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BONDING

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REV. NUMBER	REVISION DESCRIPTION	DATE APPROVED

SECTION 50 BONDING

50.1 Bond Scheme

The determination of the bond is an estimation of the maximum reclamation cost that the Regulatory Authority would incur in the event of bond forfeiture by Navajo Mine. Areas bonded under this permit area include those areas which will be disturbed in the process of recovering coal from the No Name Permit (NNP) permit area and those areas required to construct facilities or infrastructure that support the production activities. The following costs and procedures apply only for determining the bond dollar figure for the maximum reclamation requirement (worst case scenario), and are not necessarily meant to represent current or future operational practices.

50.1.1 Maximum Reclamation Liability during the Permit Term

The bond evaluation prepared for this permit reflect the worst case pit scenario. Given that NTEC will open the initial mining areas in No Name and will progress pit development throughout the permit term while not yet disturbing sufficient acreage to facilitate significant reclamation activities, the cumulative disturbance will reach the maximum late in the permit term. Throughout the five-year term, strip progression results in an increase in disturbed land, increased pit depths, and slight increases in pit lengths.

The amount of mining (stripping) disturbance to occur during the permit term is related to strip progression and timing, which is presented on Exhibit 34.2-1. The bond scenario presented here does not necessarily match the strip progression timing shown in the permit term disturbance exhibits. This is due to the remaining uncertainty regarding actual start dates for the mining (stripping) operations, which are ultimately a function of the timing of the first coal requirements from the customer. In order to address this uncertainty and ensure that NTEC will be sufficiently bonded the worst case scenario, the maximum likely amount of mining (stripping) disturbance has been considered. The regraded area of disturbance (final surface configuration) is also shown on Exhibit 34.1-1.

50.2 Extended-Liability Bond Areas

NTEC does not have any extended liability bond areas associated with NNP; therefore, this section is not applicable.

50.3 Bonding of Facilities Used in Common

Currently, there are no facilities and infrastructure (e.g., powerlines, ancillary roads, etc.) within the permit area that are also considered in NTEC Navajo Mine's bond amount.

50.4 Reclamation Cost Estimate

50.4.1 Reclamation Costs

Reclamation costs are calculated as shown in Appendix 50.A, Worksheets 50.2 through 50.17. The methods and format used in this calculation are consistent with the guidance contained in the OSM *Handbook for Calculation of Reclamation Bond Amounts* (OSM 2020). A summary of the reclamation bond amount is presented in Table 50.4-1.

Reclamation liabilities attributable to NNP permit areas during the permit term will occur in Area 4 South and Area 5. It is assumed that the final bond pit will progress as shown in Exhibit 50.4-1 and will be stripped to their lowest economically recoverable coal seam. Reclamation activities will consist of the following:

1) Facility demolition and removal,
2) Earthmoving – primary and secondary regrade, topdressing, mitigation,
3) Revegetation, and
4) Miscellaneous

50.4.1.1 Facility Demolition and Removal

Facility demolition and removal of all existing permit structures on the mine site includes the industrial complexes; water pipelines, intakes, and loadouts; electric power lines; explosive stores; coal facilities; water control structures; transportation facilities; and miscellaneous structures. A summary of demolition unit costs is presented in Table 50-A-1, Appendix 50.A.

All permit structures are tabulated in Worksheet 50.2 (Appendix 50.A). Structure dimensions and related materials quantities are taken from design drawings and material take-off sheets, while unit costs are from Table 50-A-1, Appendix 50.A. The resulting costs are totaled in Worksheet 50.16, Item 1 (Appendix 50.A).

50.4.1.2 Earthmoving

A post-mining "snapshot" of each area is as shown in the bond post-mining configuration (PMC) map, Exhibit 34.2-1.

The final surface configuration (FSC) selected for the initial permit term is to return the disturbed areas as close as possible to the pre-mining topography. Due to the relatively small area disturbed during the initial term, especially within the mining pits, and due to the fact that most of the mining disturbance occurs on uplands west of Pinabete Arroyo, there is little value in developing a FSC using those methods (Natural Regrade) used to develop the approximate original contour AOC for the entirety of the Area 4 South mining limits.

To achieve FSC (Exhibit 34.1-1), PMC topography in these areas was altered to create reclaimed surfaces falling as close as practical to the pre-mining topography.

The next design step was to subtract a computerized grid of the PMC from the FSC. The result is a cut-fill contours map (Exhibit 50.4-1) with the cut areas shown as red contours, and the fill areas shown as blue contours. The cut and fill areas are then subdivided into polygons and the cut and fills are balanced by taking extra cut to polygons that require fill. The result is the cut-fill blocks map (Exhibit 50.4-1).

The CAD software gives the volume and centroid of each block. The centroids are used to calculate haulage distances and grades, except in the case of deep pits and ramps where haulage is assumed to be to the crest where the material can be pushed over the edge. The haulage profiles and grades are weight averaged by volume to give an average distance and grade for each equipment type.

All bond earthmoving activities are tabulated in Worksheet 3 as follows:

Worksheet 50.5 Dozers
Worksheet 50.8 Loaders
Worksheet 50.9 Trucks
Worksheet 50.11 Scrapers
Worksheet 50.12 Graders
Worksheet 50.15 Drilling and Blasting of Highwalls

Quantities from these worksheets are used as input to Worksheets 50.5 through 50.12, where equipment hours are calculated. Worksheet 50.13 uses these hours to calculate earthmoving costs. The earthmoving costs are totaled in Worksheet 50.16, Item 2. In addition to regrade activities, earthmoving includes spoil mitigation, topdressing placement, and concrete disposal.

Once regrading and/or facilities removal activities have been completed in an area, required suitable root zone mitigation and/or topdressing material is placed on these areas (Exhibit 50.4-2).

