Lhoist North America
Lhoist Group

Lhoist North America
Mathis Lime Plant
Grant County, New Mexico

Lime Plant Reclamation Plan

April 2020

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SECTION 1
RECLAMATION PLAN

Lhoist North America (LNA) owns the Mathis Quarry (Facility), a limestone quarry and lime manufacturing operation (mill site), located near Hanover, NM. The Facility operates pursuant to Permit No. GR030ME (Permit) issued by the Mining and Minerals Division (MMD) of the New Mexico Energy, Minerals and Natural Resources Department (EMNRD). LNA maintains a lease with the U.S Department of Agriculture – Forest Service (USFS) which includes access to the mining rights for continued operation of the Facility within the Gila National Forest.

As required by both MMD (letter dated March 2, 2020) and USFS (letter dated March 5, 2020), LNA has prepared the following reclamation plan for the Facility mill site, Claim No. 86551.

1.1 Objectives

LNA's reclamation objective for the Facility mill site is to reclaim all disturbed areas of the plant (See Figure 3 in Appendix A) to a condition as good as or better than the pre-mining surface. The reclaimed areas will be a self-sustaining ecosystem blending with the undisturbed ecosystem surrounding the operation over time.

All reclaimed areas will be stable and exhibit none of the following characteristics:

- Large rills or gullies (greater than 3 inches wide or deep);
- Perceptible soil movement or head cutting in any drainages; and,
- Slope instability on or adjacent to the reclaimed area.

1.2 Visual Resource Standards

The reclaimed landscape will approximate the visual quality of adjacent and surrounding areas regarding surface contour, drainage patterns, vegetation, and visual texture. All facilities, infrastructure, equipment and resources, and general debris associated with the operation will be removed from the mill site. Disturbed surfaces and access roads will be restored to as near-natural contours as feasible according to this reclamation plan. All disturbed areas to be reclaimed are identified in Figure 3 of Appendix A. All identified disturbed areas will be revegetated using plant species appropriate to the site (Table 1-2).

1.3 Reclamation Bond

As Part of the MMD Mining Permit and the USFS Lease Agreement, a Financial Assurance (FA) estimate from the mine operator is required. This estimate is based on the cost of reclaiming the site by a third party. The FA bond will be placed jointly in the name of the State of New Mexico EMNRD-MMD and the USFS. Applicable bonding methods include a Surety Bond, CD, or cash

account. MMD requires a minimum 12-year period after reclamation for withholding release of the FA for third-party re-vegetation costs.

A reclamation bond estimate is provided in Appendix B. The estimate is for a reclamation area of approximately 16.3 acres, which is the approximate acreage of the mill site and surrounding disturbed areas. LNA has prepared the reclamation bond estimate using the Nevada Standardized Reclamation Cost Estimator, Version 1.4.1 (SRCE). The updated SRCE increases the FA estimate from an existing value of $40,243 to a proposed value of $612,293. This includes an approximate value of $223,000 to remove trash, debris, temporary structures, etc. from the mill site (note this value is listed in the cost estimation sheet under Section D – Other User Costs, with the remaining portion found within the Indirect Costs).

1.4 Reclamation Sequence

1.4.1 Initial Reclamation

LNA previously completed partial reclamation of the mill site by removing the majority of the lime manufacturing equipment, including, but not limited to: crusher, lime kiln, conveying equipment, fuel tanks, etc. Additional site work is still needed before any earth work and revegetation efforts can be made. This will be the focus of the remainder of this reclamation effort.

1.4.2 Ongoing Reclamation

With lime manufacturing no longer occurring at the Facility, LNA plans to remove the remaining structures and mining debris that remains at the mill site. This includes the demolition and removal of the temporary office trailer, demolition and removal of scale house, removal of debris piles (e.g. kiln brick, scrap metal, tires, etc.), removal of drums and associated liquids, etc. For those structures that contain components suitable for reclamation efforts (e.g. concrete foundations, limestone fines, lime spoils pile, etc.), LNA plans to excavate the soil to 6 inches below the existing grade. If necessary, the structure will be removed from the foundation at this level, and any remaining concrete will be buried in place following the procedures of this reclamation plan. Any slabs of concrete and lime spoils will be broken into manageable pieces and hauled to the mine site to be used as backfill material.

With all structures and debris removed from the mill site, reclamation of disturbed areas within the mill site will occur as follows:

- Surface Re-Contouring and Seedbed Preparation
    - Backfill of excavated areas with stockpiled subsurface overburden materials
    - Rip areas of compacted soils and limestone fines
    - Contouring of reclaimed subsurface to 3H:1V or flatter
    - Even placement of stockpiled topsoil over area to be reclaimed
    - Harrowing of final topsoil grade for seedbed preparation
- Seeding and Mulching

- Seed application by broadcast seeding
- Application of mulch

- Monitoring
  - Determination of Vegetation Reference Area
  - Inspection of reclaimed areas to determine success of revegetation efforts
- Invasive/Noxious Species Control until release of bond

Table 1-1: Mill Site Reclamation Progress Plan

Phase	Approx. Acres	Pre 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Post 2021
Removal of lime manufacturing equipment (e.g. crusher, lime kiln, conveyors, etc.)	0.2	C							
Removal of remaining structures, debris, etc.	0.2		P	P					
Earthwork, (backfill, rip compacted soils, contour, etc.)	16.3				P	P			
Application of seed and mulch	16.3					P	P		
Continued inspections (invasive species, monitoring of vegetation, erosion controls, etc.)	16.3						P	P	P

C = Phase completed
P = Proposed timeframe for completion of phase

Final reclamation for the mill site will include final grading, soil preparation, seeding, mulching, and erosion control of the areas identified within the mill site. Earthen berms will be created at access roads leading to the reclaimed areas to prevent vehicle traffic from entering.

The Permit requires at least 30 days notice prior to the commencement of reclamation activities approved in this Reclamation Plan.

1.5 Reclamation Activities

1.5.1 Surface Re-contouring

Existing facilities and structures will be demolished and removed from the mill site. Existing foundations below the surface level will be broken up and buried in place. Existing material piles with reclamation properties (e.g. limestone fines, lime spoils, etc.) will be utilized within the Facility. Excavated areas will be backfilled with stockpiled subsurface materials only; topsoil will not be placed as backfill. Subsurface soils will then be contoured (graded) to match original slopes as closely as practicable, with no slopes exceeding 3H:1V.

1.5.2 Seedbed Preparation

Areas of compacted subsoils and limestone fines will be ripped to a depth of 12 inches, followed by disking to a depth of 6 inches before placement of topsoil. The topsoil layer at the mill site is relatively thin and stockpiled quantities are limited; therefore, approximately 4 inches of stockpiled topsoil will be placed evenly over the re-graded

subsurface soils. The surface will then be tine- or chain-harrowed to break up any soil clumps, smooth the surface grade, and prepare the soil for seeding.

No soil amendments or fertilizers will be applied to reclamation areas. The MMD does not support the use of chemical fertilizers in reclaimed areas, as they generally promote the growth of weedy annual species that may suppress the establishment of native perennial species.

1.5.3 Seeding

Seed will be sowed across the mill site reclamation areas using broadcast seeding methods. Hydroseeding is not recommended for native seed due to poor seed-soil contact percentage and the tendency of the seed to self-sort by weight and size; therefore, resulting in uneven distribution during application. The seed will be applied using a "cyclone" hand seeder or similar broadcast seeder. Seed will then be raked-in so that it is planted approximately one-half inch below the surface. The recommended seed mix and seeding rate is provided in Table 1-2.

Table 1-2: Reclamation Seed Mix and Application Rate

Botanical Name	Common Name	Grass/Shrub/Forb	PLS Rate (Pounds Per Acre)
Hilaria berlangeri	Curly Mesquitegrass	Grass	1
Sporobolus Airoides	Alkali Sacaton	Grass	2
Aristida purpurea	Purple Threeawn	Grass	3
Baileya multiradiata	Desert Marigold	Forb	1
Bouteloua curtipendula	Sideoats Grama	Grass	6
Leptochloa Dubis	Green Sprangletop	Grass	3
Bouteloua gracilis	Blue Grama	Grass	4
Setaria Vulpiseta	Plains Bristlegrass	Grass	1
Sphaeralcea ambigua	Desert Globemallow	Shrub	1
Sporobolus cryptandrus	Sand Dropseed	Grass	1

Any seed mixture used in reclamation or erosion control activities will be certified weed-free, with no primary or secondary noxious weeds in the seed mixture. Documentation from each type of seed will be retained and made available to the USFS staff for inspection during seeding activities.

Seeding will be repeated if a satisfactory stand has not established as determined by the USFS's authorized officer following evaluation after the second growing season, or as determined by the MMD representative for release of the FA bond.

1.5.4 Mulching

The addition of mulch benefits the seeding effort by reducing evaporation of soil moisture, reducing wind desiccation, limiting soil erosion, insulating the surface from temperature extremes, and increasing the infiltration rate of precipitation by protecting

the soil surface from surface sealing. It may further aid revegetation by trapping windblown seeds and soil.

Straw mulch will be applied by hand broadcasting or blowing to a uniform depth of approximately 2 to 3 inches. When applied properly, approximately 20 to 40 percent of the original ground surface can be seen. Only certified weed-free straw will be used for mulching.

1.5.5 Reclamation Protection

During and following all reclamation activities, LNA will monitor and protect the landscape to help ensure reclamation is successful. Earthen berms will be created at access roads leading to the reclaimed areas to prevent vehicle traffic from entering. Success of reclamation activities will be evaluated during routine inspections as required by Section 9.D of the Permit.

1.6 Final Reclamation of Haul Roads

LNA has identified roads within and near the mill site that are no longer needed and will prepare them for final reclamation. These are identified in Figure 3 of Appendix A. Haul roads will be ripped to a minimum depth of 12 inches. After ripping, water bars will be installed using natural materials. The haul road alignments will then be harrowed using a tine- or chain-harrow to break up any soil clumps, smooth the surface grade, and prepare the soil for seeding.

Seed and mulch will be applied as directed for Reclamation Activities (see Sections 1.5.3, Seeding and 1.5.4 Mulching).

Following seeding and mulching of the haul roads, an earthen barricade will be constructed from the main haul road to deter future vehicle access to the reclaimed mill site.

Invasive and noxious species control requirements as described below will be applicable to reclamation of all haul roads in addition to all reclaimed mining areas.

1.7 Invasive/Noxious Species Control

The USFS has implemented guidelines for the management of invasive species, including the development of weed management plans. One objective of these programs is to detect invasive plant species populations, prevent the spread of new invasive populations, manage existing populations using the tools of integrated weed management, and eradicate invasive populations using the safest environmental methods available. Preventing the introduction of noxious weeds into an area is the most effective and economical means of weed control and management.

A list of invasive, non-native plant species of concern and the New Mexico Noxious Weed List are provided in Appendix C.

LNA will take all reasonable precautions to prevent the introduction, establishment, and spread of noxious weeds on lands covered by this project and on adjacent lands. Noxious weed treatment and control will be done as necessary to promote revegetation with native plants and prevent the spread of noxious weeds. Prevention methods will be implemented during and after reclamation activities of the mill site to reduce the spread of noxious weeds or the invasion of disturbed areas by undesirable plant species. These prevention methods include:

- Removing mud, dirt, and plant parts from off-road equipment used at other projects before moving them into the mill site
- Using defined and established travel routes to minimize soil disturbance
- Using weed-free seed and mulch to protect establishing vegetation

The mine operator will be responsible for weed identification and control on disturbed and reclaimed areas within the limits of the mill site and associated roads. The mine operator is responsible for consultation with the USFS and/or local authorities for acceptable weed control methods. During reclamation activities, any noxious or invasive species observed within the mill site area will be treated in a manner consistent with the USFS standards.

Use of pesticides and herbicides will comply with applicable federal/state laws. Prior to the use of pesticides or herbicides, the mine operator will obtain from the USFS written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary. Emergency use of pesticides or herbicides will be approved in writing by the USFS prior to use.

1.8 Revegetation Monitoring

Revegetation monitoring will occur throughput the bonding period.

1.8.1 Vegetation Reference Area

The Vegetation Reference Area will be used as a standard of comparison for determining revegetation success for perennial vegetation cover. The Vegetation Reference Area is identified in Figure 3 of Appendix A and consists of a 1-acre area that has not been disturbed during operations. It is located immediately south east of the mill site and contains established native vegetation cover equivalent to the undisturbed areas of the mill site. Upon final approval of the location by the MMD, the Vegetation Reference Area will be staked to designate the area.

1.8.2 Methodology and Success Criteria

Reclamation revegetation monitoring will be completed using the Line Interception methodology for cover. Data gathered from the Vegetation Reference Area will constitute the basis of performance standards for determining reclamation success. Revegetation monitoring locations, methods, and success criteria will be approved by the MMD prior to monitoring commencement.

1.8.2.1 *Line Interception (Overall Vegetation)*

Vegetation cover monitoring will be conducted by Line Interception, a vegetation monitoring technique used to determine the vegetative cover in sparse, low-growing vegetation. The data obtained from Line Interception within an area of ongoing reclamation will be compared to vegetative cover in a pre-designated reference area (the Vegetation Reference Area).

