

3 April 2023 File No.: 0205062

Arizona State Mine Inspector 1700 West Washington Street #403 Phoenix, Arizona 85007

ATTENTION: Paul Marsh

SUBJECT:Technically Incomplete Response to Comments for CalPortlandRio Rico Plant Reclamation Plan Significant Amendment

Dear Mr. Marsh:

CalPortland Company (CalPortland) and Haley & Aldrich, Inc. (Haley & Aldrich) have reviewed the Arizona State Mine Inspector (ASMI) correspondence dated 27 February 2023 regarding the technically incomplete significant amendment to an approved Reclamation Plan for the CalPortland Rio Rico Plant in Rio Rico, Arizona (Attachment A). The following presents CalPortland's response to ASMI's request for missing information.

GENERAL COMMENTS

Comment 1: Post Aggregate Mine Use

The plan amendment states the Post Mine Land Use is naturalized open space. However, the plan also states that septic tanks would remain in place. The septic tanks must be removed to be consistent with the stated PMLU.

Response to Comment 1:

The remaining infrastructure for the site to be left in place will be an asset to the property for the post mining land use. We have changed the post mining land use to commercial use.

Attachment B presents the revised Reclamation Plan Amendment.

Comment 2: Wildlife in Previously Undisturbed Areas

Please cite the source indicating that there are no wildlife habitats that would be disturbed.

Arizona State Mine Inspector 3 April 2023 Page 2

Response to Comment 2:

Haley & Aldrich reviewed the Arizona Game and Fish Department website and GIS map at the following link: <u>https://ert.azgfd.gov/content/map</u>. No significant fish and wildlife habitats are present within the area of the site. This includes all previously disturbed and disturbed areas planned in the future. Haley & Aldrich did not revise Figures as there are no affected habitats within the previously disturbed or the future disturbed project areas.

Comment 3: Section 2.3.1: Third Bullet Point

Define "small" or remove.

Response to Comment 3:

Section 2.3.1 has been updated to reflect the comment above. Attachment B presents the revised Reclamation Plan Amendment.

Comment 4: Section 2.9

This section is not appropriate for the reclamation plan. Please remove.

Response to Comment 4:

We respectfully disagree with this comment. This statement within Section 2.9 has been included in over 100 approved reclamation plans. We feel that it is appropriate and reflects the unpredictability of the construction materials market and the future economics of the mine and industry. The language is important as it preserves the operator's ability to modify this plan, subject to approval by ASMI, to adapt their operations to changing environments or future market conditions.

CalPortland appreciates the opportunity to address ASMI's comments. If you have any questions or comments, please don't hesitate to contact me at 520.572.3514.

Sincerely,

<

Tori Tang Environmental Manager

Attachment A – ASMI Technically Incomplete Letter Dated 27 February 2023 Attachment B – Revised Rio Rico Significant Reclamation Plan Amendment ATTACHMENT A

ASMI Technically Incomplete Letter Dated 27 February 2023

Arizona State Mine Inspector

PAUL D. MARSH



1700 W. Washington Suite 403 Phoenix, Arizona 85007-2805 (602) 542-5971 Fax (602) 542-5335

February 27, 2023

62 N G

CalPortland Company Tori Tang 3755 North Business Center Drive, #3 Tucson, Arizona 85705

Re: Technically Incomplete Reclamation Plan for CalPortland - Rio Rico Plant

Dear Ms. Tang:

On September 19, 2022, the State Mine Inspector's Office received your Reclamation Plan Substantial Change Amendment for the Rio Rico Plant in Rio Rico, Arizona. The site is located approximately 1,000 feet west of US Interstate 19 and is bounded by local roads Camino Ramanote and Camino Toruno to the north and Camino Agua Fria to the south. The Santa Cruz County Parcel Numbers are 149-09-001, 115-04-385, 115-04-386, 115-03-046A, 115-03-046B, 115-03-049B, 115-03-049C, and 115-03-049E.

On November 17, 2022, this office received information from our consultant reviewing your plan indicating it was Technically Incomplete.

On January 3, 2022, the State Mine Inspector received your Technically Incomplete Response to Comments for CalPortland Rio Rico Plant Amendment. On February 23, 2023, this office received information from our consultant reviewing your plan indicating it was Technically Incomplete. In accordance with A.R.S. §§ 27-1272, 27-1273, this letter is to notify you the plans have been found *Technically Incomplete*.

The following items need to be addressed:

• Post Aggregate Mine Use

The plan amendment states the Post Mine Land Use is naturalized open space. However, the plan also states that septic tanks would remain in place. The septic tanks must be removed to be consistent with the stated PMLU.

• Wildlife in Previously Undisturbed Areas

Please cite the source indicating that there are no wildlife habitats that would be disturbed.

• Section 2.3.1: Third Bullet Point

Define "small" or remove.

• Section 2.9

This section is not appropriate for the reclamation plan. Please remove.

Please supply the additional information within 90 days. If you have any questions concerning this determination, please contact Amanda Lothner at (602) 542-5971.

Sincerely, fal & u

Paul D. Marsh Arizona State Mine Inspector



1700 W. Washington Suite 403 Phoenix, Arizona 85007-2805 (602) 542-5971 Fax (602) 542-5335



ATTACHMENT B

Revised Rio Rico Significant Reclamation Plan Amendment

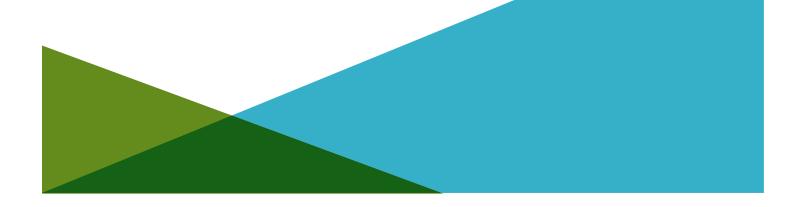


REPORT ON RECLAMATION PLAN SIGNIFICANT AMENDMENT RIO RICO PLANT RIO RICO, ARIZONA

by Haley & Aldrich, Inc. Phoenix, Arizona

for CalPortland Company Phoenix, Arizona RICHARD A. BROWN B

File No. 0205062 Resubmittal: April 2023 February 2023



List of Figures List of Appendices

1.

2.

f Figu	ontents res endice	RICHARD A. BROWN	Page ii ii
Intro	oductio	n Expires 613012025	1
Recla	amatio	n Plan Narrative	2
2.1	OWNE	RSHIP/OPERATOR INFORMATION	2
	2.1.1	Owner/Operator Name and Address	2
	2.1.2	Contact Person Name and Address	2
	2.1.3	Responsible Party	2
2.2	-	ICATE OF DISCLOSURE	3
2.3		IPTION OF CURRENT OPERATIONS	3
	2.3.1	Surrounding Area Land Use	4
	2.3.2	, , , , , , , , , , , , , , , , , , , ,	4
~ .	2.3.3	Description of Future Disturbance	4
2.4		AGGREGATE MINING RE-GRADING AND EROSION CONTROL	5
		Description of Final Topography	5
2 5	2.4.2	Erosion Control Plan	5
2.5		AGGREGATE MINING PLAN FOR STRUCTURES AND EQUIPMENT Structures to be Removed	5 5
	2.5.1	Access Restriction/Public Safety	5
2.6		AGGREGATE MINING ROAD RECLAMATION	5
2.0	2.6.1	Reclaimed Road Erosion Control Plan	6
2.7		ONSERVATION AND REVEGETATION	6
2.1	2.7.1	Topsoil Conservation Plan	6
	2.,.1		0

- 2.7 SOIL CONSERVATION A 2.7.1 **Topsoil Conservation Plan** 2.7.2 **Revegetation Plan** 2.8 CONCEPTUAL SCHEDULE FOR DISTURBANCE AND RECLAMATION 2.9 PROBABLE FUTURE CONDITIONS 2.10 ESTIMATED RECLAMATION COSTS 2.10.1 Pit Area Regrading and Scarifying 2.10.2 Road Reclamation Cost
 - 2.10.3 Structure Demolition Cost 2.10.4 Care and Maintenance Cost 2.10.5 Construction Cost 2.10.6 Plant Removal Cost 2.10.7 Cost Adjustment 2.10.8 Administrative Cost 2.10.9 Total Reclamation Cost

3. Fees

4. **Financial Assurance** 11

10

6

6

6

7

7

8

8 8

8 8

9

9

9



i

List of Figures

Figure No.	Title
1	Project Locus
2	Existing Site Conditions
3	Post Aggregate Excavation Contours
4	Post Mining Land Use

List of Appendices

Appendix	Title
A	Reclamation Cost Estimate



1. Introduction

This Aggregate Mined Land Reclamation Plan Amendment (Plan) details the significant amendment to closure and reclamation of the CalPortland Company (CalPortland) Rio Rico Plant (Site), located in Rio Rico, Arizona. Reclamation planning has been conducted in accordance with the Arizona Aggregate Mined Lands Reclamation Act (Arizona Revised Statutes [A.R.S.] §27-1201) as authorized by A.R.S. §27-1204. This Plan has been developed pursuant to the format and content prescribed in the Arizona Aggregate Mined Lands Reclamation Rules (Arizona Administrative Code [A.A.C.] R11-3-101, et seq.). Figure 1 presents the facility location map of the Rio Rico operations.

The Project Boundary Area in the 2006 Arizona State Mine Inspector (ASMI)-approved Plan¹ for the Site consisted of approximately 300 acres across multiple parcels owned by CalPortland. The property is located approximately 1,000 feet west of US Interstate 19 (I-19) and is bounded to the north by local roads Camino Ramanote and Camino Toruno and to the south by Camino Agua Fria, respectively. This substantial change to the approved Plan has been prepared to update the original 2006 ASMI-approved Plan for the following reasons:

- CalPortland plans to expand the disturbance area for the mining activity to the southwest by approximately 49 additional acres, bringing the total area of disturbance to approximately 349 acres.
 - The original Santa Cruz County parcels include 149-09-001, 115-04-385, and 115-04-386.
 - The additional parcels include 115-03-046A, 115-03-046B, 115-03-049B, 115-03-049C, and 115-03-049E.
- The 2006 approved plan listed the Operator as CPC SouthWest Materials, Inc. This amendment will change the operator to California Portland Cement Company who was identified as the landowner in the 2006 approved plan.
- The 2006 approved plan allows for a maximum pit depth of 50 feet below ground surface (bgs). This amendment will deepen the pit to a maximum depth of 100 feet bgs.
- The 2006 approved plan requires the removal of one groundwater well, concrete septic tanks, and the hardline power infrastructure following mine closure. This amendment will remove those requirements and leave these items for the post-mining land use (PMLU) and potential resale of the property at the end of mine life and reclamation.



¹ Reclamation Plan Rio Rico Operation, 2006. – Brown and Caldwell,

2. Reclamation Plan Narrative

2.1 OWNERSHIP/OPERATOR INFORMATION

According to the records of the Santa Cruz County Tax Assessor, the Santa Cruz County parcels 149-09-001, 115-04-385, 115-04-386, 115-03-046A, 115-03-046B, 115-03-049B, 115-03-049C, and 115-03-049E are owned by California Portland Cement Company.

2.1.1 Owner/Operator Name and Address

Landowner/Operator:

California Portland Cement Company (CalPortland) 10655 West Park Run Drive Suite 275 Las Vegas, Nevada 89144

2.1.2 Contact Person Name and Address

Operator's contact person (for regulatory contact):

Tori Tang, Environmental Manager CalPortland Company 3755 North Business Center Drive, #3 Tucson, Arizona 85705 (520) 572-5314 (phone) <u>ttang@calportland.com</u>

2.1.3 Responsible Party

CalPortland hereby assumes responsibility for the reclamation of surface disturbances that are attributable to the aggregate mining unit consistent with A.R.S. §27-1201 and A.A.C. R11-3-501 pursuant to that chapter. All areas that have been disturbed at the Site will be reclaimed to a safe and stable condition upon cessation of aggregate mining operations.

<

Signature

<u>April 3, 2023</u> Date

<u>Tori Tang</u> Name Environmental Manager Title



2.2 CERTIFICATE OF DISCLOSURE

The certificate of disclosure required by A.R.S. 27-1205 will be prepared by CalPortland, if necessary, and will be submitted separately.

2.3 DESCRIPTION OF CURRENT OPERATIONS

The mining operation included the removal and processing of earthen materials to produce aggregate as described in A.R.S. § 27-441. The 2006 plan addressed mining and plant operations within the approximate 300-acre owned and leased areas. This amendment addresses the expanded operations to include an additional 49 acres to the southwest and adjacent to current operations. Since the plan was originally approved, CalPortland has mined or begun the process of mining each phase from the 2006 approved plan. There are no known fish or wildlife habitats within the Site boundary that would potentially be disturbed by Site operations or expansions related to this amendment.