Suitable spoil and regolith/topdressing material (either stockpiled or in situ) are used to complete the 4-ft suitable root zone material requirements on spoil surfaces. Stockpiled and/or in-situ regolith/topdressing material is used to complete the topdressing material depth requirement on all reclaimed surfaces. Refer to Section 36 (Post-Reclamation Soil) for additional information regarding root zone material and topdressing replacement requirements.

50.4.1.2.1 Equipment Selection

Large earthmoving equipment was selected assuming that a competent, qualified contractor will be doing the reclamation work using their own equipment.

50.4.1.2.2 Equipment Productivity and Costs

Reclamation activities will take place with a 20-shift-per-week schedule. Equipment ownership and operating costs are tabulated in Table 50-A-23 (Appendix 50.A). Equipment operator wage rates are listed in Table 50-A-24 (Appendix 50.A).

For haul routes greater than 600 ft, scrapers are more economical than dozers. For haul routes greater than 3,000 ft, dump trucks are more economical than scrapers. Dozers are assumed to work alone with no support equipment other than a lowboy for transport. Truck and scraper fleets both require load and dump dozers, and half-time water truck and grader for haul road maintenance. All fleets are assigned light plants for night work. Fuel and lube trucks are included in the fuel costs (Table 50-A-23 in Appendix 50.A).

Productivities for each particular activity are calculated in Worksheets 50.5 through 50.12 (Appendix 50.A), using the material properties and haulage profile pertaining to the task.

50.4.1.3 Revegetation

After regrading, the bonded areas will be graded with graders and then these areas and facilities areas will be topdressed as noted in previously. After topdressing, revegetation activities will commence. This involves seeding, crimping, mulching, and irrigation as described in Section 37 (Post-Reclamation Vegetation). Costs are noted in Appendix 50.A, Worksheet 50.14.

50.4.1.4 Miscellaneous

No miscellaneous costs were required for the initial permit term bond scenario.

50.4.3 Indirect Reclamation Costs

Mobilization and demobilization costs are assumed to be 1% of the direct costs. Contingencies are 2% of the direct costs; the engineering redesign fee, the contractor profit and overhead, and the reclamation fee are set at 1.8%, 15.0%, and 3.9% of direct costs respectively, per agreement with OSM staff.

50.4.4 Total Performance Bond Cost

The total performance bond cost is the sum of the direct and indirect costs and is shown in Worksheet 50.16, Appendix 50.A.

