/A	\$9,158
Cover Placement Cost	\$0	\$0	N/A	\$0
Ripping/Scarifying Cost	\$0	\$0	N/A	\$0
Subtotal Earthworks	\$3,900	\$5,258		\$9,158
Revegetation Cost	\$1,000	\$380	\$3,328	\$4,708
TOTALS	\$4,900	\$5,638	\$3,328	\$13,866

Exploration 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 Surface Disturbance	30,000	1,950	5,521	D6R	98	56	\$3,900	\$5,258	\$9,158
		30,000	1,950	5,521			56	\$3,900	\$5,258	\$9,158

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

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 Surface Disturbance						\$0	\$0	\$0
							\$0	\$0	\$0

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 \$	Revegetation Material Cost \$	Total Revegetation Cost \$
1	Exploration Surface Disturbance	10.00						\$1,000	\$380	\$3,328	\$4,708
		10.00			\$0	\$0	\$0	\$1,000	\$380	\$3,328	\$4,708

**Bond Calculation
Tailings**

Project Name: Grassy Mountain Mine - Reclamation Plan
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 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Tailings - Cost Summary				
	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$2,995	\$9,660	N/A	\$12,655
Tailings Surface Grading Cost	\$100,142	\$323,032	N/A	\$423,174
Cover Placement Cost	\$78,668	\$177,701	N/A	\$256,369
Topsoil Placement Cost	\$176,737	\$399,226	N/A	\$575,963
Ripping/Scarifying Cost	\$5,084	\$7,527	N/A	\$12,611
Subtotal Earthworks	\$363,626	\$917,146	\$0	\$1,280,772
Revegetation Cost	\$10,919	\$4,125	\$35,345	\$50,389
TOTALS	\$374,545	\$921,271	\$35,345	\$1,331,161

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				
ID	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	Surface Regrade Volume (calculated elsewhere) cy	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	Slope from Tailings to Stockpile % grade
1	Tailing Storage Facility	T01	3.0	1.3	2.5	70	98.80	1,683	3	326,314		12.0	1,359	3.7	24.0	24.0	1,740	-0.9

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 Productivity Sheet)
All waste rock will be used for backfill and cover for the tailing facility.

Tailings - User Input (cont.)																		
You must fill in ALL green cells and relevant blue cells in this section for each tailings impoundment																		
Description (required)		Grading				Cover			Growth Media			Revegetation						
ID	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 Embankment Slope (select)	Seed Mix Tailings Surface (select)	Mulch Embankment Slopes (select)	Mulch Tailings Surface (select)	Fertilizer Embankment Slopes (select)	Fertilizer Tailing Surface (select)	Embankment Slope Scarify/Rip? (select)	Tailings Surface Scarify/Rip? (select)	Scarifying/Ripping Fleet (select)
1	Tailing Storage Facility	1.2	Gravel	Med	No	LS - crushed	Small Truck	Alluvium	Small Truck	Mix 2	Mix 2	None	None	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

Bond Calculation Tailings

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 3671.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Tailings - Cost Summary				
	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$2,995	\$9,660	N/A	\$12,655
Tailings Surface Grading Cost	\$100,142	\$323,032	N/A	\$423,174
Cover Placement Cost	\$78,668	\$177,701	N/A	\$256,369
Topsoil Placement Cost	\$176,737	\$399,226	N/A	\$575,963
Ripping/Scarifying Cost	\$5,084	\$7,527	N/A	\$12,611
Subtotal Earthworks	\$363,626	\$917,146	\$0	\$1,280,772
Revegetation Cost	\$10,919	\$4,125	\$35,345	\$50,389
TOTALS	\$374,545	\$921,271	\$35,345	\$1,331,161

Tailings - Calculations

Surface Area Calculations

Top Surface Area provided by user

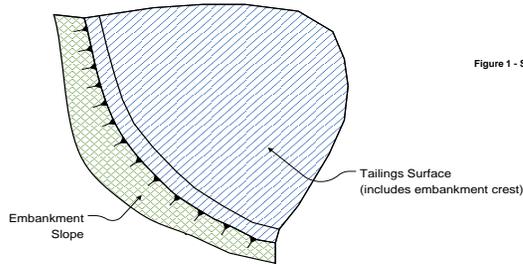


Figure 1 - Surface Areas

Final Slope Area and Footprint Area Calculations

$$\text{Overall slope length (c)} = \frac{\text{Embankment height}}{\cos(\text{Overall slope angle})}$$

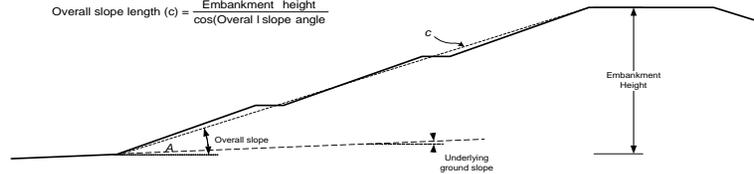


Figure 2 - Final Slope Area and Footprint Area Calculation

Grading Calculations

Grading assumed on impoundment surface only, not embankment
 Average push distance assumed to be 2/3 of the 600 feet maximum from Caterpillar Handbook or 400 feet
 Material assumed to be loose stockpile (1.2 productivity factor)
 Dozing density correction based on dry sand = $2300/2400 = 0.96$
 Slope assumed to be 0 to 5% (1.0 productivity factor)

Ripping/Scarifying/Revegetation Calculation

Minimum 1 hr ripping/scarifying per area
 Minimum 1 acre revegetation crew time per area

Regrading Volume Calculation

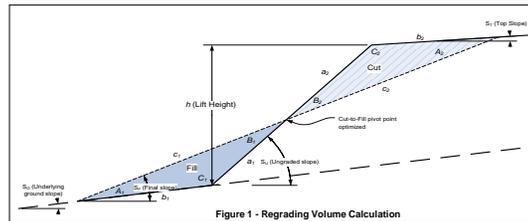


Figure 1 - Regrading Volume Calculation

Regrading Push Distance Calculation

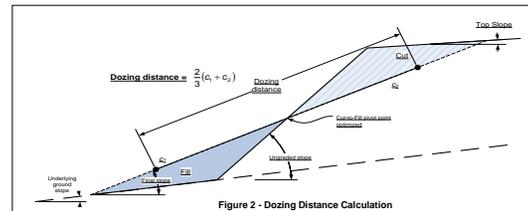


Figure 2 - Dozing Distance Calculation

**Bond Calculation
Tailings**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
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 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Tailings - Cost Summary				
	Labor	Equipment	Materials	Totals
Embankment Regrading Cost	\$2,995	\$9,660	N/A	\$12,655
Tailings Surface Grading Cost	\$100,142	\$323,032	N/A	\$423,174
Cover Placement Cost	\$78,668	\$177,701	N/A	\$256,369
Topsoil Placement Cost	\$176,737	\$399,226	N/A	\$575,963
Ripping/Scarifying Cost	\$5,084	\$7,527	N/A	\$12,611
Subtotal Earthworks	\$363,626	\$917,146	\$0	\$1,280,772
Revegetation Cost	\$10,919	\$4,125	\$35,345	\$50,389
TOTALS	\$374,545	\$921,271	\$35,345	\$1,331,161

Tailings - Embankment 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) ft	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 hr	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
1	Tailing Storage Facility	46,674	101	D9R	1,160	1.40	1.20	0.90	1.00	1,092	43	\$2,995	\$9,660	\$12,655
		46,674									43	\$2,995	\$9,660	\$12,655

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) ft	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 hr	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
1	Tailing Storage Facility	326,314	400	D9R	317	1.00	0.96	1.20	1.00	227	1,438	\$100,142	\$323,032	\$423,174
		326,314									1,438	\$100,142	\$323,032	\$423,174

Tailings - Cover and Growth Media Costs																	
	Description (required)	Cover Volume cy	Cover Placement							Growth Media Placement							
			Cover Placement Fleet	Cover Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Cover Placement Cost \$	Growth Media Volume cy	Growth Media Placement Fleet	Growth Media Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Total Labor Cost \$	Total Equipment Cost \$	Total Growth Media Cost \$
1	Tailing Storage Facility	159,397	725/966G/D7R	538	3	296	\$78,668	\$177,701	\$256,369	342,737	725/966G/D7R	515	3	665	\$176,737	\$399,226	\$575,963
		159,397				296	\$78,668	\$177,701	\$256,369	342,737				665	\$176,737	\$399,226	\$575,963

Tailings - Scarifying/Revegetation Costs															
	Description (required)	Embankment Slope Area acres	Tailings Surface Area acres	Total Surface Area acres	Final Slope Length ft	Ripping/ Scarifying Fleet	Slope Scarifying/ Ripping Hours hrs	Flat Area Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Cost \$	Scarifying/ Ripping Equipment Cost \$	Total Scarifying/ Ripping Cost \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revegetation Material Cost \$	Total Revegetation Cost \$
1	Tailing Storage Facility	7.42	98.80	106.22	192	D7R	5	68	\$5,084	\$7,527	\$12,611	\$10,919	\$4,125	\$35,345	\$50,389
		7.42	98.80	106.22			5	68	\$5,084	\$7,527	\$12,611	\$10,919	\$4,125	\$35,345	\$50,389

**Closure Cost Estimate
Roads**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
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 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Roads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$23,712	\$30,922	N/A	\$54,634
Cover Placement Cost	\$25,983	\$60,918	N/A	\$86,901
Ripping/Scarifying Cost	\$2,861	\$4,225	N/A	\$7,086
Subtotal Earthworks	\$52,556	\$96,065		\$148,621
Revegetation Cost	\$4,244	\$1,612	\$10,965	\$16,821
TOTALS	\$56,800	\$97,677	\$10,965	\$165,442

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		
ID Code	Type	Description (required)	Underlying Slope % grade	Ungraded Slope H:1V	Cut Slope degrees	Road Width ft	Road Length ft	Slope Replacement %	Regrade Volume (if calculated elsewhere) cy	Disturbed Area (if calculated elsewhere) acres	Growth Media Thickness in	Haul Distance from Growth Media Stockpile ft	Slope from Road to Stockpile % grade	
R01	Access Road	Access Road	6.0	1.5	0.0	30.0	3,578	100%		2.50	12.0	1,752	-1%	
R02a	Plant Road	Project Road	6.0	1.5	0.0	24.0	513	100%		0.28	12.0	4,918	-2%	
R02b	Plant Road	Project Road	6.0	1.5	0.0	12.0	930	100%		0.26	12.0	4,918	-2%	
R03	Mine Road	Project Road	7.0	1.5	0.0	25.0	480	100%		0.28	12.0	4,918	-2%	
R04a	Mine Road	Project Road	5.0	1.5	0.0	50.0	3,049	100%		3.48	12.0	1,740	-1%	
R04b	Mine Road	Project Road	5.0	1.5	0.0	30.0	6,078	100%		4.20	12.0	1,740	-1%	
R05	Mine Road	Project Road	5.0	1.5	0.0	15.0	197	100%		0.07	12.0	2,007	-2%	
R06	Mine Road	Project Road	10.0	1.5	34.0	15.0	210	100%		0.07	12.0	2,417	-4%	
R07	Mine Road	Project Road	10.0	1.5	34.0	20.0	313	100%		0.14	12.0	3,129	-2%	
R08	Mine Road	Project Road	11.0	1.5	34.0	18.0	190	100%		0.09	12.0	4,968	-1%	
R09	Mine Road	Project Road	6.0	1.5	0.0	50.0	237	100%		0.28	12.0	5,478	-1%	
R10	Mine Road	Project Road	25.0	1.5	34.0	16.0	6,644	100%		2.47	12.0	7,076	-3%	
R11	Mine Road	Project Road	15.0	1.5	34.0	20.0	1,306	100%		0.60	12.0	1,821	0%	
R12	Mine Road	Project Road	0.0	1.5	0.0	15.0	480	100%		0.17	12.0	4,918	-2%	
R13	Mine Road	Project Road	15.0	1.5	34.0	50.0	339	100%		0.39	12.0	6,079	-2%	
HR01	Haul Road	Haul Road	6.0	1.5	0.0	51.0	205	100%		0.24	12.0	3,278	-3%	
HR02	Haul Road	Haul Road	21.0	1.5	34.0	68.0	911	100%		1.43	12.0	6,978	-2%	
HR03	Haul Road	Haul Road	15.0	1.5	34.0	68.0	4,228	100%		6.51	12.0	5,609	-2%	
HR04	Haul Road	Haul Road	12.0	1.5	34.0	51.0	945	100%		1.11	12.0	2,605	-1%	
HR05	Haul Road	Haul Road	22.0	1.5	34.0	68.0	389	100%		0.63	12.0	7,753	-2%	
F01	Perimeter Fence Road	Project Road	15.0	1.5	34.0	15.0	22,480	100%		7.74				

- 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 Productivity Sheet)
 3. Because the work 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.

**Closure Cost Estimate
Roads**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
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 Cost Data: User Data
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 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Roads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$23,712	\$30,922	N/A	\$54,634
Cover Placement Cost	\$25,983	\$60,918	N/A	\$86,901
Ripping/Scarifying Cost	\$2,861	\$4,225	N/A	\$7,086
Subtotal Earthworks	\$52,556	\$96,065		\$148,621
Revegetation Cost	\$4,244	\$1,612	\$10,965	\$16,821
TOTALS	\$56,800	\$97,677	\$10,965	\$165,442

Roads - User Input (cont.)						
	Description (required)	Haul Road Safety Berms				Number of Berms (2) (1 or 2 sides)
		Berm Length ft	Berm Height ft	Berm Base Width ft	Berm Sideslope Angle H:1V	
1	Access Road	3,578.0	2.0	6.0	1.5	2
2	Plant Road					
3	Plant Road					
4	Mine Road	480.0	4.0	12.0	1.5	2
5	Mine Road	3,049.0	2.0	6.0	1.5	2
6	Mine Road	6,078.0	2.0	6.0	1.5	2
7	Mine Road	197.0	2.0	6.0	1.5	2
8	Mine Road	210.0	2.0	6.0	1.5	2
9	Mine Road	313.0	2.0	6.0	1.5	2
10	Mine Road	190.0	2.0	6.0	1.5	2
11	Mine Road	237.0	2.0	6.0	1.5	1
12	Mine Road	6,644.0	2.0	6.0	1.5	1
13	Mine Road	1,306.0	2.0	6.0	1.5	1
14	Mine Road					
15	Mine Road	6,079.0	4.0	12.0	1.5	1
16	Haul Road	205.0	4.0	12.0	1.5	2
17	Haul Road	911.0	4.0	12.0	1.5	2
18	Haul Road	4,228.0	4.0	12.0	1.5	2
19	Haul Road	945.0	4.0	12.0	1.5	2
20	Haul Road	389.0	4.0	12.0	1.5	2
21	Perimeter Fence Road					

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

**Closure Cost Estimate
Roads**

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TOTALS	\$56,800	\$97,677	\$10,965	\$165,442

Roads - User Input (cont.)													
You must fill in ALL green cells and relevant blue cells in this section for each road													
	Description (required)	Grading				Growth Media			Revegetation				
		Regrading Material Condition (select)	Regrading Material Type (select)	Regrading Equipment Fleet (select)	No. of Excavators if grade >30% (select)	Growth Media Material Type (select)	Cover Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)	Scarifying/Ripping? (select)	Ripping Fleet (select)
1	Access Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
2	Plant Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
3	Plant Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
4	Mine Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
5	Mine Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
6	Mine Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
7	Mine Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
8	Mine Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
9	Mine Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
10	Mine Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
11	Mine Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
12	Mine Road	1	Alluvium	Sm Excavator	1	Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
13	Mine Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
14	Mine Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
15	Mine Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
16	Haul Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
17	Haul Road	1	Alluvium	Sm Excavator	1	Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
18	Haul Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
19	Haul Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
20	Haul Road	1	Alluvium	Sm Excavator	1	Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer
21	Perimeter Fence Road	1	Alluvium	Sm Excavator		Alluvium	Small Truck		Mix 2	None	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.