The CalPortland Site is west of I-19 and can be accessed via the Frontage Road off I-19 to Camino Ramanote and Calle Toruno along the northern portion of property. The additional proposed 49 acres comprised of five parcels (115-03-046A, 115-03-046B, 115-03-049B, 115-03-049C, and 115-03-049E) are located southwest of the original mine area and is separated by Corrida De Toros. It is anticipated that only mobile mining equipment will be used in the expansion area; all material processing will be conducted in the established plant processing area on the east side of the property. No other infrastructure is currently planned for the expanded mining area. A portion of the Site and the expansion area lies within the 100-year floodplain of the Agua Fria Wash.

Figure 2 presents the existing Site conditions. The ground surface is generally flat, sloping primarily towards the Agua Fria Wash, with elevations ranging from 3,225 to 3,175 feet above mean sea level (amsl). All slopes within the pit areas are currently graded to 3 Horizontal to 1 Vertical (3H:1V).

Equipment, structures, and facilities on the Site are utilized for aggregate crushing and screening, concrete batch mixing, manufacturing of asphalt, and equipment maintenance. Details of the processing area are as follows:

- The processing area is located on the north side of the Agua Fria Wash and will remain within the existing footprint on the original parcels from the approved plan.
- Equipment and facilities for aggregate mining processing and concrete batch mixing include:
 - One ready-mix concrete plant;
 - One crushing and screening plant;
 - One maintenance shop area with a fuel station;
 - Truck wash area;
 - One wash plant;
 - A mobile dispatch office;
 - A scale and scale office;
 - A sales and administration office; and
 - A pre-cast concrete block manufacturing facility (tenant leased area and equipment).



- Utilities on the Rio Rico Site include:
 - Power provided by overhead power lines and transformers;
 - City water connection
 - One water well
 - Two septic systems; and
 - Contract solid waste

2.3.1 Surrounding Area Land Use

The mining operations are conducted primarily within the Agua Fria Wash. The planned post-aggregate mining uses of commercial is consistent with surrounding land uses. Surrounding land uses generally consist of the following:

- Natural desert and the Agua Fria Wash to the south;
- Residential areas to the north and northeast;
- Existing commercial areas to the east along the frontage road and Camino Ramanote; and
- Open desert area to the west of the Site

2.3.2 Current Permits, Licenses, and Approvals

In addition to the approved Reclamation Plan (as amended), operations will comply with applicable air, stormwater, flood control, and hazardous/regulated materials management regulations. The property currently has the following permits/plans:

- Arizona Department of Environmental Quality (ADEQ) General Crushing and Screening Plant Permit;
- ADEQ General Concrete Batch Plant Permit;
- Arizona Department of Water Resources (ADWR) Groundwater Withdrawal Permit;
- Santa Cruz County Flood Control District Floodplain Use Permit; and
- Arizona Pollutant Discharge Elimination System (AZPDES) Permit.

Although these permits/plans indirectly regulate operations at the Site, they do not have the authority to control or limit the depth or extent of mining.

2.3.3 Description of Future Disturbance

All future mining and reclamation activities on the Rio Rico property are planned to occur within the property boundaries as shown on Figure 3.

- Maximum final depth of mining will be approximately 100 feet bgs;
- Pit walls mined to a final reclamation slope of 3H:1V;
- Excavation will occur with a 50-foot setback from the property lines;
- Unpaved haul roads that lead to the primary crushing, screening, and stockpile areas; and
- Addition of a future hot-mix asphalt plant.



2.4 POST-AGGREGATE MINING RE-GRADING AND EROSION CONTROL

The following sections identify the items and the methods in which each item will be reclaimed in accordance with this amendment to the Plan.

2.4.1 Description of Final Topography

The final topography for all areas planned to be reclaimed will include pit wall slopes no steeper than 3H:1V. Topsoil will be used in concurrent reclamation or stored in berms around the perimeter of the Site. Processing plant material stockpiles will be depleted and removed by the end of the mining operations.

2.4.2 Erosion Control Plan

Stormwater drainage controls have been established as part of the Floodplain Use Permit (FUP) renewed in January 2022. Specific erosion controls include:

- Stormwater will be routed into the pit;
- Recycled concrete riprap, along with cobbles and/or boulders, will be placed in drainage channels to stabilize the soil and reduce the potential for erosion, if necessary;
- Pit walls and berms will be hydroseeded with a native grass mix; and
- Riprap will be used to line drainage points as required to minimize erosion.

2.5 POST-AGGREGATE MINING PLAN FOR STRUCTURES AND EQUIPMENT

2.5.1 Structures to be Removed

All equipment (mobile equipment, feeders, crushers, conveyor belts, screens, stackers, etc.) and structures (offices, shops, water recycle/settling ponds, fuel and oil tanks, scales, etc.) will be removed from the CalPortland property once mining operations have ceased. The existing water well, septic tanks, and power line infrastructure will be left in place for the PMLU (Figure 4). The associated costs of structure removal are included in an updated reclamation cost estimate (Appendix A).

2.5.2 Access Restriction/Public Safety

Final mining slopes will be graded to 3H:1V or flatter to provide an acceptable factor of safety against deep-seated failure. Signs will be posted along the crest and toe of all pit slopes warning the public of potential rock and soil fall hazards and to exercise caution.

2.6 POST-AGGREGATE MINING ROAD RECLAMATION

The Site contains approximately 11,000 feet of unpaved roads in the active mining area. Additional unpaved mining roads will be added as mining activities occur within the 49-acre expansion area. Roads used for access, security, and monitoring will remain un-reclaimed around the perimeter of the property. All plant and haul roads will be reclaimed by scarifying allowing natural vegetation to grow. Any compacted road will be ripped/scarified to match surface drainage patterns of the surrounding land.



2.6.1 Reclaimed Road Erosion Control Plan

The reclamation of compacted road surfaces will eliminate the concentrated and erosive flow patterns associated with typical road runoff. The uneven and loosened surfaces created by scarifying and ripping will facilitate infiltration and generate relatively non-erosive sheet flow under heavy precipitation events.

2.7 SOIL CONSERVATION AND REVEGETATION

2.7.1 Topsoil Conservation Plan

Previous excavation has removed a majority of the topsoil off Site during mining operations. Topsoil will be reclaimed and stockpiled from future disturbance areas.

2.7.2 Revegetation Plan

Active revegetation is planned for pit slope walls, approximately 161 acres in total. Grasses, shrubs, and forbs suitable for the Arizona Upland Sonoran Desert Scrub environment will be used in the planned revegetation. The approved plan details that planting will occur between 15 September and 30 November; however, it is recommended that planting dates remain flexible to encourage planting during months that best promote plant growth. The planting method will be by hydroseeding. Mulching, fertilizing, or supplemental irrigation will not be required to successfully revegetate the Site.

Care and maintenance of the reclamation effort will involve annual inspections of the Site to monitor slope movement, erosion, and vegetation growth. Two annual inspection reports will be published on the anniversary date of Site closure.

2.8 CONCEPTUAL SCHEDULE FOR DISTURBANCE AND RECLAMATION

The conceptual schedule includes:

- Disturbance operations are ongoing.
- Mining operations are anticipated to continue through approximately 2050.
- Reclamation activities will be concurrent with mining activities as conditions allow.
- If concurrent reclamation is not feasible, areas will be reclaimed after mining operations cease. Post-aggregate mining reclamation activities will begin within 12 months of the cessation of mining activities and is anticipated to be completed within 12 months.
- Reclamation will be deemed complete once the reclaimed surfaces are re-graded to a safe and stable condition, access restriction measures are in place, and the ASMI verifies that the owner or operator has fulfilled the requirements of the approved reclamation plan.

2.9 PROBABLE FUTURE CONDITIONS

The profitable operation of a mine is based on a variety of factors including the amount and quality of geologic resources available for extraction, site-specific hydrogeologic conditions, permitting constraints, economic factors affecting the cost of extraction and processing, and market conditions which influence the supply and demand for these materials or finished products containing these



materials. Changes to any of these factors can have significant impacts to mine profitability and can thus require operators to modify mining, processing, or operational methods or expand or temporarily cease operations.

Further, the means and methods described in this Plan to operate a mining facility and implement reclamation are based on the application of currently-available technologies and practices. These technologies and practices are constantly evolving, and the operations described in this Plan may be modified if the currently specified means and methods become outdated, obsolete, cost ineffective, or impracticable.

Consequently, factors affecting profitable operation or means and methods are likely to change due to unanticipated or unknown future conditions. Therefore, the operator of the facility described in this Plan reserves the right to adapt their operations or plans to these changing, unanticipated, or unknown future conditions to the extent that these operational changes do not cause substantial non-compliance with existing permits or authorizations.

Probable future development at the Site will potentially include a hot-mix asphalt plant.

2.10 ESTIMATED RECLAMATION COSTS

The unit costs developed for this Plan amendment are based primarily on the cost estimating database RS Means Facilities Construction Cost Data (2020) along with estimated productivity for material movement based primarily on the Caterpillar Handbook (Edition 31). Administrative costs were based on Arizona Rock Products Association and Haley & Aldrich, Inc. recommendations.

The estimated costs developed for this Reclamation Plan Significant Amendment include:

- Pit wall reclamation;
- Road reclamation;
- Structure demolition and removal;
- Care and maintenance;
- General construction;
- Plant removal; and
- Administrative costs.

A summary of the estimated reclamation costs is listed in Table I at the end of this section. The sources and calculation of the estimated reclamation costs are provided in Appendix A.

2.10.1 Pit Area Regrading and Scarifying

All slopes will be mined to a final reclamation slope of 3H:1V. No regrading or backfilling is proposed for the pit areas. The pit slopes will be revegetated using a hydro-seed mix.

The cost for revegetating the pit walls is estimated to be \$189,000.



2.10.2 Road Reclamation Cost

There are an estimated 11,000 feet of temporary unpaved roads that will be reclaimed by scarifying and ripping and allowed to naturally revegetate.

The cost of scarifying and regrading the roads is estimated to be \$3,000.

2.10.3 Structure Demolition Cost

The reclamation activities detailed in this category include:

- Removal of the truck wash equipment;
- Removal of the sales and administration office;
- Removal of the fuel station concrete slab;
- Removal of the maintenance shop and concrete slabs; and
- Removal of scale and scale house structure.

The existing water well, septic tanks, and power line infrastructure will be left in place for the PMLU. The total estimated cost for removal of the above-listed structures and equipment in this category is \$188,000.

2.10.4 Care and Maintenance Cost

Care and maintenance for the reclamation effort at this operation consist of:

- Two annual inspections of the Site;
- Preparation of the required annual report describing Site conditions; and
- Trash removal.

Two annual inspections are anticipated to be needed before the Site is released. The cost of care and maintenance of the Site is estimated to be \$22,000.

2.10.5 Construction Cost

Construction efforts for reclamation include:

- Installing Site access restriction signs around the perimeter of the Mining Area; and
- Installation of riprap lining in drainages, if needed.

The cost of construction is estimated to be \$41,000.

2.10.6 Plant Removal Cost

The estimated reclamation costs detailed in this section include the dismantling, loading onto transport, and removal of the following equipment:

- Crushing and screening equipment;
- One concrete batch mixing plant;



- One wash plant; and
- One hot-mix asphalt plant.

The cost of plant removal is estimated at \$242,000. There are no costs for the removal of any facilities or equipment owned by third parties who may be leasing space from CalPortland.

2.10.7 Cost Adjustment

A price index factor was included to adjust from 2020 pricing to estimated 2022 pricing on operating and material costs. The index factor supplied is the Consumer Price Index (CPI) for the period 2006 through 2022.

• CPI = 0.046

The cost adjustment is estimated at \$32,000.

2.10.8 Administrative Cost

The estimated administrative costs are required to support a third-party cost estimate in accordance with A.R.S. 27-1271.11 of the Aggregate Mined Land Reclamation Statute. These administrative costs include:

- Contingency;
- Mobilization/demobilization;
- Indirect costs;
- Contractor profit; and
- Contract administrative costs.

The total estimated administrative cost is \$259,000.

2.10.9 Total Reclamation Cost

The total estimated reclamation cost for this Plan is \$976,000.

Section	Reclamation Item	Cost
2.10.1	Pit Area Regrading and Scarifying	\$189,000
2.10.2	Roads Reclamation Cost	\$3,000
2.10.3	Structure Demolition Cost	\$188,000
2.10.4	Care and Maintenance Cost	\$22,000
2.10.5	Construction Cost	\$41,000
2.10.6	Plant Removal Cost	\$242,000
2.10.7	Cost Adjustment	\$32,000
2.10.8	Administrative Cost	\$259,000
	Total Reclamation Cost	\$976,000

Table I. Estimated Reclamation Cost Summary



3. Fees

The fee to amend the Reclamation Plan is \$1,565.00 for an existing aggregate mining unit. A check covering this fee was submitted with this Plan.