Appendix 50.A

Bond Calculation Worksheets and Tables

Worst Case Bond Scenario 2025

APPENDIX 50.A
BOND CALCULATION WORKSHEETS AND TABLES
WORST CASE BOND SCENARIO 2025

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ITEM **TITLE**

Figures

Worksheets

Tables

BOND CALCULATION WORKSHEETS
WORST CASE BOND SCENARIO

Updated September 2025

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT
BOND AMOUNT CALCULATION

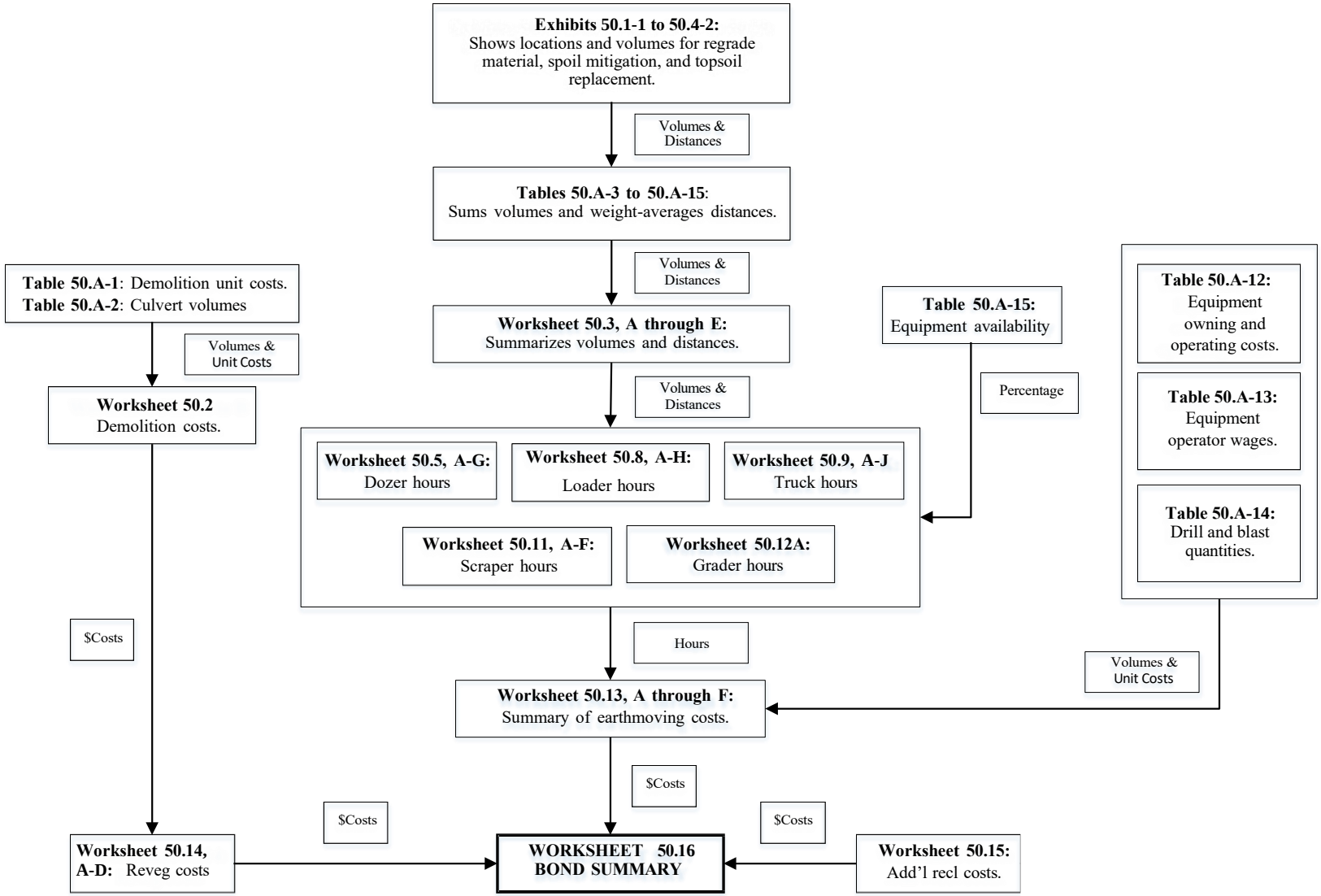

Figure 50.A-1 Worksheet Flow Diagram

Worksheets

2025 No Name Bond Worksheets

Project No Name Mine

Date September 2025

WORKSHEET 50.1

DESCRIPTION OF WORST CASE BONDING SCENARIO

Determination of Maximum Reclamation Requirements

The point at which reclamation liabilities were the greatest occurred during the five-year permit term. The worst case scenario for the No Name pit represented in this bond estimate included the maximum length of pit in the permit area with the Boxcut and topsoil removal. Unit cost will utilize the Navajo Mine 2024 updated cost for demolition, equipment, seeding and mulching and labor.

Dozers will be utilized to push the maximum amount of material into the pits. Any material the dozers cannot move in a cost effective manner will be moved by scrapers or truck/loader fleets. Any areas that do not pass the spoil sampling tests will be mitigated by one of the approved methods in the permit prior to topsoil placement. For the purpose of this reclamation bond calculation, the mitigation rates utilized for regraded areas is 10.8% for No Name. After all spoil is regraded, final pits will be shaped to their final contours, and mitigation material will be placed where required; topsoil will be placed, revegetation will occur with an assumed 20% failure rate and the mine facilities will be removed. Facility areas will be mitigated as required and topsoiled, at this time no facilities are planned in the No Name. The mine will be ready to begin phased bond release with the ultimate goal of total bond release.

Project: No Name Permit

Date: Apr-2026

TABLE 50.A-1

DEMOLITION UNIT COSTS

Means Reference Number (1)			ID	Item	Unit	2024 Bare Costs
Building Demolition, Large Urban Projects (incl. 20 mile haul) No Foundation or Dump Fees, C.F. is vol. of building standing						
02 41	16.13	0020	1	Large urban buildings, steel	CF	$0.43
02 41	16.13	5000	1a	Large urban buildings, steel, no interior walls reduce by 30%	CF	$0.30
02 41	16.13	0050	2	Large urban buildings, concrete	CF	$0.60
02 41	16.13	5000	2a	Large urban buildings, concrete, no interior walls reduce by 30%	CF	$0.42
02 41	16.13	0080	3	Large Urban buildings, masonry	CF	$0.46
02 41	16.13	5000	3a	Large Urban buildings, masonry, no interior walls reduce by 30%	CF	$0.32
02 41	16.13	0100	4	Large urban buildings, mixture of types	CF	$0.46
02 41	16.13	0500	5	Small urban buildings, steel	CF	$0.42
02 41	16.13	5000	5a	Small urban buildings, steel, no interior walls reduce by 30%	CF	$0.29
02 41	16.13	0600	6	Small urban buildings, concrete	CF	$0.54
02 41	16.13	5000	6a	Small urban buildings, concrete, no interior walls reduce by 30%	CF	$0.38
02 41	16.13	0650	7	Small Urban buildings, masonry	CF	$0.42
02 41	16.13	5000	7a	Small Urban buildings, masonry, no interior walls reduce by 30%	CF	$0.29
Building Demolition, Footings and Foundations, Floors, Concrete Slab on Grade						
02 41	16.17	0240	8	Floor, 4" concrete slab, plain	SF	$0.84
02 41	16.17	0280	8a	Floor, 4" concrete slab, mesh reinforced	SF	$1.05
02 41	16.17	0300	8b	Floor, 4" concrete slab, mesh reinforced, rods	SF	$0.93
02 41	16.17	0400	9	Floor, 6" concrete slab, plain	SF	$1.05
02 41	16.17	0420	9a	Floor, 6" concrete slab, mesh reinforced	SF	$1.31
02 41	16.17	0440	9b	Floor, 6" concrete slab, mesh reinforced, rods	SF	$1.16
02 41	16.17	0420	10	Floor, 8"concrete slab, mesh reinforced	SF	$1.19
02 41	16.17	0440	10a	Floor, 8"concrete slab, mesh reinforced, rods	SF	$1.55
1 41	16.16	0439	11	Floor, 12"concrete slab, mesh reinforces rods	SF	$2.32
02 41	16.17	1000	12	Footings, concrete, 1' x 2'	LF	$13.97
02 41	16.17	2600	12a	Footings, concrete, 1' x 2', average reinforcing + 10%	LF	$15.37
02 41	16.17	1080	13	Footings, concrete, 1.5' x 2'	LF	$16.76
02 41	16.17	2600	13a	Footings, concrete, 1.5' x 2', average reinforcing + 10%	LF	$18.44
02 41	16.17	1120	14	Footings, concrete 1.5' x 3'	LF	$20.92
02 41	16.17	2600	14a	Footings, concrete, 1.5' x 3', average reinforcing + 10%	LF	$23.01
02 41	16.17	1140	15	Footings, concrete, 2' x 3'	LF	$23.92
02 41	16.17	2600	15a	Footings, concrete, 2' x 3', average reinforcing + 10%	LF	$26.31
02 41	16.17	1140	16	Footings, concrete, 2' x 6'	LF	$47.84
02 41	16.17	2600	16a	Footings, concrete, 2' x 6', average reinforcing + 10%	LF	$52.62
02 41	16.17	1140	51	Footings, concrete, 2' x16', average reinforcing + 10%	LF	$140.33