**Closure Cost Estimate
Roads**

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Roads - Cost Summary				
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Subtotal Earthworks	\$52,556	\$96,065		\$148,621
Revegetation Cost	\$4,244	\$1,612	\$10,965	\$16,821
TOTALS	\$56,800	\$97,677	\$10,965	\$165,442

Roads - Calculations

Regrading Volume and Footprint Volume

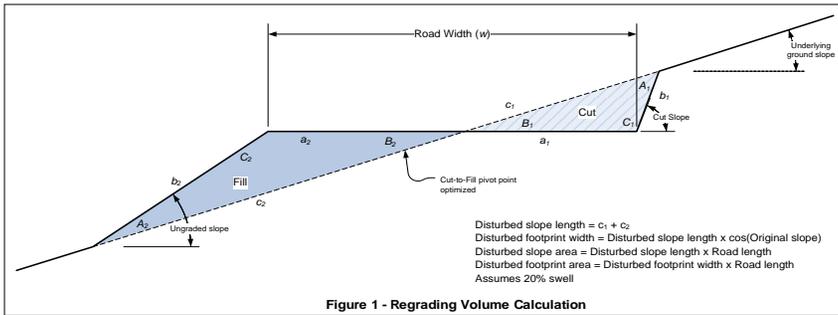


Figure 1 - Regrading Volume Calculation

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

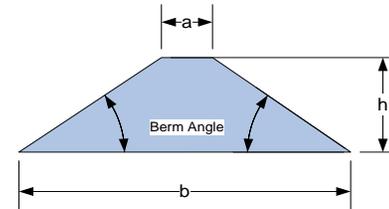
Minimum 1 hr ripping/scarifying time per area
 Number of passes = Final slope length ÷ Grader width
 Travel distance = Number of passes x Road length
 Total hours = (Travel distance ÷ Grader productivity) + (Number of passes x Grader maneuver time)
 For dozer regrading assumes push distance = 3 x road width

Revegetation Calculations

Minimum of 1 acre crew time per area

Safety Berm Volume Calculation

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

**Closure Cost Estimate
Roads**

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Subtotal Earthworks	\$52,556	\$96,065		\$148,621
Revegetation Cost	\$4,244	\$1,612	\$10,965	\$16,821
TOTALS	\$56,800	\$97,677	\$10,965	\$165,442

Roads - Regrading Costs								
	Description (required)	Regrading Volume cy	Recontouring Fleet	Fleet Productivity cy/hr	Total Fleet Hours hr	Total Labor Cost \$	Total Equipment Cost \$	Total Regrading Cost \$
1	Access Road	1,590	325C	398	4	\$561	\$732	\$1,293
2	Plant Road	0				\$0	\$0	\$0
3	Plant Road	0				\$0	\$0	\$0
4	Mine Road	853	325C	398	2	\$281	\$366	\$647
5	Mine Road	1,355	325C	398	3	\$421	\$549	\$970
6	Mine Road	2,701	325C	398	7	\$982	\$1,281	\$2,263
7	Mine Road	88	325C	398	1	\$140	\$183	\$323
8	Mine Road	121	325C	398	1	\$140	\$183	\$323
9	Mine Road	213	325C	398	1	\$140	\$183	\$323
10	Mine Road	125	325C	398	1	\$140	\$183	\$323
11	Mine Road	53	325C	398	1	\$140	\$183	\$323
12	Mine Road	4,908	325C	398	12	\$1,684	\$2,196	\$3,880
13	Mine Road	801	325C	398	2	\$281	\$366	\$647
14	Mine Road	0				\$0	\$0	\$0
15	Mine Road	6,233	325C	398	16	\$2,245	\$2,927	\$5,172
16	Haul Road	364	325C	398	1	\$140	\$183	\$323
17	Haul Road	8,139	325C	398	20	\$2,806	\$3,659	\$6,465
18	Haul Road	26,636	325C	398	67	\$9,401	\$12,258	\$21,659
19	Haul Road	3,498	325C	398	9	\$1,263	\$1,647	\$2,910
20	Haul Road	3,673	325C	398	9	\$1,263	\$1,647	\$2,910
21	Perimeter Fence Road	4,943	325C	398	12	\$1,684	\$2,196	\$3,880
		66,294			169	\$23,712	\$30,922	\$54,634

Roads - 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	4,037	725/966G/D7R	515	3	8	\$2,126	\$4,803	\$6,929
2	Plant Road	453	725/966G/D7R	471	4	1	\$308	\$731	\$1,039
3	Plant Road	426	725/966G/D7R	471	4	1	\$308	\$731	\$1,039
4	Mine Road	458	725/966G/D7R	471	4	1	\$308	\$731	\$1,039
5	Mine Road	5,619	725/966G/D7R	515	3	11	\$2,923	\$6,604	\$9,527
6	Mine Road	6,771	725/966G/D7R	515	3	13	\$3,455	\$7,804	\$11,259
7	Mine Road	111	725/966G/D7R	496	3	1	\$266	\$600	\$866
8	Mine Road	111	725/966G/D7R	466	3	1	\$266	\$600	\$866
9	Mine Road	232	725/966G/D7R	426	3	1	\$266	\$600	\$866
10	Mine Road	145	725/966G/D7R	468	4	1	\$308	\$731	\$1,039
11	Mine Road	445	725/966G/D7R	448	4	1	\$308	\$731	\$1,039
12	Mine Road	3,984	725/966G/D7R	490	5	8	\$2,795	\$6,890	\$9,685
13	Mine Road	968	725/966G/D7R	515	3	2	\$532	\$1,201	\$1,733
14	Mine Road	268	725/966G/D7R	471	4	1	\$308	\$731	\$1,039
15	Mine Road	629	725/966G/D7R	531	5	1	\$349	\$861	\$1,210
16	Haul Road	387	725/966G/D7R	418	3	1	\$266	\$600	\$866
17	Haul Road	2,311	725/966G/D7R	494	5	5	\$1,747	\$4,306	\$6,053
18	Haul Road	10,509	725/966G/D7R	442	4	24	\$7,382	\$17,539	\$24,921
19	Haul Road	1,791	725/966G/D7R	456	3	4	\$1,063	\$2,401	\$3,464
20	Haul Road	1,015	725/966G/D7R	469	5	2	\$699	\$1,723	\$2,422
21	Perimeter Fence Road						\$0	\$0	\$0
		40,670				88	\$25,983	\$60,918	\$86,901

**Closure Cost Estimate
Roads**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Roads - Cost Summary				
	Labor	Equipment	Materials	Totals
Grading Costs	\$23,712	\$30,922	N/A	\$54,634
Cover Placement Cost	\$25,983	\$60,918	N/A	\$86,901
Ripping/Scarifying Cost	\$2,861	\$4,225	N/A	\$7,086
Subtotal Earthworks	\$52,556	\$96,065		\$148,621
Revegetation Cost	\$4,244	\$1,612	\$10,965	\$16,821
TOTALS	\$56,800	\$97,677	\$10,965	\$165,442

Roads - 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 \$	Revegetation Material Cost \$	Total Revegetation Cost \$
1	Access Road	2.50	30.0	D7R	2	\$139	\$206	\$345	\$250	\$95	\$833	\$1,178
2	Plant Road	0.28	24.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$93	\$231
3	Plant Road	0.26	12.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$88	\$226
4	Mine Road	0.28	26.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$94	\$232
5	Mine Road	3.48	50.0	D7R	3	\$209	\$309	\$518	\$348	\$132	\$1,159	\$1,639
6	Mine Road	4.20	30.0	D7R	3	\$209	\$309	\$518	\$420	\$159	\$1,397	\$1,976
7	Mine Road	0.07	15.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$23	\$161
8	Mine Road	0.07	14.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$23	\$161
9	Mine Road	0.14	20.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$48	\$186
10	Mine Road	0.09	21.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$30	\$168
11	Mine Road	0.28	51.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$92	\$230
12	Mine Road	2.47	16.0	D7R	3	\$209	\$309	\$518	\$247	\$94	\$822	\$1,163
13	Mine Road	0.60	20.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$200	\$338
14	Mine Road	0.17	15.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$55	\$193
15	Mine Road	0.39	50.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$130	\$268
16	Haul Road	0.24	51.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$80	\$218
17	Haul Road	1.43	68.0	D7R	1	\$70	\$103	\$173	\$143	\$54	\$477	\$674
18	Haul Road	6.51	67.0	D7R	6	\$418	\$619	\$1,037	\$651	\$248	\$2,167	\$3,066
19	Haul Road	1.11	51.0	D7R	1	\$70	\$103	\$173	\$111	\$42	\$369	\$522
20	Haul Road	0.63	70.0	D7R	1	\$70	\$103	\$173	\$100	\$38	\$209	\$347
21	Perimeter Fence Road	7.74	15.0	D7R	9	\$627	\$928	\$1,555	\$774	\$294	\$2,576	\$3,644
		32.95			41	\$2,861	\$4,225	\$7,086	\$4,244	\$1,612	\$10,965	\$16,821

**Closure Cost Estimate
Quarries & Borrow Pits**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Waste Rock Dumps - 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	\$2,577	\$3,815	N/A	\$6,392
Safety Berm Construction Cost	\$905	\$1,340	N/A	\$2,245
	\$3,482	\$5,155	\$0	\$8,637
Revegetation Cost	\$4,289	\$1,630	\$14,271	\$20,190
Safety Berm Revegetation Cost	\$1,158	\$440	\$3,853	\$5,451
	\$5,447	\$2,070	\$18,124	\$25,641
TOTALS	\$8,929	\$7,225	\$18,124	\$34,278

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	Type	Underlying Ground Slope % Grade	Ungraded Slope H:TV	Final Slope H:TV	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) cy	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	
1	Borrow Pit	BP01	Borrow Pit	22.0				80		3,115	42.89									

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 Productivity Sheet)

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																			
Facility Description		Grading				Cover		Growth Media		Revegetation									
Description (required)	Regrading Material Condition (select)	Regrading Material Type (select)	Regrading Equipment Fleet (select)	Sto/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)	Scarify/Ripping Fleet (select)		
1	Borrow Pit								Mix 2	Mix 2	None	None	None	None	No	Yes	Small Dozer		

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

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																
Facility Description		Highwall Berms				Berm Construction		Excavate or Doze	Hauling (if selected method)				Revegetation			
Description (required)	Berm (or Highwall) Length ft	Berm Height ft	Berm Base Width ft	Berm Sideslope Angle H:TV	Volume (if calculated elsewhere) cy	Construction Method (select)	Berm Material Type (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)	
1	Borrow Pit	4,273.0	3.0	18.0	2.5	Dozer	Alluvium	Small					Mix 2	None	None	

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

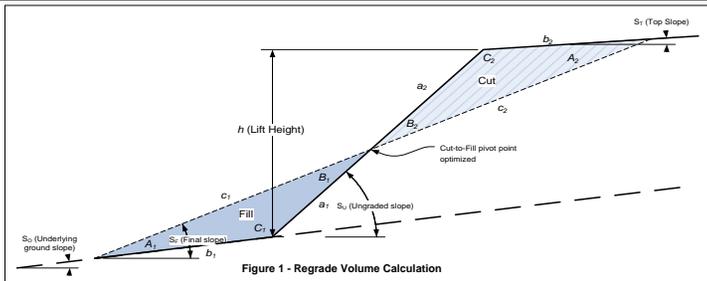
**Closure Cost Estimate
Quarries & Borrow Pits**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Waste Rock Dumps - 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	\$2,577	\$3,815	N/A	\$6,392
Safety Berm Construction Cost	\$305	\$1,340	N/A	\$2,245
Subtotal Earthwork	\$3,482	\$5,155	\$0	\$8,637
Revegetation Cost	\$4,289	\$1,630	\$14,271	\$20,190
Safety Berm Revegetation Cost	\$1,158	\$440	\$3,853	\$5,451
TOTALS	\$8,929	\$7,225	\$18,124	\$34,278

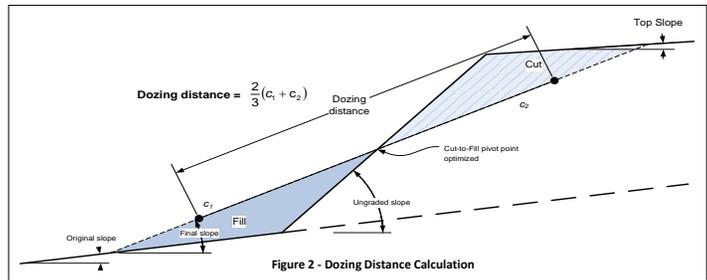
Quarries & Borrow Pits - Calculations

Regrading Volume Calculation



Regrading Push Distance Calculation

dozing distance: based on 2/3 final cut slope + 2/3 final fill slope (minimum = 50 ft)

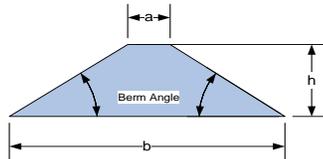


Safety Berm Volume Calculation

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

Berm Volume = Berm Length x Cross Sectional Area

Dozer productivity assumes push distance of: **100** feet

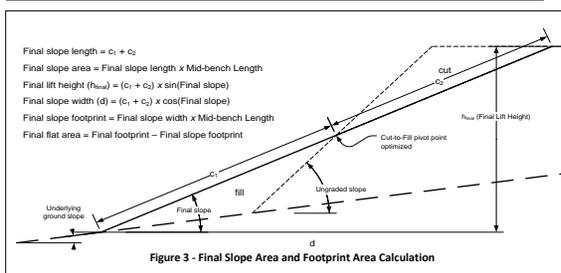


Dozer: Length x (Berm Base Width + Dozer Push Distance) - accounts for disturbance created in borrow area

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

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

Final Slope Area and Footprint Area Calculations



Ripping/Scarifying Calculations

Minimum 1 hr ripping/scarifying time per dump

Slopes:

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)
 Minimum 1 hr

Flat Areas:

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

**Closure Cost Estimate
Quarries & Borrow Pits**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 3671LGrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Waste Rock Dumps - 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	\$2,577	\$3,815	N/A	\$6,392
Safety Berm Construction Cost	\$905	\$1,340	N/A	\$2,245
Subtotal Earthwork	\$3,482	\$5,155	\$0	\$8,637
Revegetation Cost	\$4,289	\$1,630	\$14,271	\$20,190
Safety Berm Revegetation Cost	\$1,158	\$440	\$3,853	\$5,451
TOTALS	\$8,929	\$7,225	\$18,124	\$25,641

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 (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 \$
1	Borrow Pit			Select Fleet								\$0	\$0	\$0

Quarries & Borrow Pits - Cover and Growth Media Costs																	
Cover (lower layer)																	
	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	Borrow Pit						\$0	\$0	\$0						\$0	\$0	\$0

Quarries & Borrow Pits - 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 \$	Revegetation Material Cost \$	Total Revegetation Cost \$
1	Borrow Pit	0.00	42.89	42.89		3.115	D7R		37	\$2,577	\$3,815	\$6,392	\$4,289	\$1,630	\$14,271	\$20,190
			42.89	42.89					37	\$2,577	\$3,815	\$6,392	\$4,289	\$1,630	\$14,271	\$20,190

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.)
 2) Assumes 50min/hr equipment availability

Quarries & Borrow 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 \$
1	Borrow Pit	4,985	Small (D7R)		390	13	\$905	\$1,340	\$2,245
		4,985				13	\$905	\$1,340	\$2,245

Quarries & Borrow Pits - Safety Berms - Revegetation Costs						
	Description (required)	Flat Area acres	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revegetation Material Cost \$	Total Revegetation Cost \$
1	Borrow Pit	11.58	\$1,158	\$440	\$3,853	\$5,451
		11.58	\$1,158	\$440	\$3,853	\$5,451

**Closure Cost Estimate
Underground Openings**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Underground Openings Cost Summary				
	Labor	Equipment	Materials	Totals
Adits, Portals & Declines Plugging	\$279	\$864	\$0	\$1,143
Shaft Backfill/Cover	\$448	\$940	N/A	\$1,388
Shaft Capping	\$4,539	\$509	\$2,104	\$7,152
TOTALS	\$5,266	\$2,313	\$2,104	\$9,683

Adits, Portals & Declines - User Input										
Facility Description			Physical Characteristics				Backfill Material			
ID	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
1	Portal	U01	15.0	15.0	Rock Backfill	10	1.2	Stone - crus	1.612	-7.4

- 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

Shaft Openings - User Input											
You must fill in ALL green cells and relevant blue cells in this section for each shaft											
Facility Description			Physical Characteristics			Backfill or Foundation Cover					
ID	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)
1	Vent Shaft #1	U02	9.0	10	Concrete Cap	Stone - crushed	Small Truck		2,719	-4.0	2
2	Vent Shaft #2	U03	9.0	10	Concrete Cap	Stone - crushed	Small Truck		4,289	-5.0	2

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

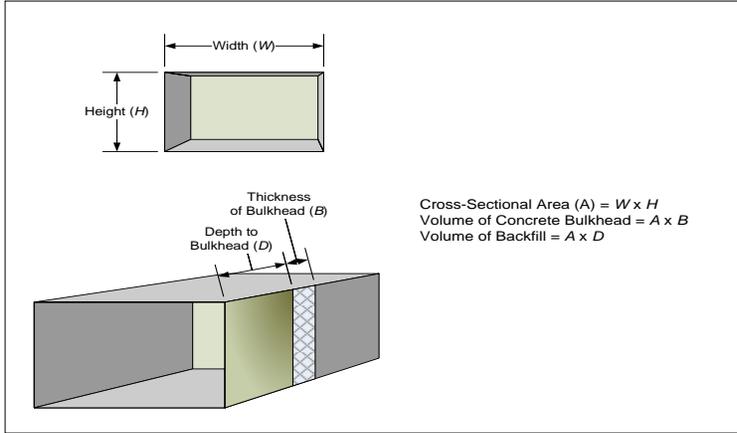
**Closure Cost Estimate
Underground Openings**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Underground Openings Cost Summary				
	Labor	Equipment	Materials	Totals
Adits, Portals & Declines Plugging	\$279	\$864	\$0	\$1,143
Shaft Backfill/Cover	\$448	\$940	N/A	\$1,388
Shaft Capping	\$4,539	\$509	\$2,104	\$7,152
TOTALS	\$5,266	\$2,313	\$2,104	\$9,683

Underground Openings - Calculations

Adits, Declines and Portals - Volume Calculations



Concrete Cover/Bulkhead Volume Calculation

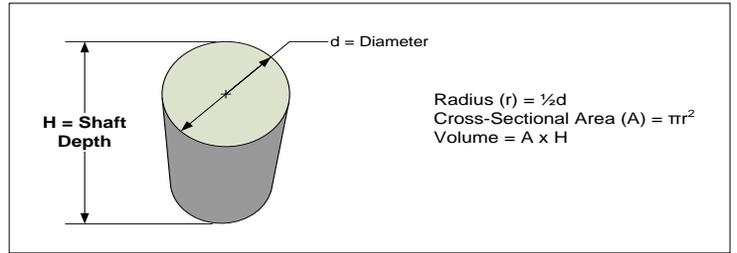
Using Means Heavy Construction Cost Data (2004)
 Estimate cover/bulkhead thickness
 Assumes that all concrete works are reinforced
 Productivity for crew from Means Heavy Construction Cost Data (2004) adjusted for supervision
 (addressed in Misc. Costs) and Davis-Bacon Wage Rates
 Assumes 18 in thick 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, structurally 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: per hour

Shaft Volume Calculations



**Closure Cost Estimate
Underground Openings**

Project Name: Grassy Mountain Mine - Reclamation Plan
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 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Underground Openings Cost Summary				
	Labor	Equipment	Materials	Totals
Adits, Portals & Declines Plugging	\$279	\$864	\$0	\$1,143
Shaft Backfill/Cover	\$448	\$940	N/A	\$1,388
Shaft Capping	\$4,539	\$509	\$2,104	\$7,152
TOTALS	\$5,266	\$2,313	\$2,104	\$9,683

Adits, Portals & Declines Plugging																						
Uses RS Means Heavy Construction Cost Data for bulkhead production rate, material costs and crews																						
1	Description (required)	Bulkhead Volume cy	Backfill (rock) Volume cy	Backfill Equipment Fleet	Backfill Productivity LCY/hr	Backfill Hours	Bulkhead Construction				Backfill or Foam (1)				Bat Gate or Culvert (2,3,4)				Total Costs			
							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 \$	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Plugging Costs \$
	Portal	83	83	D7R/D10R	-34	2	\$0	\$0	\$0	\$0	\$279	\$864	\$0	\$1,143	\$0	\$0	\$0	\$0	\$279	\$864	\$0	\$1,143
		83	83			2	\$0	\$0	\$0	\$0	\$279	\$864	\$0	\$1,143	\$0	\$0	\$0	\$0	\$279	\$864	\$0	\$1,143

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).