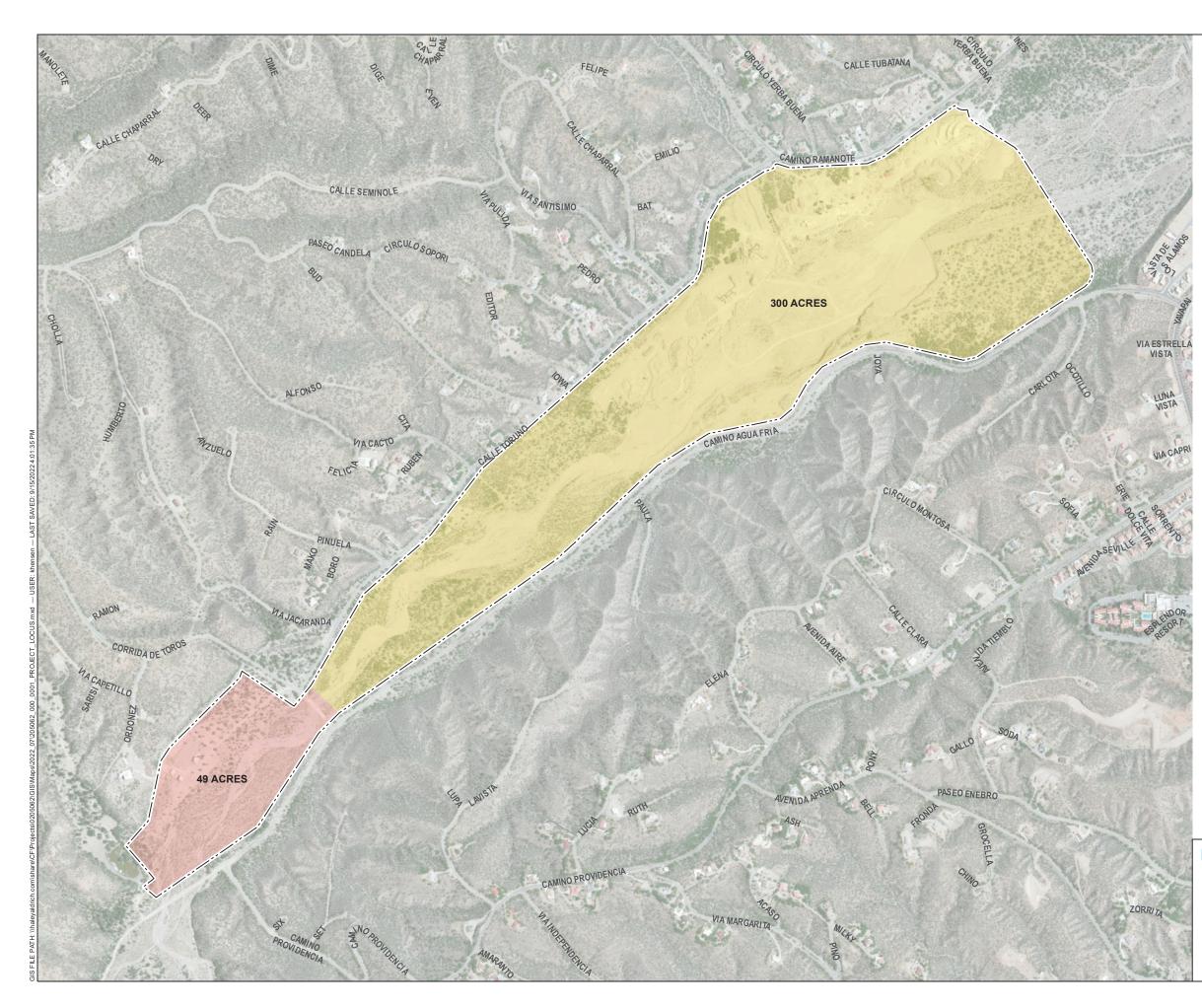


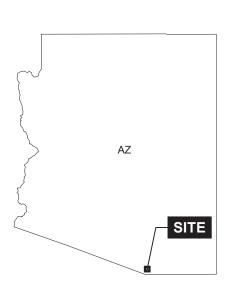
4. Financial Assurance

Corporate self-insurance will be the Financial Assurance Mechanism used to cover the estimated reclamation costs. The corporate information required to satisfy the financial test requirements of A.A.C. R11-3-809.C will be submitted within 60 days under separate correspondence.



FIGURES





LEGEND



NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. APPROVED RECLAMATION PLAN PARCELS INCLUDE: 149-09-001, 115-04-385, AND 115-04-386.

3. ADDITIONAL RECLAMATION PLAN PARCELS INCLUDE: 115-03-046A, 115-03-046B, 115-03-049B, 115-03-049C, AND 115-03-049E.

4. AERIAL IMAGERY SOURCE: ESRI



900

MAIN MAP SCALE IN FEET

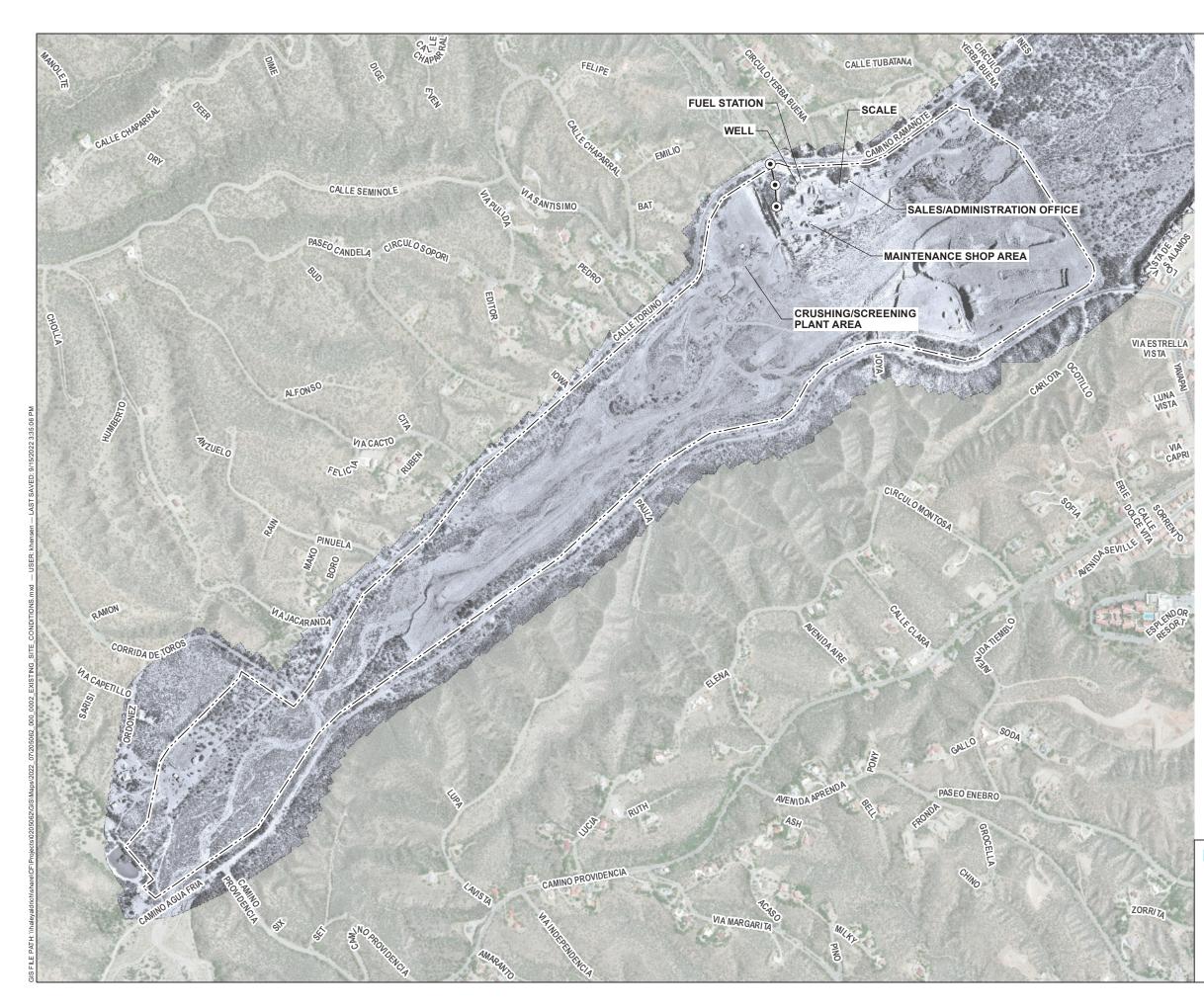
CALPORTLAND COMPANY RIO RICO OPERATIONS RECLAMATION PLAN AMENDMENT RIO RICO, ARIZONA

1.800

PROJECT LOCUS

APRIL 2023

FIGURE 1





- ulletELECTRIC TRANSMISSION POLE
- ELECTRIC TRANSMISSION LINE
- SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. AERIAL IMAGERY SOURCE: DRONE FLIGHT BY HALEY & ALRDICH, 29 APRIL 2022, AND ESRI