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TABLE 50.A-1

DEMOLITION UNIT COSTS

Means Reference Number (1)			ID	Item	Unit	2024 Bare Costs
02 41	16.17	2400	17	Walls, concrete, 3.5" thick	SF	$0.41
02 41	16.17	2040	18	Walls, concrete, 6" thick	SF	$0.70
02 41	16.17	2600	18a	Walls, concrete, 6" thick, Average reinforcing + 10%	SF	$0.77
02 41	16.17	2420	19	Walls, concrete, 8" thick	SF	$1.19
02 41	16.17	2600	19a	Walls, concrete, 8" thick, Average reinforcing + 10%	SF	$1.31
02 41	16.17	2440	49	Walls, concrete, 10" thick	SF	$1.39
02 41	16.17	2600	49a	Walls, concrete, 10" thick, Average reinforcing + 10%	SF	$1.53
02 41	16.17	2500	50	Walls, concrete, 12" thick	SF	$1.68
02 41	16.17	2600	50a	Walls, concrete, 12" thick, Average reinforcing + 10%	SF	$1.85
02 41	16.17	2500	20	Walls, concrete, 18" thick, Average reinforcing + 10%	SF	$2.95
02 41	16.17	2500	21	Walls, concrete, 2' thick, Average reinforcing + 10%	SF	$3.93
02 41	16.17	4250	22	Disposal, Concrete/Masonry, Up to 5 mile haul	CY	$22.12
02 41	13.60	1650	23	Fencing, 5-strand barbed wire	LF	$2.77
02 41	13.60	1700	24	Fencing, chain link, posts and fabric, 8' to 10' high	LF	$3.58
02 41	13.33	3500	25	Rail removal, ties and track	LF	$15.22
02 41	13.33	3600	26	Remove Ballast	CY	$5.54
02 41	13.30	4200	27	Sidewalk, concrete, mesh reinforced (converted to SF)	SF	$1.18
02 41	13.17	5050	28	Pavement, bituminous, 4"- 6" (converted to SF)	SF	$0.75
02 41	13.17	5200	29	Driveway, concrete, 6", mesh reinforced (converted to SF)	SF	$1.23
02 41	13.17	5500	30	Concrete, 7" to 24" thick, reinforced (converted to CF)	CF	$4.36
02 41	16.13	0500	31	Steel Tanks, Piping & Culvert (Use small building, steel)	CF	$0.42
31 22	13.2	280	55	Rough Grading Sites 75,100 - 100,000 S.F.	EA	$5,894.53
02 41	13.70	0600	40	Gabions, 18-36 inches deep	SY	$167.93
02 41	13.43	0200	41	Box Culvert 8'x12'x8'	LF	$27.92
02 41	13.86	0100	42	Road Rug (Geotextile Lining Material use Synthetic Grass Cost	SF	$0.39
02 41	13.30	0800	43	Guard Rail, corrugated steel	LF	$17.23
02 41	13.62	0400	44	Chain Link Gates, 20' Width	EA	$158.76

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TABLE 50.A-1

DEMOLITION UNIT COSTS

Means Reference Number (1)	ID	Item	Unit	2024 Bare Costs
02 41 19.19 3080		Machine Loading Rubbish Truck	CY	$21.60
02 41 19.19 5100		Rubbish Haul 20 CY Truck	MI	$0.98
Estimation (see 3 below)		Landfill Disposal Fee	CY	$17.05
Calculated	45	Rubbish Disposal (Concrete and Asphalt, 40 MI Haul)	CY	$40.61
Calculated	56	Rubbish Disposal (Building Debris, add. 40 MI and Disposal Fe	CY	$19.01
Unit Costs from 2019 Inflated (see 2 below)	32	69 kV Power Lines	MI	$11,085.58
	33	Conveyor	LF	$35.93
	34	Water Wells	EA	$2,895.23
3rd Party Estimate (see 4 below)	35	Seedbed Prep per Acre	Acre	**$325.41**
		16M Grader w/ ripper @1.1 acres/hour[7]		$215.41
		Chisel Plow[4]		$110.00
	36	Seeding, Mulching, Irrigation per Acre	Acre	**$2,536.53**
		Scarify and Drill Seed[4]		$138.00
		Dribble Seed[4]		$32.00
		Mulch[4]		$203.00
		Crimp[4]		$127.00
		Seed Material[4a]		$202.52
		Mulch Materials (2 ton per acre @ $203 per ton)[4]		$406.00
		First Year Irrigation[8]		$1,038.55
		Second Year Irrigation[8]		$389.46
Wage Rates from Table 50-B-24	37	Drill Operator (Use Driller)	Labor Hour	$21.00
	38	Blast Laborer (use regular Laborer)	Labor Hour	$18.23
	39	Blast Foremen	Labor Hour	$27.35
Estimation (see 5 below)	46	Primacord - aka detcord	LF	$0.26
	47	ANFO	lb	$0.26
	48	Primers - 3 lb type	EA	$6.56
3rd Party estimate (see 6 below)		Rip-Rap	CY	$157.77

1). R.S. Means Online, "Heavy Construction Cost Data," 2024 Unit Costs for Farmington NM

2). Escalation based on RSMeans Historical Cost Indices, see RSMeans Table

3). 3rd Party Estimate from Landfill near Mine Location

4). 3rd Party Estimate from Rocky Mountain Reclamation

4a). 3rd Party Estimate from Rocky Mountain Reclamation (2019)