Shaft Plugging															
1	2	Description (required)	Cover Area ft2	Backfill or Cover Volume cy	Backfill Equipment Fleet	Number of Trucks	Backfill Productivity LCY/hr	Backfill Hours	Cover/Cap				Backfill/Cover		
									Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Shaft Cap Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Backfill Cost \$
		Vent Shaft #1	64	0					\$2,269	\$255	\$1,052	\$3,576	\$224	\$470	\$694
		Vent Shaft #2	64	0					\$2,269	\$255	\$1,052	\$3,576	\$224	\$470	\$694
			128						\$4,539	\$509	\$2,104	\$7,152	\$448	\$940	\$1,388

**Closure Cost Estimate
Foundations & Buildings**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 3671LGrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Buildings & Foundation Demolition Cost Summary				
	Labor	Equipment	Materials	Totals
Building Demolition Cost	\$0	\$0	N/A	\$0
Wall Demolition Cost	\$21,042	\$0	N/A	\$21,042
Slab Demolition	\$8,219	\$20,258	N/A	\$28,477
Subtotal Demolition	\$29,261	\$20,258	\$0	\$49,519
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$7,903	\$19,413	N/A	\$27,316
Ripping/Scarifying Cost	\$1,610	\$5,175	N/A	\$6,785
Subtotal Earthworks	\$9,513	\$24,588	\$0	\$34,101
Revegetation Cost	\$2,300	\$874	\$827	\$4,001
TOTALS	\$41,074	\$45,720	\$827	\$87,621

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) (entire footprint)		
Description (required)	ID Code	Type	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	Building Area 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 Administration Building	FB01	Site Facilities - Buildings	69	61		6	6	1	69	0.10				12	4,918	-1.6
2 Plant Offices	FB02	Site Facilities - Buildings	69	49		6	6	1	69	0.08				12	4,918	-1.6
3 Laboratory	FB03	Site Facilities - Buildings	73	28		6	6	1	73	0.05				12	4,918	-1.6
4 Plant Workshop and Warehouse	FB04	Site Facilities - Buildings	63	41		6	6	1	63	0.06				12	4,918	-1.6
5 Gold Room	FB05	Site Facilities - Buildings	56	62		6	6	1	56	0.07				12	4,918	-1.6
6 Elution Area	FB06	Process - Plant & Buildings	96	54		6	6	1	96	0.09				12	4,918	-1.6
7 Reagent Area	FB07	Site Facilities - Buildings	49	37		6	6	1	49	0.03				12	4,918	-1.6
8 Reagent Area	FB08	Site Facilities - Buildings	40	40		6	6	1	40	0.03				12	4,918	-1.6
9 Grinding Area	FB09	Process - Crushing & Screen	49	32		6	6	1	49	0.04				12	4,918	-1.6
10 CIL Area	FB10	Process - Plant & Buildings	160	81		6	6	1	160	0.23				12	4,918	-1.6
11 Water Service Area	FB11	Site Facilities - Buildings	70	57		6	6	1	70	0.04				12	4,918	-1.6
12 Truck Workshop and Warehouse	FB12	Site Facilities - Buildings	139	55		6	6	1	139	0.16				12	4,918	-1.6
13 Mine Office	FB13	Site Facilities - Buildings	73	61		6	6	1	73	0.10				12	4,918	-1.6
14 Truck Scale	FB14	Site Facilities - Mobile/Fixed E	80	30	0	6	6	1	80	0.06				12	4,918	-1.6
15 Guard House	FB15	Site Facilities - Structures	50	30		6	6	1	50	0.03				12	4,918	-1.6
16 Pad	PDD1	Other Facilities	60	44	0	6	6	1	60	0.04				12	4,918	-1.6
17 Pad	PDD2	Other Facilities	56	38	0	6	6	1	56	0.04				12	4,918	-1.6
18 Crusher Wall	PDD3	Other Facilities	124	8	0	6	8	20	124	0.00				12	4,918	-1.6
19 Truck Wash	PDD4	Other Facilities	40	33	0	6	6	1	40	0.03				12	4,918	-1.6
20 Fuel Storage Pad	PDD5	Other Facilities	42	17	0	6	6	1	42	0.02				12	4,918	-1.6
21 UG Backfill Plant	PDD6	Site Facilities - Structures	75	70	0	6	6	1	75	0.12				12	3,278	-3.7
22 Guard House	PDD7	Site Facilities - Structures	50	30	0	6	6	1	50	0.03				12	667	5.2
23 Water Tank	WT01	Other Facilities	40	40	0	6	6	1	40	0.03				12	4,823	-5.1

- 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 Productivity Sheet)

**Closure Cost Estimate
Foundations & Buildings**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 3671LGrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Buildings & Foundation Demolition Cost Summary				
	Labor	Equipment	Materials	Totals
Building Demolition Cost	\$0	\$0	N/A	\$0
Wall Demolition Cost	\$21,042	\$0	N/A	\$21,042
Slab Demolition	\$8,219	\$20,258	N/A	\$28,477
Subtotal Demolition	\$29,261	\$20,258	\$0	\$49,519
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$7,903	\$19,413	N/A	\$27,316
Ripping/Scarifying Cost	\$1,610	\$5,175	N/A	\$6,785
Subtotal Earthworks	\$9,513	\$24,588	\$0	\$34,101
Revegetation Cost	\$2,300	\$874	\$827	\$4,001
TOTALS	\$41,074	\$45,720	\$827	\$87,621

Buildings & Foundation - User Input (cont.)															
You must fill in ALL green cells and relevant blue cells in this section for each building or facility															
Description (required)	Construction Materials		Slab Demolition		Foundation Cover			Growth Media		Revegetation					
	Building Type (select)	Foundation Wall Type (select)	Slab Demo Method (select)	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 Administration Building	Lg. steel	Block 6 in (150 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
2 Plant Offices	Lg. steel	Block 6 in (150 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
3 Laboratory	Lg. steel	Block 6 in (150 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
4 Plant Workshop and Warehouse	Lg. steel	Block 6 in (150 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
5 Gold Room	Sm. concrete	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
6 Elution Area	Sm. concrete	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
7 Reagent Area	Sm. wood	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
8 Reagent Area	Sm. wood	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
9 Grinding Area	Sm. wood	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
10 CIL Area	Lg. steel	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
11 Water Service Area	Sm. steel	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
12 Truck Workshop and Warehouse	Lg. steel	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
13 Mine Office	Lg. steel	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
14 Truck Scale	Lg. steel	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
15 Guard House	Sm. wood	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
16 Pad			Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
17 Pad			Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
18 Crusher Wall	Sm. steel	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
19 Truck Wash	Lg. steel	Block 6 in (150 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
20 Fuel Storage Pad			Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
21 UG Backfill Plant	Sm. steel	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
22 Guard House	Sm. wood	Block 4 in (100 mm) thick	Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
23 Water Tank			Break & bury	Sm Excavator				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer

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

**Closure Cost Estimate
Foundations & Buildings**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
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Buildings & Foundation Demolition Cost Summary				
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Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$7,903	\$19,413	N/A	\$27,316
Ripping/Scarifying Cost	\$1,610	\$5,175	N/A	\$6,785
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Buildings & Foundation - Calculations

Building Volume Calculations

Using Means Heavy Construction Cost Data (2004) calculates cubic feet from building dimensions
 Estimate 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 of 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)

Revegetation

Minimum 1 acre revegetation crew time per area

**Closure Cost Estimate
Foundations & Buildings**

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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.																			
	Description (required)	Building Footprint (slab area) sqft	Building Volume cu ft	Wall Length ft	Wall Area sq ft	Slab Demolition Fleet	Slab Volume cy	Building Demolition			Wall Demolition			Slab Demolition			Total Costs		
								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	Administration Building	4,209	0	260	260	325C	78	\$0	\$0	\$0	\$603	\$0	\$603	\$463	\$1,141	\$1,604	\$1,068	\$1,141	\$2,207
2	Plant Offices	3,381	0	236	236	325C	63	\$0	\$0	\$0	\$548	\$0	\$548	\$365	\$899	\$1,264	\$913	\$899	\$1,812
3	Laboratory	2,044	0	202	202	325C	38	\$0	\$0	\$0	\$469	\$0	\$469	\$224	\$553	\$777	\$693	\$583	\$1,246
4	Plant Workshop and Warehouse	2,583	0	208	208	325C	48	\$0	\$0	\$0	\$483	\$0	\$483	\$281	\$691	\$972	\$764	\$691	\$1,455
5	Gold Room	3,472	0	236	236	325C	64	\$0	\$0	\$0	\$514	\$0	\$514	\$379	\$933	\$1,312	\$893	\$933	\$1,826
6	Elution Area	5,184	0	300	300	325C	96	\$0	\$0	\$0	\$654	\$0	\$654	\$561	\$1,383	\$1,944	\$1,215	\$1,383	\$2,598
7	Reagent Area	1,813	0	172	172	325C	34	\$0	\$0	\$0	\$375	\$0	\$375	\$196	\$484	\$680	\$571	\$484	\$1,055
8	Reagent Area	1,600	0	160	160	325C	30	\$0	\$0	\$0	\$349	\$0	\$349	\$182	\$449	\$631	\$531	\$449	\$980
9	Grinding Area	1,568	0	162	162	325C	29	\$0	\$0	\$0	\$353	\$0	\$353	\$168	\$415	\$583	\$521	\$415	\$936
10	CIL Area	12,960	0	482	482	325C	240	\$0	\$0	\$0	\$1,051	\$0	\$1,051	\$1,403	\$3,457	\$4,860	\$2,454	\$3,457	\$5,911
11	Water Service Area	3,990	0	254	254	325C	74	\$0	\$0	\$0	\$554	\$0	\$554	\$435	\$1,072	\$1,507	\$989	\$1,072	\$2,061
12	Truck Workshop and Warehouse	7,645	0	388	388	325C	142	\$0	\$0	\$0	\$846	\$0	\$846	\$828	\$2,040	\$2,868	\$1,674	\$2,040	\$3,714
13	Mine Office	4,453	0	268	268	325C	82	\$0	\$0	\$0	\$584	\$0	\$584	\$477	\$1,175	\$1,652	\$1,061	\$1,175	\$2,236
14	Truck Scale	2,400	0	220	220	325C	44	\$0	\$0	\$0	\$480	\$0	\$480	\$253	\$622	\$875	\$733	\$622	\$1,355
15	Guard House	1,500	0	160	160	325C	28	\$0	\$0	\$0	\$349	\$0	\$349	\$168	\$415	\$583	\$517	\$415	\$932
16	Pad	2,640	0	208	208	325C	49	\$0	\$0	\$0	\$0	\$0	\$0	\$281	\$691	\$972	\$281	\$691	\$972
17	Pad	2,128	0	188	188	325C	39	\$0	\$0	\$0	\$0	\$0	\$0	\$224	\$553	\$777	\$224	\$553	\$777
18	Crusher Wall	992	0	264	5,280	325C	18	\$0	\$0	\$0	\$11,510	\$0	\$11,510	\$140	\$346	\$486	\$1,650	\$346	\$11,996
19	Truck Wash	1,320	0	146	146	325C	24	\$0	\$0	\$0	\$339	\$0	\$339	\$140	\$346	\$486	\$479	\$346	\$825
20	Fuel Storage Pad	714	0	118	118	325C	13	\$0	\$0	\$0	\$0	\$0	\$0	\$140	\$346	\$486	\$140	\$346	\$486
21	UG Backfill Plant	5,250	0	290	290	325C	97	\$0	\$0	\$0	\$632	\$0	\$632	\$561	\$1,383	\$1,944	\$1,193	\$1,383	\$2,776
22	Guard House	1,500	0	160	160	325C	28	\$0	\$0	\$0	\$349	\$0	\$349	\$168	\$415	\$583	\$517	\$415	\$932
23	Water Tank	1,600	0	160	160	325C	30	\$0	\$0	\$0	\$0	\$0	\$0	\$182	\$449	\$631	\$182	\$449	\$631
							1,388	\$0	\$0	\$0	\$21,042	\$0	\$21,042	\$8,219	\$20,258	\$28,477	\$29,261	\$20,258	\$49,519

**Closure Cost Estimate
Foundations & Buildings**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
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TOTALS	\$41,074	\$45,720	\$827	\$87,621

Building & Foundation - Foundation Cover and Growth Media Costs																				
	Description (required)	Foundation Cover							Growth Media							Total Cover & Growth Media Costs				
		Cover Volume cy	Cover Replacement 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 Replacement 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	Administration Building						\$0	\$0	\$0	154	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
2	Plant Offices						\$0	\$0	\$0	124	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
3	Laboratory						\$0	\$0	\$0	74	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
4	Plant Workshop and Warehouse						\$0	\$0	\$0	97	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
5	Gold Room						\$0	\$0	\$0	106	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
6	Elution Area						\$0	\$0	\$0	151	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
7	Reagent Area						\$0	\$0	\$0	56	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
8	Reagent Area						\$0	\$0	\$0	47	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
9	Grinding Area						\$0	\$0	\$0	58	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
10	CIL Area						\$0	\$0	\$0	375	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
11	Water Service Area						\$0	\$0	\$0	68	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
12	Truck Workshop and Warehouse						\$0	\$0	\$0	256	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
13	Mine Office						\$0	\$0	\$0	163	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
14	Truck Scale						\$0	\$0	\$0	89	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
15	Guard House						\$0	\$0	\$0	55	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
16	Pad						\$0	\$0	\$0	68	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
17	Pad						\$0	\$0	\$0	67	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
18	Crusher Wall						\$0	\$0	\$0	3	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
19	Truck Wash						\$0	\$0	\$0	50	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
20	Fuel Storage Pad						\$0	\$0	\$0	26	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	\$349	\$861	\$1,210
21	UG Backfill Plant						\$0	\$0	\$0	194	725/966G/D7R	455	4	1	\$308	\$731	\$1,039	\$308	\$731	\$1,039
22	Guard House						\$0	\$0	\$0	55	725/966G/D7R	415	2	1	\$224	\$470	\$694	\$224	\$470	\$694
23	Water Tank						\$0	\$0	\$0	47	725/966G/D7R	553	6	1	\$381	\$992	\$1,383	\$381	\$992	\$1,383
							\$0	\$0	\$0	2,383				23	\$7,903	\$19,413	\$27,316	\$7,903	\$19,413	\$27,316

Building & Foundation - Scarifying/Revegetation Costs															
	Description (required)	Flat Area acres	Ripping/ Scarifying Fleet	Scarifying/ Ripping Hours	Scarifying/Ripping			Revegetation			Total Scarify & Revegetation Costs				
					Scarifying/ Ripping Labor Cost \$	Scarifying/ Ripping Equipment Cost \$	Total Scarifying/ Ripping Costs \$	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revegetation Material Cost \$	Total Revegetation Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Costs \$
1	Administration Building	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
2	Plant Offices	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
3	Laboratory	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
4	Plant Workshop and Warehouse	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
5	Gold Room	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
6	Elution Area	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
7	Reagent Area	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
8	Reagent Area	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
9	Grinding Area	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
10	CIL Area	0.20	D9R	1	\$70	\$225	\$295	\$100	\$38	\$67	\$205	\$170	\$263	\$67	\$500
11	Water Service Area	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
12	Truck Workshop and Warehouse	0.20	D9R	1	\$70	\$225	\$295	\$100	\$38	\$67	\$205	\$170	\$263	\$67	\$500
13	Mine Office	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
14	Truck Scale	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
15	Guard House	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
16	Pad	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
17	Pad	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
18	Crusher Wall	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
19	Truck Wash	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
20	Fuel Storage Pad	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
21	UG Backfill Plant	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
22	Guard House	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
23	Water Tank	0.10	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	\$170	\$263	\$33	\$466
		2.50		23	\$1,610	\$5,175	\$6,785	\$2,300	\$874	\$827	\$4,001	\$3,910	\$6,049	\$827	\$10,786

**Closure Cost Estimate
Other Demo & Equip Removal**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 3671L.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Other Demolition and Equipment Removal - Cost Summary				
	Labor	Equipment	Materials	Totals
Other Demolition	\$0	\$0	\$0	\$0
Equipment Removal	\$2,787	\$4,720	\$0	\$7,507
TOTALS	\$2,787	\$4,720	\$0	\$7,507

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

Notes:

**Closure Cost Estimate
Other Demo & Equip Removal**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 3671L.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Other Demolition and Equipment Removal - Cost Summary				
	Labor	Equipment	Materials	Totals
Other Demolition	\$0	\$0	\$0	\$0
Equipment Removal	\$2,787	\$4,720	\$0	\$7,507
TOTALS	\$2,787	\$4,720	\$0	\$7,507

Equipment & Material Removal									
Facility Description									
	Description (required)	ID Code	Type	Quantity	Units	Labor Unit Cost (\$)	Equipment Unit Cost (\$)	Material Unit Cost (\$)	Total Cost (\$)
1	Water Tank removal	WT01	Site Facilities - Mobile/Fixed Equi	6	Hours	\$40.99	\$39.79		\$485
2	Waste Rock Storage Area - HDPE Liner Removal	WD01	Site Facilities	40	Hours	\$40.99	\$90.15		\$5,246
3	Oil-Water Separator		Site Facilities - Mobile/Fixed Equi	8	Hours	\$40.99	\$39.79		\$646
4	Generator removal (2)		Site Facilities - Mobile/Fixed Equi	8	Hours	\$40.99	\$39.79		\$646
5	Fuel Tank removal		Site Facilities - Mobile/Fixed Equi	6	Hours	\$40.99	\$39.79		\$485
						\$2,787	\$4,720	\$0	\$7,508

Notes:

**Closure Cost Estimate
Sediment & Drainage Control**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Drainage 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	\$6,546	\$9,692	N/A	\$16,238
Liner Installation	\$107,419	\$55,670	\$41,556	\$204,645
Sed Pond Cover	\$1,846	\$4,385	N/A	\$6,231
Ripping/Scarifying Cost	\$70	\$103	N/A	\$173
Subtotal Earthworks	\$115,881	\$69,850	\$41,556	\$227,287
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$180	\$68	\$599	\$847
Subtotal Revegetation	\$180	\$68	\$599	\$847
TOTALS	\$116,061	\$69,918	\$42,155	\$228,134

Diversion Ditches - User Input															
Description (required)	ID Code	Diversion Ditches						Revegetation			Liner and Rip-Rap Installation				
		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:
 the diversion channels, outlet structure, and sediment basins will remain post reclamation for stormwater control.
 Diversion ditches at the Process Plant will be reclaimed during the ripping and recontouring of the main yard (Y01).