1,800

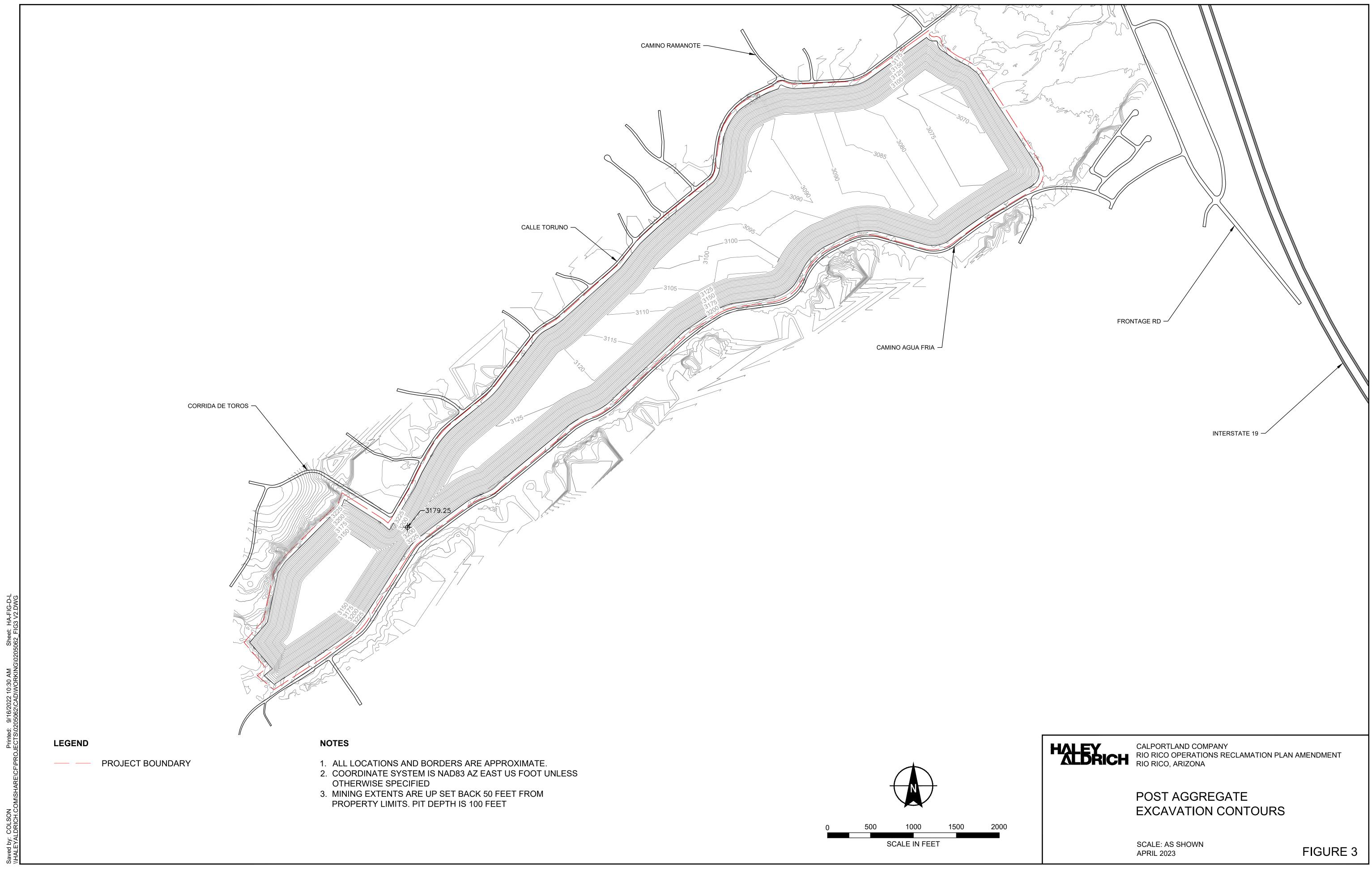
900 SCALE IN FEET

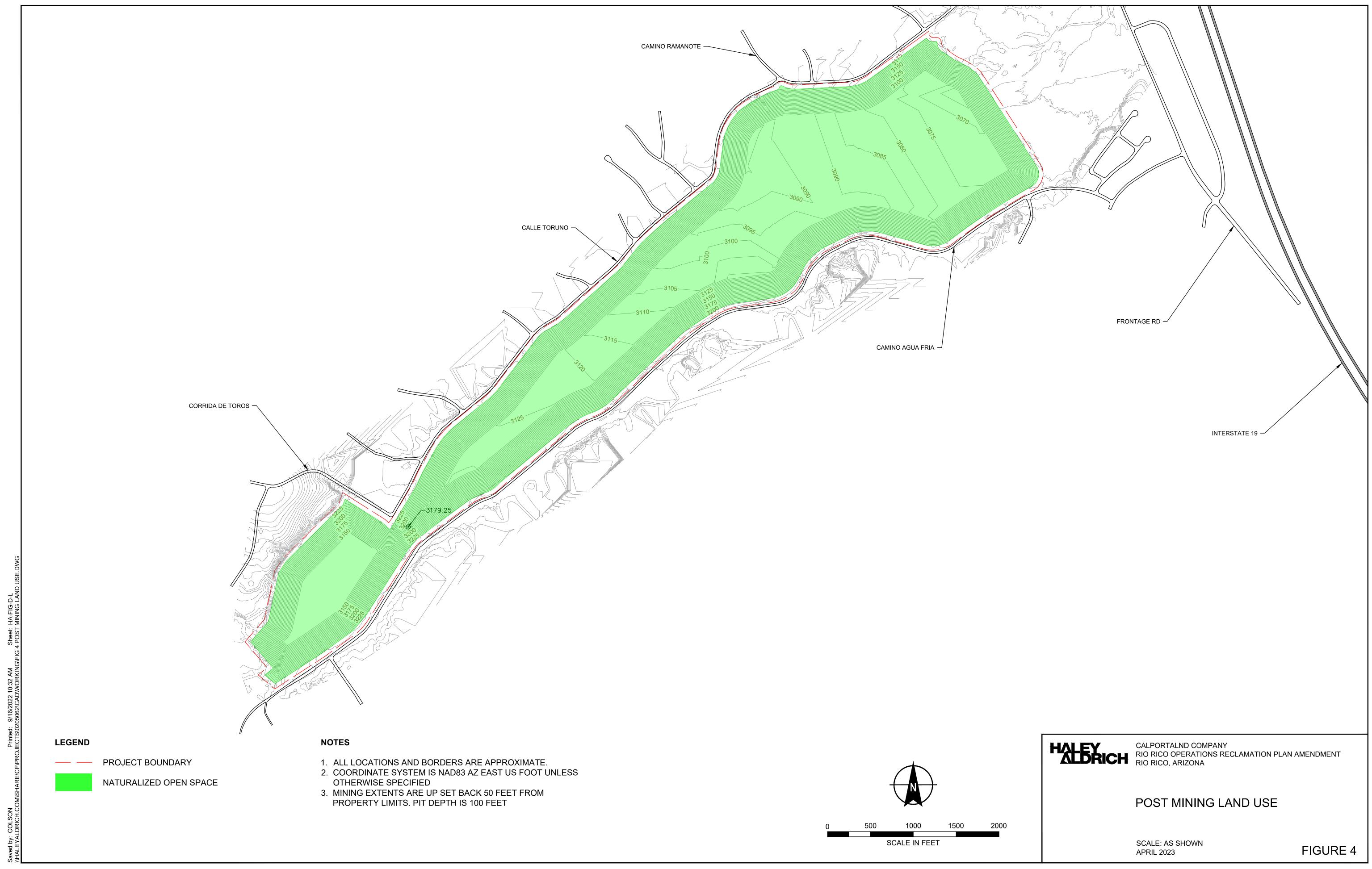
CALPORTLAND COMPANY RIO RICO OPERATIONS RECLAMATION PLAN AMENDMENT RIO RICO, ARIZONA

EXISTING SITE CONDITIONS

APRIL 2023

FIGURE 2





APPENDIX A Reclamation Cost Estimate

Date Checked		Number	Ву		Date	oui	c. No.	Sheet No.
7/28/2022		205062	RAB		7/27/2022	L	uble - f	1 of 12
	Project					S	ubject	
	CalPortland - Rio Rico Operations				Estimated	Cos	t Summary	y (1 of 2)
					Number of			
Reclamation Item	Description and Units		Es	t. Cost	Units		Cost	References/Notes
Mining Area Regrad	de and Scarifying							Section 2.10.1 of Repo
	Surface Regrading and Scarifying (square foot)	\$	0.01		\$	_	
(No Mulch or Fertilizer)	Revegetation Cost - Broadcast	. ,	φ \$	377		φ \$	-	
	Revegetation Cost - Hydroseed		\$	1,175	161	\$	189,000	
	Containerized Trees (Eac		\$	10	101	\$	-	
	Mining	g Area Regrade	and	Scarifying	Sub-Total =	\$	189,000	
Stockpiles, Overbur	den, or Fines Area							
	Surface Regrading and Scarifying (square foot)	\$	0.01		\$	_	
	Revegetation Cost - Broadcast	. ,	\$	377		\$	_	
	Revegetation Cost - Hydroseed	· /	\$	1,175		\$	-	
	Containerized Trees (Eac	h)	\$	10		\$		
	Plan	t Area Regrade	and	Scarifying	Sub-Total =	\$	-]
Roads								Section 2.10.2 of Repo
Side Slape < 20%)	Pin/Secrify (Lincer Et.)		¢	0.20	11,000	¢	2 000	
(Side Slope < 30%) (Side Slope >30%)	Rip/Scarify (Linear Ft.) Re-Grading and Topsoiling (Lir	ear Et)	\$ \$	0.28 1.69	11,000	\$ \$	3,000	
(No Mulch or Fertilizer)	Revegetation Cost - Broadcast		Ψ \$	377		Ψ \$	-	
	Revegetation Cost - Hydroseed		\$	1,175		\$	-	
					Roads =	\$	3,000	
Structures								Section 2.10.3 of Repo
Suuciales								
(Break-up and bury Slab)	Demolition and Removal - Metal Buil	ding (Sq. Ft.)	\$	3.81	4,700	\$	18,000	
(Break-up and bury Slab)	emolition and Removal - Secondary Cor	· ·		8.52		\$	-	
Break-up and bury Slab)	Demolition and Removal - Concrete Bu	• • • •		15.86		\$	-	
	Powerline Removal - Single Pole Utilit	• • • •	\$	12,560		\$	-	
	Transformer Removal (Ea	,	\$	6,280		\$	-	
	Demolition - Chain-Link Fencing (Demolition - Barb Wire Fencing (I	,	\$ \$	4.36 1.94		\$ \$	-	
	Septic Tank Removal (Eac	,	э \$	1,000		φ \$	-	
	Well Removal (Ft. Depth	,	φ \$	33.55		φ ¢	-	
	Removal - 15" Culvert (Linea		\$	10.29		\$	_	
	Removal - 36" Culvert (Linea		\$	17.15		\$	-	
(Break-up and bury Slab)	Demolition - Concrete Roads and P		\$	8.52	20,000	\$	170,000	
				5	Structures =	\$	188,000	
Care and Maintenan	ce							Section 2.10.4 of Repo
	Site Monitoring and Reporting (Annual)	\$	10,000	2	\$	20,000	
	Trash Removal (Ton)		\$	75	25	\$	2,000	
			Care	e and Mai	ntenance =	\$	22,000	
Construction								Section 2.10.5 of Repo
	Construction - Chain-Link Fencing	(Linear Et)	\$	9.21		\$	_	
	Install Rip Rap Erosion Lining (\$	77.00	500		39,000	
	Install Access Restriction S	• •	\$	83.40	25		2,000]
				Co	nstruction =	\$	41,000	1
								ļ
	Est. Reclamation Opera	ating and Mater	ial (O	&M) Cost	Sub-Total =	\$	443,000	

Date Checked	Checked By	Job Number	Ву	Date	Calo	:. No.	Sheet No.
7/28/2022		205062	RAB	7/27/2022			2 of 12
	Project				Sub	ject	
CalPortia	and - Rio Rico Ope	rations		Estimated C	osts	Summary (2	of 2)
				Number of			
Reclamation Item	Descriptio	n and Units	Est. Cost	Units		Cost	References/Notes
1.00lanaton itom	Descriptio		201. 0001	Unito		0000	
Est. Recla	mation Operating a	and Material (O&M)	Cost Sub-Total	(from page 1) =	\$	443,000	
Material Haulage for	Backfill						
Truck and Loa	der - 2000Ft. One V	/av (Cu, Yd)	\$ 0.98		\$	-	
	aper - 1000Ft. One '		\$ 0.68		\$	-	
			Mat	terial Haulage =	\$	-	
Plant Removal							Section 2.10.6 of Report
	_						
(Processing Equip)		I - Plants	\$ 242,000.00	1.0		242,000	
(Beltline)	Removal	- Conveyor		lant Removal =	\$ \$	242,000	
			<u> </u>		Ψ	242,000	
	Est. Reclamation	on Operating and M	Anterial (O&M) C	ost Sub-Total =	\$	685,000	
					Ŧ	,	
Cost Adjustment							Section 2.10.7 of Report
							https://www.usinflationca
Township to the section 0000	Concumer Drie	e Index Increase		0.046	¢	22.000	lculator.com/inflation/cur rent-inflation-rates/
Template based on 2020 costs	Consumer Price	e index increase		0.040	Φ	32,000	rent-initation-rates/
00313			Co	ost Adjustment =	\$	32,000	
				j	Ŧ	,	
	Est. Recla	mation Operating a	and Material (O&	M) Cost Total =	\$	717,000	
Administrative Costs	S						Section 2.10.8 of Report
	0 "		100/		•	70.000	
% of O&M Cost		ngency	10%		\$	72,000	ARPA Recommendations
% of O&M Cost % of O&M Cost		on/De-Mobilization	4% 2%		\$ \$	29,000 14,000	ARPA Recommendations ARPA Recommendations
% of O&M Cost		tor Profit	10%		φ \$	72,000	ARPA Recommendations
% of O&M Cost		Iministration	10%		\$	72,000	ARPA Recommendations
	-			strative Costs =	\$	259,000	
		Total Estimator	Einanaial Acau	rance Amount =	¢	976,000	
		Total Estimated	i Filialiciai Assu	rance Amount -	φ	970,000	
	L						

7/28/202	Checked By 2 EJM	Job Number 205062	By RAB	Dat	7/27/2022	Calc. No.	Sheet No. 3 of 12
	Project					Subject	
CalPo	rtland - Rio Rico O	perations				Cost Basis	3
							Defense of Neter
e unit cost basi	s for the estimate is	based on two key da	tabases				References/Notes
		notwisting Cost Data	2017 and				
		nstruction Cost Data - Handbook, Edition 31	,				
winment rental	rates and operator I	abor rates are based	on the RS-MEAN	IS CRE	WS data la	s reference	4
each piece of e	equipment. The uni	t rates can be adjuste	d by the city cost	index	for specific I	ocations,	-
owever, no adjus	stment was made si	nce the Phoenix Area	rates are close to	o the na	ational aver	age.	
REWS DATA							
	Earthmoving Eq	uipment, cost \$/hr					RS Means : Facilities
	List	Labor (1)*	Equipment (2	2 *	Total		Construction Cost Dat
	980G Loader	\$54		-	\$189		crew B-10U
	775D Haul Truck	\$44			\$413	•	crew B-34J
	Water Truck	\$46		60	\$106	•	crew B-59
	D10 Dozer	\$54			\$288		crew B-10M
	325 Excavator	\$56			\$356		crew B12-D
	16H Motor Grade			85	\$139		crew B-11L
	631E Scraper	\$54			\$358		crew B-33D
	80 ton Crane	\$56			\$337		crew A-3L
	120 ton Crane	\$56	\$3	05	\$361		crew A-3M
ABOR DATA							
ABOR DATA	Mechanical labor	\$51		\$0	\$51	\$/hr	crew A-1A
	Laborer	\$39		\$0		\$/hr	crew A-1
					·		
MISC COST DAT	A						
	Demolition/Pemo	val - Metal Building a	ad Foundation	\$	3 81	\$/Sq. Ft.	RACER (ver. 8.1.2)
		val - Nietal Building a oval - Block Building a		э \$		\$/Sq. Ft. \$/Sq. Ft.	RACER (ver. 8.1.2)
		val - Concrete Pads/r		φ \$		\$/Sq. Ft.	RACER (ver. 8.1.2)
		val - Chain-Link Fenc		Ψ \$		\$/Sq. Ft.	RACER (ver. 8.1.2)
	Demonition/rtemo		ing	Ψ	4.00	φ/0q. ττ.	
	Removal of Single	e-Pole Powerline		\$	12,560	\$/Mile	Haley & Aldrich Data
	-	ical Transformers		\$	6,280		Haley & Aldrich Data
	Construction of C	hain Link France		¢	44 F7	¢ /#	
	Construction of C		Sofaty Signa	\$ ¢	11.57		RACER (ver. 8.1.2)
	Well Removal	ess Restriction/Public	Jaiety Signs	\$ \$		\$/sign ft denth	RACER (ver. 8.1.2)
	Trash Removal			ծ \$		ft depth Ton	Allied Waste Quote
				Ŧ			
	Transport and Un	loading, Heavy		\$	1,570	\$/load	Haley & Aldrich Data
	Transport and Un	loading, Light		\$	1,068	\$/load	Haley & Aldrich Data
	Broadcast Seedin	Ig					
	w/ straw mulch,	fertilizer, desert scrul	b seed mixture	\$	762	\$/acre	Haley & Aldrich Data
	w/o mulch and f	ertilizer		\$	377	\$/acre	Haley & Aldrich Data
	Hydroseed						
	w/ mulch and de	esert scrub type seed	mixture	\$	1,476	\$/acre	Haley & Aldrich Data
	Septic System I	••		\$		\$/tank	Haley & Aldrich Data