5). Cost obtained from similar mining operation operating in the Western US (2019)

6). Cost obtained from Michele's Ready Mix, Rock, & Recycle, Inc. at a rate of $87.65/ton delivered and a density of 1.8 tons per cubic yard

7). Production rate and hourly rate from Bond Estimate grading

8). Site specific estimate (2019)

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TABLE 50.A-2
CULVERT VOLUMES FOR DEMOLITION AND REMOVAL

CULVERT ID	Diameter [in]	Length [ft]	Volume [ft^3]
0	0	0	-
		Total	**-**

TABLE 50.A-3
BACKFILLING OF PONDS AND IMPOUNDMENTS

Pond	Pond Volume		Dam[2]					Dozer Push Distance [ft]	Backfill Volume[3] [bcy][1]
	[ac-ft]	[bcy][1]	Bottom [ft]	Top [ft]	Height [ft]	Length [ft]	Volume [bcy][1]		
Pond 501	1.2	1,936	-	-	-	-	Incised	200	1,936
Pond 502	6.8	10,971	-	-	-	-	Incised	200	10,971
Pond 503	3.9	6,292	-	-	-	-	Incised	200	6,292
		-	-	-	-	-	-	0	-
		-	-	-	-	-	-	0	-
		-	-	-	-	-	-	0	-
		-	-	-	-	-	-	0	-
		-	-	-	-	-	-	0	-
		-	-	-	-	-	-	0	-
		-	-	-	-	-	-	0	-
		-	-	-	-	-	-	0	-
		-	-	-	-	-	-	0	-
		-	-	-	-	-	-	0	-
TOTAL		**19,199**	**Weighted Average Push Distance [ft]**					**200.00**	**19,199**

(1) BCY = Bank cubic yards

(2) Dam volume is the trapezoidal cross-sectional area times the length.

(3) Backfill volume is the smaller of the dam volume or pond volume.

This assumes that either the pond is filled or the dam is removed and pushed into the pond.

TABLE 50.A-4
ROAD RIPPING

Description	Length [ft]	Width [ft]	Area [acres]	Equipment
No Name Project - West Haulroad Road	774	72	1.28	Cat 16G Motor Grader
			-	Cat 16G Motor Grader
			-	Cat 16G Motor Grader
			-	Cat 16G Motor Grader
			-	Cat 16G Motor Grader
Total			**1.28**	

TABLE 50-A-7
NO NAME BOND REGRADE EARTHMOVING
DOZERS

7-Apr-26

Cut Block	Total Volume cu. yds.	Permanent Program %	Permanent Volume cu. yds.	Fill Block	Centroid Distance ft.	Planned Adj. Distance ft.	Cut Elev. ft	Fill Elev. ft	Grade %	Comments
No Name										
REGRADE 1	407,670	100%	407,670	REGRADE 1	334	334			-5	Straight or Radial Push
REGRADE 2	645,138	100%	645,138	REGRADE 2	352	352			-5	Straight or Radial Push
REGRADE 3	482,407	100%	482,407	REGRADE 3	259	259			-5	Straight or Radial Push
REGRADE 4	388,194	100%	388,194	REGRADE 4	223	223			-5	Straight or Radial Push
REGRADE 5	563,454	100%	563,454	REGRADE 5	271	271			-5	Straight or Radial Push
REGRADE 6	297,950	100%	297,950	REGRADE 6	252	252			-5	Straight or Radial Push
REGRADE 7	189,952	100%	189,952	REGRADE 7	228	228			-5	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
0	0	100%	0	0	0	0			0	Straight or Radial Push
	Totals			Weighted Average						
No Name Project	**2,974,765**	**100%**	**2,974,765**		**284**	**284**			**-5.0**	
GRAND TOTAL	**2,974,765**		**2,974,765**							

Total yards go to Worksheet 3

TABLE 50-A-10
NO NAME BOND REGRADE EARTHMOVING
TRUCKS AND LOADER

7-Apr-26

Cut Block	Total Volume cu. yds.	Permanent Program %	Permanent Volume cu. yds.	Fill Block	Centroid Distance ft.	Planned Adj. Distance ft.	Cut Elev. ft	Fill Elev. ft	Grade %	Comments
No Name										
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
0	0	100%	0			0			0	Adj. Dist. reflects haul route
Totals				**Weighted Average**						
No Name	**0**	**100%**	**0**			**-**			**0.0**	
GRAND TOTAL	**0**		**0**							

Total yards go to Worksheet 3

TABLE 50-A-13
NO NAME BOND REGRADE TOPSOILING
TRUCKS AND LOADER

7-Apr-26

Cut Block	Total Volume cu. yds.	Area acres	Perm. Topsoil Volume cu. yds.	Root Zone Volume cu. yds.	Fill Block	Centroid Distance ft.	Planned Adj. Distance ft.	Cut Elev. ft	Fill Elev. ft	Grade %	Comments
No Name Project	315,764	242.1	315,764		**No Name Project**		9,242			4.00%	Adj. Dist. reflects haul route
TOTAL	315,764	242.1	315,764		Weighted Average:		9,242			4.00%	

Total yards and acres go to Worksheet 3

Assumption:

0.81 feet topsoil replacement depth (537,739 in stockpile)

TABLE 50-A-16
NO NAME BOND REGRADE MITIGATION
TRUCKS AND LOADER

7-Apr-26

Cut Block	Total Volume cu. yds.	Area acres	Topsoil Volume cu. yds.	Perm. Root Zone Volume cu. yds.	Fill Block	Centroid Distance ft.	Planned Adj. Distance ft.	Cut Elev. ft	Fill Elev. ft	Grade %	Comments
No Name Project	148,715	242.1		148,715	**No Name Project**		9,242			4.00%	Adj. Dist. reflects haul route
TOTAL	148,715	242		148,715	Weighted Average		9,242			4.00%	