Sediment/Evaporation Pond Construction/Removal - User Input													
Description (required)	ID Code	Sediment Ponds							Growth Media				
		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	
1 Collection Pond	CP01	112	273	25.0	12.0	3.0				12	4.968	-1.2	

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 Productivity Sheet)
 3. Material Types are used for density correction based on material densities in Caterpillar Performance Handbook material density table
 the diversion channels, outlet structure, and sediment basins will remain post reclamation for stormwater control.

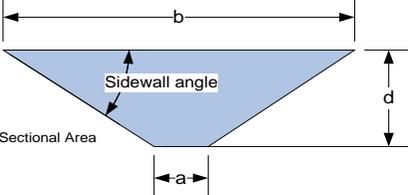
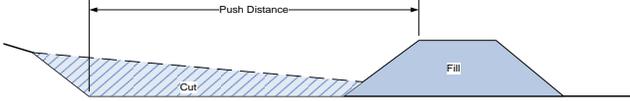
Sediment/Evaporation Pond Construction/Removal - User Input (cont.)													
Description (required)	Sediment Ponds				Growth Media			Revegetation			Ripping/Scarifying		
	Excavating Material Condition (select)	Material Type (select)	Excavating Equipment Fleet (select)	Liner Type (select)	Growth Media 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)	
1 Collection Pond	1	Alluvium	Small	60 mil HDPE	Alluvium	Small Truck		Mix 2	None	None	Yes	Small Dozer	

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

**Closure Cost Estimate
Sediment & Drainage Control**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Drainage 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	\$6,546	\$9,692	N/A	\$16,238
Liner Installation	\$107,419	\$55,670	\$41,556	\$204,645
Sed Pond Cover	\$1,846	\$4,385	N/A	\$6,231
Ripping/Scarifying Cost	\$70	\$103	N/A	\$173
Subtotal Earthworks	\$115,881	\$69,850	\$41,556	\$227,287
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$180	\$68	\$599	\$847
Subtotal Revegetation	\$180	\$68	\$599	\$847
TOTALS	\$116,061	\$69,918	\$42,155	\$228,134

Drainage Control - Calculations	
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p align="center">Diversion Ditch Volume Calculation</p>  <p>Cross Sectional Area = $\frac{(a + b)}{2} \times d$ Ditch Volume = Ditch Length x Cross Sectional Area</p> <p align="center">Figure 1 - Ditch Volume Calculation</p> <p>1) Assume 20% swell for excavations 2) Assumes heavy duty trenching bucket is used</p> </div>	<div style="border: 1px solid black; padding: 5px;"> <p align="center">Sediment/Evaporation Pond Construction Calculation</p>  <p>Cut = Fill Push distance = pond width up to 2/3 max push distance (400 ft)</p> <p align="center">Figure 2 - Sediment Ponds</p> <p>1) Assume balanced cut-to-fill for berm construction 2) Include cost for liner, if required. 3) Include line items for removal, if necessary. 4) Assume 20% swell for excavations 5) Minimum 1 hr ripping/scarifying per area 6) Minimum 1 acre revegetation crew time per area</p> </div>

**Closure Cost Estimate
Sediment & Drainage Control**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Drainage 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	\$6,546	\$9,692	N/A	\$16,238
Liner Installation	\$107,419	\$55,670	\$41,556	\$204,645
Sed Pond Cover	\$1,846	\$4,385	N/A	\$6,231
Ripping/Scarifying Cost	\$70	\$103	N/A	\$173
Subtotal Earthworks	\$115,881	\$69,850	\$41,556	\$227,287
Diversion Ditch Revegetation	\$0	\$0	\$0	\$0
Sediment Pond Revegetation	\$180	\$68	\$599	\$847
Subtotal Revegetation	\$180	\$68	\$599	\$847
TOTALS	\$116,061	\$69,918	\$42,155	\$228,134

Sediment/Evaporation Ponds - Construction/Regrading Costs																	
Productivity = 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	Earthwork			Liner				
										Total Labor Cost \$	Total Equipment Cost \$	Total Constr/Regrading Cost \$	Total Labor Cost \$	Total Equipment Cost \$	Total Material Cost \$	Total Liner Cost \$	
1 Collection Pond	26.390	D7R	112	574	1.00	0.79	1.00	282	94	\$6,546	\$9,692	\$16,238	\$107,419	\$55,670	\$41,556	\$204,645	
	26.390								94	\$6,546	\$9,692	\$16,238	\$107,419	\$55,670	\$41,556	\$204,645	

Sediment/Evaporation Ponds - Growth Media Costs								
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 \$
	2.904				6	\$1,846	\$4,385	\$6,231

Sediment/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 \$	Revegetation Material Cost \$	Total Revegetation Cost \$	
												1 Collection Pond
	1.80			1	\$70	\$103	\$173	\$180	\$68	\$599	\$847	

**Closure Cost Estimate
Process Ponds**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Process Ponds - Cost Summary				
	Labor	Equipment	Materials	Totals
Backfilling Costs	\$348	\$516	N/A	\$864
Growth Media Placement Costs	\$224	\$470	N/A	\$694
Liner Cutting & Folding Costs	\$4,580	\$2,396	N/A	\$6,976
Subtotal Earthworks	\$5,152	\$3,382	\$0	\$8,534
Revegetation Costs	\$100	\$38	\$133	\$271
TOTALS	\$5,252	\$3,420	\$133	\$8,805

Process Ponds - User Input													
You must fill in ALL green cells and relevant blue cells in this section for each pond													
Facility Description		Pond Dimensions (1)						Backfill - (If trucks are used) (1)			Growth Media		
ID Code	Description (required)	Pond 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) (cy)	Growth Media Thickness (in)	Distance from Growth Media Stockpile (ft)	Slope from Facility to Stockpile (% grade)
1	Reclaim Pond	100	80	9.0	2.5	0.37					6	602	4%

- 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 Productivity Sheet)

Reclaim pond will be converted to an E cell when no longer needed for solution management and will remain post mine.

Process Ponds - User Input (cont.)											
ID Code	Description (required)	Liner	Backfill			Growth Media		Revegetation			
		Crew Cut & Fold Time (2) (hrs)	Backfill Material Type (select)	Backfill 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)
1	Reclaim Pond	30.0	Alluvium	Small Dozer		Alluvium	Small Truck		Mix 2	None	None

- Notes:
 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

Process Ponds - Calculations

Pond Volume Calculation

Area and Volume of the Frustum of a Pyramid

$$\text{Surface Area} = ab + cd + (a+b+c+d) \times \frac{s}{2}$$

$$\text{Volume} = \frac{h(ab + cd + \sqrt{abcd})}{3}$$

Revegetation Calculations

Minimum 1 acre revegetation crew time per area

**Closure Cost Estimate
Process Ponds**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Process Ponds - Cost Summary				
	Labor	Equipment	Materials	Totals
Backfilling Costs	\$348	\$516	N/A	\$864
Growth Media Placement Costs	\$224	\$470	N/A	\$694
Liner Cutting & Folding Costs	\$4,580	\$2,396	N/A	\$6,976
Subtotal Earthworks	\$5,152	\$3,382	\$0	\$8,534
Revegetation Costs	\$100	\$38	\$133	\$271
TOTALS	\$5,252	\$3,420	\$133	\$8,805

Process Ponds - Liner Cutting and Folding					
	Description (required)	Crew Hours hrs	Total Labor Cost \$	Total Equipment Cost \$	Total Liner Removal Cost \$
1	Reclaim Pond	30	\$4,580	\$2,396	\$6,976
		30	\$4,580	\$2,396	\$6,976

Process Ponds - Backfill and Growth Media Costs																	
	Description (required)	Pond Backfill						Growth Media									
		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 \$	Total Growth Media Cost \$
1	Reclaim Pond	1,539	D7R	308		5	\$348	\$516	\$864	297	725/966G/D7R	427	2	1	\$224	\$470	\$694
		1,539				5	\$348	\$516	\$864	297				1	\$224	\$470	\$694

Process Ponds - Revegetation Costs						
	Description (required)	Surface Area acres	Revegetation Labor Cost \$	Revegetation Equipment Cost \$	Revegetation Material Cost \$	Total Revegetation Cost \$
1	Reclaim Pond	0.40	\$100	\$38	\$133	\$271
		0.40	\$100	\$38	\$133	\$271

**Closure Cost Estimate
Yards, Etc.**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Yards, Etc. - Cost Summary				
	Labor	Equipment	Materials	Totals
Regrading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$28,860	\$68,069	N/A	\$96,929
Ripping/Scarifying Cost	\$6,346	\$20,451	N/A	\$26,797
Subtotal Earthworks	\$35,206	\$88,520		\$123,726
Revegetation Cost	\$11,639	\$4,423	\$33,813	\$49,875
TOTALS	\$46,845	\$92,943	\$33,813	\$173,601

Yards, 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	Area acres	Average Flat Area Long Dimension (ripping distance) ft.	Regrade Volume (calculated elsewhere) cy	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	Yard	Y01	Yard	5.02	1,128				12	4,918	-1.6	
2	Substation	Y02	Yard	0.11	80				12	4,918	-1.6	
3	Sanitation Field	Y03	Other Facilities	2.40	432				12	3,222	-1.9	
4	Sanitation Field	Y04	Other Facilities	2.84	490				12	2,881	-1.7	
5	UG Utilities	Y05	Yard	1.92	371				12	3,278	-3.7	
6	Parking Lot	Y06	Yard	0.55	196				12	861	4.1	
7	Parking Lot	Y07	Yard	0.11	81				12	667	5.2	
8	Contractor Laydown Yard	Y08	Yard	4.93	755				12	1,525	-0.3	
9	Contractor Office Laydown	Y09	Yard	0.65	262				12	7,753	-2.7	
10	Helipad	Y10	Yard	0.17	120				12	2,417	-3.9	
11	Weather Station	Y11	Yard	0.26	116				12	3,129	-2.4	
12	Well Pad	Y12	Yard	0.19	119							
13	Vent Shaft #1 Pad	Y13	Yard	0.05	50				12	4,636	-4.1	
14	Vent Shaft #2 Pad	Y14	Yard	0.06	50				12	6,206	-5.3	
15	Water Tank Pad	Y15	Yard	0.09	40				12	4,823	-5.1	
16	Explosive Magazine	Y16	Yard	0.03	40				12	5,200	-4.2	
17	Well Pad	Y17	Yard	0.07	60							
18	Well Pad	Y18	Yard	0.08	60							
19	Well Pad	Y19	Yard	0.07	60							
20	Well Pad	Y20	Yard	0.08	60							
21	Well Pad	Y21	Yard	0.07	60							
22	Disturbed Area	DA01	Other Facilities	50.91	4,300							
23	Disturbed Area	DA02	Other Facilities	3.77	2,075							
24	Growth Media Stockpile	GM01	Other Facilities	11.62	1,108							
25	Growth Media Stockpile	GM02	Other Facilities	5.38	823							
26	Growth Media Stockpile	GM03	Other Facilities	1.21	271							
27	UG Backfill Aggregate Stockpile	SP01	Other Facilities	0.11	95				12	2,881	-3.7	
28	ROM Stockpile	SP02	Other Facilities	0.18	152				12	4,918	-1.6	
29	Waste Rock Dump Area	WDD1	Other Facilities	8.39	861				12	1,917	0.0	

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 Productivity Sheet)

**Closure Cost Estimate
Yards, Etc.**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Yards, Etc. - Cost Summary				
	Labor	Equipment	Materials	Totals
Regrading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$28,860	\$68,069	N/A	\$96,929
Ripping/Scarifying Cost	\$6,346	\$20,451	N/A	\$26,797
Subtotal Earthworks	\$35,206	\$88,520		\$123,726
Revegetation Cost	\$11,639	\$4,423	\$33,813	\$49,875
TOTALS	\$46,845	\$92,943	\$33,813	\$173,601

Yards, Etc. - User Input (cont.)															
You must fill in ALL green cells and relevant blue cells in this section for each building or facility															
ID	Description (required)	Grading			Cover			Growth Media			Revegetation				
		Regrading Material Condition (select)	Regrading Material Type (select)	Regrading Equipment Fleet (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 (select)	Fertilizer (select)	Scarify/Rip? (select)	Ripping Fleet (select)
1	Yard	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
2	Substation	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
3	Sanitation Field	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
4	Sanitation Field	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
5	UG Utilities	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
6	Parking Lot	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
7	Parking Lot	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
8	Contractor Laydown Yard	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
9	Contractor Office Laydown	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
10	Helipad	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
11	Weather Station	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
12	Well Pad	1	Alluvium	Small							Mix 2	None	None	Yes	Med Dozer
13	Vent Shaft #1 Pad	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
14	Vent Shaft #2 Pad	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
15	Water Tank Pad	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
16	Explosive Magazine	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
17	Well Pad	1	Alluvium	Small							Mix 2	None	None	Yes	Med Dozer
18	Well Pad	1	Alluvium	Small							Mix 2	None	None	Yes	Med Dozer
19	Well Pad	1	Alluvium	Small							Mix 2	None	None	Yes	Med Dozer
20	Well Pad	1	Alluvium	Small							Mix 2	None	None	Yes	Med Dozer
21	Well Pad	1	Alluvium	Small							Mix 2	None	None	Yes	Med Dozer
22	Disturbed Area	1	Alluvium	Small							Mix 2	None	None	Yes	Med Dozer
23	Disturbed Area	1	Alluvium	Small							Mix 2	None	None	Yes	Med Dozer
24	Growth Media Stockpile	1	Alluvium	Small							Mix 2	None	None	Yes	Med Dozer
25	Growth Media Stockpile	1	Alluvium	Small							Mix 2	None	None	Yes	Med Dozer
26	Growth Media Stockpile	1	Alluvium	Small							Mix 2	None	None	Yes	Med Dozer
27	UG Backfill Aggregate Stockpile	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
28	ROM Stockpile	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer
29	Waste Rock Dump Area	1	Alluvium	Small				Alluvium	Small Truck		Mix 2	None	None	Yes	Med Dozer

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

**Closure Cost Estimate
Yards, Etc.**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Yards, Etc. - Cost Summary				
	Labor	Equipment	Materials	Totals
Regrading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$28,860	\$68,069	N/A	\$96,929
Ripping/Scarifying Cost	\$6,346	\$20,451	N/A	\$26,797
Subtotal Earthworks	\$35,206	\$88,520		\$123,726
Revegetation Cost	\$11,639	\$4,423	\$33,813	\$49,875
TOTALS	\$46,845	\$92,943	\$33,813	\$173,601

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 stockpile (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 hr ripping/scarifying per area
Revegetation
Minimum 1 acre revegetation crew time per area

**Closure Cost Estimate
Yards, Etc.**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 3671I.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Yards, Etc. - Cost Summary				
	Labor	Equipment	Materials	Totals
Regrading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$28,860	\$68,069	N/A	\$96,929
Ripping/Scarifying Cost	\$6,346	\$20,451	N/A	\$26,797
Subtotal Earthworks	\$35,206	\$88,520		\$123,726
Revegetation Cost	\$11,639	\$4,423	\$33,813	\$49,875
TOTALS	\$46,845	\$92,943	\$33,813	\$173,601

Yards, Etc. - Cover and Growth Media Costs																	
Description (required)	Cover									Growth Media							
	Cover Volume cy	Topsoil Replacement 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 \$	Total Growth Media Cost \$	
1 Yard						\$0	\$0	\$0	8,067	725/966G/D7R	510	5	16	\$5,591	\$13,780	\$19,371	
2 Substation						\$0	\$0	\$0	161	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	
3 Sanitation Field						\$0	\$0	\$0	3,872	725/966G/D7R	501	4	8	\$2,461	\$5,846	\$8,307	
4 Sanitation Field						\$0	\$0	\$0	4,517	725/966G/D7R	528	4	9	\$2,768	\$6,577	\$9,345	
5 UG Utilities						\$0	\$0	\$0	3,065	725/966G/D7R	455	4	7	\$2,153	\$5,116	\$7,269	
6 Parking Lot						\$0	\$0	\$0	807	725/966G/D7R	397	2	2	\$448	\$940	\$1,388	
7 Parking Lot						\$0	\$0	\$0	161	725/966G/D7R	415	2	1	\$224	\$470	\$694	
8 Contractor Laydown Yard						\$0	\$0	\$0	7,905	725/966G/D7R	533	3	15	\$3,987	\$9,005	\$12,992	
9 Contractor Office Laydown						\$0	\$0	\$0	1,129	725/966G/D7R	552	7	2	\$866	\$2,244	\$3,110	
10 Helipad						\$0	\$0	\$0	323	725/966G/D7R	528	4	1	\$308	\$731	\$1,039	
11 Weather Station						\$0	\$0	\$0	484	725/966G/D7R	508	4	1	\$308	\$731	\$1,039	
12 Well Pad						\$0	\$0	\$0						\$0	\$0	\$0	
13 Vent Shaft #1 Pad						\$0	\$0	\$0	1	725/966G/D7R	489	5	1	\$349	\$861	\$1,210	
14 Vent Shaft #2 Pad						\$0	\$0	\$0	161	725/966G/D7R	552	7	1	\$433	\$1,122	\$1,555	
15 Water Tank Pad						\$0	\$0	\$0	161	725/966G/D7R	553	6	1	\$391	\$992	\$1,383	
16 Explosive Magazine						\$0	\$0	\$0	1	725/966G/D7R	528	6	1	\$391	\$992	\$1,383	
17 Well Pad						\$0	\$0	\$0						\$0	\$0	\$0	
18 Well Pad						\$0	\$0	\$0						\$0	\$0	\$0	
19 Well Pad						\$0	\$0	\$0						\$0	\$0	\$0	
20 Well Pad						\$0	\$0	\$0						\$0	\$0	\$0	
21 Well Pad						\$0	\$0	\$0						\$0	\$0	\$0	
22 Disturbed Area						\$0	\$0	\$0						\$0	\$0	\$0	
23 Disturbed Area						\$0	\$0	\$0						\$0	\$0	\$0	
24 Growth Media Stockpile						\$0	\$0	\$0						\$0	\$0	\$0	
25 Growth Media Stockpile						\$0	\$0	\$0						\$0	\$0	\$0	
26 Growth Media Stockpile						\$0	\$0	\$0						\$0	\$0	\$0	
27 UG Backfill Aggregate Stockpile						\$0	\$0	\$0	161	725/966G/D7R	485	4	1	\$308	\$731	\$1,039	
28 ROM Stockpile						\$0	\$0	\$0	323	725/966G/D7R	510	5	1	\$349	\$861	\$1,210	
29 Waste Rock Dump Area						\$0	\$0	\$0	13,552	725/966G/D7R	508	3	27	\$7,176	\$16,209	\$23,385	
						\$0	\$0	\$0	44,851				96	\$28,860	\$68,069	\$96,929	