Date Checked	Checked By	Job Number	Ву		Date	Calc. No.	Sheet No.				
7/28/2022		205062	RAB		7/27/2022		4 of 12				
	Project		Subject								
CalPort	land - Rio Rico O	perations	Dozing Cost								
							References/Notes				
	D10 Re-gr	ading from 1.5H:1	/ slope to	3H:1V sloj	pe						
		g Productivity	_								
	-	oduction (CY/Hr)		950			(1) pg. 1-43 (200 Foot Push)				
Push Factors		r experience		0.875			(1) pg. 1-45				
		of material		0.8			(1) pg. 1-45				
		e of Push		1.6			(1) pg. 1-45				
		Correction		0.71			(1) pg. 1-41 Material Weight = 1.62 T/C				
Vork Factor	50 mir	nutes/hour		0.83			(1) pg. 1-45				
	Average Pro	duction (CY/Hr)		629							
	-	Production (CY)		5,036			(8-hour work day)				
	<u>D10</u> D	ozer Cost									
		ntal (Monthly)	\$	20,500			(2) Line # 015433204360				
	Ownershi	p Cost (Daily)			\$ 932		(22 working days/month)				
	Dozer Operat	ing Cost (Hourly)	\$	125			(2) Line # 015433204360				
		g Cost(Daily)	Φ	125	\$ 1,000		(2) Line # 015433204360 (8-hour work day)				
		or Cost (Hourly)	\$	54			(2) crew B-10M				
	Labor (Cost (Daily)			\$ 432	=	(8-hour work day)				
	Dozer Tot	al Cost (Daily)			\$ 2,364						
	Cos	t per CY			\$ 0.47						
1) Caterpillar Perfo 2) RS Means 2019		k, Edition 31									
_/ NO MODIS 2013											

Date Checked	Checked By	Job Number	Ву		Date		Calc. No.	Sheet No.				
7/28/2022		205062	RAB			7/27/2022		5 of 12				
Project				Subject								
CalPor	tland - Rio Rico (Operations				Scari	fying Cost					
								References/Notes				
	Scarifying	- Motor Grader										
	Scarrying											
		er Productivity	_	0.75								
		r beam (Ft.) with std tires (mph)		9.75 2.4				(1) pg. 3-13, 17.8 inch max depth(1) pg. 3-12				
	Fee	t per mile		5,280								
		eed in Ft./Hr. -pass factor		6,336				assumes 2 passes are				
		speed in Ft./Hr.		0.5 3,168				adequate for road scarifying				
		a/hour (Sq. Ft./Hr.)		30,888								
Work Factor		inute hour ea/hour (Ft. ² /Hr.)		0.83 25,637				(1) pg. 3-15				
		ea Daily (Sq. Ft.)		205,096				(8-hour work day)				
	Gradar C	ost (40,000 lb)										
		ental (Monthly)	\$	11,000				(2) Line # 015433201920				
		ip Cost (Daily)			\$	500		(22 working days/month)				
	•	ating Cost (Hourly) ng Cost(Daily)	\$	64	\$	512		(2) Line # 015433201920 (8-hour work day)				
		oor Cost (Hourly) Cost (Daily)	\$	54	\$	432		(2) crew B-11L (8-hour work day)				
	Grader To	tal Cost (Daily)			\$	1,444						
	Cost	per Sq. Ft.			\$	0.0070						
	Cost per Linear F				\$	0.28		(40-foot-wide road)				
(1) Caterpillar Perf		ok, Edition 31										
(2) RS Means 201	9											

Date Checked	Checked By	Job Number	Ву	Date	Calc. No.	Sheet No.				
7/28/2022		205062	RAB	7/27/2022		6 of 12				
CalPort	Project land - Rio Rico C	Inerations	Subject Excavator Costing							
		perations		EXCU						
						References/Notes				
	325 Excava	tor Productivity								
actors		t capacity (Cu. Yd.)	- 1.5	5		(1) pg. 5-117 Bucket size selected for t				
		n Cycles/Hr.	180			(1) pg. 5-1555 325 Excavator = 1.5				
		t Fill factor	1.0			(1) pg. 5-126				
	50 m	inutes/Hr.	0.83	3		Material Weight = 1.62T/CY				
		Production (Cu. Yd.)	224							
	Average Daily I	Production (Cu. Yd.)	1,793			(8-hour work day)				
		avator Cost								
		Rental (Monthly) ip Cost (Daily)	\$ 6,725	\$ 306		(2) 01590 200 0200 pg. 2 (22 working days/month)				
		rating Cost (Hourly) g Cost (Daily)	\$ 29	\$ 232		(2) 01590 200 0200 pg. 2 (8-hour work day)				
	Excavator La	ibor Cost (Hourly) Cost (Daily)	\$ 35	\$ 280		(2) crew B12-D, pg. 1099 (8-hour work day)				
		otal Cost (Daily)		\$ 818	=					
		(,)		• • • • •						
	Cost p	ber Cu. Yd.		\$ 0.46						
) Caterpillar Perfe	ormance Handboo	k. Edition 31								
) RS Means 2019		,								