Line Interception consists of determining the percent cover by summing the relative lengths of a transect that is covered, including vegetation, litter, rock, and bare ground. Transects will be randomly placed within the reclamation area and are expected to be 10 to 100m in length. Points along each transect may be located randomly or systematically at one or half-meter intervals. Total vegetation cover is determined by the first interception or hit (i.e., vegetation, rock, litter, etc.). Each transect with a minimum of 50 sample points is counted as one sampling unit. A minimum of 15 transects will be included within the reclamation area.

1.8.2.2 *Success Criteria*

Revegetation success criteria is based on professional judgment of reasonable expectations for revegetation on the southern edge of the Gila National Forest over the course of a 12-year FA bonding period. Success criteria may be revised by the USFS or the MMD based on agency-specific requirements.

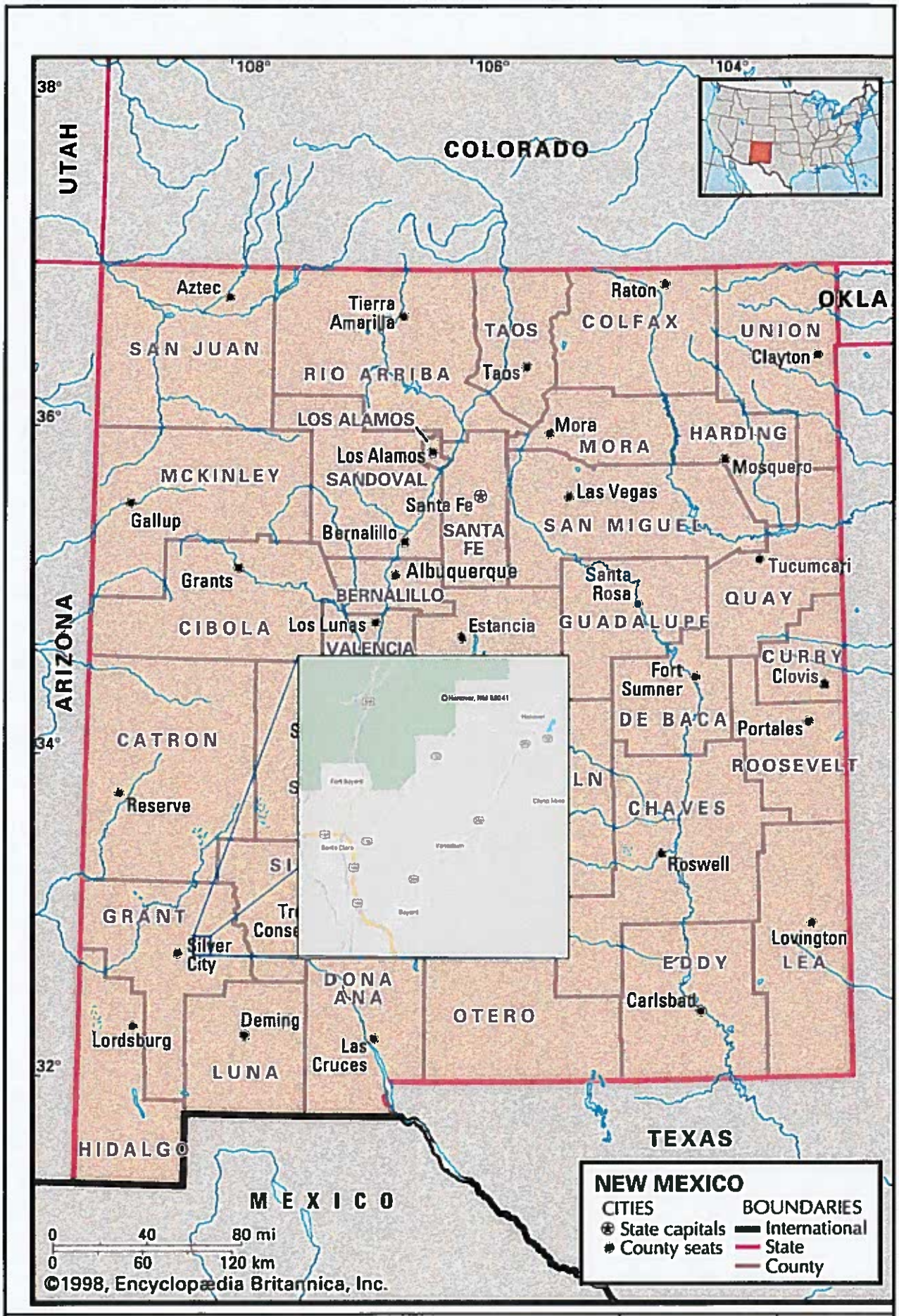
Vegetation cover at the mill site will be considered successfully attained if the reclamation area equals at least 75% percent of the vegetation cover in the Vegetation Reference Area and invasive species percent cover does not exceed that of the Vegetation Reference Area.

Shrub cover/density per acre will be considered successfully attained if the reclaimed area shrub density per acre equals at least 35 percent of the shrub density of the Vegetation Reference Area.

1.8.3 Bond Release

Once the FA bond period is attained and the vegetative success criteria standards are met, LNA will prepare and submit a letter requesting the BLM and MMD release LNA from financial responsibility for the mining area. MMD requires a minimum 12-year period after reclamation for withholding release of FA for third-party revegetation costs.

APPENDIX A
FACILITY MAPS



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Mathis Quarry

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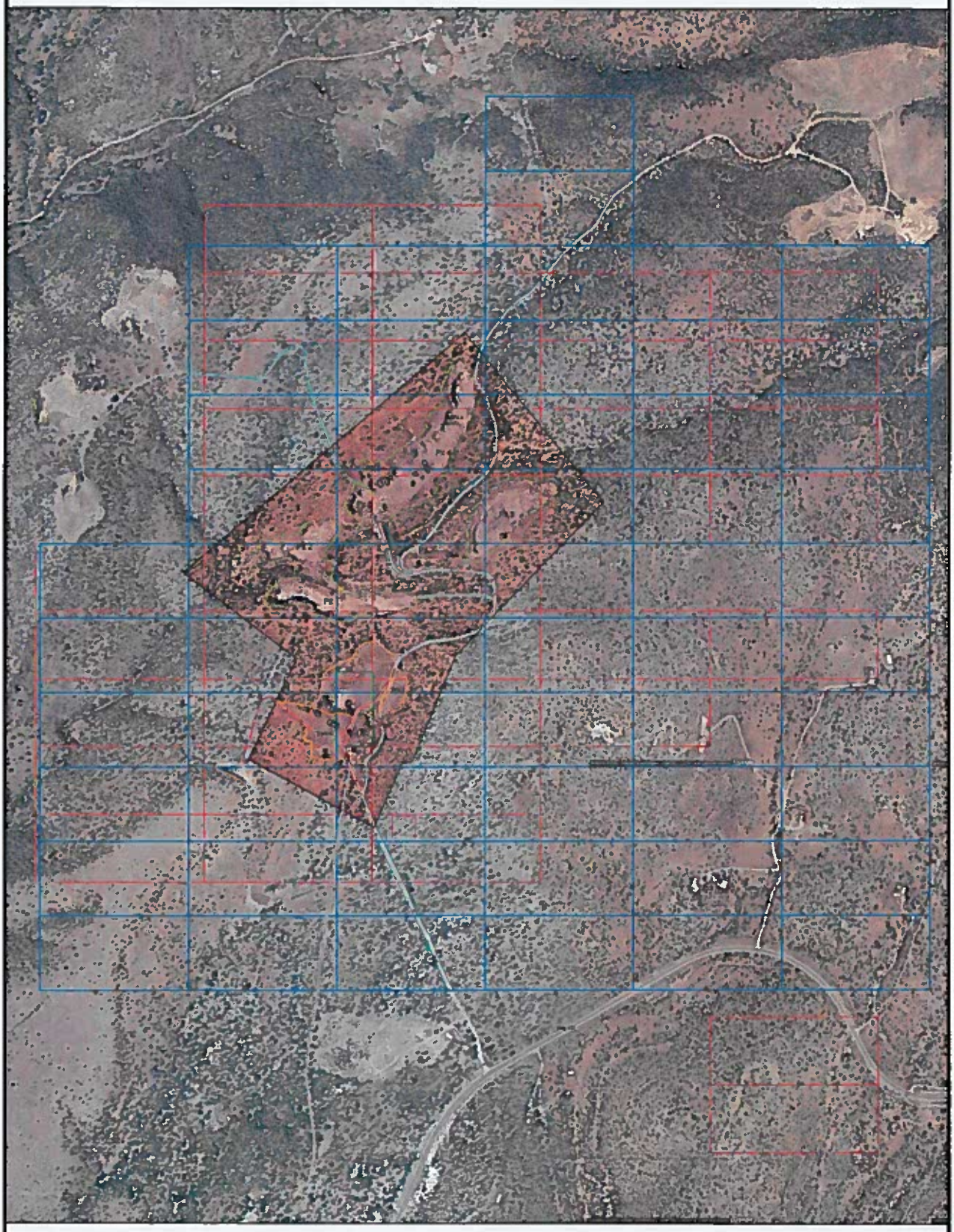
2020 Mill Reclamation Plan

NM Location Map

1



Legend

- Claim - Placer
- Claim - Mill
- Claim - Lode
- Revegetation Reference Acre
- Road - To Be Reclaimed
- Road - To Remain
- Pit
- Yard
- Building
- Pipeline

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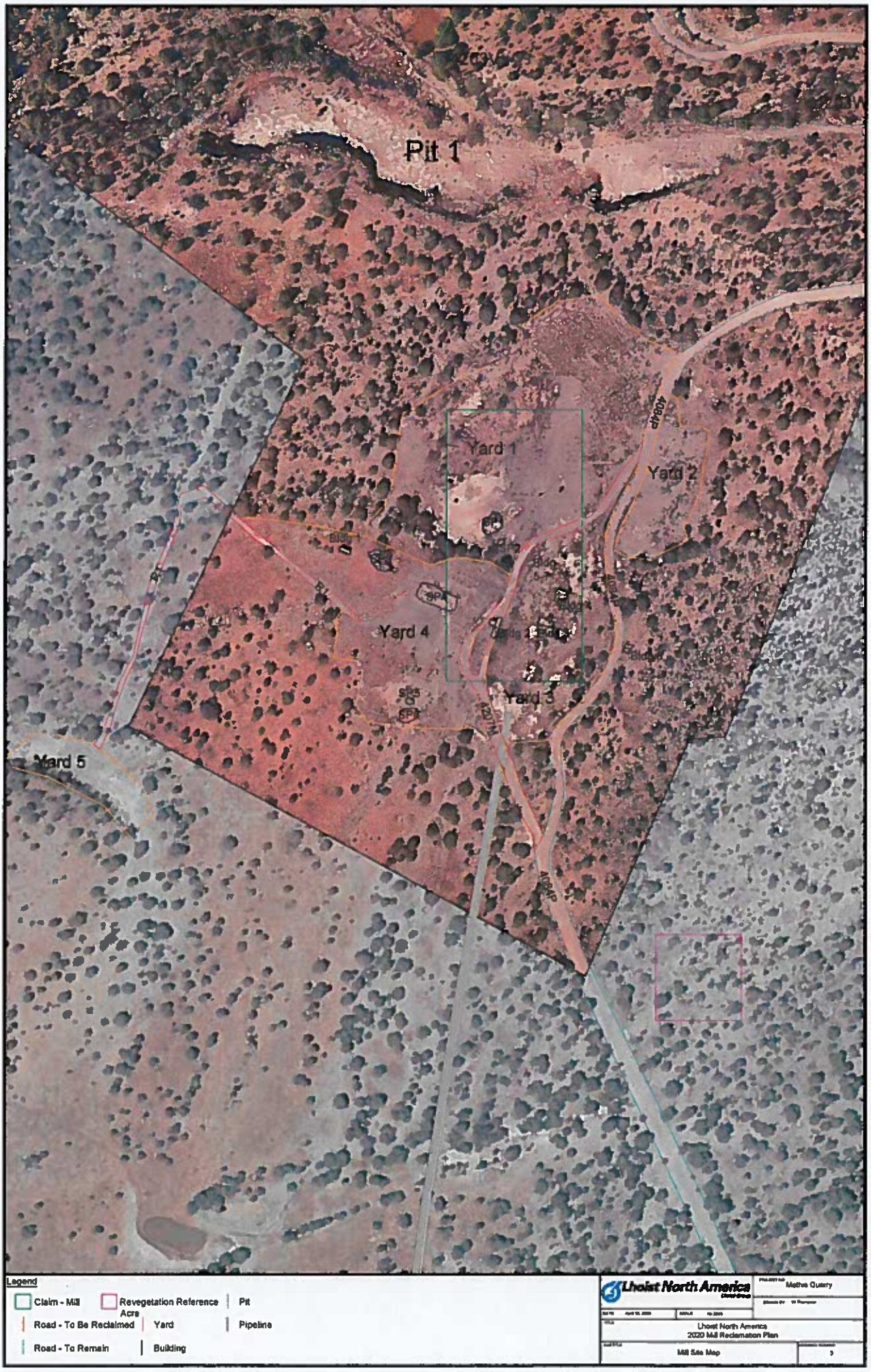
Project: Mathe Quarry