**Closure Cost Estimate
Yards, Etc.**

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 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Yards, Etc. - Cost Summary				
	Labor	Equipment	Materials	Totals
Regrading Cost	\$0	\$0	N/A	\$0
Cover Placement Cost	\$0	\$0	N/A	\$0
Growth Media Placement Cost	\$28,860	\$68,069	N/A	\$96,929
Ripping/Scarifying Cost	\$6,346	\$20,451	N/A	\$26,797
Subtotal Earthworks	\$35,206	\$88,520		\$123,726
Revegetation Cost	\$11,639	\$4,423	\$33,813	\$49,875
TOTALS	\$46,845	\$92,943	\$33,813	\$173,601

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 \$	Revegetation Material Cost \$	Total Revegetation Cost \$	
1	Yard	5.02	1,128	D9R	4	\$279	\$899	\$1,178	\$502	\$191	\$1,670	\$2,363	
2	Substation	0.11	80	D9R	1	\$70	\$225	\$295	\$100	\$38	\$37	\$175	
3	Sanitation Field	2.40	432	D9R	2	\$139	\$449	\$588	\$240	\$91	\$799	\$1,130	
4	Sanitation Field	2.84	490	D9R	2	\$139	\$449	\$588	\$284	\$108	\$945	\$1,337	
5	UG Utilities	1.92	371	D9R	1	\$70	\$225	\$295	\$192	\$73	\$639	\$904	
6	Parking Lot	0.55	196	D9R	1	\$70	\$225	\$295	\$100	\$38	\$183	\$321	
7	Parking Lot	0.11	81	D9R	1	\$70	\$225	\$295	\$100	\$38	\$37	\$175	
8	Contractor Laydown Yard	4.93	755	D9R	4	\$279	\$899	\$1,178	\$493	\$187	\$1,640	\$2,320	
9	Contractor Office Laydown	0.65	262	D9R	1	\$70	\$225	\$295	\$100	\$38	\$216	\$354	
10	Helipad	0.17	120	D9R	1	\$70	\$225	\$295	\$100	\$38	\$57	\$195	
11	Weather Station	0.26	116	D9R	1	\$70	\$225	\$295	\$100	\$38	\$87	\$225	
12	Well Pad	0.19	119	D9R	1	\$70	\$225	\$295	\$100	\$38	\$63	\$201	
13	Vent Shaft #1 Pad	0.10	50	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	
14	Vent Shaft #2 Pad	0.10	50	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	
15	Water Tank Pad	0.10	40	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	
16	Explosive Magazine	0.10	40	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	
17	Well Pad	0.10	60	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	
18	Well Pad	0.10	60	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	
19	Well Pad	0.10	60	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	
20	Well Pad	0.10	60	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	
21	Well Pad	0.10	60	D9R	1	\$70	\$225	\$295	\$100	\$38	\$33	\$171	
22	Disturbed Area	50.91	4,300	D9R	37	\$2,577	\$8,312	\$10,889	\$5,091	\$1,935	\$16,940	\$23,966	
23	Disturbed Area	3.77	2,075	D9R	3	\$209	\$674	\$883	\$377	\$143	\$1,254	\$1,774	
24	Growth Media Stockpile	11.62	1,108	D9R	9	\$627	\$2,022	\$2,649	\$1,162	\$442	\$3,867	\$5,471	
25	Growth Media Stockpile	5.38	823	D9R	4	\$279	\$899	\$1,178	\$538	\$204	\$1,790	\$2,532	
26	Growth Media Stockpile	1.21	271	D9R	1	\$70	\$225	\$295	\$121	\$46	\$403	\$570	
27	UG Backfill Aggregate Stockpile	0.11	95	D9R	1	\$70	\$225	\$295	\$100	\$38	\$37	\$175	
28	ROM Stockpile	0.18	152	D9R	1	\$70	\$225	\$295	\$100	\$38	\$60	\$198	
29	Waste Rock Dump Area	8.39	861	D9R	6	\$418	\$1,348	\$1,766	\$839	\$319	\$2,792	\$3,950	
		101.62			91	\$6,346	\$20,451	\$26,797	\$11,639	\$4,423	\$33,813	\$49,875	

**Closure Cost Estimate
Waste Disposal**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
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 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$0	\$0	N/A	\$0
Solid Waste - Off Site				\$1,131
Hazardous Materials				\$5,317
Hydrocarbon Contaminated Soils	\$0	\$0	\$4,498	\$4,498
TOTALS	\$0	\$0	\$4,498	\$10,946

Waste Disposal - User Input - Solid Waste						Landfill (Bulk) Disposal			Dumpster
	Description (required)	ID Code	Waste Type (select)	Disposal Method (select)	Quantity cy	Distance to Landfill ft	Slope to Landfill % grade	Number of Trucks (user override)	Months Dumpster Rental months
1	Misc. Site Clean-Up		Waste Mgmt & Disposal	Dumpster	5				5

- 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 Productivity Sheet)

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
1	Misc. Solid Hazardous Waste		Waste Mgmt & Disposal	Solid Bulk			5	250	5.0
2	Misc. Liquid Hazardous Waste		Waste Mgmt & Disposal	Liquid Bulk	Small (2,200 gal)			250	5.0

- Notes:
- Use Other Demo & Equip Removal Sheet for tank removal

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
1	Misc. Hydrocarbon Contaminated Soils		Waste Mgmt & Disposal	Off site	5	250

- Notes:
- Use Yards or Landfills Sheets for bioremediation facility reclamation

**Closure Cost Estimate
Waste Disposal**

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 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$0	\$0	N/A	\$0
Solid Waste - Off Site				\$1,131
Hazardous Materials				\$5,317
Hydrocarbon Contaminated Soils	\$0	\$0	\$4,498	\$4,498
TOTALS	\$0	\$0	\$4,498	\$10,946

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

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 \$	Total Waste Disposal Cost \$
1	Misc. Site Clean-Up	5	1					\$1,131	\$0	\$0	\$0
		5						\$1,131	\$0	\$0	\$0

**Closure Cost Estimate
Waste Disposal**

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Waste Disposal - Cost Summary				
	Labor	Equipment	Fees	Totals
Solid Waste - On Site	\$0	\$0	N/A	\$0
Solid Waste - Off Site				\$1,131
Hazardous Materials				\$5,317
Hydrocarbon Contaminated Soils	\$0	\$0	\$4,498	\$4,498
TOTALS	\$0	\$0	\$4,498	\$10,946

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 \$
1	Misc. Solid Hazardous Waste		5	1	7	\$2,766	\$611	\$1,940	\$5,317
2	Misc. Liquid Hazardous Waste	Enter Quantity!		Enter Quantity!	0	\$0	\$0	\$0	\$0
			5		7	\$2,766	\$611	\$1,940	\$5,317

Waste Disposal - Hydrocarbon Contaminated Soils										
	Description (required)	Quantity cy	Disposal Equipment Fleet	Total Fleet Hours	Treatment Cost \$	Transport Fees \$	Disposal Fees \$	Total Labor Cost \$	Total Equipment Cost \$	Total Waste Disposal Cost \$
1	Misc. Hydrocarbon Contaminated Soils	5	Road Trucks	0	\$0	\$3,055	\$1,443	\$0	\$0	\$4,498
		5			\$0	\$3,055	\$1,443	\$0	\$0	\$4,498

**Closure Cost Estimate
Well Abandonment**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
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 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Well Abandonment				
	Labor	Equipment	Materials	Totals
Production, Dewatering, Infiltration Wells	\$7,144	\$19,032	\$1,936	\$28,112
Monitoring Wells	\$0	\$0	\$0	\$0
TOTALS	\$7,144	\$19,032	\$1,936	\$28,112

Production, Dewatering and Infiltration 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	Blank Casing Below Top of Screen ⁽²⁾ ft	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	Inert 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 \$
1	Production Well 4	W-W4	1	10.0	500	270		270	140			Grout + Ba	0.550	190	11.40	0.40	3.50	\$0	\$0	\$883	\$2,716	\$791	\$2,009	\$484
2	Production Well 5	W-W5	1	10.0	500	270		270	140			Grout + Ba	0.550	190	11.40	0.40	3.50	\$0	\$0	\$883	\$2,716	\$791	\$2,009	\$484
3	Production Well 6 (Alt)	W-W6	1	10.0	500	270		270	140			Grout + Ba	0.550	190	11.40	0.40	3.50	\$0	\$0	\$883	\$2,716	\$791	\$2,009	\$484
4	Production Well 7 (Alt)	W-W7	1	10.0	500	270		270	140			Grout + Ba	0.550	190	11.40	0.40	3.50	\$0	\$0	\$883	\$2,716	\$791	\$2,009	\$484
																		\$0	\$0	\$3,532	\$10,864	\$3,164	\$8,036	\$1,936

- (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
- (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 Productivity 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:
Wells 2 and 3 are pre-existing wells and will remain post-mine.
Wells 4-7 have not been drill yet. Numbers are from the conceptual designs.

Closure Cost Estimate
Well Abandonment

Inert Media Labor Cost ⁽¹⁰⁾ \$	Inert Media Equip Cost ⁽⁹⁾ \$
\$112	\$33
\$112	\$33
\$112	\$33
\$112	\$33
\$448	\$132

**Closure Cost Estimate
Well Abandonment**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Well Abandonment				
	Labor	Equipment	Materials	Totals
Production, Dewatering, Infiltration Wells	\$7,144	\$19,032	\$1,936	\$28,112
Monitoring Wells	\$0	\$0	\$0	\$0
TOTALS	\$7,144	\$19,032	\$1,936	\$28,112

Monitoring 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

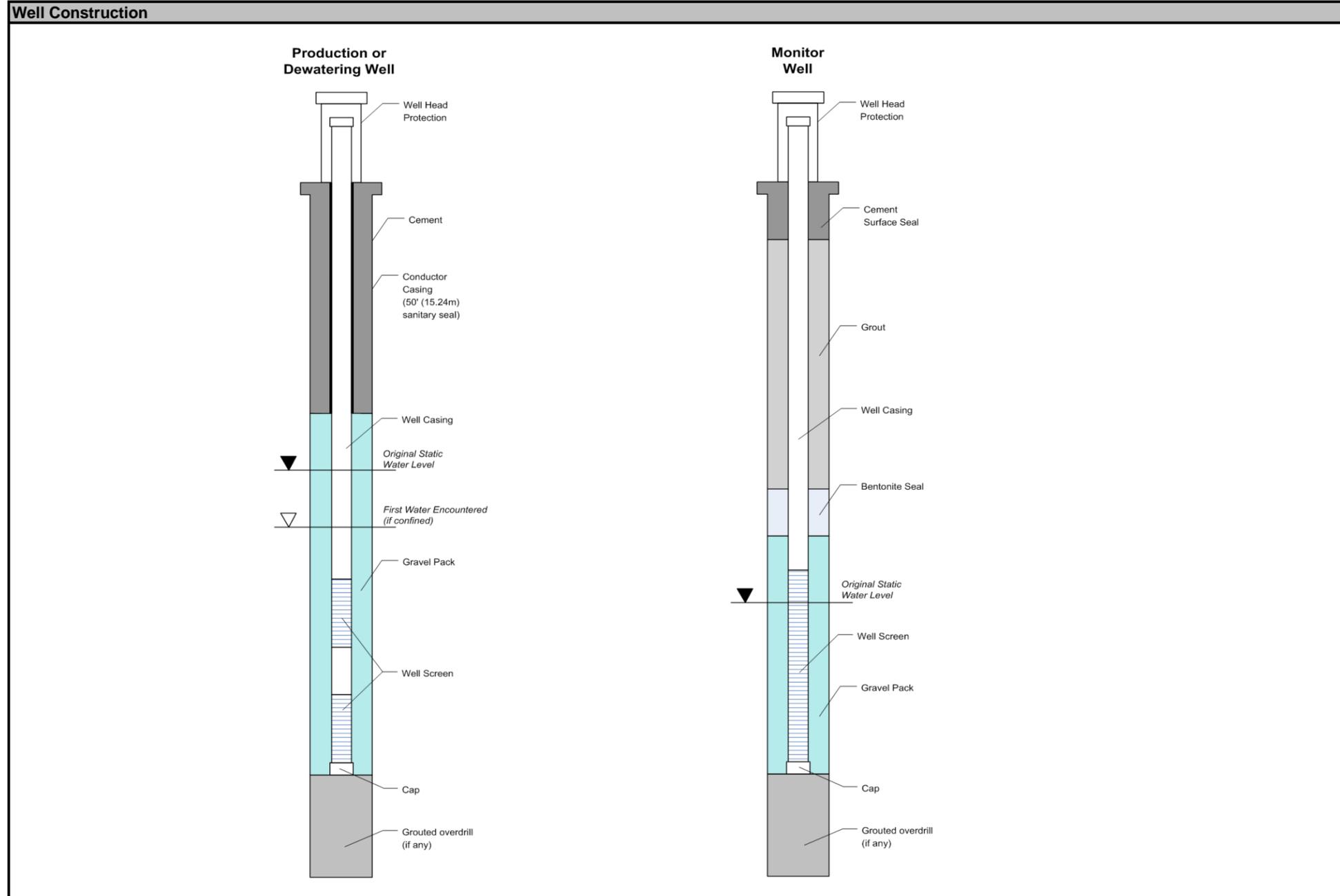
- Wells abandoned per NAC 534.420 with bentonite grout placed to 50 feet above the top of the screen (see note 1).
 (1) Assumes top of screen is at or above the static water level (in unconfined aquifers) or the depth of first water encountered (in confined aquifers).
 (2) Assumes 25% loss to formation for grouting
 (3) Grouting only required to 50' (15.24m) above the top of screen because monitor wells are constructed with a seal in the annular space.
 (4) Assumes top 20' (6m) plugged with cement.
 (5) Assumes hole plugged with inert material (cuttings or alluvium) above grout up to cement surface plug.
 (6) See Productivity Sheet for hourly production. Minimum 1 hr per hole + fixed hours per hole for move and setup (see Productivity Sheet).
 (7) See Productivity Sheet for hourly production. Minimum 1 hr per hole.

Notes:

**Closure Cost Estimate
Well Abandonment**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Well Abandonment				
	Labor	Equipment	Materials	Totals
Production, Dewatering, Infiltration Wells	\$7,144	\$19,032	\$1,936	\$28,112
Monitoring Wells	\$0	\$0	\$0	\$0
TOTALS	\$7,144	\$19,032	\$1,936	\$28,112



**Closure Cost Estimate
Misc. Costs**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 3671L.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Miscellaneous Cost Summary				
	Labor	Equipment	Materials	Totals
Fence Removal	\$41,588	\$15,286	N/A	\$56,874
Fence Installation	\$0	\$0	\$0	\$0
Culvert & Buried Pipe Removal	\$1,132	\$398	N/A	\$1,530
Surface Pipe Removal	\$0	\$0	N/A	\$0
Power Lines	\$57,342	N/A	N/A	\$57,342
Substations/Transformers	\$56,086	N/A	N/A	\$56,086
Rip-rap, rock lining, gabions	\$0	\$0	\$0	\$0
Other Costs	\$0	\$0	\$0	\$0
TOTALS	\$156,148	\$15,684	\$0	\$171,832

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 \$
1	Project Perimeter Fence	F01	22,480	Barbed 4-strand	\$41,588	\$15,286	\$56,874
					\$41,588	\$15,286	\$56,874

Notes:

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

Notes:

**Closure Cost Estimate
Misc. Costs**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Miscellaneous Cost Summary				
	Labor	Equipment	Materials	Totals
Fence Removal	\$41,588	\$15,286	N/A	\$56,874
Fence Installation	\$0	\$0	\$0	\$0
Culvert & Buried Pipe Removal	\$1,132	\$398	N/A	\$1,530
Surface Pipe Removal	\$0	\$0	N/A	\$0
Power Lines	\$57,342	N/A	N/A	\$57,342
Substations/Transformers	\$56,086	N/A	N/A	\$56,086
Rip-rap, rock lining, gabions	\$0	\$0	\$0	\$0
Other Costs	\$0	\$0	\$0	\$0
TOTALS	\$156,148	\$15,684	\$0	\$171,832

Culvert & Buried Pipe Removal								
You must fill in ALL green and blue cells								
	Description (required)	ID Code	Input			Costs		
			Length ft	Type (select type)	Location (select)	Labor Cost \$	Equipment Cost \$	Total Cost \$
1	Culvert 5	C05	24	24 in (600 mm) D	On site	\$243	\$85	\$328
2	Culvert 6	C06	58	24 in (600 mm) D	On site	\$586	\$206	\$792
3	Culvert 7	C07	30	24 in (600 mm) D	On site	\$303	\$107	\$410
						\$1,132	\$398	\$1,530

Notes: All water supply and infrastructure pad pipelines are 18-inches deep and will be capped and abandoned in place.
 Culverts 1-4 will be left in place for stormwater control.