Total yards go to Worksheet 3

Assumptions:

10.8%	of all reclaim acres require mitigation
4	feet total of mitigation and topsoil
3.5	feet of mitigation "suitable" materials Area 4
0.5	feet topsoil replacement depth Area 4

TABLE 50-A-18
NO NAME BOND REGRADE EARTHMOVING
SCRAPERS

7-Apr-26

Cut Block	Total Volume cu. yds.	Permanent Program %	Permanent Volume cu. yds.	Fill Block	Centroid Distance ft.	Planned Adj. Distance ft.	Cut Elev. ft	Fill Elev. ft	Grade %	Comments
Area 4 Project										
RG 1 to RG 4	19,343	100%	19,343			1,433			-2%	Adj. Dist. reflects haul route
RG 1 to RG 5	112,889	100%	112,889			1,579			1%	Adj. Dist. reflects haul route
RG 2 to RG 5	22,771	100%	22,771			1,262			1%	Adj. Dist. reflects haul route
RG 3 to RG 6	5,854	100%	5,854			1,187			1%	Adj. Dist. reflects haul route
Totals				**Weighted Average**						
No Name Project	**160,857**	**100%**	**160,857**			**1,502**			**0.0**	
GRAND TOTAL	**160,857**		**160,857**							

Total yards go to Worksheet 3

TABLE 50-A-21
NO NAME BOND REGRADE TOPSOILING
SCRAPERS

7-Apr-26

Cut Block	Total Topsoil Volume cu. yds.	Area acres	Perm. Topsoil Volume cu. yds.	Root Zone Volume cu. yds.	Fill Block	Centroid Distance ft.	Planned Adj. Distance ft.	Cut Elev. ft	Fill Elev. ft	Grade %	Comments
NO NAME Project					**NO NAME Project**						Adj. Dist. reflects haul route
TOTAL	-	-	-		Weighted Average:						

Total yards and acres go to Worksheet 3

Assumption:

0.48 feet topsoil replacement depth Area 4
Used Marston's weighted average of 2970 feet haul for topsoil on Area 4 North

TABLE 50-A-22
NO NAME BOND REGRADE MITIGATION
SCRAPERS

7-Apr-26

Cut Block	Total Volume cu. yds.	Area acres	Topsoil Volume cu. yds.	Root Zone Volume cu. yds.	Fill Block	Centroid Distance ft.	Planned Adj. Distance ft.	Cut Elev. ft	Fill Elev. ft	Grade %	Comments
No Name Project	0	0.0			**No Name Project**		0			0.00%	Adj. Dist. reflects haul route
TOTAL	-	-		-	Weighted Average		-			0.00%	

Total yards go to Worksheet 3

Assumptions:

10.8%	of all reclaim acres require mitigation
4.0	feet total of mitigation and topsoil

Assume that all mitigation suitable materials will be at the topsoil pile.