Lhoist North America
2020 Mill Reclamation Plan

Full Mathe Site Map

2


Pit 1
Yard 1
Yard 2
Yard 3
Yard 4
Yard 5
Legend
Claim - Mill
Revegetation Reference Acre
Road - To Be Reclaimed
Road - To Remain
Yard
Building
Pit
Pipeline
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2020 Mill Reclamation Plan
Mill Site Map

APPENDIX B
RECLAMATION COST ESTIMATE

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:	200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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:	Lhoist North America of AZ Inc
Property Code:	
Project Name:	Mathis Quarry
Date of Submittal:	April 30, 2020
Average Altitude:	6500 ft.
Select One:	○ Notice or Sm Exploration Plan ○ Lg Exploration Plan ● Mine Operation
Select One:	○ Private Land ● Public or Public/Private
Cost Estimate Type:	Surety
Cost Basis Category:	Northern Nevada
Cost Basis Description:	Churchill, Douglas, Elko, Eureka, Humboldt, Lander, Lyon, Mineral, Pershing, Storey, Washoe, and White Pine Counties

Closure Cost Estimate
Cost Summary

Project Name: Mathis Quarry
Project Date: April 30, 2020
Model Version: Version 1.4.1
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.xlsm

A. Earthwork/Recontouring	Labor [1]	Equipment [2]	Materials	Total
Exploration	$0	$0	$0	$0
Exploration Roads & Drill Pads	$0	$0	$0	$0
Roads	$756	$1,912	$0	$2,668
Well Abandonment	$0	$0	$0	$0
Pits	$0	$0	N/A	$0
Quarries & Borrow Areas	$0	$0	$0	$0
Underground Openings	$0	$0	$0	$0
Process Ponds	$0	$0	$0	$0
Heaps	$0	$0	$0	$0
Waste Rock Dumps	$0	$0	$0	$0
Landfills	$0	$0	$0	$0
Tailings	$0	$0	$0	$0
Foundation & Buildings Areas	$1,344	$3,543	$0	$4,887
Yards, Etc.	$6,107	$15,249	$0	$21,356
Drainage & Sediment Control	$0	$0	$0	$0
Generic Material Hauling	$2,058	$5,061	$0	$7,119
Other User Costs (from Other User sheet)	$0	$0	$0	$0
Other**				$0
Subtotal	$10,265	$25,765	$0	$36,030
Mob/Demob if included in Other User sheet	$0	$0	$0	$0
Mob/Demob		$14,307		$14,307
Subtotal "A"	**$10,265**	**$40,072**	**$0**	**$50,337**

B. Revegetation/Stabilization	Labor [1]	Equipment [2]	Materials	Total
Exploration	$0	$0	$0	$0
Exploration Roads & Drill Pads	$0	$0	$0	$0
Roads	$200	$76	$1,088	$1,364
Well Abandonment				N/A
Pits	$0	$0	$0	$0
Quarries & Borrow Areas	$0	$0	$0	$0
Underground Openings				N/A
Process Ponds	$0	$0	$0	$0
Heaps	$0	$0	$0	$0
Waste Rock Dumps	$0	$0	$0	$0
Landfills	$0	$0	$0	$0
Tailings	$0	$0	$0	$0
Foundation & Buildings Areas	$600	$228	$624	$1,452
Yards, Etc.	$1,524	$579	$15,653	$17,756
Drainage & Sediment Control	$0	$0	$0	$0
Generic Material Hauling	$300	$114	$312	$726
Other User Costs (from Other User sheet)	$0	$0	$0	$0
Other**				$0
Subtotal "B"	**$2,624**	**$997**	**$17,677**	**$21,298**

C. Detoxification/Water Treatment/Disposal of Wastes**	Labor [1]	Equipment [2]	Materials	Total
Process Ponds/Sludge				$0
Heaps				$0
Dumps (Waste & Landfill)				$0
Tailings				$0
Surplus Water Disposal				$0
Monitoring				$0
Miscellaneous				$0
Solid Waste - On Site	$0	$0	N/A	$0
Solid Waste - Off Site				$960
Hazardous Materials				$0
Hydrocarbon Contaminated Soils	$0	$0	$0	$0
Other User Costs (from Other User sheet)	$0	$0	$0	$0
Other**				$0
Subtotal "C"	**$0**	**$0**	**$0**	**$960**

D. Structure, Equipment and Facility Removal, and Misc.	Labor [1]	Equipment [2]	Materials	Total
Foundation & Buildings Areas	$49,442	$8,759	$0	$58,201
Other Demolition	$0	$0	$0	$0
Equipment Removal	$0	$0	$0	$0
Fence Removal	$0	$0		$0
Fence Installation	$0	$0	$0	$0
Culvert Removal	$0	$0	N/A	$0
Pipe Removal	$0	$0	N/A	$0
Powerline Removal	$0			$0
Transformer Removal	$0			$0
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	$155,688	$155,688
Other**				$0
Subtotal "D"	**$49,442**	**$8,759**	**$155,688**	**$213,889**

E. Monitoring	Labor [1]	Equipment [2]	Materials	Total
Reclamation Monitoring and Maintenance	$22,540	$2,963	$1,189	$26,692
Ground and Surface Water Monitoring	$0	$0	$0	$0

Closure Cost Estimate
Cost Summary

Project Name: Mathis Quarry
Project Date: April 30, 2020
Model Version: Version 1.4.1
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.xlsm

Other User Costs (from Other User sheet)	$0	$0	$0	$0
Subtotal "E"	**$22,540**	**$2,963**	**$1,189**	**$26,692**

F. Construction Management & Support	Labor	Equipment [2]	Materials	Total
Construction Management	$16,000	$3,054	N/A	$19,054
Construction Support	$0	$432	$0	$432
Road Maintenance	$13,382	$20,637	$60,000	$94,019
Other User Costs (from Other User sheet)	$0	$0	$0	$0
Other**				$0
Subtotal "F"	**$29,382**	**$24,123**	**$60,000**	**$113,505**

Subtotal Operational & Maintenance Costs	Labor [1]	Equipment [2]	Materials [3]	Total
Subtotal A through F	**$114,253**	**$76,914**	**$234,554**	**$426,681**

** Other Operator supplied costs - additional documentation required.

Indirect Costs			Include?	Total
1. Engineering, Design and Construction (ED&C) Plan (7)				$34,134
2. Contingency (8)				$42,668
3. Insurance (9)	$1,714			$1,714
4. Performance Bond (10)				$12,800
5. Contractor Profit (11)				$42,668
6. Contract Administration (12)				$42,668
7. Government Indirect Cost (13)				$8,960
Subtotal Add-On Costs				**$185,612**
Total Indirect Costs as % of Direct Cost				44%
GRAND TOTAL				**$612,293**

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

1. Federal construction contracts require Davis-Bacon wage rates for contracts over $2,000. Wage rate estimates may include base pay, payroll loading,
2. The reclamation cost estimate must include the estimated plugging cost of at least one drill hole for each active drill rig in the project area. Where the
3. Miscellaneous items should be itemized on accompanying worksheets.
4. Fluid management should be calculated only when mineral processing activities are involved. Fluid management represents the costs of maintaining proper
5. Handling of hazardous materials includes the cost of decontaminating, neutralizing, disposing, treating and/or isolating all hazardous materials used, produced,
6. Any mitigation measures required in the Plan of Operations must be included in the reclamation cost estimate. Mitigation may include measures to avoid,
7. Engineering, design and construction (ED&C) plans are often necessary to provide details on the reclamation needed to contract for the required work. To
8. A contingency cost is included in the reclamation cost estimation to cover unforeseen cost elements. Calculate the contingency cost as a percentage of the
9. 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 costs.
10. Federal construction contracts exceeding $100,000 require both a performance and a payment bond (Miller Act, 40 USC 270et seq.). Each bond premium is
11. For Federal construction contracts, use 10% of estimated O&M cost for the contractor's profit.
12. To estimate the contract administration cost, use 6 to 10% of the operational and maintenance (O&M) cost. Calculate the contract administration cost as a
13. Government indirect cost rate is 21% of the contract administration costs.

Closure Cost Estimate
Other User

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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 Cost Items Calculated Elsewhere

	Description (required)	ID Code	Facility Type	Quantity	Units	Total Capital Cost $	Material Unit Cost $	Labor Unit Cost $	Equipment Operating Unit Cost $	Cost Type (select)	Total Cost $	Comments
1	[illegible]		[illegible]	[illegible]	Job	[illegible]				[illegible] Facility & Equipment	[illegible]	[illegible]
						[illegible]	$0	$0	$0		[illegible]	

Notes: Capital cost is lump sum (i.e. not multiplied by the quantity). [illegible]
Material, Labor and Equipment/Operating costs are unit costs (i.e. multiplied by the quantity). [illegible]

Closure Cost Estimate
Roads

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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	$0	$0	N/A	$0
Cover Placement Cost	$616	$1,462	N/A	$2,078
Ripping/Scarifying Cost	$140	$460	N/A	$600
Subtotal Earthworks	$756	$1,912		$2,668
Revegetation Cost	$300	$76	$1,064	$1,364
TOTALS	$1,054	$1,988	$1,064	$4,032

Roads - User Input

You must fill in ALL green cells and relevant blue cells in this section for each road

	Facility Description			Physical (1) - MANDATORY						User Overrides		Growth Media		
	Description (required)	ID Code	Type	Underlying Ground Slope % grade	Ungraded Slope _H:1V	Cut Slope degrees	Road Width ft	Road Length ft	Slope Replacement Percent %	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
1	4207M		Project Road	5.0	12.0	1.0	20.0	1,200	0%		0.47	4.0	4,200	5%
2	R1		Access Road	2.0	10.0	1.0	16.0	1,193	0%		0.36	4.0	6,000	5%

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.

Roads - User Input (cont.)

		Haul Road Safety Berms				
	Description (required)	Berm Length ft	Berm Height ft	Berm Base Width ft	Berm Sideslope Angle _H:1V	Number of Berms (2) (1 or 2 sides)
1	4207M					
2	R1					

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

Roads - User Input (cont.)

You must fill in ALL green cells and relevant blue cells in this section for each road

		Grading				Growth Media			Revegetation				
	Description (required)	Regrading Material Condition (select)	Regrading Material Type (select)	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	4207M	0.8	0.8 - crushed	Med Excavator		Topsoil	Small Truck		Liner Mix 1	Straw Mulch	None	Yes	Med Dozer
2	R1	0.8	0.8 - crushed	Med Excavator		Topsoil	Small Truck		Liner Mix 1	Straw Mulch	None	Yes	Med 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

Roads - Calculations

Regrading Volume and Footprint Volume

Safety Berm Volume Calculation

Cross-Sectional Area = $\frac{H \times W}{2}$ =

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

Closure Cost Estimate
Roads

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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	$0	$0	N/A	$0
Cover Placement Cost	$676	$1,402	N/A	$2,078
Ripping/Scarifying Cost	$140	$450	N/A	$590
Subtotal Earthworks	$794	$1,812		$2,668
Revegetation Cost	$300	$76	$1,088	$1,364
TOTALS	$854	$1,888	$1,088	$4,032

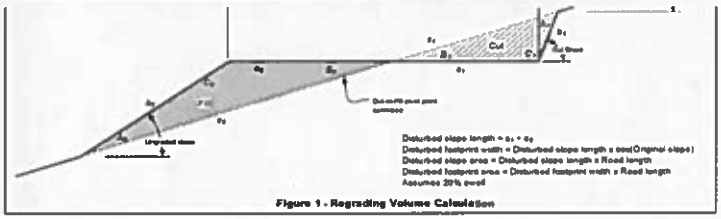
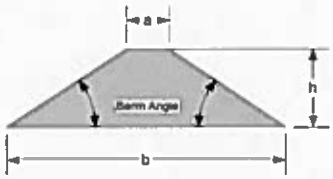


Figure 1 - Regrading Volume Calculation

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



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

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

Roads - Regrading Costs

	Description (required)	Regrading Volume cy	Reconditioning Fleet	Fleet Productivity cy/hr	Total Fleet Hours hr	Total Labor Cost $	Total Equipment Cost $	Total Regrading Cost $
1	4297M	0				$0	$0	$0
2	161	0				$0	$0	$0
						$0	$0	$0

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 $

Closure Cost Estimate
Roads

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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	$0	$0	N/A	$0
Cover Placement Cost	$618	$1,462	N/A	$2,078
Ripping/Scarifying Cost	$146	$450	N/A	$600
Subtotal Earthworks	$764	$1,913		$2,678
Revegetation Cost	$300	$76	$1,088	$1,364
TOTALS	$864	$1,988	$1,088	$4,032

1	420718	340	725/966D/D7R	808	4	1	$308	$731	$1,039
2	R1	204	725/966D/D7R	476	4	1	$308	$731	$1,039
		544				2	$616	$1,462	$2,078

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	420718	0.87	23.0	D9R	1	$70	$225	$296	$100	$38	$694	$832
2	R1	0.34	14.0	D9R	1	$76	$225	$295	$100	$38	$364	$532
		1.20			2	$146	$450	$590	$200	$76	$1,088	$1,364

Closure Cost Estimate
Haul Material

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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**

Generic Material Hauling - Cost Summary

	Labor	Equipment	Materials	Totals
Hauling/Crush/Screen/Compact	$924	$2,193	N/A	$3,117
Cover Placement Cost	$0	$0	N/A	$0
Topsoil Placement Cost	$924	$2,193	N/A	$3,117
Ripping/Scarifying Cost	[illegible]	[illegible]	N/A	[illegible]
Subtotal Earthworks	[illegible]	[illegible]	$0	[illegible]
Revegetation Cost	$300	$114	$312	$726
TOTALS	[illegible]	[illegible]	$312	[illegible]

Generic Material Hauling - User Input

	Facility Description			Physical		Hauled Material			Crushing & Screening					Cover			Growth Media		
	Description (required)	ID Code	Type	Final Surface Area acres	Average Ripping Distance ft	Material Volume Required cy	Distance from Borrow Source (1) ft	Slope to Borrow Source % grade	Crush Material	Screen Material	Loss to Crushing/ Screening %	Distance to Placement Location (2) ft	Slope to Placement % grade	Cover Thickness in	Distance to Cover Borrow ft	Slope to Borrow % grade	Growth Media Thickness in	Distance to Growth Material Stockpile ft	Slope to Stockpile % grade
1	SP1		Stockpile	0.04	50	221	3,040	-4.0	No	No	0%	0	0.0	0	0	0.0	4	4,500	0.0
2	SP2		Stockpile	0.01	50	8	3,040	-4.0	No	No	0%	0	0.0	0	0	0.0	4	4,500	0.0
3	SP3		Stockpile	0.03	50	66	3,040	-4.0	No	No	0%	0	0.0	0	0	0.0	4	4,500	0.0

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

Generic Material Hauling - User Input (cont.)