Project Subject CalPortland - Rio Rico Operations Scraper Costing 631E Scraper Scraper capacity (heaped) Rated load 31 Cu. Yd. Yd. Scraper Productivity Bank Cu. Yd./Hr, 4% RR, 1000 ft haul Material correction 540 Yd. Bank Cu. Yd./Hr, 4% RR, 1000 ft haul Material correction 540 (1) pg. 9-57 Scraper Productivity 540 (2) 01590 200 3700 pg. 21 G31 Scraper Cost (2) 01590 200 3700 pg. 21 (2) 01590 200 3700 pg. 21 Scraper Porting Cost (Daily) \$ 677 (2) 01590 200 3700 pg. 21 Scraper Operating Cost (Hourly) \$ 75 (2) 01590 200 3700 pg. 21 Scraper Operating Cost (Hourly) \$ 677 (2) 01590 200 3700 pg. 21 Scraper Departing Cost (Hourly) \$ 14,900 (2) 01590 200 3700 pg. 21 Scraper Cost (2) 01590 200 3700 pg. 21 (2) 01590 200 3700 pg. 21 Operating Cost (Hourly) \$ 34 (2) 01590 200 3700 pg. 21 Labor Cost (Daily) \$ 2772 (8-hour work day) Scraper Total Cost (Daily) \$ 1,549 (2) 01590-200 4370, pg. 21 D9 Rental (Monthly) \$ 14,300 (2) 01590-200 4370, pg. 21 Ownership Cost (Daily) \$ 650 <th< th=""><th></th><th>Checked By EJM</th><th>Job Number 205062</th><th>By RAB</th><th></th><th>Date</th><th>27/2022</th><th>Calc. No.</th><th>Sheet No. 7 of 12</th></th<>		Checked By EJM	Job Number 205062	By RAB		Date	27/2022	Calc. No.	Sheet No. 7 of 12				
CalPortland - Rio Rico Operations Scraper Costing References/Notes Scraper regacity (heaped) 31 Cu. Yd. Rafeel load 37.5 ton Yd. Bank Cu. Yd./Hr. 4% RR, 1000 thaul 540 Yd. Material correction 0.93 Heave Wurget = 1.62 Tool. Scraper Productivity 0.83 Actual bank Cu. Yd. per hour 415 Scraper Chertal (Monthy) \$ 14,900 (2) 01509 200 3700 pg. 21 (2) 01509 200 3700 pg. 21 Scraper Cost (Daily) \$ 677 (2) 01509 200 3700 pg. 21 (2) 01509 200 3700 pg. 21 Scraper ToreItal (Monthy) \$ 14,900 (2) 01509 200 3700 pg. 21 (2) 01509 200 3700 pg. 21 Scraper Total Cost (Hourly) \$ 5 5 (2) 01509 200 3700 pg. 21 Scraper Total Cost (Hourly) \$ 5 5 (2) 01509 200 3700 pg. 21 Scraper Total Cost (Hourly) \$ 5 5 (2) 01509 200 4370, pg. 21 DP Retrait (Monthy) \$ 14,300 (2) 01509 200 4370, pg. 21 (2) 01509 200 4370, pg. 21 DP Retrait (Monthy) \$ 14,300 (2) 01509 200 4370, pg. 21 (2) 01509 200 4370, pg. 21	1120/2022		203002	NAD			21/2022	Subiect	7 01 12				
Saraper capacity (heaped) 31 Cu. Yd. Ya. Ya. Saraper Productivity Bank Cu. Yd./Hr, 4% RK, 1000 ft haul 540 Mederial correction 0.93 Soraper Productivity 640 Mederial correction 0.93 Scraper Rental (Monthly) \$ 677 Scraper Rental (Monthly) \$ 677 Scraper Cost (2) 01500 200 3700 pg. 21 Scraper Cost (Hourly) \$ 677 Scraper Total Cost (Hourly) \$ 14,900 Scraper Total Cost (Daily) \$ 1,549 Bo Dozer Cost (2) 01500 200 4370, pg. 21 D9 Rential (Monthly) \$ 14,300 Ownership Cost (Daily) \$ 14,300 D9 Operating Cost(Hourly) \$ 650 D9 Operating Cost(Hourly) \$ 520 D9 Dator Cost (Hourly) \$ 544 Labor Cost (Hourly) \$ 544 D9 Cost Cost (Hourly) \$ 544 D9 Dator Cost (Hourly) \$ 544 Cost (Paily) \$ 1,4300 Cost (Daily) \$ 1,442 Total Fleet Cost (Daily) \$ 1,442 Total Fleet Cost (Daily) <t< th=""><th colspan="3">•</th><th></th><th colspan="9">•</th></t<>	•				•								
31 Cu. Yd. Scraper capacity (heaped) 31 Cu. Yd. Rated load 37.5 ton Ya. Bank Cu. Yd.Hr, 4% RR, 1000 ft haul Meterial correction 0.93 Scraper Productivity 10 pg.9-5 Bank Cu. Yd. per hour 415 Scraper Rental (Monthly) \$ 677 Scraper Rental (Monthly) \$ 677 Scraper Cost (2) 01500 200 3700 pg.21 Scraper Cost (Cally) \$ 677 Scraper Cost (Hourly) \$ 677 Scraper Cost (Cally) \$ 677 Scraper Cost (Cally) \$ 14,900 Scraper Total Cost (Daily) \$ 1,549 D9 Dozer Cost (2) 01500-200 4370, pg.21 (2) oursensing Cost (Hourly) \$ 1,549 D9 Operating Cost (Hourly) \$ 520 D9 Amental (Monthly) \$ 14,300 Ownership Cost (Daily) \$ 520 D9 Detraing Cost (Hourly) \$ 520 D9 Labor Cost (Daily) \$ 1,4300 D9 Operating Cost (Hourly) \$ 5,520 D9 Labor Cost (Daily) \$ 1,442													
Scraper capacity (heaped) Rated load 31 Cu, Yd. 37.5 ton Yd. (1) pg. 9-5 Scraper Productivity Material correction 50 minute hour 0.93 50 minute hour 199 0.93 50 minute hour 140 0.93 50 minute hour 9.93 50 minute hour 1415 631 Scraper Cost Scraper Rental (Monthly) \$ 14,900 Covership Cost (Daily) \$ 677 5 craper Cost Coperating Cost (Hourly) \$ 75 5 craper Cost Coperating Cost (Hourly) \$ 14,900 5 craper Cost Coperating Cost (Hourly) \$ 14,300 Covership Cost (Daily) 2) orsee 200 3700 pg. 21 (8-hour work day) D9 Rental (Monthly) Scraper Total Cost (Daily) \$ 14,300 Covership Cost (Daily) \$ 1,549 (2) orsee 200 4370, pg. 21 (2) orsee 200 4370, pg. 2									References/Notes				
Rated Load 37.5 ton (1) pg. 9-5 Scraper Productivity Bank Cu. Yd.Hr, 4% RR, 1000 th haul 540 (1) pg. 9-5 Material correction 0.93 50 minute hour 0.83 Actual bank Cu. Yd. Per hour 415 (1) pg. 9-5 Scraper Rental (Monthly) \$ 14,900 (2) 01590 200 3700 pg. 21 Ownership Cost (Daily) \$ 677 (2) 01590 200 3700 pg. 21 Scraper Operating Cost (Hourly) \$ 677 (2) 01590 200 3700 pg. 21 Scraper Cost (2) 01590 200 3700 pg. 21 (2) working daysmonth Scraper Cost (Daily) \$ 14,900 (2) 01590 200 3700 pg. 21 Scraper Total Cost (Hourly) \$ 1,549 (2) 01590 200 3700 pg. 21 Bor Cost (Daily) \$ 1,549 (2) 01590 200 3700 pg. 21 D9 Rental (Monthly) \$ 1,549 (2) 01590 200 3700 pg. 21 Bor Cost (Daily) \$ 1,549 (2) 01590 200 3700 pg. 21 D9 Rental (Monthly) \$ 14,300 (2) 01590 200 3700 pg. 21 Ownership Cost (Daily) \$ 14,300 (2) 01590 200 4370, pg. 21 D9 Rental (Monthly) \$ 4,541 (2) 01590 200 4370, pg. 21			631E Scraper										
Rated Load 37.5 ton (1) pg. 9-5 Scraper Productivity Bank Cu. Ya.,Hr, 4% RR, 1000 ft haul 540 (1) pg. 9-5 Material correction 0.93 50 minute hour 0.83 Actual bank Cu. Yd. per hour 415 (1) pg. 9-7 Scraper Rental (Monthly) \$ 14,900 (2) 01590 200 3700 pg. 21 Ownership Cost (Daily) \$ 677 (2) 01590 200 3700 pg. 21 Scraper Coperating Cost (Hourly) \$ 677 (2) 01590 200 3700 pg. 21 Scraper Cost (2) 01590 200 3700 pg. 21 (2) evenking daysmonth Scraper Cost (2) 01590 200 3700 pg. 21 (2) evenking daysmonth Scraper Cost (Daily) \$ 15 (2) 01590 200 3700 pg. 21 Scraper Total Cost (Hourly) \$ 15 (2) 01590 200 3700 pg. 21 Scraper Total Cost (Hourly) \$ 15 (2) 01590 200 3700 pg. 21 Scraper Total Cost (Daily) \$ 1,549 (2) 01590 200 3700 pg. 21 D9 Rental (Monthy) \$ 14,300 (2) 01590 200 3700 pg. 21 Ownership Cost (Daily) \$ 14,300 (2) 01590 200 4370, pg. 21 D9 Pental (Monthy) \$ 5 520 <t< td=""><td></td><td>0</td><td>· /</td><td></td><td></td><td>o v</td><td></td><td></td><td>ž.</td></t<>		0	· /			o v			ž.				
Scraper Productivity State Addition State Bank Cu, Yd, Hr, 4% RR, 1000 ft haut 540 0.83 0.83 State 0.83 0.83 0.83 Actual bank Cu, Yd, per hour 415 0.83 Straper Rental (Monthly) \$ 14,900 (2) 01580 200 3700 pg. 21 Ownership Cost (Daily) \$ 677 (2) 01590 200 3700 pg. 21 Scraper Operating Cost (Hourly) \$ 75 600 (2) 01590 200 3700 pg. 21 Operating Cost (Daily) \$ 5 677 (2) 01590 200 3700 pg. 21 Scraper Labor Cost (Daily) \$ 5 272 (8-bour work day) Scraper Total Cost (Daily) \$ 14,300 (2) orsw B-330, pg. 109 (8-bour work day) DB Pozer Cost DD (2) orsw Cost (2) 01590-200 4570, pg. 21 (8-bour work day) D9 Operating Cost (Hourly) \$ 655 (2) 01590-200 4570, pg. 21 (8-bour work day) D9 Labor Cost (Daily) \$ 14,300 (2) orsw B-100, http: 1089 (8-bour work day) D9 Labor Cost (Daily) \$ 1,412 (9) orew B-100, http: (1080 Hight Forthold Hight Fool Hight Fool Hight Fool Hight Fool Hight Fool Hight Fool H			,										
Bank Cu. Yd.Hr. 4% RR. 1000 ft haul Material correction 0.93 50 minute hour 0.93 0.83 Actual bank Cu. Yd. per hour 115 631 Scraper Cost Scraper Rental (Monthly) \$ 14,900 (2) 01590 200 3700 pg. 21 (22 working days/month Scraper Qoerating Cost (Hourly) \$ 677 (2) 01590 200 3700 pg. 21 (22 working days/month Scraper Operating Cost (Hourly) \$ 677 (2) 01590 200 3700 pg. 21 (22 working days/month Scraper Cost Deprating Cost (Hourly) \$ 5 272 With Weight = 1.62 TOL (8 Hour work day) Scraper Total Cost (Hourly) \$ 14,300 DB Dozer Cost (2) 01590-200 4370, pg. 21 (22 working days/month D9 Dozer Cost (2) 01590-200 4370, pg. 21 (22 working days/month D9 Dozer Cost (2) 01590-200 4370, pg. 21 (22 working days/month D9 Operating Cost (Hourly) \$ 5 D9 Operating Cost (Hourly) \$ 5 D9 Labor Cost (Daily) \$ 5 D9 Total Cost (Daily) \$ 4,541 (1 - D9, 2 - 631) Total Fleet Total Fleet Total Fleet Total Fleet Productivity (BCY/Hr) Total Fleet Productivity (BCY/Hr) Total Fleet Productivity (BCY/Hr) Total Fleet Productivity (BCY/Hr) Total Fleet Productivity (BCY/Hr) Cost per Cu. Yd. Moved \$ 0.68 <td></td> <td></td> <td></td> <td></td> <td>01.0</td> <td>ton</td> <td></td> <td></td> <td>(1) pg. 0 0</td>					01.0	ton			(1) pg. 0 0				
Material correction 0.93 50 minute hour Material correction 0.83 Actual bank Cu. Yd. per hour 415 631 Scraper Cost Scraper Rental (Monthly) Ownership Cost (Daily) \$ 14,900 \$ 677 (2) 01500 200 3700 pg. 21 (22 working daysfrment) Scraper Operating Cost (Daily) \$ 75 Operating Cost (Daily) \$ 600 (2) 01500 200 3700 pg. 21 (2 working daysfrment) Scraper Operating Cost (Hourly) \$ 75 Labor Cost (Daily) \$ 600 (2) 01500 200 3700 pg. 21 (8-hour work day) Scraper Total Cost (Daily) \$ 14,300 Correct (Daily) \$ 272 (8-hour work day) D9 Rental (Monthly) \$ 14,300 Coperating Cost (Daily) \$ 550 (2) 01590-200 4370, pg. 21 (2 working daysfrment) D9 Rental (Monthly) \$ 14,300 Operating Cost (Daily) \$ 550 (2) 01590-200 4370, pg. 21 (2 working daysfrment) D9 Operating Cost (Daily) \$ 550 (2) 01590-200 4370, pg. 21 (8-hour work day) (8-hour work day) D9 Labor Cost (Daily) \$ 14,422 (1 - D0, 2 - 631) (1 - D0, 2 - 631) Total Fleet Total Fleet Productivity (BCY/Hr) Total Fleet Productivity (BCY/Hr) Cost or placing 1 lineer foot of 40 ft wide road, 1 fort thick (Cu. Yd), 1.48 Cost or placing 1 lineer foot				-	540				(1) 0.07				
S0 minute hour 0.83 Actual bank Cu. Yd. per hour 415 631 Scraper Cost Scraper Rental (Monthly) \$ 14,900 Ownership Cost (Daily) \$ 677 Scraper Operating Cost (Hourly) \$ 75 Operating Cost (Hourly) \$ 677 Scraper Labor Cost (Hourly) \$ 75 Operating Cost (Hourly) \$ 415 B0 Dozer Cost D9 Rental (Monthly) \$ 14,900 Labor Cost (Daily) \$ 272 Scraper Total Cost (Daily) \$ 1,549 D9 Dozer Cost D9 Rental (Monthly) \$ 14,300 Concership Cost (Daily) \$ 650 D9 Operating Cost (Hourly) \$ 655 D9 Operating Cost (Daily) \$ 650 D9 Operating Cost (Daily) \$ 520 D9 Dozer Cost D9 Operating Cost (Daily) \$ 520 D9 Dozer Cost (Daily) \$ 520 D9 Dozer Cost (Daily) \$ 520 D9 Labor Cost (Hourly) \$ 54 Labor Cost (Daily) \$ 1,442 Total Fleet \$ 0,640 Cost per Cu. Yd. Moved \$ 0,68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1,48 Cost of placing 1 linear foot (do ft wide road, 1 foot thick (Cu. Yd.) 1,48 Cost of placing 1 linear foot (do ft wide road, 1 foot thick (Cu. Yd.) 1,													
631 Scraper Cost (2) 01590 200 3700 pg. 21 Ownership Cost (Daily) \$ 677 Scraper Operating Cost (Hourly) \$ 677 Operating Cost (Daily) \$ 600 Scraper Operating Cost (Hourly) \$ 5 Operating Cost (Daily) \$ 5 Scraper Labor Cost (Daily) \$ 34 Labor Cost (Daily) \$ 1,549 D9 Dozer Cost D9 Rental (Monthly) \$ D9 Rental (Monthly) \$ 1,549 Ownership Cost (Daily) \$ 1,549 D9 Rental (Monthly) \$ 14,300 Ownership Cost (Daily) \$ 520 D9 Operating Cost (Hourly) \$ 65 Operating Cost (Hourly) \$ 5 D9 Datal Cost (Daily) \$ 1,442 Total Fleet Total Fleet Cost (Daily) \$ 1,442 Total Fleet Productivity (BCY/Hr) 830 6,640 Cost per Cu. Yd. Moved \$ 0,68 Cube yards in 1 linear foot of 40 ft wide road. 1 foot thick (Cu. Yd.)													
Scraper Rental (Monthly) \$ 14,900 (2) 01590 200 3700 pg. 21 Ownership Cost (Daily) \$ 677 (2) 01590 200 3700 pg. 21 Scraper Operating Cost (Hourly) \$ 75 (2) 01590 200 3700 pg. 21 Operating Cost(Daily) \$ 75 (2) 01590 200 3700 pg. 21 Scraper Labor Cost (Hourly) \$ 34 (2) 01590 200 3700 pg. 21 Labor Cost (Daily) \$ 14,300 (2) 01590 200 3700 pg. 21 Scraper Labor Cost (Daily) \$ 14,300 (2) 01590 200 3700 pg. 21 Scraper Total Cost (Daily) \$ 14,300 (2) 01590 200 3700 pg. 21 D9 Dozer Cost (B-hour work day) (B-hour work day) D9 Rental (Monthly) \$ 14,300 (2) 01590-200 4370, pg. 21 Ownership Cost (Daily) \$ 520 (2) 01590-200 4370, pg. 21 D9 Perating Cost (Hourly) \$ 520 (2) 01590-200 4370, pg. 21 D9 Cost Cost (Daily) \$ 520 (2) 01590-200 4370, pg. 21 D9 Labor Cost (Daily) \$ 14,402 (2) orew B-10M, pg. 1099 Labor Cost (Daily) \$ 1,442 (1 - 09, 2 - 631) Total Fleet Productivity (BCY/Day) 6,640 (1 - 09, 2 - 631)		Actual bank (Cu. Yd. per hour		415								
Scraper Rental (Monthly) \$ 14,900 (2) 01590 200 3700 pg. 21 Ownership Cost (Daily) \$ 677 (2) 01590 200 3700 pg. 21 Scraper Operating Cost (Hourly) \$ 75 (2) 01590 200 3700 pg. 21 Operating Cost(Daily) \$ 75 (2) 01590 200 3700 pg. 21 Scraper Labor Cost (Hourly) \$ 34 (2) 01590 200 3700 pg. 21 Labor Cost (Daily) \$ 14,300 (2) 01590 200 3700 pg. 21 Scraper Labor Cost (Hourly) \$ 34 (2) 01590 200 3700 pg. 21 Labor Cost (Daily) \$ 1549 (2) 01590 200 3700 pg. 21 D9 Dozer Cost (B-hour work day) (B-hour work day) Ownership Cost (Daily) \$ 14,300 (2) 01590-200 4370, pg. 21 D9 Porating Cost (Hourly) \$ 650 (2) 01590-200 4370, pg. 21 Operating Cost (Hourly) \$ 520 (2) 01590-200 4370, pg. 21 D9 Cozer Cost (2) 01590-200 4370, pg. 21 (2) 01590-200 4370, pg. 21 Operating Cost (Hourly) \$ 520 (2) 01590-200 4370, pg. 21 D9 Labor Cost (Daily) \$ 1,442 (2) orew B-10M, pg. 1099 Total Fleet Total Fleet Productity (BCY/Hay) \$ 6,640		631 Sci	raper Cost										
Scraper Operating Cost (Hourly) \$ 75 (2) 01590 200 3700 pg. 21 Operating Cost (Hourly) \$ 600 (2) 01590 200 3700 pg. 21 Scraper Labor Cost (Hourly) \$ 34 (2) crew 8-33D, pg. 1099 Labor Cost (Daily) \$ 1,549 (8-hour work day) D9 Dozer Cost (2) 01590-200 4370, pg. 21 (2) 01590-200 4370, pg. 21 D9 Rental (Monthly) \$ 14,300 (2) 01590-200 4370, pg. 21 Ownership Cost (Daily) \$ 655 (2) 01590-200 4370, pg. 21 D9 Pental (Monthly) \$ 14,300 (2) 01590-200 4370, pg. 21 Ownership Cost (Daily) \$ 14,300 (2) 01590-200 4370, pg. 21 D9 Operating Cost (Hourly) \$ 520 (2) 01590-200 4370, pg. 21 Operating Cost (Hourly) \$ 520 (2) 01590-200 4370, pg. 21 D9 Labor Cost (Hourly) \$ 5 520 (2) 01590-200 4370, pg. 21 D9 Labor Cost (Hourly) \$ 4 5 (2) 01590-200 4370, pg. 21 D9 Total Cost (Daily) \$ 1,442 (2) crew B-10M, pg. 1099 (8-hour work day) Total Fleet Productivity (BCY/Day) 6,640 <td></td> <td>Scraper Re</td> <td>ental (Monthly)</td> <td>\$</td> <td>14,900</td> <td></td> <td></td> <td></td> <td>(2) 01590 200 3700 pg. 21</td>		Scraper Re	ental (Monthly)	\$	14,900				(2) 01590 200 3700 pg. 21				
Operating Cost(Daily) \$ 600 (8-hour work day) Scraper Labor Cost (Hourly) \$ 34 (2) crew B-33D, pg. 1099 Labor Cost (Daily) \$ 1,549 (8-hour work day) D9 Dozer Cost (2) 01590-200 4370, pg. 21 (2) 01590-200 4370, pg. 21 D9 Rental (Monthly) \$ 14,300 (2) 01590-200 4370, pg. 21 Ownership Cost (Daily) \$ 650 (2) 01590-200 4370, pg. 21 D9 Operating Cost (Hourly) \$ 655 (2) 01590-200 4370, pg. 21 D9 Operating Cost (Daily) \$ 520 (2) 01590-200 4370, pg. 21 D9 Operating Cost (Daily) \$ 520 (2) 01590-200 4370, pg. 21 D9 Operating Cost (Hourly) \$ 655 (2) 01590-200 4370, pg. 21 D9 Cort Cost (Daily) \$ 520 (2) 01590-200 4370, pg. 21 D9 Total Cost (Daily) \$ 14,42 (2) crew B-10M, pg. 1099 D9 Labor Cost (Hourly) \$ 1,442 (8-hour work day) D9 Total Cost (Daily) \$ 1,442 (1 - D9, 2 - 631) Total Fleet Total Fleet Productivity (BCY/Hr) 830 Total Fleet Productivity (BCY/Day) 6,640 (1 - D9, 2 - 631) Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1,48		Ownershi	o Cost (Daily)			\$	677		(22 working days/month				
Operating Cost(Daily) \$ 600 (8-hour work day) Scraper Labor Cost (Hourly) \$ 34 (2) crew B-33D, pg. 1099 Labor Cost (Daily) \$ 1,549 (8-hour work day) D9 Dozer Cost (2) 01590-200 4370, pg. 21 (2) 01590-200 4370, pg. 21 D9 Rental (Monthly) \$ 14,300 (2) 01590-200 4370, pg. 21 Ownership Cost (Daily) \$ 650 (2) 01590-200 4370, pg. 21 D9 Operating Cost (Hourly) \$ 655 (2) 01590-200 4370, pg. 21 D9 Operating Cost (Daily) \$ 520 (2) 01590-200 4370, pg. 21 D9 Operating Cost (Daily) \$ 520 (2) 01590-200 4370, pg. 21 D9 Operating Cost (Hourly) \$ 655 (2) 01590-200 4370, pg. 21 D9 Cort Cost (Daily) \$ 520 (2) 01590-200 4370, pg. 21 D9 Total Cost (Daily) \$ 14,42 (2) crew B-10M, pg. 1099 D9 Labor Cost (Hourly) \$ 1,442 (8-hour work day) D9 Total Cost (Daily) \$ 1,442 (1 - D9, 2 - 631) Total Fleet Total Fleet Productivity (BCY/Hr) 830 Total Fleet Productivity (BCY/Day) 6,640 (1 - D9, 2 - 631) Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1,48		Scraper Opera	ting Cost (Hourly)	\$	75				(2) 01590 200 3700 pg. 21				
Labor Cost (Daily) \$ 272 Scraper Total Cost (Daily) \$ 1,549 D9 Dozer Cost (2) 01590-200 4370, pg. 21 D9 Rental (Monthly) \$ 14,300 Ownership Cost (Daily) \$ 650 D9 Operating Cost (Hourly) \$ 655 Operating Cost (Hourly) \$ 520 D9 Labor Cost (Daily) \$ 520 D9 Labor Cost (Daily) \$ 272 (8-hour work day) (2) 01590-200 4370, pg. 21 (8-hour work day) \$ 650 D9 Operating Cost (Hourly) \$ 650 D9 Labor Cost (Daily) \$ 272 (8-hour work day) (2) orsew 8-10M, pg. 1099 Labor Cost (Daily) \$ 1,442 Total Fleet Total Cost (Daily) \$ 1,442 Total Fleet Productivity (BCY/Hr) \$ 830 Total Fleet Productivity (BCY/Day) 6,640 Cost per Cu. Yd. Moved \$ 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost or placing 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost or placing 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost or placing 1 linear foot of 40 ft wide road, 1 foot thi			,	-		\$	600						
Labor Cost (Daily) \$ 272 Scraper Total Cost (Daily) \$ 1,549 D9 Dozer Cost (2) 01590-200 4370, pg. 21 D9 Rental (Monthly) \$ 14,300 Ownership Cost (Daily) \$ 650 D9 Operating Cost (Hourly) \$ 655 Operating Cost (Hourly) \$ 520 D9 Labor Cost (Daily) \$ 520 D9 Labor Cost (Daily) \$ 272 (8-hour work day) (2) 01590-200 4370, pg. 21 (8-hour work day) \$ 650 D9 Operating Cost (Hourly) \$ 650 D9 Labor Cost (Daily) \$ 272 (8-hour work day) (2) orsew 8-10M, pg. 1099 Labor Cost (Daily) \$ 1,442 Total Fleet Total Cost (Daily) \$ 1,442 Total Fleet Productivity (BCY/Hr) \$ 830 Total Fleet Productivity (BCY/Day) 6,640 Cost per Cu. Yd. Moved \$ 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost or placing 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost or placing 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost or placing 1 linear foot of 40 ft wide road, 1 foot thi		Saranar Lah	or Cost (Hourly)	¢	24				(2) oroug R 22D, pg. 1000				
D9 Dozer Cost (2) 01590-200 4370, pg. 21 D9 Rental (Monthly) \$ 14,300 Ownership Cost (Daily) \$ 650 D9 Operating Cost (Hourly) \$ 65 Operating Cost (Daily) \$ 520 D9 Labor Cost (Hourly) \$ 34 Labor Cost (Daily) \$ 272 (8-hour work day) D9 Total Cost (Daily) \$ 1,442 Total Fleet (8-hour work day) Total Fleet Cost (Daily) \$ 4,541 Total Fleet Productivity (BCY/Hr) 830 Total Fleet Productivity (BCY/Hr) 830 Cost per Cu. Yd. Moved \$ 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 fto wide road) \$ 1.01) Caterpillar Performance Handbook, Edition 31 \$ 1.01		•	· · · ·	Φ	34	\$	272						
D9 Dozer Cost (2) 01590-200 4370, pg. 21 D9 Rental (Monthly) \$ 14,300 Ownership Cost (Daily) \$ 650 D9 Operating Cost (Hourly) \$ 65 Operating Cost (Hourly) \$ 520 D9 Labor Cost (Hourly) \$ 520 D9 Labor Cost (Hourly) \$ 34 Labor Cost (Daily) \$ 272 09 Total Cost (Daily) \$ 1,442 Total Fleet (8-hour work day) Total Fleet Productivity (BCV/Hr) 830 Total Fleet Productivity (BCV/Hr) 830 Cost per Cu. Yd. Moved \$ 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost per Cu. Yd. Moved \$ 0.68								:					
D9 Rental (Monthly) Ownership Cost (Daily) \$ 14,300 (2) 01590-200 4370, pg. 21 D9 Operating Cost (Hourly) \$ 650 (2) 01590-200 4370, pg. 21 D9 Operating Cost (Hourly) \$ 65 (2) 01590-200 4370, pg. 21 Operating Cost (Hourly) \$ 65 (2) 01590-200 4370, pg. 21 Operating Cost (Hourly) \$ 520 (8-hour work day) D9 Labor Cost (Hourly) \$ 34 (2) crew B-10M, pg. 1099 Labor Cost (Daily) \$ 1,442 (8-hour work day) D9 Total Cost (Daily) \$ 1,442 (8-hour work day) D9 Total Fleet (1 - D9, 2 - 631) Total Fleet Productivity (BCY/Hr) 830 (1 - D9, 2 - 631) Total Fleet Productivity (BCY/Day) 6,640 (1 - D9, 2 - 631) Cost of pracing 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 fto wide road) 1.01) Caterpillar Performance Handbook, Edition 31 (2) caterpillar Performance Handbook, Edition 31		Scraper To	tal Cost (Daily)			\$	1,549						
Ownership Cost (Daily) \$ 650 (22 working days/month D9 Operating Cost (Hourly) \$ 65 (2) 01590-200 4370, pg. 21 Operating Cost (Daily) \$ 520 (2) orew B-10M, pg. 1099 D9 Labor Cost (Hourly) \$ 34 (2) crew B-10M, pg. 1099 Labor Cost (Daily) \$ 1,442 (8-hour work day) D9 Total Cost (Daily) \$ 1,442 (1 - D9, 2 - 631) Total Fleet Total Fleet Productivity (BCY/Hr) 830 Total Fleet Productivity (BCY/Day) 6,640 (1 - D9, 2 - 631) Cost per Cu. Yd. Moved \$ 0.68 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 ft wide road) \$ 1.01) Caterpillar Performance Handbook, Edition 31 5		D9 Do	ozer Cost										
D9 Operating Cost (Hourly) \$ 65 (2) 01590-200 4370, pg. 21 Operating Cost(Daily) \$ 520 (8-hour work day) D9 Labor Cost (Hourly) \$ 34 (2) crew B-10M, pg. 1099 Labor Cost (Daily) \$ 1,442 (8-hour work day) D9 Total Cost (Daily) \$ 1,442 (1 - D9, 2 - 631) Total Fleet Total Fleet Productivity (BCY/Hr) 830 6,640 Total Fleet Productivity (BCY/Day) 6,640 (1 - D9, 2 - 631) Cost op ar Cu. Yd. Moved \$ 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 foot wide road) \$ 1.01 O Caterpillar Performance Handbook, Edition 31 91				\$	14,300				(2) 01590-200 4370, pg. 21				
Operating Cost(Daily) \$ 520 (8-hour work day) D9 Labor Cost (Hourly) \$ 34 Labor Cost (Daily) \$ 272 D9 Total Cost (Daily) \$ 1,442 (8-hour work day) D9 Total Cost (Daily) \$ 1,442 (1 - D9, 2 - 631) Total Fleet Productivity (BCY/Day) 6,640 (1 - D9, 2 - 631) Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 foot wide road) Caterpillar Performance Handbook, Edition 31 520		Ownershi	o Cost (Daily)			\$	650		(22 working days/month				
D9 Labor Cost (Hourly) \$ 34 (2) crew B-10M, pg. 1099 Labor Cost (Daily) \$ 1,442 (3-hour work day) D9 Total Cost (Daily) \$ 1,442 (1 - D9, 2 - 631) Total Fleet Productivity (BCY/Hr) 830 (1 - D9, 2 - 631) Total Fleet Productivity (BCY/Day) 6,640 (1 - D9, 2 - 631) Cost per Cu. Yd. Moved \$ 0.68 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 ft owide road) \$ 1.01 O Caterpillar Performance Handbook, Edition 31 (40 foot wide road)		D9 Operatin	g Cost (Hourly)	\$	65				(2) 01590-200 4370, pg. 21				
Labor Cost (Daily) \$ 272 (8-hour work day) D9 Total Cost (Daily) \$ 1,442 (1 - D9, 2 - 631) Total Fleet Cost (Daily) \$ 4,541 (1 - D9, 2 - 631) Total Fleet Productivity (BCY/Hr) 830 6,640 Total Fleet Productivity (BCY/Day) 6,640 0.68 Cost per Cu. Yd. Moved \$ 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 foot wide road) \$ 1.01 O Caterpillar Performance Handbook, Edition 31 \$ 1.01		Operating	g Cost(Daily)			\$	520		(8-hour work day)				
Labor Cost (Daily) \$ 272 (8-hour work day) D9 Total Cost (Daily) \$ 1,442 (1 - D9, 2 - 631) Total Fleet Cost (Daily) \$ 4,541 (1 - D9, 2 - 631) Total Fleet Productivity (BCY/Hr) 830 6,640 Total Fleet Productivity (BCY/Day) 6,640 0.68 Cost per Cu. Yd. Moved \$ 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 foot wide road) \$ 1.01 O Caterpillar Performance Handbook, Edition 31 \$ 272		D9 Labor	Cost (Hourly)	\$	34				(2) crew B-10M, pg. 1099				
Total Fleet Total Fleet Cost (Daily) \$ 4,541 (1 - D9, 2 - 631) Total Fleet Productivity (BCY/Hr) 830 6,640 Total Fleet Productivity (BCY/Day) 6,640 Cost per Cu. Yd. Moved \$ 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 ft wide road) \$ 1.01 O Caterpillar Performance Handbook, Edition 31			,			\$	272						
Total Fleet Cost (Daily) \$ 4,541 (1 - D9, 2 - 631) Total Fleet Productivity (BCY/Hr) 830 6,640 Cost per Cu. Yd. Moved \$ 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 foot wide road) \$ 1.01 O Caterpillar Performance Handbook, Edition 31		D9 Total	Cost (Daily)			\$	1,442	:					
Total Fleet Cost (Daily) \$ 4,541 (1 - D9, 2 - 631) Total Fleet Productivity (BCY/Hr) 830 6,640 Cost per Cu. Yd. Moved \$ 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 ft wide road) \$ 1.01 O Caterpillar Performance Handbook, Edition 31													
Total Fleet Productivity (BCY/Hr) 830 Total Fleet Productivity (BCY/Day) 6,640 Cost per Cu. Yd. Moved \$ 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 ft wide road) \$ 1.01 Caterpillar Performance Handbook, Edition 31				-									
Total Fleet Productivity (BCY/Day) 6,640 Cost per Cu. Yd. Moved \$ 0.68 Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 foot wide road) \$ 1.01 Caterpillar Performance Handbook, Edition 31			,		830	\$	4,541		(1 - D9, 2 - 631)				
Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 foot wide road) \$ 1.01 Caterpillar Performance Handbook, Edition 31			• • •		000		6,640						
Cubic yards in 1 linear foot of 40 ft wide road, 1 foot thick (Cu. Yd.) 1.48 Cost of placing 1 linear foot (40 foot wide road) \$ 1.01 Caterpillar Performance Handbook, Edition 31		Cost por C	u Vd Moved			¢	0.60						
Cost of placing 1 linear foot (40 foot wide road) \$ 1.01 Caterpillar Performance Handbook, Edition 31		Cost per C				φ	0.08						
Cost of placing 1 linear foot (40 foot wide road) \$ 1.01 Caterpillar Performance Handbook, Edition 31													
Cost of placing 1 linear foot (40 foot wide road) \$ 1.01 Caterpillar Performance Handbook, Edition 31													
Caterpillar Performance Handbook, Edition 31		Cubic yards in 1 linea	ar foot of 40 ft wide road, 1	foot thic	ck (Cu. Yd.)		1.48						
		Cost of plac	cing 1 linear foot (40 foot w	vide road	ł)	\$	1.01						
) Caternillar Perfe	rmance Handbool	C Edition 31										
	, .		k, Edition 31										