TABLE 50-A-23

EQUIPMENT OWNERSHIP AND OPERATING COSTS

Equipment Model		Ownership Costs ($/hr)			Overhaul Costs ($/hr)				Field Repair and Fuel Costs ($/hr)												2024 Total [$/hr]
		Depreciation	Depreciation Multiplier	**Adjusted Depreciation**	Labor	Labor Multiplier	**Adjusted Labor**	**O/H Parts**	Labor	Labor Multiplier	**Adjusted Labor**	**Parts**	Fuel	Fuel Multiplier	**Adjusted Fuel**	**Lube**	Tires	Tire Multiplier	**Adjusted Tires**	**GEC (2)**	
D9R Dozer	Semi-U Blade	$ 44.77	0.83	**$ 37.16**	$ 12.43	0.41	**$ 5.16**	**$ 59.13**	$ 14.55	0.41	**$ 6.04**	**$ 57.59**	$ 54.01	0.84	**$ 45.29**	**$ 10.42**	**$ -**	1.00	**$ -**	**$ 9.60**	**$ 230.38**
D10R Dozer	Semi-U Blade	$ 57.98	0.83	**$ 48.12**	$ 12.43	0.41	**$ 5.16**	**$ 75.59**	$ 14.55	0.41	**$ 6.04**	**$ 73.62**	$ 74.32	0.84	**$ 62.32**	**$ 13.85**	**$ -**	1.00	**$ -**	**$ 12.27**	**$ 296.97**
D11R Dozer	U Blade	$ 112.96	0.83	**$ 93.76**	$ 12.43	0.41	**$ 5.16**	**$ 135.65**	$ 14.55	0.41	**$ 6.04**	**$ 132.12**	$ 110.05	0.84	**$ 92.28**	**$ 23.51**	**$ -**	1.00	**$ -**	**$ 22.02**	**$ 510.53**
631E Scraper	Series II	$ 109.22	0.83	**$ 90.65**	$ 6.87	0.41	**$ 2.85**	**$ 114.31**	$ 10.04	0.41	**$ 4.16**	**$ 113.39**	$ 70.90	0.84	**$ 59.45**	**$ 12.74**	**$ 8.48**	1.00	**$ 8.48**	**$ 4.83**	**$ 410.87**
992G Loader		$ 89.64	0.83	**$ 74.40**	$ 7.58	0.41	**$ 3.14**	**$ 49.94**	$ 9.25	0.41	**$ 3.84**	**$ 55.09**	$ 79.79	0.84	**$ 66.91**	**$ 19.19**	**$ 68.46**	1.00	**$ 68.46**	**$ 7.50**	**$ 348.47**
777D Truck		$ 64.05	0.83	**$ 53.16**	$ 19.25	0.41	**$ 7.99**	**$ 45.63**	$ 11.82	0.41	**$ 4.90**	**$ 28.16**	$ 57.80	0.84	**$ 48.47**	**$ 19.93**	**$ 35.36**	1.00	**$ 35.36**	**$ -**	**$ 243.60**
16M Grader		$ 53.87	0.83	**$ 44.71**	$ 7.49	0.41	**$ 3.11**	**$ 49.47**	$ 6.24	0.41	**$ 2.59**	**$ 47.97**	$ 39.40	0.84	**$ 33.04**	**$ 9.70**	**$ 13.64**	1.00	**$ 13.64**	**$ 4.00**	**$ 208.23**
Water Truck	10,000 gal	$ 37.31	0.83	**$ 30.97**	$ 17.73	0.41	**$ 7.35**	**$ 19.98**	$ 10.05	0.41	**$ 4.17**	**$ 38.57**	$ 63.62	0.84	**$ 53.35**	**$ 10.38**	**$ 10.47**	1.00	**$ 10.47**	**$ -**	**$ 175.24**
Small Backhoe	Cat 450E	$ 23.06	0.83	**$ 19.14**	$ 9.32	0.41	**$ 3.87**	**$ 19.45**	$ 12.30	0.41	**$ 5.10**	**$ 17.20**	$ 20.00	0.84	**$ 16.77**	**$ 3.50**	**$ 2.01**	1.00	**$ 2.01**	**$ 2.44**	**$ 89.48**
Grader Ripper		$ 3.18	0.83	**$ 2.64**	$ 0.05	0.41	**$ 0.02**	**$ 1.05**	$ 1.04	0.41	**$ 0.43**	**$ 1.55**	$ -	0.84	**$ -**	**$ 0.20**	**$ -**	1.00	**$ -**	**$ 1.29**	**$ 7.18**
16M Grader, ripping		$ 57.05	0.83	**$ 47.35**	$ 7.54	0.41	**$ 3.13**	**$ 50.52**	$ 7.28	0.41	**$ 3.02**	**$ 49.52**	$ 39.40	0.84	**$ 33.04**	**$ 9.90**	**$ 13.64**	1.00	**$ 13.64**	**$ 5.29**	**$ 215.41**
Pickup Truck	1 ton 4x4	$ 2.11	0.83	**$ 1.75**	$ 0.55	0.41	**$ 0.23**	**$ 1.25**	$ 0.69	0.33	**$ 0.23**	**$ 1.22**	$ 21.89	0.84	**$ 18.36**	**$ 2.52**	**$ 0.88**	1.00	**$ 0.88**	**$ -**	**$ 26.44**
Mechanic truck	1.75 ton 4x4	$ 1.71	0.83	**$ 1.42**	$ 0.55	0.41	**$ 0.23**	**$ 1.02**	$ 0.69	0.33	**$ 0.23**	**$ 0.98**	$ 22.27	0.84	**$ 18.67**	**$ 2.50**	**$ 0.71**	1.00	**$ 0.71**	**$ -**	**$ 25.76**
DMM2 Drill		$ 70.27	0.83	**$ 58.32**	$ 8.73	0.41	**$ 3.62**	**$ 78.76**	$ 10.06	0.41	**$ 4.17**	**$ 137.26**	$ 111.54	0.84	**$ 93.53**	**$ 17.07**	**$ -**	1.00	**$ -**	**$ 13.73**	**$ 406.47**

The Total $/hr are used in Worksheet 13

1) CRG - PRIMEDIA Equipmentwatch, "Cost Reference Guide for Construction Equipment," 2024

2) GEC - Ground Engaging Components

Multipliers are calculated as follows:

Depreciation:	Assumes two shifts per day Assumes		**0.83000**	
Labor - Heavy Equipment Mechanic: Field Repair and Fuel Costs				
((0.08)(CRG Wages) + Local Wages) / CRG Wages				
	CFG Wages	$76.39 /hr		
	Local Wages	$25.57 /hr*		*Davis Bacon Rate for Powered Equipment Mechanic per
			0.41	General Decision Number: NM20240035 03/01/2024 NM35
Labor - Light Vehicle Employee				
		$76.39 /hr		
		$25.57 /hr*		*Davis Bacon Rate for Powered Equipment Mechanic per
			0.33	General Decision Number: NM20240035 03/01/2024 NM35
Parts:	No adjustment		**1.00**	
Fuel (Diesel):	CFG Cost	$4.15 /gal		
	Local Cost	$3.48 /gal*		*3rd Party Estimate from Senergy Petroleum
	Fuel Multiplier		**0.84**	
Lube:	No adjustment		**1**	
Tires:	No adjustment		**1**	

TABLE 50-A-24
EQUIPMENT OPERATOR WAGE RATES

Equipment Operator	Operator Rates [$/hr][1]
D9R Dozer	$21.00
D10R Dozer	$21.00
D11R Dozer	$21.00
16M Grader	$19.02
631E Scraper	$18.30
992G Loader	$18.30
777D Truck	$15.53
Water Truck	$15.53
Tractor	$18.30
Track Hoe	$25.04
Small Backhoe	$25.04
Small Dumptruck	$15.53
Drill Operator	$21.00
Blast Laborer	$18.23
Blast Foremen	$27.35
Pickup Truck	$18.23

1) Labor Rates including burden, excluding Profit&Overhead, from wdol.gov DBA

Project: No Name Permit
Date: Apr-2026

TABLE 50.A-25

DRILL AND BLAST QUANTITIES

Area	Volume [yd^3]	Equipment	Comments
No Name Project	0	Ingersoll-Rand DMM2	Drilling and Blasting pit highwalls
Total	**0**		