		Hauling Material				Cover			Growth Media			Revegetation				
	Description (required)	Haul Material Type (select)	Material Hauling Fleet (select)	Each Fleet Size (Bypass crusher) (user override)	Compact After Placement?	Cover Material Type (select)	Cover Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Growth Media Material Type (select)	Growth Media Equipment Fleet (select)	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch Type (select)	Fertilizer Type (select)	Scarify/ Rip? (select)	Scarifying/ Ripping Fleet (select)
1	SP1	Stone - crushed	Small Truck		No				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer
2	SP2	Alluvium	Small Truck		No				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer
3	SP3	LS - crushed	Small Truck		No				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer

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

Generic Material Hauling - Load, Haul, Place and Grade

		Material Haulage								Crush and/or Compact			
	Description (required)	Material Volume to Crusher cy	Final Material Volume cy	Material Haulage Fleet	Fleet Productivity LCY/hr	Number of Trucks/ Scrapers	Total Fleet Hours	Hauling Labor Cost $	Hauling Equipment Cost $	Total Crush/ Screen Cost $	Compact Labor Cost $	Compact Equipment Cost $	Total Load/Haul/ Place Cost $
1	SP1	221	221	725/980G/D7R	476	4	1	$308	$731	$0	$0	$0	$1,039
2	SP2	8	8	725/980G/D7R	476	4	1	$308	$731	$0	$0	$0	$1,039
3	SP3	66	66	725/980G/D7R	476	4	1	$308	$731	$0	$0	$0	$1,039
		295	295				3	$924	$2,193	$0	$0	$0	$3,117

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

Generic Material Hauling - Cover and Growth Media Costs

		Cover Placement								Growth Media Placement							
	Description (required)	Cover Volume cy	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	SP1						$0	$0	$0	22	725/980G/D7R	466	4	1	$308	$731	$1,039
2	SP2						$0	$0	$0	5	725/980G/D7R	466	4	1	$308	$731	$1,039
3	SP3						$0	$0	$0	16	725/980G/D7R	466	4	1	$308	$731	$1,039
							$0	$0	$0	43				3	$924	$2,193	$3,117

Generic Material Hauling - Scarifying/Revegetation Costs

Closure Cost Estimate
Haul Material

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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**

Generic Material Hauling - Cost Summary	Labor	Equipment	Materials	Totals
Hauling/Crush/Screen/Compact	$924	$2,193	N/A	$3,117
Cover Placement Cost	$0	$0	N/A	$0
Topsoil Placement Cost	$924	$2,193	N/A	$3,117
Ripping/Scarifying Cost	$210	$675	N/A	$885
Subtotal Earthworks	$2,058	$5,061	$0	$7,119
Revegetation Cost	$300	$114	$312	$726
TOTAL $	$2,358	$5,175	$312	$7,845

	Description (required)	Total Surface Area acres	Ripping/ Scarifying Fleet	Scarifying/ Ripping Hours hrs	Scarifying/ Ripping Labor Cost $	Scarifying/ Ripping Equipment Cost $	Total Scarifying/ Ripping Cost $	Revegetation Labor Cost $	Revegetation Equipment Cost $	Revegetation Material Cost $	Total Revegetation Cost $
1	RP1	0.10	OSR	0	$70	$225	$295	$100	$38	$104	$242
2	RP2	0.10	OSR	0	$70	$225	$295	$100	$38	$104	$242
3	RP3	0.10	OSR	0	$70	$225	$295	$100	$38	$104	$242
		0.30			$210	$675	$885	$300	$114	$312	$726

Closure Cost Estimate
Foundations & Buildings

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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	[illegible]	[illegible]	N/A	[illegible]
Wall Demolition Cost	[illegible]	[illegible]	N/A	[illegible]
Slab Demolition	[illegible]	[illegible]	N/A	[illegible]
Subtotal Demolition	[illegible]	[illegible]	$0	[illegible]
Cover Placement Cost	$0	$0	N/A	$0
Growth Media Placement Cost	[illegible]	[illegible]	N/A	[illegible]
Ripping/Scarifying Cost	[illegible]	[illegible]	N/A	[illegible]
Subtotal Earthworks	[illegible]	[illegible]	$0	[illegible]
Revegetation Cost	[illegible]	[illegible]	[illegible]	[illegible]
TOTALS	[illegible]	[illegible]	[illegible]	[illegible]

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	Bldg 3		Process - Plant & Buildings	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
2	Bldg 4		Process - Plant & Buildings	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
3	Bldg 5		Other Facilities	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
4	Bldg 6		Other Facilities	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
5	Bldg 7		Other Facilities	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]
6	Bldg 8		Misc Facilities - Structures	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]

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 <30, downhill travel time may be underestimated due to limitation of uphill travel time curves and downhill speed tables from CAT Handbook (see Productivity Sheet)

Buildings & Foundation - User Input (cont.) — You must fill in ALL green cells and relevant blue cells in this section for each building or facility

		Construction Materials		Slab Demolition		Foundation Cover			Growth Media			Revegetation				
	Description (required)	Building Type (select)	Foundation Wall Type (select)	Slab Demo Method (select)	Slab Breaking Equipment Fleet (select)	Cover Material Type (select)	Cover Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Growth Media Material Type (select)	Growth Media Placement Equipment Fleet (select)	Maximum Fleet Size (user override)	Seed Mix (select)	Mulch (select)	Fertilizer (select)	Scarify Rip? (select)	Ripping Fleet (select)
1	Bldg 3	[illegible]	Conc 6 in (150 mm) thick	Break & bury	Med Excavator				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer
2	Bldg 4	[illegible]	Conc 6 in (150 mm) thick	Break & bury	Med Excavator				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer
3	Bldg 5	[illegible]	Conc 6 in (150 mm) thick	Break & bury	Med Excavator				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer
4	Bldg 6	[illegible]	Conc 6 in (150 mm) thick	Break & bury	Med Excavator				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer
5	Bldg 7	[illegible]	Conc 6 in (150 mm) thick	Break & bury	Med Excavator				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer
6	Bldg 8	[illegible]	Conc 6 in (150 mm) thick	Break & bury	Med Excavator				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer

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

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 if debris - Use Waste Disposal module

Slab Demolition Calculations

Minimum 1 hr excavator time for slab demolition

Cover Volume Calculation

Foundation area x cover thickness
If "Bury in Place" is selected as slab demolition method, cover thickness is adjusted such that

Closure Cost Estimate
Foundations & Buildings

Project Name: Mathis Quarry - Reclamation Plan
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Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_Data_File_1_12_9d_2019.xlsm
Cost Estimate Type: Surety **Cost Basis: Northern Nevada**

Buildings & Foundation Demolition Cost Summary

	Labor	Equipment	Materials	Totals
Building Demolition Cost	[illegible]	[illegible]	N/A	[illegible]
Wall Demolition Cost	[illegible]	[illegible]	N/A	[illegible]
Slab Demolition	$700	[illegible]	N/A	[illegible]
Subtotal Demolition	[illegible]	[illegible]	$0	[illegible]
Cover Placement Cost	$0	$0	N/A	$0
Growth Media Placement Cost	[illegible]	[illegible]	N/A	[illegible]
Ripping/Scarifying Cost	[illegible]	[illegible]	N/A	[illegible]
Subtotal Earthworks	[illegible]	[illegible]	$0	[illegible]
Revegetation Cost	[illegible]	[illegible]	[illegible]	[illegible]
TOTALS	[illegible]	[illegible]	[illegible]	[illegible]

Total cover (cover + growth media) equals value entered in "Minimum thickness of cover over untreated 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

Project Name: Mathis Quarry - Reclamation Plan
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File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
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Cost Estimate Type: Surety **Cost Basis: Northern Nevada**

Buildings & Foundation Demolition Cost Summary

	Labor	Equipment	Materials	Totals
Building Demolition Cost	[illegible]	[illegible]	N/A	[illegible]
Wall Demolition Cost	[illegible]	[illegible]	N/A	[illegible]
Slab Demolition	[illegible]	[illegible]	N/A	[illegible]
Subtotal Demolition	[illegible]	[illegible]	$0	[illegible]
Cover Placement Cost	$0	$0	N/A	$0
Growth Media Placement Cost	[illegible]	[illegible]	N/A	[illegible]
Ripping/Scarifying Cost	[illegible]	[illegible]	N/A	[illegible]
Subtotal Earthworks	[illegible]	[illegible]	$0	[illegible]
Revegetation Cost	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL $	[illegible]	[illegible]	[illegible]	[illegible]

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: Total Labor Cost $	Building Demolition: Total Equipment Cost $	Building Demolition: Total Building Demolition Cost $	Wall Demolition: Total Labor Cost $	Wall Demolition: Total Equipment Cost $	Wall Demolition: Total Wall Demolition Cost $	Slab Demolition: Total Labor Cost $	Slab Demolition: Total Equipment Cost $	Slab Demolition: Total Slab Breaking Cost $	Total Costs: Total Labor Cost $	Total Costs: Total Equipment Cost $	Total Costs: Total Demolition Costs $
1	Bldg 3	700	7,000	116	1,109	[illegible]	13	$1,910	$1,160	[illegible]	$19,624	$1,706	$21,417	$140	$442	$582	$21,374	[illegible]	[illegible]
2	Bldg 4	[illegible]	6,260	100	1,009	[illegible]	12	$1,439	[illegible]	[illegible]	$17,640	$1,830	[illegible]	$140	$442	[illegible]	[illegible]	[illegible]	[illegible]
3	Bldg 5	64	640	32	320	[illegible]	1	$142	$106	$248	[illegible]	[illegible]	[illegible]	$140	$442	[illegible]	[illegible]	[illegible]	[illegible]
4	Bldg 6	[illegible]	6	39	4	[illegible]	1	$0	$0	$0	$75	$7	[illegible]	$140	$442	[illegible]	$211	[illegible]	[illegible]
5	Bldg 7	[illegible]	1	12	1	[illegible]	[illegible]	$0	$0	$0	[illegible]	[illegible]	[illegible]	$0	$0	$0	[illegible]	[illegible]	[illegible]
6	Bldg 8	[illegible]	163	42	136	[illegible]	1	$37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$140	$442	[illegible]	[illegible]	[illegible]	[illegible]
			14,069				28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Building & Foundation - Foundation Cover and Growth Media Costs

	Description (required)	Foundation Cover: 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: 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 Cover & Growth Media Costs: Total Labor Cost $	Total Equipment Cost $	Total Costs $
1	Bldg 3						$0	$0	$0	9	[illegible]	[illegible]	4	1	$309	$791	[illegible]	$309	$791	[illegible]
2	Bldg 4						$0	$0	$0	11	[illegible]	[illegible]	4	1	$309	$791	[illegible]	$309	$791	[illegible]
3	Bldg 5						$0	$0	$0						$0	$0	$0	$0	$0	$0
4	Bldg 6						$0	$0	$0						$0	$0	$0	$0	$0	$0
5	Bldg 7						$0	$0	$0						$0	$0	$0	$0	$0	$0
6	Bldg 8						$0	$0	$0	6	[illegible]	[illegible]	4	1	[illegible]	$791	[illegible]	[illegible]	[illegible]	[illegible]
							$0	$0	$0	21				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Building & Foundation - Scarifying/Revegetation Costs

	Description (required)	Flat Area acres	Ripping/ Scarifying Fleet	Scarifying/ Ripping Hours hrs	Scarifying/Ripping: Scarifying/ Ripping Labor Costs $	Scarifying/ Ripping Equipment Cost $	Total Scarifying/ Ripping Costs $	Revegetation: Revegetation Labor Cost $	Revegetation Equipment Cost $	Revegetation Material Cost $	Total Revegetation Cost $	Total Scarify & Revegetation Costs: Total Labor Cost $	Total Equipment Cost $	Total Material Cost $	Total Costs $
1	Bldg 3	[illegible]	[illegible]	1	$70	[illegible]	[illegible]	$100	[illegible]	$104	[illegible]	$170	[illegible]	$104	[illegible]
2	Bldg 4	[illegible]	[illegible]	1	$70	[illegible]	[illegible]	$100	[illegible]	$104	[illegible]	$170	[illegible]	$104	[illegible]
3	Bldg 5	[illegible]	[illegible]	1	$70	[illegible]	[illegible]	$100	[illegible]	$104	[illegible]	$170	[illegible]	$104	[illegible]
4	Bldg 6	[illegible]	[illegible]	1	$70	[illegible]	[illegible]	$100	[illegible]	$104	[illegible]	$170	[illegible]	$104	[illegible]
5	Bldg 7	[illegible]	[illegible]	1	$70	[illegible]	[illegible]	$100	[illegible]	$104	[illegible]	$170	[illegible]	$104	[illegible]
6	Bldg 8	[illegible]	[illegible]	1	$70	[illegible]	[illegible]	$100	[illegible]	$104	[illegible]	$170	[illegible]	$104	[illegible]
		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Closure Cost Estimate
Yards, Etc.