Date Checked	Checked By	Job Number	By		Date	7/27/2022	Calc. No.	Sheet No.
7/28/2022	EJM Project	205062	RAB			8 of 12		
CalPort	land - Rio Rico O	perations				1	Subjec Fruck haul (
								References/Notes
		er Productivity	_					
		Time (minutes)		0.55				(1) pg. 13-46
Cycle Time Factors		vpe (minutes)		0.02				(1) pg. 13-46
		ile (minutes)		0.02				(1) pg. 13-46
		ship trucks/loaders		0				(1) pg. 13-46
		t operation		0				(1) pg. 13-46
		get (minutes)		0.025				(1) pg. 13-46
	-	le target		0				(1) pg. 13-46
		Time (minutes)		0.615				
	-	n Cycles/Hr.		98				(4) = = 40.47
Nork Factor		nutes/Hr. Cycles/Hr.		0.83 81				(1) pg. 13-47
	Ducket Full Le	ad (Qubia Vanda)		7 6				(4) = = 40.00
		ad (Cubic Yards) Fill Factor		7.5 0.9				(1) pg. 13-29 (1) pg. 13-46
		Load (Cubic Yards)		0.9 6.75				(1) pg. 13-46
		ume Loaded/Hr		547				
	980G Lo	oader Cost						
		ntal (Monthly)	\$	11,500				(2) 01590 200 4810 pg. 21
		o Cost (Daily)			\$	523		(22 working days/month)
	Loader Operat	ing Cost (Hourly)	\$	58				(2) 01590 200 4810 pg. 21
	•	Cost(Daily)	Ŷ		\$	464		(8-hour work day)
	Loader Labo	or Cost (Hourly)	\$	34				(2) crew B-10M pg. 1099
	Labor C	cost (Daily)			\$	272	=	(8-hour work day)
	Loader Tot	al Cost (Daily)			\$	1,259		
	775D Truc	k Productivity	_					
		e (Cubic Yards)		41.1				(1) pg. 10-3
		eeded to Fill Truck		6.09				Use Loader Avg Bucket Load (C
		cles per Truck		6 40 5				
	Average Truck Pa	ayload (Cubic Yards)		40.5				
		Time (minutes)		4.45				Calculated from Loader rate
Cycle Time Factors		ad Area (minutes)		0.5				(1) pg. 10-8
		mp Area (minutes)		1.1				(1) pg. 10-8
		ie (minutes)		1.2				(1) pg. 10-8
		me (minutes)		1.2				(1) pg. 10-8 (1) pg. 10-8
		Cycle Time (minutes) ruck Cycles/Hr.		8.45 7.1				(1) pg. 10-8 (1) pg. 10-8
Vork Factor		uck Cycles/Hr. nutes/Hr.		0.83				(1) pg. 10-8 Assumption
VOIN I AULUI		uck Cycles/Hr.		5.9				nooumpuon
	-	d.)/Hr. (for 1 truck)		239				
		I.)/Hr. (for 2 trucks)		478				
	ormance Handbool	k, Edition 31						
(2) RS Means 2019)							