**Closure Cost Estimate
Misc. Costs**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 3671LGrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Miscellaneous Cost Summary				
	Labor	Equipment	Materials	Totals
Fence Removal	\$41,588	\$15,286	N/A	\$56,874
Fence Installation	\$0	\$0	\$0	\$0
Culvert & Buried Pipe Removal	\$1,132	\$398	N/A	\$1,530
Surface Pipe Removal	\$0	\$0	N/A	\$0
Power Lines	\$57,342	N/A	N/A	\$57,342
Substations/Transformers	\$56,086	N/A	N/A	\$56,086
Rip-rap, rock lining, gabions	\$0	\$0	\$0	\$0
Other Costs	\$0	\$0	\$0	\$0
TOTALS	\$156,148	\$15,684	\$0	\$171,832

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

Notes:

Power Line and Substation Removal										
You must fill in ALL green and blue cells										
Description (required)	ID Code	Power Line Length miles	Power Line Type (select)	Number of Substations #	Location (select)	Costs			Cost Breakdown	
						Power Line Removal \$	Substation Removal \$	Total Cost \$	Labor Cost \$	Equipment Cost \$
1 Power Line 1	PL01	0.20642	Single Pole	1	On-site	\$9,184	\$56,086	\$65,270	\$13,054	\$52,216
2 Power Line 2	PL02	0.424266	Single Pole		On-site	\$18,877	\$0	\$18,877	\$3,775	\$15,102
3 Power Line 3	PL03	0.082453	Single Pole		On-site	\$3,669	\$0	\$3,669	\$734	\$2,935
4 Power Line 4	PL04	0.575619	Single Pole		On-site	\$25,612	\$0	\$25,612	\$5,122	\$20,490
						\$57,342	\$56,086	\$113,428	\$22,685	\$90,743

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
On-site Powerlines from one Substation

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

Closure Cost Estimate
Monitoring

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

Reclamation Monitoring & Maintenance - Cost Summary				
	Labor	Equipment	Lab & Materials	Totals
Revegetation Maintenance	\$2,984	\$1,134	\$9,929	\$14,047
Erosion Maintenance	\$0	\$0	N/A	\$0
Reclamation Monitoring	\$16,260	\$1,449	N/A	\$17,709
Subtotal Reclamation Monitoring	\$19,244	\$2,583	\$9,929	\$31,756
Water Quality Monitoring	\$0	\$0	\$0	\$0
TOTAL MONITORING	\$19,244	\$2,583	\$9,929	\$31,756

Reclamation Maintenance								
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	298	10%	Mix 2	29.8	\$332.75	\$100.00	\$38.00	
Labor								\$2,984
Equipment								\$1,134
Materials								\$0.00
Cost/Acre								\$471
							Subtotal	\$14,047

Notes: 1) Surface area is NOT the same as footprint disturbance area typically used for permitting purposes.

Description	Total Volume Growth Media cy	% Volume Requiring Maintenance	Average Growth Media Placement Cost \$/CY	Volume Requiring Replacement cy	Labor (assume: 25%) \$/acres	Equipment (assume: 75%) \$/acres	Total \$
Erosion Maintenance	430,937		\$1.84	0	\$0.00	\$0.00	\$0

Notes:

Reclamation Monitoring					
Description	Hrs/Day	Days/Year	Number of Years	Rate \$/hr	
Field Work					
Field Geologist/Engineer	8	2	3	\$169.38	\$8,130
Range Scientist				\$155.34	\$0
Reporting					
Field Geologist/Engineer	8	2	3	\$169.38	\$8,130
Range Scientist				\$155.34	\$0
					Subtotal
Travel					
	Hrs/Trip hr	Trips/Year	Years	Truck Cost \$/hr	
Travel	8	2	3	\$30.19	\$1,449
					Subtotal
					\$1,449
					Total Reclamation Monitoring
					\$17,709

Notes:

Closure Cost Estimate Constr. Mgmt

Project Name: Grassy Mountain Mine - Reclamation Plan
Date of Submittal: November 2019
File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
Cost Estimate Type: Surety **Cost Basis:** Northern Nevada

Construction Management & Road Maintenance - Cost Summary				
	Labor	Equipment	Materials	Totals
Construction Management	\$32,000	\$6,109	N/A	\$38,109
Construction Support		\$3,542		\$3,542
Road Maintenance	\$9,000	\$12,425	\$0	\$21,425
TOTAL CONSTRUCTION MANAGEMENT	\$41,000	\$22,076	\$0	\$63,076

Construction Management							
Construction Management Staff							
Description	Duration mo.	Hours/ Month hr.	Number of Supervisors	Supervisor Rate \$/hr	Labor Cost \$	Equipment Cost ⁽¹⁾ \$	Totals \$
Active Reclamation Monitoring & Maintenance	2	160	1	\$100.00	\$32,000	\$6,109	\$38,109
					\$0	\$0	\$0
Total Staff					\$32,000	\$6,109	\$38,109
Construction Management Support							
Description	Duration mo.	Number of Units		Rental Rate \$/mo	Generator Cost \$/mo	Equipment Cost ⁽¹⁾ \$	Totals \$
Temporary Office Rental	2	1		\$213	\$1,342	\$3,111	\$3,111
Temporary Toilets	2	1		\$216		\$432	\$432
Total Support						\$3,542	\$3,542
Notes: Office rental assumes only 1 generator required for every 4 trailers							
Total Construction Management							\$41,651

Road Maintenance							
Description	Fleet Size (select)	Number	Duration mo.	Hours/ Month hr.	Labor Cost \$	Equipment Cost \$	Totals \$
Active Reclamation							
Water Truck	Small	1	2	40	\$3,346	\$5,159	\$8,505
Grader	Small	1	2	40	\$5,654	\$7,266	\$12,920
Monitoring & Maintenance							
Water Truck					\$0	\$0	\$0
Grader					\$0	\$0	\$0
Description	Gallons/ Day	Days/ Month	Duration mo.	Cost/ Gallon \$			Totals \$
Water Fees							
Water Fees							\$0
Total Project Maintenance					\$9,000	\$12,425	\$21,425

Notes: 1) Supervisor equipment = pickup truck
 Water truck and grader are assumed to be active 25% of time during reclamation

**Closure Cost Estimate
Labor Rates**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

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	Northern Nevada	Churchill, Douglas, Elko, Eureka, Humboldt, Lander, Lyon, Mineral, Pershing, Storey, Washoe, and White Pine Counties
Power Equipment Operators	50-150 miles	\$0.00
Truck Drivers	50-150 miles	\$0.00
Laborers	50-150 miles	\$0.00
INDIRECT COSTS		
Unemployment (%)	3.00%	
Retirement/SS/Medicare (%)	7.65%	
Workman's Compensation (%)	8.90%	
Other Indirects		
State Payroll Tax (13),(15),(17)		
Total Other Indirects	0.00%	

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		\$37.51	\$0.00	\$37.51	\$24.80	\$1.13	\$2.87	\$3.34	\$0.00	\$69.64
D6R w/ Winch					\$24.80					
D7R		\$37.51	\$0.00	\$37.51	\$24.80	\$1.13	\$2.87	\$3.34	\$0.00	\$69.64
D8R		\$37.51	\$0.00	\$37.51	\$24.80	\$1.13	\$2.87	\$3.34	\$0.00	\$69.64
D9R		\$37.51	\$0.00	\$37.51	\$24.80	\$1.13	\$2.87	\$3.34	\$0.00	\$69.64
D10R		\$37.51	\$0.00	\$37.51	\$24.80	\$1.13	\$2.87	\$3.34	\$0.00	\$69.64
D11R		\$37.51	\$0.00	\$37.51	\$24.80	\$1.13	\$2.87	\$3.34	\$0.00	\$69.64
Wheeled Dozers										
824G					\$24.80					
834G					\$24.80					
844					\$24.80					
854G					\$24.80					
Motor Graders										
120H		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
14G/H		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
16G/H		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
24M					\$24.80					
Track Excavators										
312C		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
320C		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
325C		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
330C		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
345B		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
365BL					\$24.80					
385BL		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
Scrapers										
631G		\$37.51	\$0.00	\$37.51	\$24.80	\$1.13	\$2.87	\$3.34	\$0.00	\$69.64
637G		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
Wheeled Loaders										
924G		\$37.51	\$0.00	\$37.51	\$24.80	\$1.13	\$2.87	\$3.34	\$0.00	\$69.64
928G		\$37.51	\$0.00	\$37.51	\$24.80	\$1.13	\$2.87	\$3.34	\$0.00	\$69.64
950G		\$37.51	\$0.00	\$37.51	\$24.80	\$1.13	\$2.87	\$3.34	\$0.00	\$69.64
966G		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
972G		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
980G		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
988G		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
990					\$24.80					
992G		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
994D					\$24.80					
L2350					\$24.80					
Shovels										
PC2000					\$24.80					
PC3000					\$24.80					
PC4000					\$24.80					
PC5500					\$24.80					
PC8000					\$24.80					
Hydraulic Hammers										
H-120 (fits 325)										
H-160 (fits 345)										
H-180 (fits 365/385)										
Demolition Shears										
S340 (fits 322/325/330)										
S365 (fits 330/345)										
S390 (fits 365/385)										
Demolition Grapples										
G315 (fits 322/325)										
G320 (fits 325/330)										
G330 (fits 345/365)										

**Closure Cost Estimate
Labor Rates**

Project Name: Grassy Mountain Mine - Reclamation Plan
 Date of Submittal: November 2019
 File Name: 36711.GrassyMtn Plan.RCE.V1.xlsm
 Model Version: Version 1.4.1
 Cost Data: User Data
 Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
 Cost Estimate Type: Surety Cost Basis: Northern Nevada

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	Northern Nevada	Churchill, Douglas, Elko, Eureka, Humboldt, Lander, Lyon, Mineral, Pershing, Storey, Washoe, and White Pine Counties
Power Equipment Operators	50-150 miles	\$0.00
Truck Drivers	50-150 miles	\$0.00
Laborers	50-150 miles	\$0.00
INDIRECT COSTS		
Unemployment (%)	3.00%	
Retirement/SS/Medicare (%)	7.65%	
Workman's Compensation (%)	8.90%	
Other Indirects		
State Payroll Tax (13),(15),(17)		
Total Other Indirects	0.00%	

HOURLY LABOR RATE TABLE										
Other Equipment										
420D 4WD Backhoe		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
428D 4WD Backhoe		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
CS533E Vibratory Roller		\$36.92	\$0.00	\$36.92	\$24.80	\$1.11	\$2.82	\$3.29	\$0.00	\$68.94
CS633E Vibratory Roller					\$24.80					
CP533E Sheepsfoot Compacto					\$24.80					
CP633E Sheepsfoot Compacto					\$24.80					
Light Truck - 1.5 Ton					\$24.80					
Supervisor's Truck					\$24.80					
Flatbed Truck					\$24.80					
Air Compressor + tools		\$35.46	\$0.00	\$35.46	\$24.80	\$1.06	\$2.71	\$3.16	\$0.00	\$67.19
Welding Equipment		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
Heavy Duty Drill Rig		\$37.51	\$0.00	\$37.51	\$24.80	\$1.13	\$2.87	\$3.34	\$0.00	\$69.64
Pump (plugging) Drill Rig		\$37.51	\$0.00	\$37.51	\$24.80	\$1.13	\$2.87	\$3.34	\$0.00	\$69.64
Concrete Pump					\$24.80					
Gas Engine Vibrator		\$36.92	\$0.00	\$36.92	\$24.80	\$1.11	\$2.82	\$3.29	\$0.00	\$68.94
Generator 5KW					\$24.80					
HDEP Welder (pipe or liner)					\$24.80					
5 Ton Crane		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
20 Ton Crane		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
50 Ton Crane		\$38.37	\$0.00	\$38.37	\$24.80	\$1.15	\$2.94	\$3.41	\$0.00	\$70.67
120 Ton Crane					\$24.80					
NOTES:										
(1) Equipment Type:	Caterpillar model or equivalent, LeTourneau									
(2) Equipment Operator Source:	D-B NV20190002 7/5/2019									
(3) Zone Basis:	From Washoe Co. Courthouse									
Truck Drivers (\$/hr) (4)										
725	truck Driver > 25 yds	\$31.50	\$0.00	\$31.50	\$4.16	\$0.95	\$2.41	\$2.80	\$0.00	\$41.82
730	ruck Driver > 25 yds	\$31.50	\$0.00	\$31.50	\$4.16	\$0.95	\$2.41	\$2.80	\$0.00	\$41.82
735	ruck Driver > 25 yds	\$31.50	\$0.00	\$31.50	\$4.16	\$0.95	\$2.41	\$2.80	\$0.00	\$41.82
740	ruck Driver > 25 yds	\$31.50	\$0.00	\$31.50	\$4.16	\$0.95	\$2.41	\$2.80	\$0.00	\$41.82
769D	ruck Driver > 25 yds	\$31.50	\$0.00	\$31.50	\$4.16	\$0.95	\$2.41	\$2.80	\$0.00	\$41.82
773E					\$4.16					
777D	ruck Driver > 60 yds	\$31.50	\$0.00	\$31.50	\$4.16	\$0.95	\$2.41	\$2.80	\$0.00	\$41.82
785C					\$4.16					
793C					\$4.16					
797B					\$4.16					
613E (5,000 gal) Water Wagon	ter Truck > 2,500 gal	\$31.50	\$0.00	\$31.50	\$4.16	\$0.95	\$2.41	\$2.80	\$0.00	\$41.82
621E (8,000 gal) Water Wagon	ter Truck > 2,500 gal	\$31.50	\$0.00	\$31.50	\$4.16	\$0.95	\$2.41	\$2.80	\$0.00	\$41.82
777D Water Truck					\$4.16					
785C Water Truck					\$4.16					
Dump Truck (10-12 yd3)	Truck Driver > 8 yds <	\$31.50	\$0.00	\$31.50	\$4.16	\$0.95	\$2.41	\$2.80	\$0.00	\$41.82
NOTES:										
(4) Truck Driver Source:	D-B SUNV2014-014 9/8/2016									
(5) Zone Basis:	From Washoe Co. Courthouse									

**Closure Cost Estimate
User 1**

PROCESS FLUID STABILIZATION - Phase III

LABOR REQUIREMENTS

SITE Phase III Duration (months)

0

Site Workers
General Laborers
Security Personnel
Electrician/Welder
On-Site Supervisor

# per shift	hrs. per shift	shifts per day	days per wk.	hrs. per wk.	hrs. per mo.	total hrs.	rate per hr.*
2	12	1	5	120	520.00	1,040	\$43.35
0	12	0	7	0	0.00	0	\$43.05
1	8	1	2	16	69.33	69	\$71.60
0	8	0	2	0	0.00	0	\$82.72

* Frpm PFCE IFM tab, Labor Req.

Totals
\$45,084
\$0
\$4,964
\$0

TOTAL LABOR

\$50,048

EQUIPMENT REQUIREMENTS

Support Equipment Rentals

Backhoe (CAT 420D)
Generator (5 KW)
Pickup Truck
Motor Grader (CAT 14G) - if required for snow removal
Welding Equipment
HDPE Welder (pipe or liner)
Office Trailer
Portable Toilet

# of each	# of mo.	rental rate	operating hrs	operating cost	total cost
		per mo.	per mo*	per hr.	per mo.
1	60	\$2,650	35.2	\$20.51	\$3,372
0	0	\$712	35.2	\$2.63	\$804
2	100	\$2,592	35.2	\$6.18	\$2,809
1	60	\$13,500	35.2	\$42.01	\$14,979
1	0	\$2,039	n/a	n/a	\$2,039
1	0	\$8,628	n/a	n/a	\$8,628
1	0	\$213	n/a	n/a	\$213
1	0	\$216	n/a	n/a	\$216

\$202,316
\$0
\$561,857
\$898,732
\$0
\$0
\$0
\$0

* Percent of time support equipment assumed operating during a 176 hour month

20%

TOTAL EQUIPMENT

\$1,662,906

MATERIAL REQUIREMENTS

Sampling and Lab Costs

Type
NDEP Profile I Water
NDEP Profile II Water

# samples	cost \$/ea	total cost
20	\$411.00	\$8,220.00
0	\$461.00	\$0.00

Subtotal Sampling and Lab Costs

\$8,220

Misc. Costs (phones, shipping, supplies, etc. @ \$1,000 per month)

\$0

TOTAL MATERIALS

\$8,220

Total Shared Costs Phase III

Labor	Equipment	Materials
\$50,048	\$1,662,906	\$8,220

Total
\$1,721,174

ET Cell Conversion Costs

Calculated from BMRR EZ E-Cell Calc Sheet

\$48,281	\$122,671	\$9,187
\$0	\$0	\$0
\$0	\$0	\$0
\$0	\$0	\$0

\$180,139
\$0
\$0
\$0

Total Non-Shared Costs Phase III

\$0	\$0	\$9,187
-----	-----	---------

\$9,187

TOTAL COSTS

\$50,048	\$1,662,906	\$17,407
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\$1,730,361

**Closure Cost Estimate
User 2**

**Interim Fluid Management (IFM)
Process Fluid Stabilization (PFS)**

LABOR COSTS (2019 Cost Data)

Site Workers (SRCE & Davis-Bacon Wage Rates)

	Northern Nevada	Southern Nevada
	per hour	per hour
Laborer (Common or General, landscape,)	\$0.00	\$0.00
Security Personnel (Electrician,)	\$0.00	\$0.00
Electrician/Welder (,)	\$0.00	\$0.00
On-Site Supervisor (SRCE-from R.S. Means)	\$0.00	\$0.00

CEM Contractor (Consulting Rates)

	per hour
Program Director	\$180.50
Senior Engineer/Geologist	\$139.03
Field Technician	\$76.34
Administrative	\$79.56