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_Data_File_1_12_Std_2018.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	$4,271	$12,553	N/A	$17,824
Ripping/Scarifying Cost	$836	$2,696	N/A	$3,532
Subtotal Earthworks	$5,107	$15,249		$21,356
Revegetation Cost	$1,424	$578	$15,663	$17,765
TOTALS	$7,531	$16,836	$15,663	$39,113

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 1		Yard	[illegible]	725	0	0			4	4,200	[illegible]
2	Yard 2		Yard	[illegible]	320	0	0			4	4,200	[illegible]
3	Yard 3		Yard	[illegible]	400	0	0			4	4,200	[illegible]
4	Yard 4		Yard	[illegible]	350	0	0			4	4,200	[illegible]
5	Yard 5		Yard	[illegible]	300	0	0			4	[illegible]	[illegible]

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)

Yards, Etc. - User Input (cont.)

You must fill in ALL green cells and relevant blue cells in this section for each building or facility

		Grading			Cover			Growth Media			Revegetation				
	Description (required)	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	0.0	1.0 - crushed	Med				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer
2	Yard 2	0.0	1.0 - crushed	Med				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer
3	Yard 3	0.0	1.0 - crushed	Med				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer
4	Yard 4	0.0	1.0 - crushed	Med				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer
5	Yard 5	0.0	1.0 - crushed	Med				Topsoil	Small Truck		User Mix 1	Straw Mulch	None	Yes	Med Dozer

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

Yards, Etc. - Calculations

Grading Calculations

Average push distance assumed to be 2/3 of the 600 foot maximum from Caterpillar Handbook or 400 feet
Material assumed to be loose stockpile (1.2 productivity factor)
Slope assumed to be 0 to 6% (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)

Closure Cost Estimate
Yards, Etc.

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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	$4,271	$12,553	N/A	$17,824
Ripping/Scarifying Cost	$836	$2,696	N/A	$3,532
Subtotal Earthworks	$5,107	$15,249		$20,356
Revegetation Cost	$1,824	$876	$15,043	$17,743
TOTALS	$7,931	$16,126	$15,043	$38,112

Minimum 1 hr ripping/scarifying per area

Revegetation

Minimum 1 acre revegetation area time per area

Yards, Etc. - Regrading Costs

Productivity = Dozer Productivity x Grade Correction x Density Correction x Operator (0.75) x Material x Visibility x Job Efficiency (0.83) x (Slot/Side-by-Side)

	Description (required)	Regrading Volume cy	Dozing Distance (see above) ft	Regrading Fleet	Uncorrected Dozer Productivity cy/hr	Grade Correction	Dozing Material	Density Correction	Total Hourly Productivity cy/hr	Total Dozer Hours hr	Total Labor Cost $	Total Equipment Cost $	Total Regrading Cost $
1	Yard 1			D9R							$0	$0	$0
2	Yard 2			D9R							$0	$0	$0
3	Yard 3			D9R							$0	$0	$0
4	Yard 4			D9R							$0	$0	$0
5	Yard 5			D9R							$0	$0	$0
											$0	$0	$0

Yards, Etc. - Cover and Growth Media Costs

	Description (required)	Cover: Cover Volume cy	Cover: Topsoil Replacement Fleet	Cover: Fleet Productivity LCY/hr	Cover: Number of Trucks/ Scrapers	Cover: Total Fleet Hours	Cover: Total Labor Cost $	Cover: Total Equipment Cost $	Cover: Total Cover Cost $	Growth Media: Growth Media Volume cy	Growth Media: Growth Media Fleet	Growth Media: Fleet Productivity LCY/hr	Growth Media: Number of Trucks/ Scrapers	Growth Media: Total Fleet Hours	Growth Media: Total Labor Cost $	Growth Media: Total Equipment Cost $	Growth Media: Total Growth Media Cost $
1	Yard 1						$0	$0	$0	3,603	726/988G/D7R	499	4	8	$2,461	$5,846	$8,307
2	Yard 2						$0	$0	$0	582	726/988G/D7R	499	4	1	$306	$731	$1,036
3	Yard 3						$0	$0	$0	1,608	726/988G/D7R	499	4	3	$922	$2,192	$3,116
4	Yard 4						$0	$0	$0	1,980	726/988G/D7R	499	4	4	$1,230	$2,923	$4,153
5	Yard 5						$0	$0	$0	424	726/988G/D7R	499	4	1	$349	$861	$1,210
							$0	$0	$0	8,175				17	$5,271	$12,553	$17,834

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 1	6.67	775	D8R	6	$348	$1,123	$1,471	$867	$253	$6,606	$7,626
2	Yard 2	1.11	330	D8R	1	$70	$226	$296	$111	$42	$1,149	$1,302
3	Yard 3	2.91	405	D8R	2	$139	$449	$588	$291	$107	$2,909	$3,297
4	Yard 4	3.68	309	D8R	3	$209	$674	$883	$368	$139	$3,776	$4,283
5	Yard 5	0.86	348	D8R	1	$70	$226	$296	$100	$36	$611	$1,046
		15.12			12	$836	$2,696	$3,533	$1,834	$576	$15,043	$17,756

Closure Cost Estimate
Waste Disposal

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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 Disposal - Cost Summary

	Labor	Equipment	Fees	Totals
Solid Waste - On Site	$0	$0	N/A	$0
Solid Waste - Off Site				$900
Hazardous Materials				$0
Hydrocarbon Contaminated Soils	$0	$0	$0	$0
TOTALS	$0	$0	$0	$900

Waste Disposal - User Input - Solid Waste

	Description (required)	ID Code	Waste Type (select)	Disposal Method (select)	Quantity cy	Landfill (Bulk) Disposal: Distance to Landfill ft	Landfill (Bulk) Disposal: Slope to Landfill % grade	Landfill (Bulk) Disposal: Number of Trucks (user override)	Dumpster: Months Dumpster Rental months
1	Waste Disposal		Waste Mgmt & Disposal	Dumpster	15				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)

Waste Disposal - User Input - Hazardous Materials

	Description (required)	ID Code	Waste Type (select)	Container Type (select)	Vacuum Truck Size (select)	Liquid Quantity gallons	Solid Quantity cy	One Way Travel Distance to Disposal Site mi	One Way Travel Time to Disposal Site hr

Notes:
1 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

Closure Cost Estimate
Waste Disposal

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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 Disposal - Cost Summary

	Labor	Equipment	Fees	Totals
Solid Waste - On Site	$0	$0	N/A	$0
Solid Waste - Off Site				$960
Hazardous Materials				$0
Hydrocarbon Contaminated Soils				$0
TOTALS	$0	$0	$0	$960

Notes:
1. Use Yards or Landfills Sheets for bioremediation facility reclamation

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, 2008: 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 $
1	Waste Disposal	15	1					$960	$0	$0

Closure Cost Estimate
Waste Disposal

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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 Disposal - Cost Summary

	Labor	Equipment	Fees	Totals
Solid Waste - On Site	$0	$0	N/A	$0
Solid Waste - Off Site				$960
Hazardous Materials				$0
Hydrocarbon Contaminated Soils	$0	$0	$0	$0
TOTALS	$0	$0	$0	$960

	15					$960	$0	$0

Waste Disposal - Hazardous Materials Disposal

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

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 $
					$0	$0	$0	$0	$0	$0

Closure Cost Estimate
Monitoring

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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	$171	[illegible]	$1,195	$1,42[illegible]
Erosion Maintenance	$0	$0	N/A	$0
Reclamation Monitoring	[illegible]	[illegible]	N/A	[illegible]
Subtotal Reclamation Monitoring	[illegible]	[illegible]	[illegible]	[illegible]
Water Quality Monitoring	$0	$0	$0	$0
TOTAL MONITORING	[illegible]	[illegible]	[illegible]	[illegible]

Reclamation Maintenance

Description	Total Revegetation Surface Area (1,2) acres	% Area Requiring Reseeding	Seed Mix (select)	Area Requiring Reseeding acres	Seed $/acre	Labor $/acre	Equipment $/acre	Totals $
Revegetation Maintenance	17	10%	User Mix 1	1.7	$686.42	$100.00	$36.00	
Labor								$171
Equipment								$62
Materials								$1,19[illegible]
Cost/Acre								$834
							Subtotal	$1,42[illegible]

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%) $/acre	Equipment (assume 75%) $/acre	Total $
Erosion Maintenance	8,903		$2.67	0		$0.00	$0.00	$0

Notes:

Reclamation Monitoring

Description	Hrs/Day	Days/Year	Number of Years	Rate $/hr		
Field Work						
Field Geologist/Engineer				$164.35		$0
Range Scientist	8	1	12	$155.34		$14,913
Reporting						
Field Geologist/Engineer				$164.35		$0
Range Scientist	4	1	12	$155.34		$7,456
					Subtotal	[illegible]
Travel						
	Hrs/Trip hr	Trips/Year	Years	Truck Cost $/hr		
Travel	8	1	12	$30.1[illegible]		$2,89[illegible]
					Subtotal	[illegible]
					Total Reclamation Monitoring	[illegible]

Notes:

Closure Cost Estimate
Monitoring

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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: Survey Cost Basis: Northern Nevada

Reclamation Monitoring & Maintenance - Cost Summary

	Labor	Equipment	Lab & Materials	Totals
Revegetation Maintenance	$171	$[illegible]	$1,150	$1,320
Erosion Maintenance	$0	$0	N/A	$0
Postmining Monitoring	$29,305	$3,958	N/A	$33,263
Subtotal Reclamation Monitoring	$29,640	$3,958	$1,150	$34,583
Water Quality Monitoring	$0	$0	$0	$0
TOTAL MONITORING	$29,640	$3,958	$1,150	$34,583

Water and Rock Sample Analysis

Description	Samples	Events/Year	No. Years	First Sample Year (1-100)	No. of Samplers	Days/Event	Hrs/Day	Analysis Cost $/sample	Supplies $/sample	Lab Cost $
										60.00

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

Ground & Surface Water Monitoring

Pump Costs

Description	No. of units		Years		Cost $
Pump (purchased)		Replacement period (yrs)			$0
				Subtotal Field Work	$0

Notes: Replacement period = frequency of pump replacement

Reporting

Description	Hrs/Event	Rate $/hr	Cost $
Field Geologist/Engineer			
		Subtotal Reporting	

Notes:

Closure Cost Estimate
Constr. Mgmt

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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	$16,000	$3,054	N/A	$19,054
Construction Support		$432		$432
Road Maintenance	$13,382	$20,637	$60,000	$94,019
TOTAL CONSTRUCTION MANAGEMENT	$29,382	$24,123	$60,000	$113,505

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	2	80	1	$100.00	$16,000	$3,054	$19,054
Monitoring & Maintenance					$0	$0	$0
				Total Staff	$16,000	$3,054	$19,054

Construction Management Support

Description	Duration mo.	Number of Units		Rental Rate $/mo	Generator Cost $/mo	Equipment Cost[1] $	Totals $
Temporary Office Rental						$0	$0
Temporary Toilets	2	1		$216		$432	$432
					Total Support	$432	$432

Notes: Office rental assumes only 1 generator required for every 4 trailers

Total Construction Management	$19,486

Road Maintenance

Description	Fleet Size (select)	Number	Duration mo.	Hours/ Month hr.	Labor Cost $	Equipment Cost $	Totals $
Active Reclamation							
Water Truck	Small	1	2	160	$13,382	$20,637	$34,019
Grader					$0	$0	$0
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	10000	20	2	0.15			$60,000
				Total Project Maintenance	$13,382	$20,637	$94,019