Date Checked	Checked By	Job Number	Ву		Date		Calc. No.	Sheet No.
7/28/2022	EJM	205062	RAB		7	/27/2022		9 of 12
	Project						Subject	
CalPort	land - Rio Rico Op	perations				Truc	ck Haulage (2 of 2)	
								References/Notes
	775D T	uck Cost						
-	Truck Ren	tal (Monthly)	\$	12,800				(1) 01590 200 5620 p22
	Ownership	Cost (Daily)			\$	582		(22 working days/month)
	Truck Operati	ng Cost (Hourly)	\$	57				(1) 01590 200 5620 p22
		Cost(Daily)	Ψ	01	\$	456		(8-hour work day)
		Cost (Hourly) ost (Daily)	\$	26	\$	208		(1) crew B-34A, pg. 1104 (8-hour work day)
		ost (Dully)			Ψ	200		(2
	Truck Tota	Cost (Daily)			\$	1,246		
		tal Cost (Daily)			\$	2,492		
		al Cost (Daily) otal Cost (Daily)			\$ \$	1,259 3,750		
		nai Cost (Dally)			φ	5,750		
	Total Fleet Producti	vity (Cu. Yd. per Day	()			3,821		(8-hour work day)
	Fleet Cost	per Cu. Yd.			\$	0.98		
(1) Caterpillar Perfo	rmance Handbook	Edition 31						
(1) outorplina 1 ene (2) RS Means 2019								

	ecked By	Job Number	Ву		Date		o. Sheet No.
7/28/2022 EJI	// Project	205062	RAB			7/27/2022	10 of 12
CalPortland - Rio Rico Operations		Subject Crane Costing					
							References/Notes
							References/Notes
Ru	ober Tired Hyd	Iraulic Crane - 80	-on Capac	ity			
		Crane Cost	—	0.005			
		tal (Monthly) Cost (Daily)	\$	8,825	\$	401	(2) 01590 500 2700 pg. 27 (22 working days/month
		ng Cost (Hourly) Cost(Daily)	\$	54	\$	432	(2) 01590 500 2700 pg. 27 (8-hour work day)
		⁻ Cost (Hourly) ost (Daily)	\$	35	\$	280	(2) crew B-95A, pg. 1100 (8-hour work day)
		l Cost (Daily) Cost (Hourly)			\$ \$	1,113 139	(8-hour work day)
Ru	ober Tired Hyd	Iraulic Crane - 12()-Ton Cap	acity			
		Crane Cost					
		tal (Monthly) Cost (Daily)	\$	25,400	\$	1,155	(2) 01590 500 2740 pg. 27 (22 working days/month
		ng Cost (Hourly) Cost(Daily)	\$	83	\$	664	(2) 01590 500 2740 pg. 27 (8-hour work day)
		^r Cost (Hourly) ost (Daily)	\$	35	\$	280	(2) crew B-95A, pg. 1100 (8-hour work day)
		l Cost (Daily) Cost (Hourly)			\$ \$	2,099 262	(8-hour work day)
aterpillar Performa	ince Handbook	, Edition 31					I
S Means 2019							

Orde Criterio 17 Dot 200062 PAB Date 7727/2022 Tr. No. Unlet 11 of 12 V2012022 Project Subject Subject Subject Tr. No.	Date Checked	Checked By	Job Number	Ву	Date	Calc. No.	Sheet No.
Project Subject CalPortland - Rio Rico Oparations Rip Rap Erosion Control Material Cost, Hauling, and Placing Erosion Control Structures - Rip Rap References/Notes 10* Minimu Hickness, not grouted 1 \$ 19 110* Minimu Hickness, not grouted () Line # 313713100000 Labor (per unit) 1 \$ 13 Equipment (per unit) 1 \$ 13 Estimated Cost per Square Yard for Rip Rap Material and Install = \$ 77.00	7/28/2022	EJM	205062	RAB	7/27/2022		11 of 12
CalPortland - Rio Rico Operations Rip Rap Erosion Control Material Cost, Hauling, and Placing Erosion Control Structures - Rip Rap References/Notes							
Material Cost, Hauling, and Placing Erosion Control Structures - Rip Rap Description Units Total Cost 18' Minimum thickness, not grouted 1 5 19 (2) Line # 313713100200 (2) Line # 313713100200 <th>CalPo</th> <th></th> <th>perations</th> <th></th> <th></th> <th></th> <th>I</th>	CalPo		perations				I
18" Minimum thickness, not grouted (2) Une # 313713100200 Labor (per unit) 1 \$ 46 (2) Une # 313713100200 Equipment (per unit) 1 \$ 13 (2) Une # 313713100200 Estimated Cost per Square Yard for Rip Rap Material and Install = \$ 77.00	м	Material Cost, Haul	ing, and Placing Eros	sion Control Structu	res - Rip Rap		References/Notes
18" Minimum thickness, not grouted (2) Line # 313713100200 Labor (per unit) 1 \$ 46 (2) Line # 313713100200 Equipment (per unit) 1 \$ 13 (2) Line # 313713100200 Estimated Cost per Square Yard for Rip Rap Material and Install = \$ 77.00		Des	cription	Units	Total Cost		
Material (sq. yd.) 1 \$ 19 (p) Line # 31371300200 Labor (per unit) 1 \$ 13 (p) Line # 313713100200 Equipment (per unit) 1 \$ 77.00 Estimated Cost per Square Yard for Rip Rap Material and Install = \$ 77.00		18" Minimum thi	ckness, not grouted			_	
Equipment (per unit) 1 \$ 13 (2) Line # 313713100200 Estimated Cost per Square Yard for Rip Rap Material and Install = \$ 77.00 77.00 (1) Caterpillar Performance Handbook, Edition 31		Materi	al (sq. yd.)				(2) Line # 313713100200
(1) Caterpillar Performance Handbook, Edition 31							
(1) Caterpillar Performance Handbook, Edition 31		Equipme	ent (per unit)	1	\$ 13		(2) Line # 313713100200
	Estimat	ed Cost per Squar	e Yard for Rip Rap M	aterial and Install =	\$ 77.00		
			Edition 31				<u> </u>

	Checked By	Job Number	Ву	Date	Calc. No.	Sheet No.			
7/28/2022		205062	RAB	7/27/2022		12 of 12			
	Project				Subject				
CalPortland - Rio Rico Operations				Plant Removal					
						Defensions (b)			
	Removal o	f Crushing/Screen	ng plants or Wash P	lants		References/Notes			
			.						
	Des	cription	Units	Total Cost					
		Crane (Hr)	250		_				
	120 Toi	n Crane (Hr)	100						
		cal Labor (Hr)	1,500						
		oading Labor (Hr)	400						
		portation (Trips)	30						
	Heavy Trans	sportation (Trips)	23	\$ 36,000	_				
	Estimate	d Total Cost for Pla	int Removal =	\$ 242,000					
aterpillar Perfo	rmance Handboo	k, Edition 31							
atorpinar i orre									