	(\$) per day
Full per diem rate	\$149.00
Partial per diem rate	\$41.25

	(\$) per mile
Mileage rate	\$0.580

EQUIPMENT RENTAL COSTS

SRCE Rates (2019 Cost Data)

	rental cost	operating cost
	per month	per hour
Backhoe (CAT 420D)	\$2,650	\$20.51
Generator (5 KW)	\$712	\$2.63
Pickup Truck	\$2,592	\$6.18
Motor Grader (CAT 14G)	\$13,500	\$42.01
Welding Equipment	\$2,039	n/a
HDPE Welder (pipe or liner)	\$8,628	n/a
Office Trailer	\$213	n/a
Portable Toilet	\$216	n/a

MISC. COSTS

Pumps

	High Head			
	HH-225c	HH-150	HH-125c	HH-80c
Model Number	4,000	2,090	620	410
B.E.P. Flow Rate (gpm)	260	260	340	320
B.E.P. Head (feet)	1,900	2,000	2,200	2,200
RPM				
Monthly Rental Rate - 24/7 operation (1)	\$ 4,484	\$ 3,364	\$ 2,906	\$ 1,566
Monthly Maintenance Rate - 24/7 operation (2)				
Environmental Fee (3)				
Total Monthly Rental Rate	\$ 4,484	\$ 3,364	\$ 2,906	\$ 1,566

	per gallon
Diesel Fuel	\$2.36

	per KW-hr
Electrical Power Cost	\$0.07918

Evaporation Equipment

	each
EcoMister Standard Dual Pack Evaporator (2)	\$169,500
Pumps for Elevation Head (HH-80c) (3)	\$47,099

	each
NDEP Profile I Water analysis	\$411.00
NDEP Profile II Water analysis	\$461.00

(1) Rain for Rent June 2019 for 24/7 operation
(2) Slimline Manufacturing July 2019 Quote.
(3) Rain for Rent June 2019

**Closure Cost Estimate
User 2**

FICA	UE	WC
7.65%	3.00%	8.90%

Northern Nevada

	Base	Fringes	Base +	Add Add'l	FICA	UE	WC	Total
					\$	\$	\$	\$
Laborer	\$25.70	\$10.56	\$36.26	\$36.26	\$0.00	\$0.00	\$0.00	\$36.26
Security Personnel	\$25.45	\$10.56	\$36.01	\$36.01	\$0.00	\$0.00	\$0.00	\$36.01
Electrician/Welder	\$40.50	\$19.39	\$59.89	\$59.89	\$0.00	\$0.00	\$0.00	\$59.89
On-Site Supervisor (SRCE-from R.S. Means)	\$69.19	\$0.00	\$69.19	\$69.19	\$0.00	\$0.00	\$0.00	\$69.19

Southern Nevada

	Base	Fringes	Base +	Add Add'l	FICA	UE	WC	Total
					\$	\$	\$	\$
Laborer	\$26.31	\$26.79	\$53.10	\$53.10	\$0.00	\$0.00	\$0.00	\$53.10
Security Personnel	\$27.65	\$26.79	\$54.44	\$54.44	\$0.00	\$0.00	\$0.00	\$54.44
Electrician/Welder	\$52.00	\$20.13	\$72.13	\$74.63	\$0.00	\$0.00	\$0.00	\$74.63
On-Site Supervisor (SRCE-from R.S. Means)	\$85.50	\$0.00	\$85.50	\$85.50	\$0.00	\$0.00	\$0.00	\$85.50

Notes:
Union wages assumed.

Northern Nevada

Category	Code	Group	Description	Zone Adjustment
Labor	DB LABO0169-034	10/1/2017 - Elko Building	Group 3	Mason Tender Cement/Concrete
Security Personal	DB LABO0169-034	10/1/2017 - Elko Building	Group 1	Common or General
Electrician/Welder	DB ELEC0401-010	7/1/2019 - Elko Building		Electrician
On-site Supervisor	RS Means 2019 Q2 (01 31 1320 0260 Total Incl. O&P-10%) adjusted for Elko, NV (898)			

Southern Nevada

Category	Code	Group	Description	Zone Adjustment
Labor	DB LABO0872-015	7/1/2018 - Clark Building	Group 3	Mason Tender Cement/Concrete
Security Personal	DB LABO0872-015	7/1/2018 - Clark Building	Group 1	Common or General, landscape
Electrician/Welder	DB ELEC0357-002	10/1/2017 - Clark Heavy		Electrician
On-site Supervisor	RS Means 2019 Q2 (01 31 1320 0260 Total Incl. O&P-10%) adjusted for Las Vegas, NV (898, 890,891)			

**Closure Cost Estimate
User 2**

SHARED COSTS FOR ALL FACILITIES

LABOR REQUIREMENTS

yellow cells are from Unit Costs sheet

**Six Month
Totals**

Site Workers	# per shift	hrs. per shift	shifts per day	days per wk.	hrs. per wk.	hrs. per mo.	total hrs.	rate per hr.	
General Laborers	1	12	2	7	168	728.00	4,368	\$0.00	\$0
Security Personnel	0	12	0	7	0	0.00	0	\$0.00	\$0
Electrician/Welder	1	8	1	5	40	173.33	1,040	\$0.00	\$0
On-Site Supervisor	0	8	0	5	0	0.00	0	\$0.00	\$0

Subtotal Site-Workers **\$0**

CEM Contractor Site Worker Oversight	on-site hrs./wk.	round trip (3) to hotel hrs./wk.	round trips (4) to site hrs./wk.	total hrs./wk.	on-site # of wks.	start-up hrs.	billing rate per hr.	
	Program Director	0.00	0.00	0	0.00	0	32.00	\$0.00
Senior Engineer(1)	16.00	0.00	0.00	16.00	12	80.00	\$0.00	\$0
Field Technician(2)	16.00	0.00	0.00	16.00	24	80.00	\$0.00	\$0
Administrative	0.00	0.00	0	0.00	0	8.00	\$0.00	\$0

	# of trips (weeks)		total trips	total days of per diem	per diem rate per day	
	senior engr.	field tech.				
Full per diem (lodging + meals) - 2 days/trip	12	24	0	0	\$0.00	\$0
Partial per diem (meals only) - 1 day/trip	12	24	0	0	\$0.00	\$0

	one-way miles	# of weeks		round trips per week	total round trips	total miles	mileage rate per mile	
		senior engr.	field tech.					
One-Way Mileage to hotel accommodations (3)	0	12	24	1	0	0	\$0.000	\$0
One-Way Mileage from hotel to site (4)	0	12	24	3	0	0	\$0.000	\$0

Subtotal CEM Contractor Site Worker Oversight **\$0**

Notes:

- (1) Senior Engineer - 2 week start-up time and 16 hrs/week (2, 4 hr. days & 1, 8 hr. day) every other week on-site.
- (2) Field Technician - 2 week start-up time and 16 hrs./week (2, 4 hr. days & 1, 8 hr. day) every week on-site.
- (3) From Carson City, Nevada to nearest town to site having hotel accommodations. One round trip per week.
- (4) From town to site. Three round trips per week.

CEM Contractor Reporting

Weekly Status Reports, Quarterly Reports	hrs. per wk.	# of wks.	total hrs.	rate per hr.	
Senior Engineer	4	26	104	\$0.00	\$0
Field Technician	4	26	104	\$0.00	\$0
Administrative	4	26	104	\$0.00	\$0

Subtotal CEM Contractor Reporting **\$0**

TOTAL LABOR **\$0**

Simplified Evaporation Cell Reclamation Cost Estimate

DRAFT VERSION FOR INTERNAL BMRR EVALUATION ONLY V1.0.0 Beta 08.01.13

Facility:	Reclaim Pond				
Location:	Malheur County, Oregon				
Operator:	Calico Resources USA Corp.				
Prepared By:	EM Strategies, Inc				
SubmittalDate:	November 1, 2019				
Fleet:	Small Fleet	Small Fleet	Large Fleet		
Ex Pond Config:	Double Liner	Double Liner	Double Liner		
Pond Area (ac)	0.37 ac				
Pond Depth (ft)	9.0 ft				
Source (%)	4.0%				
Source (ft)	602 ft				

Labor	\$48,281				
Equip	\$122,671				
Material	\$9,187				
Total	\$180,138.66				

\$486,861/ac

Summary			
Labor	Equipment	Material	Total
\$48,281	\$122,671	\$9,187	\$180,139
Average Cost =		\$486,861/ac	

User Notes:

Assumptions:

- 1) Labor, Equipment and Material Prices are based on 2011 SRCE Cost Data. Cost Basis is Northern Nevada, Mine Plan of Operations, Public/Public Private, Standardized Data.
- 2) Small Fleet: 769D Truck, 325C Loader, 966C Excavator, D9R Dozer, D7R Dozer
- 3) Large Fleet: 777D Truck, 385BL Loader, 988C Excavator, D10R Dozer, D7R Dozer
- 4) Excavation, Backfill, Cover, Ripping, Growth Medium and Grading materials are based on Alluvium properties and are from the same source location.
- 5) Includes revegetation cost over stated pond area.
- 6) Growth Medium/Cover is 24 inches over the stated pond area.
- 7) Mix 2, "Low Hills" is used for revegetation seed mix.
- 8) Includes installation costs for 10 foot high chain link perimeter fencing setback 20 feet. Perimeter is 4x square root of the area.
- 9) Includes installation cost for new heap to pond double wall pipe.
- 10) Includes installation cost for one 1500 gallon dosing tank.
- 11) Includes installation costs for distributing piping.
- 12) Includes costs for inspection, repair and removal of 1/2 foot of sludge on existing lined ponds.
- 13) Includes excavation costs for new ponds.
- 14) Includes installation costs for double liners with geonetting on new and unlined ponds, a single liner, geonetting on single lined ponds, and no liner cost on existing double lined ponds.
- 15) New liner installation includes cost for a key trench

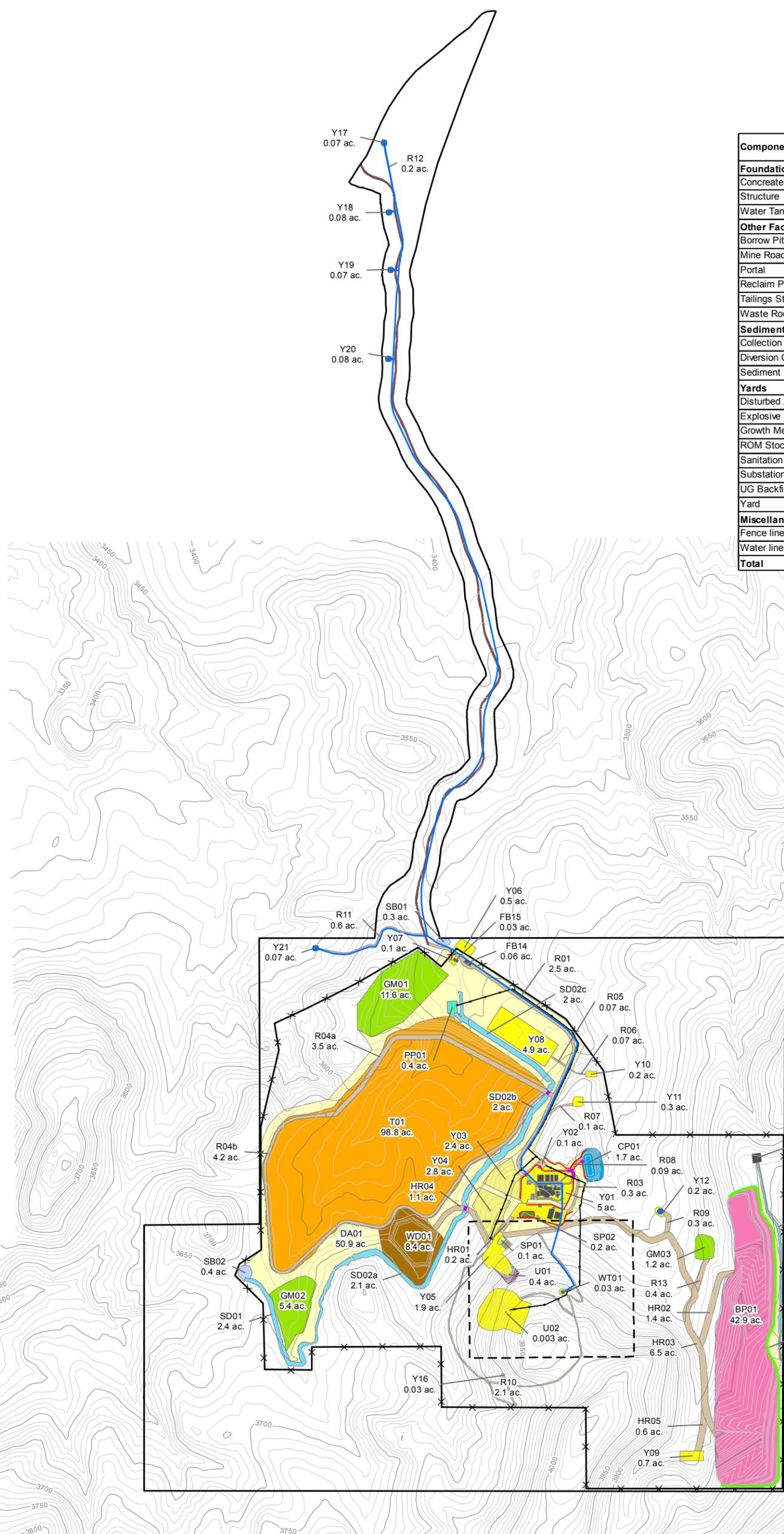
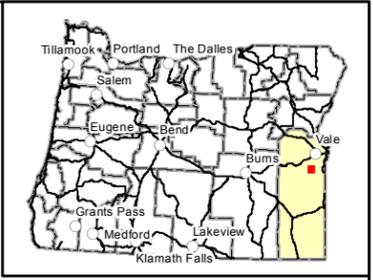
DRAFT VERSION FOR INTERNAL BMRR EVALUATION ONLY

2019 MOB/DEMOB using R.S. MEANS and SRCE equipment and DAVIS-BACON wages									
blue font is for project specific user input								Miles from Washoe County Courthouse to project, one way	27
								Miles from equipment rental yard to project, one way (9)	27
Grassy Mountain Mine Project - November 2019 - Mob from Vale, OR								Hours travel time @ 55 MPH	0.49
Equipment	Mobilization \$/hour (1)	\$ Flat Rate load & unload (2)	\$/hour Deadhead (empty return cost) (3)	Disassembly and assembly (4)	Permit cost \$ (5)	Pilot car costs	# of units	One Way Mob Cost	Total Mob and Demob Cost
Bulldozers									
D6R	\$ 97	\$ 97	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
D7R	\$ 126	\$ 126	\$ -	\$ -	\$ 25	\$ -	2	\$ 427	\$ 854
D8R	\$ 148	\$ 148	\$ -	\$ -	\$ 25	\$ -		\$ -	\$ -
D9R	\$ 148	\$ 148	\$ -	\$ -	\$ 25	\$ -	1	\$ 246	\$ 492
D10R	\$ 148	\$ 148	\$ -	\$ 63,720	\$ 25	\$ -		\$ -	\$ -
D11R (two transports) (7)	\$ 148	\$ 148	\$ -	\$ 135,720	\$ 25	\$ -		\$ -	\$ -
Motor Graders									
14G/H	\$ 97	\$ 97	\$ -	\$ -	\$ -	\$ -	1	\$ 145	\$ 290
16G/H	\$ 126	\$ 126	\$ -	\$ -	\$ 25	\$ -		\$ -	\$ -
Track Excavators									
320C	\$ 126	\$ 126	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
325C	\$ 126	\$ 126	\$ -	\$ -	\$ -	\$ -	3	\$ 565	\$ 1,131
345B	\$ 148	\$ 148	\$ -	\$ -	\$ 25	\$ -		\$ -	\$ -
385BL	\$ 148	\$ 148	\$ -	\$ 44,880	\$ 25	\$ -		\$ -	\$ -
Scrapers									
631G	\$ 148	\$ 148	\$ -	\$ -	\$ 25	\$ -		\$ -	\$ -
637G PP	\$ 148	\$ 148	\$ -	\$ -	\$ 25	\$ -		\$ -	\$ -
Wheeled Loaders									
928G	\$ 97	\$ 97	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
966G	\$ 97	\$ 97	\$ -	\$ -	\$ -	\$ -	1	\$ 145	\$ 290
972G	\$ 126	\$ 126	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
988G	\$ 126	\$ 126	\$ -	\$ -	\$ 25	\$ -		\$ -	\$ -
992G (two transports) (7)	\$ 148	\$ 148	\$ -	\$ 74,160	\$ 25	\$ -		\$ -	\$ -
Hydraulic Hammers									
H-120 (fits 325) no charge, mobilize with mac	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
H-160 (fits 345) no charge, mobilize with mac	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
H-180 (fits 365/385) no charge, mobilize with	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Other Equipment									
420D 4WD Backhoe	\$ 97	\$ 97	\$ -	\$ -	\$ -	\$ -	1	\$ 145	\$ 290
CS563E Vibratory Roller	\$ 97	\$ 97	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Light Truck - 1.5 Ton	\$ 67	\$ 67	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Supervisor's Truck	\$ 58	\$ 58	\$ -	\$ -	\$ -	\$ -	1	\$ 86	\$ 172
Air Compressor + tools	\$ 74	\$ 74	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Welding Equipment	\$ 74	\$ 74	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Heavy Duty Drill Rig	\$ 397	\$ 397	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Pump (plugging) Drill Rig	\$ 397	\$ 397	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Concrete Pump	\$ 74	\$ 74	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Gas Engine Vibrator	\$ 74	\$ 74	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Generator 5KW	\$ 74	\$ 74	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
HDEP Welder (pipe or liner)	\$ 74	\$ 74	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
5 Ton Crane Truck	\$ 107	\$ 107	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
25 Ton Crane	\$ 146	\$ 146	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Trucks									
725	\$ 97	\$ 97	\$ -	\$ -	\$ -	\$ -	1	\$ 145	\$ 290
740	\$ 126	\$ 126	\$ -	\$ -	\$ 25	\$ -		\$ -	\$ -
769D	\$ 126	\$ 126	\$ -	\$ -	\$ 25	\$ -		\$ -	\$ -
777D (two transports) (8)	\$ 148	\$ 148	\$ -	\$ 71,280	\$ 25	\$ -		\$ -	\$ -
613E (5,000 gal) Water Wagon	\$ 148	\$ 148	\$ -	\$ -	\$ -	\$ -	1	\$ 221	\$ 442
621E (8,000 gal) Water Wagon	\$ 148	\$ 148	\$ -	\$ -	\$ 25	\$ -		\$ -	\$ -
Dump Truck (10-12 yd ³)	\$ 111	\$ 111	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Miscellaneous									
Equipment for dry hole abandonment (420D 4WD)	\$ 97	\$ 97	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Pilot car (Light Truck)	\$ 58	\$ 58	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Truck Tractor + Lowbed Trailer 75 ton	\$ 148	\$ 148	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Truck Tractor + Flatbed Trailer 40 ton	\$ 126	\$ 126	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
Light Truck + Flatbed Trailer 25 ton	\$ 74	\$ 74	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -
							12	\$	4,250

Footnotes and explanations of assumptions

- (1) The sum of the cost of equipment from either the SRCE or RSM equipment tab plus Davis-Bacon labor tab
- (2) Assumes minimum of 30 minutes load and secure and 30 minutes unsecure and unload machine.
- (3) No "Deadhead" (empty) charge for Mob up to 50 miles. More than 50 miles the cost of deadhead same rate as loaded miles.
- (4) Only large equipment requires disassembly for transport. Includes cost of mechanic + mechanic's truck + crane operator + crane.
- (5) Nevada Dept. of Transportation overdimensional permits are \$25 per trip or \$60 per year.
- (6) Sum of mobilization plus all ancillary costs for one way loaded and return empty.
- (7) Two transports are required but the second transport does not need pilot cars or permits or a heavy duty trailer.
- (8) Two transports required with both requiring full complement of pilot cars and permits.
- (9) For large mining operations, mobilization may be required from more than one location. For example, the Elko yard may not have four 631 scrapers. Additional equipment may need to mobilize from Reno, Las Vegas, or Salt Lake City. Input the further distance here.
- (10) Pilot Car costs based on SRCE light truck costs and Davis-Bacon wages
- (11) SRCE costs based on July 2019 vendor quotes.
- (12) RS Means costs based on R.S. Means Heavy Construction Cost Data, 2019, Q2
- (13) Davis Bacon wages based on 2019 determination.