Notes: 1) Supervisor equipment = pickup truck

Closure Cost Estimate
Labor Rates

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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	0-50 miles	$0.00
Truck Drivers	0-50 miles	$0.00
Laborers	0-50 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),(1	
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		$36.37	$0.00	$36.37	$24.80	$1.15	$2.94	$3.41	$0.00	$70.67
14G/H		$36.37	$0.00	$36.37	$24.80	$1.15	$2.94	$3.41	$0.00	$70.67
16G/H		$36.37	$0.00	$36.37	$24.80	$1.15	$2.94	$3.41	$0.00	$70.67
24M					$24.80					
Track Excavators										
312C		$36.37	$0.00	$36.37	$24.80	$1.15	$2.94	$3.41	$0.00	$70.67
320C		$36.37	$0.00	$36.37	$24.80	$1.15	$2.94	$3.41	$0.00	$70.67
325C		$36.37	$0.00	$36.37	$24.80	$1.15	$2.94	$3.41	$0.00	$70.67
330C		$36.37	$0.00	$36.37	$24.80	$1.15	$2.94	$3.41	$0.00	$70.67
345B		$36.37	$0.00	$36.37	$24.80	$1.15	$2.94	$3.41	$0.00	$70.67
365BL					$24.80					
385BL		$36.37	$0.00	$36.37	$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		$36.37	$0.00	$36.37	$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		$36.37	$0.00	$36.37	$24.80	$1.15	$2.94	$3.41	$0.00	$70.67
972G		$36.37	$0.00	$36.37	$24.80	$1.15	$2.94	$3.41	$0.00	$70.67
980G		$36.37	$0.00	$36.37	$24.80	$1.15	$2.94	$3.41	$0.00	$70.67
988G		$36.37	$0.00	$36.37	$24.80	$1.15	$2.94	$3.41	$0.00	$70.67
990					$24.80					
992G		$36.37	$0.00	$36.37	$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										

Closure Cost Estimate
Labor Rates

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
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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	0-50 miles	$0.00
Truck Drivers	0-50 miles	$0.00
Laborers	0-50 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),(1	
Total Other Indirects	0.00%

HOURLY LABOR RATE TABLE

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)										
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 Compactor					$24.80					
CP633E Sheepsfoot Compactor					$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-8 NV20190002 7/8/2019
(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	Truck Driver > 25 yds	$31.50	$0.00	$31.50	$4.16	$0.95	$2.41	$2.80	$0.00	$41.82
735	Truck Driver > 25 yds	$31.50	$0.00	$31.50	$4.16	$0.95	$2.41	$2.80	$0.00	$41.82
740	Truck Driver > 25 yds	$31.50	$0.00	$31.50	$4.16	$0.95	$2.41	$2.80	$0.00	$41.82
769D	Truck 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	Truck 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

Closure Cost Estimate
Labor Rates

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
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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	0-50 miles	$0.00
Truck Drivers	0-50 miles	$0.00
Laborers	0-50 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),(1	
Total Other Indirects	0.00%

HOURLY LABOR RATE TABLE

NOTES:

(4) Truck Driver Source:	D-8 SUNV2014-014 9/8/2018
(5) Zone Basis:	From Washoe Co. Courthouse

Laborers ($/hr) (6,7)

General Laborer	Group 1	$25.45	$0.00	$25.45	$10.56	$0.76	$1.95	$2.27	$0.00	$40.99
Skilled Laborer	Group 4	$25.95	$0.00	$25.95	$10.56	$0.78	$1.99	$2.31	$0.00	$41.58
Driller's Helper	Group 3	$25.70	$0.00	$25.70	$10.56	$0.77	$1.97	$2.29	$0.00	$41.28
Rodmen (reinforcing concrete)	Group 1	$25.45	$0.00	$25.45	$10.56	$0.76	$1.95	$2.27	$0.00	$40.99
Cement finisher	Group 3	$25.70	$0.00	$25.70	$10.56	$0.77	$1.97	$2.29	$0.00	$41.28
Carpenter		$38.73	$0.00	$38.73	$14.29	$1.16	$2.96	$3.46	$0.00	$60.59

NOTES:

(6) Laborer Source:	D-8 SUNV2011-005 10/1/2010
(7) Carpenter Source:	C-8 Projected from Southern Nevada
(8) Zone Basis:	From Washoe Co. Courthouse

Project Management and Technical Labor ($/hr) (9)

Project Manager		$74.81		$74.81	$10.56	$2.24	$5.72	$6.68	$0.00	$100.00
Foreman		$69.19		$69.19	$10.56	$2.08	$5.29	$6.16	$0.00	$93.27
Field Geologist/Engineer		$132.86		$132.86	$10.56	$3.99	$10.16	$11.82	$0.00	$169.38
Field Tech/Sampler		$108.45		$108.45	$10.56	$3.25	$8.30	$9.66	$0.00	$140.21
Range Scientist		$121.10		$121.10	$10.56	$3.63	$9.26	$10.79	$0.00	$155.34
Senior Planning Engineer					$10.56					
Project Engineer					$10.56					
Mechanic/Fitter					$10.56					
					$10.56					
					$10.56					
					$10.56					
					$10.56					

NOTES:

(9) Project Manager:	R.S.Means 2019 Q2 (01 31 1320 0200 Total Incl.O&P-10%) Adjusted for Elko, NV
(9) Foreman Source:	R.S.Means 2019 Q2 (01 31 1320 0200 Total Incl.O&P-10%) Adjusted for Elko, NV
(9) Technical Labor Source:	SRK Consulting 2019 (Total Incl. O&P-10%) Adjusted for Zone, Tax and Ins.
Other Labor Source:	
Other Labor Source:	
†Additional User Markups	
(These are added by the user to the	
base rate to account for site-specific	
conditions or corporate requirements)	

Closure Cost Estimate
Equipment Costs

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm
Monthly Rental Basis: 160 hrs month

EQUIPMENT RENTAL RATE TABLE				
EQUIPMENT TYPE (1)	Monthly Owner/Rental Rate	Equipment Hourly Rate	Fuel/Lube/ Wear	Total Rate
Bulldozers				
D6R	$10,400.00	$65.00	$28.89	$93.89
D6R w/ Winch			$16.44	$16.44
D7R	$11,350.00	$70.94	$32.18	$103.11
D8R	$21,600.00	$135.00	$43.19	$178.19
D9R	$26,100.00	$163.13	$61.52	$224.64
D10R	$40,000.00	$250.00	$79.01	$329.01
D11R	$64,000.00	$400.00	$115.46	$515.46
Wheeled Dozers				
824G			$28.27	$28.27
834G			$33.14	$33.14
844			$39.45	$39.45
854G			$49.97	$49.97
Motor Graders				
120H	$9,600.00	$60.00	$30.82	$90.82
14G/H	$13,500.00	$84.38	$45.17	$129.54
16G/H	$21,000.00	$131.25	$56.44	$187.69
24M			$40.77	$40.77
Track Excavators				
312C	$5,275.00	$32.97	$13.10	$46.07
320C	$5,955.00	$37.22	$21.94	$59.16
325C	$8,350.00	$52.19	$27.66	$79.85
330C	$10,800.00	$67.50	$33.47	$100.97
345B	$14,280.00	$89.25	$41.80	$131.05
365BL			$34.72	$34.72
385BL	$22,500.00	$140.63	$65.46	$206.08
Scrapers				
631G	$24,800.00	$155.00	$68.42	$223.42
637G	$35,000.00	$218.75	$98.53	$317.28
Wheeled Loaders				
924G	$4,500.00	$28.13	$18.40	$46.52
928G	$5,200.00	$32.50	$20.80	$53.30
950G	$7,600.00	$47.50	$28.58	$76.08
966G	$10,900.00	$68.13	$37.72	$105.85
972G	$13,800.00	$86.25	$42.51	$128.76
980G	$13,800.00	$86.25	$48.09	$134.34
988G	$23,000.00	$143.75	$68.77	$212.52
990			$44.71	$44.71
992G	$80,000.00	$375.00	$129.34	$504.34
994D			$94.68	$94.68
L2350			$173.58	$173.58
Shovels				
PC2000			$97.31	$97.31
PC3000			$131.50	$131.50
PC4000			$184.10	$184.10
PC5500			$312.97	$312.97
PC8000			$391.87	$391.87
Hydraulic Hammers				
H-120 (fits 325)	$5,700.00	$35.63	$5.57	$41.20
H-160 (fits 345)	$12,000.00	$75.00	$10.86	$85.86
H-180 (fits 365/385)	$16,200.00	$101.25	$12.87	$114.12
Demolition Shears				
S340 (fits 322/325/330)				$0.00

Closure Cost Estimate
Equipment Costs

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
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S365 (fits 330/345)				$0.00
S390 (fits 365/385)				$0.00
Demolition Grapples				
G315 (fits 322/325)				$0.00
G320 (fits 325/330)				$0.00
G330 (fits 345/365)				$0.00
Other Equipment				
420D 4WD Backhoe	$2,650.00	$16.56	$16.32	$32.88
428D 4WD Backhoe	$3,400.00	$21.25	$16.21	$37.46
CS533E Vibratory Roller	$8,140.00	$50.88	$9.86	$60.74
CS633E Vibratory Roller			$12.49	$12.49
CP533E Sheepsfoot Compactor			$9.86	$9.86
CP633E Sheepsfoot Compactor			$12.49	$12.49
Light Truck - 1.5 Ton	$4,158.00	$25.99	$4.21	$30.19
Supervisor's Truck	$2,591.60	$16.20	$2.89	$19.09
Flatbed Truck	$4,158.00	$25.99	$13.80	$39.79
Air Compressor + tools	$4,300.56	$26.88	$2.63	$29.51
Welding Equipment	$2,039.40	$12.75	$5.26	$18.01
Heavy Duty Drill Rig	$56,760.00	$354.75	$31.56	$386.31
Pump (plugging) Drill Rig	$56,760.00	$354.75	$26.30	$381.05
Concrete Pump	$17,974.00	$112.34	$26.30	$138.64
Gas Engine Vibrator	$564.96	$3.53	$2.63	$6.16
Generator 5KW	$711.92	$4.45	$3.95	$8.39
HDEP Welder (pipe or liner)	$8,628.40	$53.93	$5.26	$59.19
5 Ton Crane	$5,535.20	$34.60	$7.89	$42.49
20 Ton Crane	$12,408.00	$77.55	$10.52	$88.07
50 Ton Crane	$12,408.00	$77.55	$12.36	$89.91
120 Ton Crane			$13.68	$13.68
Trucks				
725	$15,000.00	$93.75	$36.71	$130.46
730	$15,000.00	$93.75	$38.03	$131.78
735	$15,000.00	$93.75	$51.85	$145.60
740	$15,000.00	$93.75	$53.00	$146.75
769D	$21,000.00	$131.25	$41.02	$172.27
773E	$33,000.00	$206.25	$53.99	$260.24
777D	$54,000.00	$337.50	$77.02	$414.52
785C			$63.78	$63.78
793C			$109.80	$109.80
797B			$154.51	$154.51
613E (5,000 gal) Water Wagon	$6,500.00	$40.63	$23.86	$64.49
621E (8,000 gal) Water Wagon	$11,000.00	$68.75	$42.58	$111.33
777D Water Truck			$44.05	$44.05
785C Water Truck			$63.78	$63.78
Dump Truck (10-12 yd^3)	$12,078.00	$75.49	$14.66	$90.15

NOTES:

(1) Power Equipment Source:	
(2) Power Equipment Type:	Catepillar model or equivalent, LeTourneau loader, Komatsu shovels
(3) Drilling Equipment Source:	RS Means Heavy Construction (2019 Q2)
(4) Other Equipment Source:	RS Means Heavy Construction (2019 Q2)
(5) Drill rig includes support (pipe) truck	

Closure Cost Estimate
Equipment Costs

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FUEL, LUBE AND WEAR CALCULATIONS

EQUIPMENT TYPE	PM Cost Per Hour (1)	Under carriage or Tires (2)	G.E.T Consumption (3)	Fuel Use Rate gal/hr (4)	Cost@ 2.63/gal	Total Hourly Equipment Cost
Bulldozers						
D6R	$7.41		$5.04	6.25	$16.44	$28.89
D6R w/ Winch				6.25	$16.44	$16.44
D7R	$7.41		$5.04	7.50	$19.73	$32.18
D8R	$7.82		$9.73	9.75	$25.64	$43.19
D9R	$8.91		$15.13	14.25	$37.48	$61.52
D10R	$10.49		$21.18	18.00	$47.34	$79.01
D11R	$14.29		$31.47	26.50	$69.70	$115.46
Wheeled Dozers						
824G		$0.00		10.75	$28.27	$28.27
834G		$0.00		12.60	$33.14	$33.14
844		$0.00		15.00	$39.45	$39.45
854G		$0.00		19.00	$49.97	$49.97
Motor Graders						
120H	$4.50	$5.36	$10.44	4.00	$10.52	$30.82
14G/H	$5.61	$8.03	$15.09	6.25	$16.44	$45.17
16G/H	$5.86	$10.24	$20.61	7.50	$19.73	$56.44
24M				15.50	$40.77	$40.77
Track Excavators						
312C	$4.23		$3.93	1.88	$4.94	$13.10
320C	$4.51		$4.54	4.90	$12.89	$21.94
325C	$4.57		$5.73	6.60	$17.36	$27.66
330C	$5.60		$6.30	8.20	$21.57	$33.47
345B	$7.47		$6.45	10.60	$27.88	$41.80
365BL				13.20	$34.72	$34.72
385BL	$6.23		$13.20	17.50	$46.03	$65.46
Scrapers						
631G	$7.52	$13.20	$8.25	15.00	$39.45	$68.42
637G	$12.49	$13.20	$10.37	23.75	$62.46	$98.53
Wheeled Loaders						
924G	$3.74	$3.09	$4.34	2.75	$7.23	$18.40
928G	$4.02	$3.09	$4.49	3.50	$9.21	$20.80
950G	$5.00	$4.71	$8.35	4.00	$10.52	$28.58
966G	$5.21	$6.91	$10.48	5.75	$15.12	$37.72
972G	$5.89	$6.91	$13.27	6.25	$16.44	$42.51
980G	$5.89	$9.20	$13.27	7.50	$19.73	$48.09
988G	$11.04	$11.69	$14.22	12.10	$31.82	$68.77
990				17.00	$44.71	$44.71
992G	$12.23	$23.97	$32.65	23.00	$60.49	$129.34
994D				36.00	$94.68	$94.68
L2350				66.00	$173.58	$173.58
Shovels						
PC2000				37.00	$97.31	$97.31
PC3000				50.00	$131.50	$131.50
PC4000				70.00	$184.10	$184.10
PC5500				119.00	$312.97	$312.97
PC8000				149.00	$391.87	$391.87
Hydraulic Hammers						
H-120 (fits 325)	N/A		$5.57			$5.57
H-160 (fits 345)	N/A		$10.86			$10.86
H-180 (fits 365/385)	N/A		$12.87			$12.87
Demolition Shears						
S340 (fits 322/325/330)	N/A					$0.00
S365 (fits 330/345)	N/A					$0.00

Closure Cost Estimate
Equipment Costs

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm

S390 (fits 365/385)	N/A					$0.00
Demolition Grapples						
G315 (fits 322/325)	N/A					$0.00
G320 (fits 325/330)	N/A					$0.00
G330 (fits 345/365)	N/A					$0.00
Other Equipment						
420D 4WD Backhoe	$4.16	$0.78	$3.49	3.00	$7.89	$16.32
428D 4WD Backhoe	$3.94	$0.78	$3.60	3.00	$7.89	$16.21
CS533E Vibratory Roller			N/A	3.75	$9.86	$9.86
CS633E Vibratory Roller			N/A	4.75	$12.49	$12.49
CP533E Sheepsfoot Compactor			N/A	3.75	$9.86	$9.86
CP633E Sheepsfoot Compactor			N/A	4.75	$12.49	$12.49
Light Truck - 1.5 Ton		$0.26	N/A	1.50	$3.95	$4.21
Supervisor's Truck		$0.26	N/A	1.00	$2.63	$2.89
Flatbed Truck		$1.44	N/A	4.70	$12.36	$13.80
Air Compressor + tools			N/A	1.00	$2.63	$2.63
Welding Equipment			N/A	2.00	$5.26	$5.26
Heavy Duty Drill Rig			N/A	12.00	$31.56	$31.56
Pump (plugging) Drill Rig			N/A	10.00	$26.30	$26.30
Concrete Pump			N/A	10.00	$26.30	$26.30
Gas Engine Vibrator			N/A	1.00	$2.63	$2.63
Generator 5KW			N/A	1.50	$3.95	$3.95
HDEP Welder (pipe or liner)			N/A	2.00	$5.26	$5.26
5 Ton Crane			N/A	3.00	$7.89	$7.89
20 Ton Crane			N/A	4.00	$10.52	$10.52
50 Ton Crane			N/A	4.70	$12.36	$12.36
120 Ton Crane			N/A	5.20	$13.68	$13.68
Trucks						
725	$7.44	$13.78	$3.13	4.70	$12.36	$36.71
730	$7.44	$13.78	$3.13	5.20	$13.68	$38.03
735	$7.44	$21.95	$3.13	7.35	$19.33	$51.85
740	$7.44	$23.10	$3.13	7.35	$19.33	$53.00
769D	$6.14	$7.05	$3.50	9.25	$24.33	$41.02
773E	$7.59	$11.56	$3.93	11.75	$30.90	$53.99
777D	$10.87	$17.71	$4.39	16.75	$44.05	$77.02
785C				24.25	$63.78	$63.78
793C				41.75	$109.80	$109.80
797B				58.75	$154.51	$154.51
613E (5,000 gal) Water Wagon	$4.45	$3.64		6.00	$15.78	$23.86
621E (8,000 gal) Water Wagon	$6.29	$8.02		10.75	$28.27	$42.58
777D Water Truck				16.75	$44.05	$44.05
785C Water Truck				24.25	$63.78	$63.78
Dump Truck (10-12 yd3) (5)	N/A	$0.98	N/A	5.20	$13.68	$14.66

Notes:

(1) PM Source:	Cashman Equipment Company (July 2019) unless noted
(2) Undercarriage Source:	Purecell Tire Quote: June 2019
(3) G.E.T. Source:	Cashman Equipment Company (July 2019) unless noted
(4) Fuel Use Source:	Caterpillar Handbook, Edition 35, Ch. 20; or estimated average for smaller vehicles
(5) Dump Truck Oper. Cost Source:	Means Heavy Construction (2008)

Closure Cost Estimate
Equipment Costs

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm

TIRE COST TABLES

Equipment	Tire Size	# of Tires Per Piece of Equipment	Cost Per Tire	Tire Cost (1)(2)	Life Expectency Hours (Low/Zone A) (3)	Tire Cost per Hour
Bulldozers						
D6R			N/A			
D6R w/ Winch			N/A			
D7R			N/A			
D8R			N/A			
D9R			N/A			
D10R			N/A			
D11R			N/A			
Wheeled Dozers						
824G	29.5R25	4		$0.00	3,500	$0.00
834G	35/65-R33	4		$0.00	3,500	$0.00
844	45/65-R39	4		$0.00	3,500	$0.00
854G	45/65-R45	4		$0.00	3,500	$0.00
Motor Graders						
120H	13PR24	6	$3,126.20	$18,757.20	3,500	$5.36
14G/H	20.5R25	6	$4,685.30	$28,111.80	3,500	$8.03
16G/H	23.5R25	6	$5,974.20	$35,845.20	3,500	$10.24
24M	23.5R25	6		$0.00	3,500	
Track Excavators						
312C			N/A			
320C			N/A			
325C			N/A			
330C			N/A			
345B			N/A			
365BL			N/A			
385BL			N/A			
Scrapers						
631G	37.25R35	4	$13,202.70	$52,810.80	4,000	$13.20
637G	37.25R35	4	$13,202.70	$52,810.80	4,000	$13.20
Wheeled Loaders						
924G	17.5R25	4	$3,471.10	$13,884.40	4,500	$3.09
928G	17.5R25	4	$3,471.10	$13,884.40	4,500	$3.09
950G	26.5R25	4	$5,300.40	$21,201.60	4,500	$4.71
966G	26.5R25	4	$7,771.60	$31,086.40	4,500	$6.91
972G	26.5R25	4	$7,771.60	$31,086.40	4,500	$6.91
980G	29.5R25	4	$10,355.60	$41,422.40	4,500	$9.20
988G	35/65-33	4	$13,151.10	$52,604.40	4,500	$11.69
990	41.25/70-39	4		$0.00	4,500	
992G	45/65R45	4	$26,967.62	$107,870.48	4,500	$23.97
994D	55/85R57	4		$0.00	4,500	
L2350	55/85R57	4		$0.00	4,500	
Shovels						
PC2000			N/A			
PC3000			N/A			
PC4000			N/A			
PC5500			N/A			
PC8000			N/A			
Hydraulic Hammers						
H-120 (fits 325)			N/A			
H-160 (fits 345)			N/A			
H-180 (fits 365/385)			N/A			
Demolition Shears						
S340 (fits 322/325/330)			N/A			

Closure Cost Estimate
Equipment Costs

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.xlsm
Model Version: Version 1.4.1
Cost Data: User Data
Cost Data File: SRCE_Cost_Data_File_1_12_Std_2019.xlsm

S365 (fits 330/345)			N/A			
S390 (fits 365/385)			N/A			
Demolition Grapples						
G315 (fits 322/325)			N/A			
G320 (fits 325/330)			N/A			
G330 (fits 345/365)			N/A			
Other Equipment						
420D 4WD Backhoe	340/80R18-19.5LR24	2	$1,162.96	$2,325.92	3,000	$0.78
428D 4WD Backhoe	340/80R18-16.9R28	2	$1,162.96	$2,325.92	3,000	$0.78
CS533E Vibratory Roller			N/A			
CS633E Vibratory Roller			N/A			
CP533E Sheepsfoot Compactor			N/A			
CP633E Sheepsfoot Compactor			N/A			
Light Truck - 1.5 Ton		4	196.4	$785.60	3,000	$0.26
Supervisor's Truck		4	196.4	$785.60	3,000	$0.26
Flatbed Truck		22	196.4	$4,320.80	3,000	$1.44
Air Compressor + tools			N/A			
Welding Equipment			N/A			
Heavy Duty Drill Rig		4		$0.00	3,000	
Pump (plugging) Drill Rig		4		$0.00	3,000	
Concrete Pump			N/A			
Gas Engine Vibrator			N/A			
Generator 5KW			N/A			
HDEP Welder (pipe or liner)			N/A			
5 Ton Crane		4		$0.00	3,000	
20 Ton Crane		4		$0.00	3,000	
50 Ton Crane		6		$0.00	3,000	
120 Ton Crane		6		$0.00	3,000	
Trucks						
725	23.5R25	6	$4,594.57	$27,567.42	2,000	$13.78
730	23.5R25	6	$4,594.57	$27,567.42	2,000	$13.78
735	26.5R25	6	$7,315.27	$43,891.62	2,000	$21.95
740	29.5R25	6	$7,701.12	$46,206.72	2,000	$23.10
769D	18.00R33	6	$7,054.80	$42,328.80	6,000	$7.05
773E	24.00R35	6	$9,637.30	$57,823.80	5,000	$11.56
777D	27.00R49	6	$14,756.90	$88,541.40	5,000	$17.71
785C	33.00R51	6		$0.00	4,000	
793C	40.00R57	6		$0.00	4,000	
797B	40.00R57	6		$0.00	4,000	
613E (5,000 gal) Water Wagon	23.5R25	6	$3,636.27	$21,817.62	6,000	$3.64
621E (8,000 gal) Water Wagon	33.25R29	6	$10,688.90	$64,133.40	8,000	$8.02
777D Water Truck	27.00R49	6		$0.00	5,000	
785C Water Truck	33.00R51	6		$0.00	4,000	
Dump Truck (10-12 yd3)		10	$590.40	$5,904.00	6,000	$0.98

Notes:

(1) Unit Cost Basis:	Cost per set
(2) Cost Basis:	Total cost for all required tires.
(3) Tire Cost Source:	Purecell Tire Quote: June 2019
(4) Tire Wear Source:	Caterpillar Handbook, Edition 35; Ch. 20

Closure Cost Estimate
Material Costs

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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

Revegetation Materials

Seed Mixes

Seed Mix	Description		Cost/Acre
None			
Mix 1	Basins		$302.50
Mix 2	Low Hills		$332.75
Mix 3	Uplands		$363.00
Mix 4	Riparian or Custom		$393.25
User Mix 1	Mathis Mix		$696.42
User Mix 2			
User Mix 3			
User Mix 4			
	Cost/lb	lbs/Acre	Cost/Acre
User Mix 5 (from Seed Mix sheet)	$30.28	$23.00	$696.42

Notes:

Mulch

Item	Cost/lb	lbs/Acre	Cost/Acre
None			
Straw Mulch	$0.17	2000	$338.89
Hydro Mulch	$0.25		
Timber Mulch			

Notes: Granite Seed $500 per Tonlin 50 lb bag Wood (Hydro) Mulch (June 2019)

Amendments

Item	Cost/lb	lbs/Acre	Cost/Acre
None			
Organic Matter	$0.70		$0.00
Treated Sludge			
Chemical	$0.59		$0.00

Closure Cost Estimate
Material Costs

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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

Notes:	Western Nevada Supply $29.34 per 50 lb. bag 15-15-15 (June 2018)		

Well Abandonment Materials

Description	Cost/50lb bag	Units	Cost/unit*
Cement	$7.57	cy	$36.07
Grout (Low Grade Bentonite)	$8.65	cy	$41.19
Inert Material/Cuttings		cy	
		cy	
		cy	

(1) Jentech Drilling Supply quote (June 2019) Type I,II Cement at $14.24 per 94 lb. bag
(2) Jentech Drilling Supply (June 2019) 3/8 in. Chunk Bentonite Hole Plug at $8.65 per 50 lb. bag (5.75 cf/bag at

* Assumes 1 bag mixes with water to make 0.21 y3 or 0.16 m3 of grout/cement slurry.

Monitoring Costs

Description	Units	Cost/unit
Monitor Well Pump	ea.	$2,650.80
Sampling Supplies	ea.	$8.19
Water Analysis (Profile I) (1)	ea.	$411.00
Leach Test (MWMP) w/ analysis	ea.	$483.40
ABA + S speciation	ea.	$150.00
WAD Cyanide in water	ea.	$58.00
Water Analysis (Profile II) (1)	ea.	$461.00
	ea.	
	ea.	
	ea.	
	ea.	
	ea.	
	ea.	
	ea.	
	ea.	
	ea.	
	ea.	