SRCE FIGURES



Component	BLM (acres)	Private (acres)	Total (acres)
Foundations and Buildings			
Concrete Pad	0.13	0.12	0.25
Structure	1.40	0.01	1.40
Water Tank		0.03	0.03
Other Facilities			
Borrow Pit	42.89		42.89
Mine Road	21.55	3.30	24.85
Portal		0.43	0.43
Reclaim Pond	0.37		0.37
Tailings Storage Facility	98.82		98.82
Waste Rock Dump Area	8.39		8.39
Sediment & Drainage Control			
Collection Pond	1.67		1.67
Diversion Channel	9.51		9.51
Sediment Basin	0.67		0.67
Yards			
Disturbed Area	53.42	1.26	54.68
Explosive Magazine	0.03		0.03
Growth Media Stockpile	18.21		18.21
ROM Stockpile	0.18		0.18
Sanitation Field	4.69	0.55	5.24
Substation	0.11		0.11
UG Backfill Aggregate Stockpile		0.11	0.11
Yard	12.06	6.93	18.99
Miscellaneous			
Fence line	15.48		15.48
Water line	6.45	0.58	7.03
Total	296.03	13.31	309.34

Explanation

<ul style="list-style-type: none"> Project Area Patented Outline Existing Access Road ● Production Well Berm Culvert Ditch Fence Power Line Water Line 	<p>Other Facilities</p> <ul style="list-style-type: none"> Borrow Pit Mine Road Portal Reclaim Pond Tailings Storage Facility Waste Rock Dump Area 	<p>Foundations and Buildings</p> <ul style="list-style-type: none"> Concrete Pad Water Tank Structure <p>Sediment & Drainage Control</p> <ul style="list-style-type: none"> Collection Pond Diversion Channel Sediment Basin 	<p>Yards</p> <ul style="list-style-type: none"> Disturbed Area Explosive Magazine Growth Media Stockpile ROM Stockpile Sanitation Field Substation UG Backfill Aggregate Stockpile Yard 	<p>Contours Lines</p> <ul style="list-style-type: none"> Minor (10-foot Interval) Major (50-foot Interval)
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1 inch = 1,200 feet
When printed at 11" x 17"

0 600 1,200 Feet

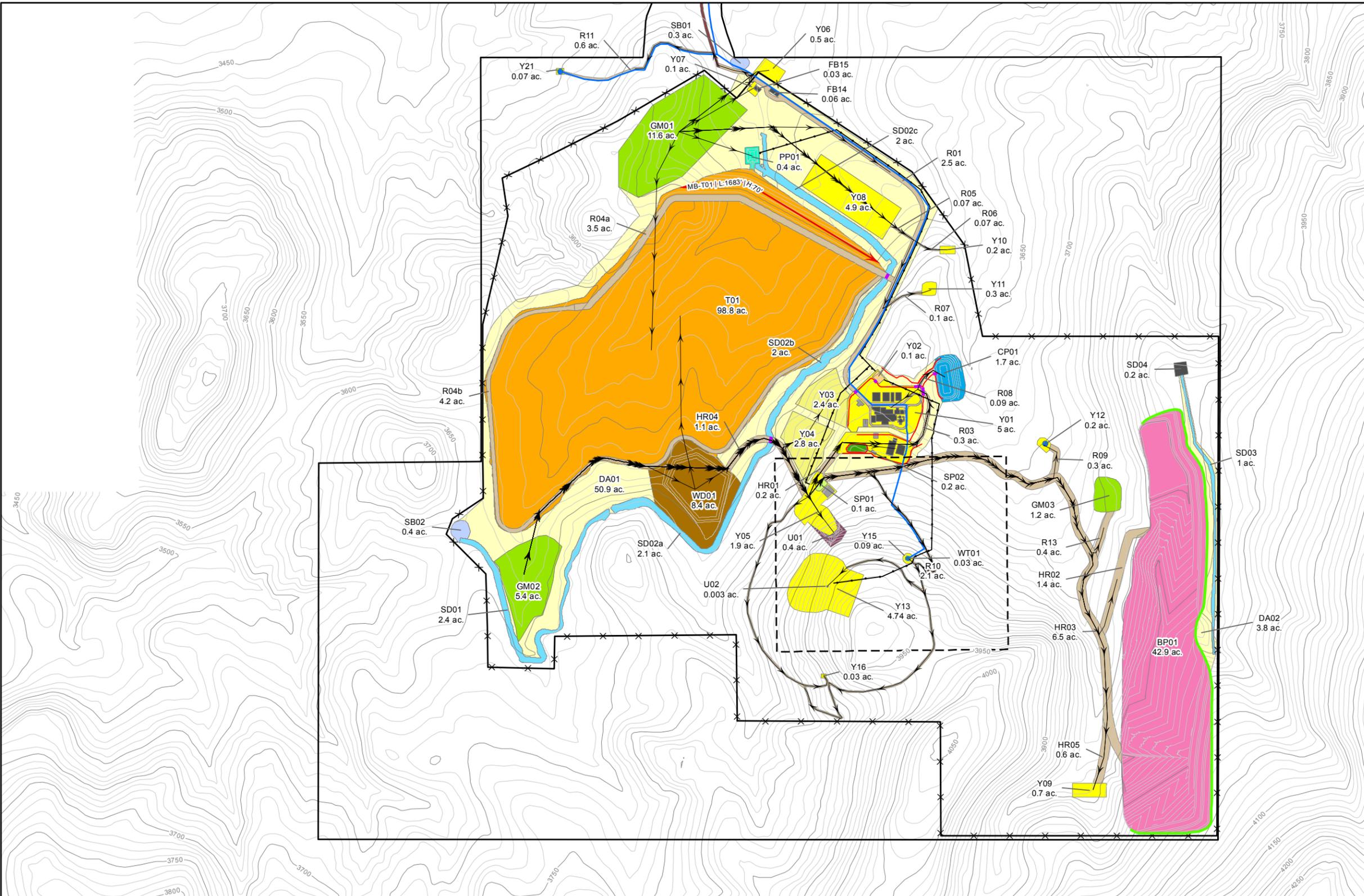
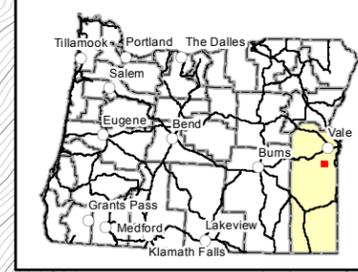
CALICO RESOURCES USA CORP.

GRASSY MOUNTAIN MINE PROJECT

RCE

Planned Reclamation Disturbance Overview

Label: Figure 1	Drawn By: JDB
Date: 11/11/2019	Project No.: 3671
Base Map:	
File Name: 3671G_GrassyMtn_SCRF_Fig1_OV.mxd	



Component	BLM (acres)	Private (acres)	Total (acres)
Foundations and Buildings			
Concrete Pad	0.13	0.12	0.25
Structure	1.40	0.01	1.40
Water Tank		0.03	0.03
Other Facilities			
Borrow Pit	42.89		42.89
Mine Road	21.55	3.30	24.85
Portal		0.43	0.43
Reclaim Pond	0.37		0.37
Tailings Storage Facility	98.82		98.82
Waste Rock Dump Area	8.39		8.39
Sediment & Drainage Control			
Collection Pond	1.67		1.67
Diversion Channel	9.51		9.51
Sediment Basin	0.67		0.67
Yards			
Disturbed Area	53.42	1.26	54.68
Explosive Magazine	0.03		0.03
Growth Media Stockpile	18.21		18.21
ROM Stockpile	0.18		0.18
Sanitation Field	4.69	0.55	5.24
Substation	0.11		0.11
UG Backfill Aggregate Stockpile		0.11	0.11
Yard	12.06	6.93	18.99
Miscellaneous			
Fence line	15.48		15.48
Water line	6.45	0.58	7.03
Total	296.03	13.31	309.34

Explanation

<ul style="list-style-type: none"> □ Project Area ▭ Patented Outline ▬ Existing Access Road 	<ul style="list-style-type: none"> ● Production Well — Berm — Culvert — Ditch ✕ Fence — Power Line — Water Line 	<ul style="list-style-type: none"> → Haul Route ◊ Mid-Bench 	<p>Other Facilities</p> <ul style="list-style-type: none"> ■ Borrow Pit ■ Mine Road ■ Portal ■ Reclaim Pond ■ Tailings Storage Facility ■ Waste Rock Dump Area 	<p>Foundations and Buildings</p> <ul style="list-style-type: none"> ■ Concrete Pad ■ Water Tank ■ Structure 	<p>Sediment & Drainage Control</p> <ul style="list-style-type: none"> ■ Collection Pond ■ Diversion Channel ■ Sediment Basin 	<p>Yards</p> <ul style="list-style-type: none"> ■ Disturbed Area ■ Explosive Magazine ■ Growth Media Stockpile ■ ROM Stockpile 	<p>Sanitation Field</p> <ul style="list-style-type: none"> ■ Sanitation Field ■ Substation ■ UG Backfill Aggregate Stockpile ■ Yard 	<p>Contours Lines</p> <ul style="list-style-type: none"> — Minor (10-foot Interval) — Major (50-foot Interval)
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1 inch = 800 feet
When printed at 11" x 17"

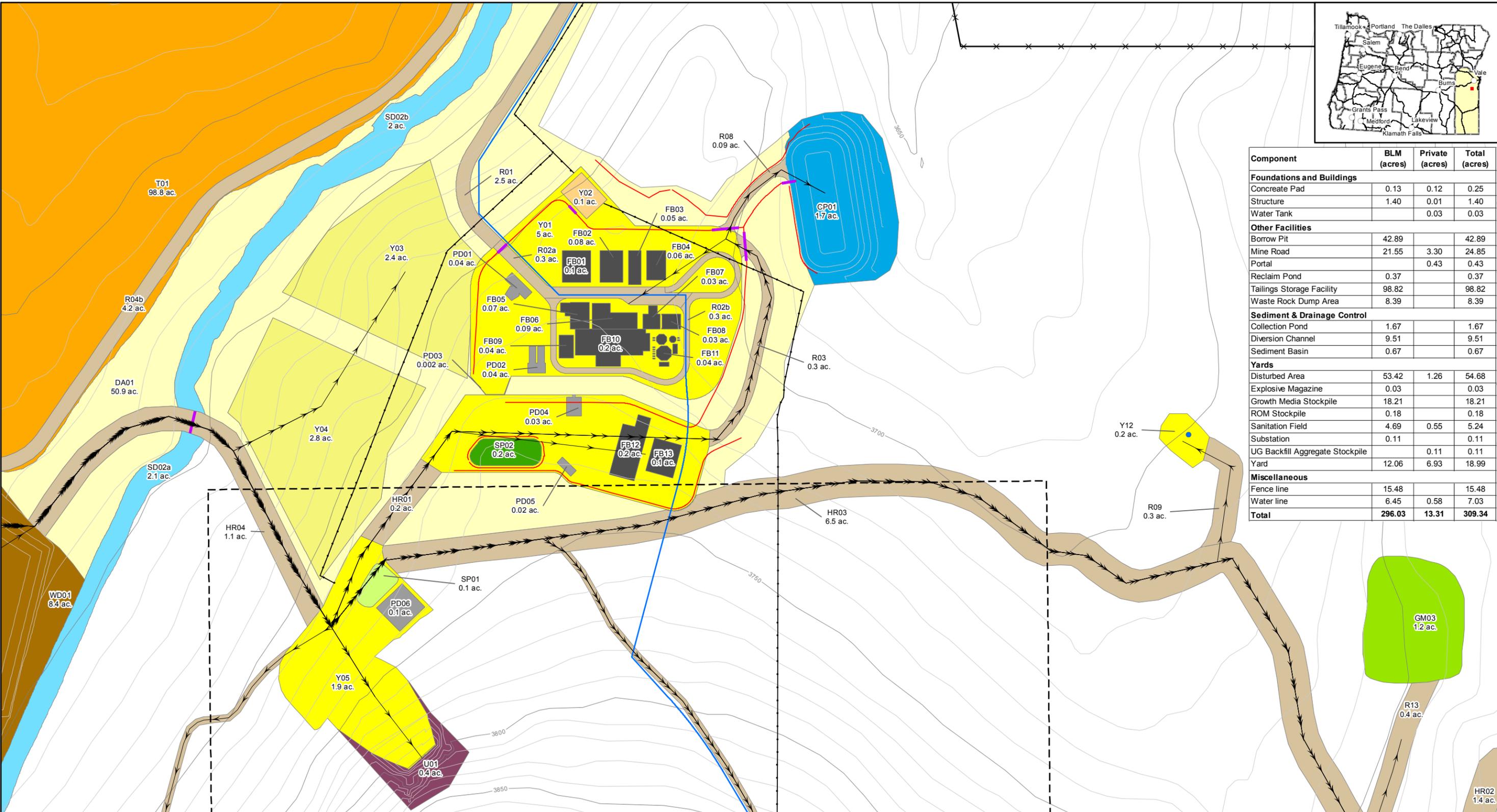
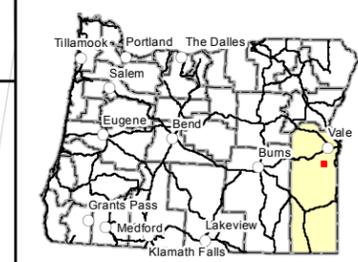
0 400 800 Feet

CALICO RESOURCES USA CORP.

GRASSY MOUNTAIN MINE PROJECT

RCE
Planned Reclamation Disturbance
Mine Site

Label: Figure 2	Drawn By: JDB
Date: 11/11/2019	Project No.: 3671
Base Map:	
File Name: 3671G_GrassyMtn_SCRF_Fig2_MS.mxd	



Component	BLM (acres)	Private (acres)	Total (acres)
Foundations and Buildings			
Concrete Pad	0.13	0.12	0.25
Structure	1.40	0.01	1.40
Water Tank		0.03	0.03
Other Facilities			
Borrow Pit	42.89		42.89
Mine Road	21.55	3.30	24.85
Portal		0.43	0.43
Reclaim Pond	0.37		0.37
Tailings Storage Facility	98.82		98.82
Waste Rock Dump Area	8.39		8.39
Sediment & Drainage Control			
Collection Pond	1.67		1.67
Diversion Channel	9.51		9.51
Sediment Basin	0.67		0.67
Yards			
Disturbed Area	53.42	1.26	54.68
Explosive Magazine	0.03		0.03
Growth Media Stockpile	18.21		18.21
ROM Stockpile	0.18		0.18
Sanitation Field	4.69	0.55	5.24
Substation	0.11		0.11
UG Backfill Aggregate Stockpile		0.11	0.11
Yard	12.06	6.93	18.99
Miscellaneous			
Fence line	15.48		15.48
Water line	6.45	0.58	7.03
Total	296.03	13.31	309.34

Explanation

Project Area	Production Well	Haul Route	Other Facilities	Foundations and Buildings	Sediment & Drainage Control	Yards	Sanitation Field	Contours Lines
Patented Outline	Culvert	Ditch	Mine Road	Concrete Pad	Collection Pond	Disturbed Area	Substation	Minor (10-foot Interval)
Fence	Portal	Power Line	Tailings Storage Facility	Structure	Diversion Channel	Growth Media Stockpile	UG Backfill Aggregate Stockpile	Major (50-foot Interval)
Water Line	Waste Rock Dump Area					ROM Stockpile	Yard	

1 inch = 200 feet
When printed at 11" x 17"

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GRASSY MOUNTAIN MINE PROJECT

RCE
Planned Reclamation Disturbance
Process Area

Label: Figure 3	Drawn By: JDB
Date: 11/11/2019	Project No.: 3671
Base Map:	
File Name: 3671G_GrassyMtn_SCRF_Fig3_PA.mxd	