Closure Cost Estimate
Material Costs

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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

(1) WET Lab, Reno, Nevada (June 2019)
Well pump and Sample supply costs adjusted to 2019.
Original source unknown.

Fuel, Etc.

Description	Units	Cost/unit
Off-road Diesel - delivered (1)	$/gal	$2.630
Pickup Truck Mileage	$/mi	$0.580
Electical Power	$/kWh	$0.079

(1) Source: Oil Price Infomration Service , average annual cost including freight to Nevada (July 2019).
Source: Federal Government Vehicle Allowance Rate 2019
Source: NV Energy (July 2019) $0.07918

Closure Cost Estimate
Material Costs

Revegetation Method				
Slopes				
Disturbance Type	**Seed Application Method**	**Labor Cost/Acre**	**Equipment Cost/Acre**	**Total Cost/Acre**
Waste Rock Dumps	Mechanical Broadcast	$100.00	$38.00	$138.00
Heap Leach	Mechanical Broadcast	$100.00	$38.00	$138.00
Tailings	Hand Broadcast	$140.00	$50.00	$190.00
Quarries & Borrow Pits	Mechanical Broadcast	$100.00	$38.00	$138.00
Flat Areas and Undifferentiated				
Disturbance Type	**Seed Application Method**	**Labor Cost/Acre**	**Equipment Cost/Acre**	**Total Cost/Acre**
Exploration Trenches	Mechanical Broadcast	$100.00	$38.00	$138.00
Exploration Roads	Mechanical Broadcast	$100.00	$38.00	$138.00
Waste Rock Dumps	Mechanical Broadcast	$100.00	$38.00	$138.00
Heap Leach	Mechanical Broadcast	$100.00	$38.00	$138.00
Tailings	Mechanical Broadcast	$100.00	$38.00	$138.00
Quarries & Borrow Pits	Mechanical Broadcast	$100.00	$38.00	$138.00
Roads	Mechanical Broadcast	$100.00	$38.00	$138.00
Pits	Mechanical Broadcast	$100.00	$38.00	$138.00
Haul Material	Mechanical Broadcast	$100.00	$38.00	$138.00
Foundations & Buildings	Mechanical Broadcast	$100.00	$38.00	$138.00
Sediment & Drainge Control	Mechanical Broadcast	$100.00	$38.00	$138.00
Process Ponds	Mechanical Broadcast	$100.00	$38.00	$138.00
Landfills	Mechanical Broadcast	$100.00	$38.00	$138.00
Yards, Etc.	Mechanical Broadcast	$100.00	$38.00	$138.00
Revegetation Maintenance	Mechanical Broadcast	$100.00	$38.00	$138.00

Closure Cost Estimate
Seed Mixture

Project Name: Mathis Quarry - Reclamation Plan
Date of Submittal: April 30, 2020
File Name: 200423_LNA_MathisSRCE_Version_1_4_1_017_NVb.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

Seed Mixture

Common Name	Scientific Name	Species Number of Seeds / lb	Species % in Mix	PLS/acre	Cost/Lb	Cost/Acre
Grasses						
Curly Mesquitegrass	*Hilaria belangeri*			1.00	$65.00	$65.00
Alkali Sacaton	*Sporobolus Airoides*			2.00	21.00	$50.00
Purple Threeawn	*Aristida purpurea*			3.00	40.00	$120.00
Sideoats Grama	*Bouteloua curtipendula*			6.00	14.07	$80.42
Green Sprangletop	*Leptochloa Dubia*			3.00	7.00	$21.00
Blue Grama	*Bouteloua gracilis*			4.00	16.50	$66.00
Plains Bristlegrass	*Setaria Vulpiseta*			1.00	8.00	$8.00
Sand Dropseed	*Sporobolus cryptandrus*			1.00	6.00	$6.00
Forbs						
Desert Marigold	*Baileya multiradiata*			1.00	190.00	$190.00
Shrubs						
Desert Globemallow	*Sphaeralcea ambigua*			1.00	50.00	$50.00
Total				$23.00		$656.42

Source:

Notes:

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: 376

Miles from equipment rental yard to project, one way (9): 100

Mathis Quarry — Hours travel time @ 55 MPH: 1.82

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	$ 97	$ -	$ -	$ -		$ -	$ -
D7R	$ 131	$ 131	$ 131	$ -	$ 25	$ 171	1	$ 804	$ 1,609
D8R	$ 153	$ 153	$ 153	$ -	$ 25	$ 342		$ -	$ -
D9R	$ 153	$ 153	$ 153	$ -	$ 25	$ 342	1	$ 1,077	$ 2,154
D10R	$ 153	$ 153	$ 153	$ 63,720	$ 25	$ 514		$ -	$ -
D11R (two transports) (7)	$ 153	$ 153	$ 153	$ 135,720	$ 25	$ 342		$ -	$ -
Motor Graders									
14G/H	$ 102	$ 102	$ 102	$ -	$ -	$ -		$ -	$ -
16G/H	$ 131	$ 131	$ 131	$ -	$ 25	$ 171		$ -	$ -
Track Excavators									
320C	$ 131	$ 131	$ 131	$ -	$ -	$ -		$ -	$ -
325C	$ 131	$ 131	$ 131	$ -	$ -	$ -		$ -	$ -
345B	$ 153	$ 153	$ 153	$ -	$ 25	$ 342	1	$ 1,077	$ 2,154
385BL	$ 153	$ 153	$ 153	$ 44,880	$ 25	$ 342		$ -	$ -
Scrapers									
631G	$ 153	$ 153	$ 153	$ -	$ 25	$ 342		$ -	$ -
637G PP	$ 153	$ 153	$ 153	$ -	$ 25	$ 342		$ -	$ -
Wheeled Loaders									
928G	$ 102	$ 102	$ 102	$ -	$ -	$ -		$ -	$ -
966G	$ 102	$ 102	$ 102	$ -	$ -	$ -	1	$ 473	$ 946
972G	$ 131	$ 131	$ 131	$ -	$ -	$ -		$ -	$ -
988G	$ 131	$ 131	$ 131	$ -	$ 25	$ 171		$ -	$ -
992G (two transports) (7)	$ 153	$ 153	$ 153	$ 74,160	$ 25	$ 342		$ -	$ -
Hydraulic Hammers									
H-120 (fits 325) no charge, mobilize with mach	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -
H-160 (fits 345) no charge, mobilize with mach	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -
H-180 (fits 365/385) no charge, mobilize with n	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -
Other Equipment									
420D 4WD Backhoe	$ 102	$ 102	$ 102	$ -	$ -	$ -		$ -	$ -
CS563E Vibratory Roller	$ 102	$ 102	$ 102	$ -	$ -	$ -		$ -	$ -
Light Truck - 1.5 Ton	$ 67	$ 67	$ -	$ -	$ -	$ -		$ -	$ -
Supervisor's Truck	$ 63	$ 63	$ -	$ -	$ -	$ -	1	$ 176	$ 353
Air Compressor + tools	$ 79	$ 79	$ 79	$ -	$ -	$ -		$ -	$ -
Welding Equipment	$ 79	$ 79	$ 79	$ -	$ -	$ -		$ -	$ -
Heavy Duty Drill Rig	$ 397	$ 397	$ -	$ -	$ -	$ -		$ -	$ -
Pump (plugging) Drill Rig	$ 402	$ 402	$ -	$ -	$ -	$ -		$ -	$ -
Concrete Pump	$ 79	$ 79	$ 79	$ -	$ -	$ -		$ -	$ -
Gas Engine Vibrator	$ 79	$ 79	$ 79	$ -	$ -	$ -		$ -	$ -
Generator 5KW	$ 79	$ 79	$ 79	$ -	$ -	$ -		$ -	$ -
HDEP Welder (pipe or liner)	$ 79	$ 79	$ 79	$ -	$ -	$ -		$ -	$ -
5 Ton Crane Truck	$ 107	$ 107	$ -	$ -	$ -	$ -		$ -	$ -
25 Ton Crane	$ 146	$ 146	$ -	$ -	$ -	$ -		$ -	$ -
Trucks									
725	$ 102	$ 102	$ 102	$ -	$ -	$ -	0	$ 2,837	$ 5,674
740	$ 131	$ 131	$ 131	$ -	$ 25	$ 342		$ -	$ -
769D	$ 131	$ 131	$ 131	$ -	$ 25	$ 342		$ -	$ -
777D (two transports) (8)	$ 153	$ 153	$ 153	$ 71,280	$ 25	$ 514		$ -	$ -
613E (5,000 gal) Water Wagon	$ 153	$ 153	$ 153	$ -	$ -	$ -	1	$ 709	$ 1,419
621E (8,000 gal) Water Wagon	$ 153	$ 153	$ 153	$ -	$ 25	$ 342		$ -	$ -
Dump Truck (10-12 yd³)	$ 116	$ 116	$ 116	$ -	$ -	$ -		$ -	$ -
Miscellaneous									
Equipment for dry hole abandonment (420D 4W	$ 102	$ 102	$ 102	$ -	$ -	$ -		$ -	$ -
Pilot car (Light Truck)	$ 63	$ 63	$ 63	$ -	$ -	$ -		$ -	$ -
Truck Tractor + Lowbed Trailer 75 ton	$ 153	$ 153	$ 153	$ -	$ -	$ -		$ -	$ -
Truck Tractor + Flatbed Trailer 40 ton	$ 131	$ 131	$ 131	$ -	$ -	$ -		$ -	$ -
Light Truck + Flatbed Trailer 25 ton	$ 79	$ 79	$ 79	$ -	$ -	$ -		$ -	$ -
							12		$ 14,307

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.

APPENDIX C
NEW MEXICO NOXIOUS WEED LIST

New Mexico Department of Agriculture
Noxious Weed List Update (October 19, 2016)
http://www.nmda.nmsu.edu/wp-content/uploads/2016/11/Weed-List-memo-and-weed-list-2016.pdf

Class A Species

Class A species are currently not present in New Mexico, or have limited distribution. Preventing new infestations of these species and eradicating existing infestations is the highest priority.

Common Name	Scientific Name
Alfombrilla	*Drymaria arenariodes*
Black henbane	*Hyoscyamus niger*
Brazillian egeria	*Egeria densa*
Camelthorn	*Alhagi psuedalhagi*
Canada thistle	*Cirsium arvense*
Dalmation toadflax	*Linaria dalmatica*
Diffuse knapweed	*Centaurea diffusa*
Dyer's woad	*Isatis tinctorial*
Giant salvinia	*Salvinia molesta*
Hoary cress	*Cardaria spp.*
Leafy spurge	*Euphorbia esula*
Oxeye daisy	*Leucanthemum vulgare*
Purple loosestrife	*Lythrum salicaria*
Purple starthistle	*Centaurea calcitrapa*
Ravenna grass	*Saccharum ravennae*
Scentless chamomile	*Matricaria perforate*
Scotch thistle	*Onopordum acanthium*
Spotted knapweed	*Centaurea biebersteinii*
Yellow starthistle	*Centaurea solstitialis*
Yellow toadflax	*Linaria vulgaris*

Class B Species

Class B Species are limited to portions of the state. In areas with sever infestations, management should be designed to contain the infestation and stop any further spread.

Common Name	Scientific Name
African rue	*Peganum harmala*
Bull thistle	*Cirsium vulgare*
Chicory	*Cichorium intybus*
Halogeton	*Halogeton glomeratus*
Malta starthistle	*Centaurea melitenis*
Perennial pepperweed	*Lepidium latifolium*
Poison hemlock	*Conium maculatum*

Quackgrass	*Elytrigia repens*
Russian knapweed	*Acroptilon repens*
Spiny cocklebur	*Xanthium spinosum*
Teasel	*Dipsacus fullonum*

Class C Species

Class C species are wide-spread in the state. Management decisions for these species should be determined at the local level, based on feasibility of control and level of infestation.

Common Name	Scientific Name
Cheatgrass	*Bromus tectorum*
Curlyleaf pondweed	*Potamogeton crispus*
Eurasian watermilfoil	*Myriophyllum spicatum*
Giant cane	*Arundo donax*
Hydrilla	*Hydrilla verticllata*
Jointed goatgrass	*Aegilops cylindrica*
Musk thistle	*Carduus nutans*
Parrotfeather	*Myriophyllum aquaticum*
Russian olive	*Elaeagnus angustifolia*
Saltcedar	*Tamarix spp.*
Siberian elm	*Ulmus pumila*
Tree of heaven	*Ailanthus altissima*

Watch List Species

Watch List species are species of concern in the state. These species have the potential to become problematic. More data is needed to determine if these species should be listed. When these species are encountered, please document their location and contact appropriate authorities.

Common Name	Scientific Name
Crimson fountain grass	*Pennisetum setaceum*
Meadow knapweed	*Centaurea pratensis*
Myrtle spurge	*Euphorbia myrsinites*
Pampas grass	*Cortaderia sellonana*
Sahara mustard	*Brassica tournefortii*
Syrian beancaper	*Zygophyllum fabago L.*
Wall rocket	*Diplotaxis tenuifolia*