TABLE 50-A-26
BOND EQUIPMENT AVAILABILITIES

EQUIPMENT	AVERAGE AVAILABILITY
Front-End Loaders	90.0%
Haul Trucks	90.0%
Dozers	90.0%
Scrapers	90.0%
Drills	90.0%
Motor Graders	90.0%

NOT UPDATED - NO NEW BUILDINGS FOR THIS PLAN

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50. 2

STRUCTURE DEMOLITION AND DISPOSAL COST SUMMARY

Structure							Buildings / Utilities / Other Structures				Floors, Surfaces & Walls				Footings			
							Volume [ft3]	Ref	Unit Cost	Cost	Area [ft2]	Ref	Unit Cost	Cost	Length [ft]	Ref	Unit Cost	Cost
No Name																		
Buildings - Above Concrete	Length (ft)	Width (ft)	Area (sf)	Height (ft)	#	Construction												
							-	4	-	$0								
							-	1	-	$0								
							-	1	-	$0								
							-	1	-	$0								
							-	1	-	$0								
							-	1a	-	$0								
							-	1	-	$0								
							-	1	-	$0								
							-	1a	-	$0								
							-	1	-	$0								
							-	5a	-	$0								
							-	1a	-	$0								
							-	2a	-	$0								
							-	1a	-	$0								
							-	1	-	$0								
Concrete - Footings	Length (ft) on Long Axis	Length (ft) on Short Axis			#	Construction												
															-	12a	-	$0
															-	12a	-	$0
															-	15a	-	$0
															-	12a	-	$0
															-	12a	-	$0
															-	12a	-	$0
															-	12a	-	$0
															-	15a	-	$0
															-	12a	-	$0
															-	15a	-	$0
															-	13a	-	$0
															-	12a	-	$0
															-	15a	-	$0
															-	12a	-	$0
															-	12a	-	$0

NOT UPDATED - NO NEW BUILDINGS FOR THIS PLAN

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50. 2
STRUCTURE DEMOLITION AND DISPOSAL COST SUMMARY

Structure							Buildings / Utilities / Other Structures				Floors, Surfaces & Walls				Footings			
							Volume [ft3]	Ref	Unit Cost	Cost	Area [ft2]	Ref	Unit Cost	Cost	Length [ft]	Ref	Unit Cost	Cost
Concrete - Floors, Surfaces & Walls	Length (ft)	Width (ft)	Area (sf)		#	Construction												
											-	8b	-	$0				
											-	8b	-	$0				
											-	11	-	$0				
											-	9b	-	$0				
											-	9b	-	$0				
											-	8b	-	$0				
											-	8b	-	$0				
											-	11	-	$0				
											-	9b	-	$0				
											-	11	-	$0				
											-	10a	-	$0				
											-	8b	-	$0				
											-	11	-	$0				
											-	8b	-	$0				
											-	8b	-	$0				
Concrete/Asphalt - Aprons & Driveways	Length (ft)	Width (ft)	Area (sf)		#	Construction												
											-	28	-	$0				
											-	28	-	$0				
											-	28	-	$0				
											-	29	-	$0				
											-	28	-	$0				
											-	29	-	$0				
											-	11	-	$0				
											-	9b	-	$0				
													-					
													-					
													-					
													-					
													-					
											-	11	-	$0				
													-					
													-					
											-	11	-	$0				
													-					
											-	8b	-	$0				
Concrete - CSBF Below Grade	Height (ft)	Width (ft)	Area (sf)	Thick (ft)	#	Construction												
											-	50a	-	$0				
											-	21	-	$0				
											-	50	-	$0				
Utilities			Length (lf)			Construction	Length (lf)											
							-	25	-	$0								
							-	25	-	$0								
							-	32	-	$0								
							-	26	-	$0								

NOT UPDATED - NO NEW BUILDINGS FOR THIS PLAN

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50. 2

STRUCTURE DEMOLITION AND DISPOSAL COST SUMMARY

Structure							Buildings / Utilities / Other Structures				Floors, Surfaces & Walls				Footings			
							Volume [ft3]	Ref	Unit Cost	Cost	Area [ft2]	Ref	Unit Cost	Cost	Length [ft]	Ref	Unit Cost	Cost
Other Structures	Length (ft)	Width (ft)	Area (sf)	Capacity (gal)	#	Construction												
							-	24	-	$0								
							-	24	-	$0								
							-	20	-	$0								
							-	31	-	$0								
							-	11	-	$0								
							-	11	-	$0								
							-	11	-	$0								
							-	28	-	$0								
							-	28	-	$0								
							-	28	-	$0								
							-	28	-	$0								
							-	28	-	$0								
							-	71	-	$0								
							-	31	-	$0								
Conveyors	Length (ft)	Width (ft)	Area (sf)		#	Construction												
							-	33	-	$0								
							-	29	-	$0								
							-	11	-	$0								
TOTAL DEMOLITION COST																		**$0**

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.3
MATERIAL HANDLING SUMMARY SHEET

Acty	Description	Quantity	Swell Factor	Adjusted Quantity	Push/Haul Distance [ft]	Push/Haul Grade [%]	Equipment
	NO NAME Permit						
1	Drill & Blast	0 BCY					DMM2
2	Grading - Dozer	2,974,765 LCY	1	2,974,765 LCY	284	-5.0%	D11R
3	Grading - Loader/Truck	0 LCY	1	0 LCY	0	0.0%	992G/777D
4	Grading - Scrapers	160,857 LCY	1	160,857 LCY	1,502	0.0%	637G
5	Topsoil - Loader/Truck	315,764 BCY	1.142	360,602 LCY	9,242	4.0%	992G/777D
6	Topsoil - Scrapers	0 BCY	1.142	0 LCY	0	0.0%	637G
7	Mitigation - Loader/Truck	148,715 BCY	1.142	169,832 LCY	9,242	4.0%	992G/777D
8	Mitigation - Scrapers	0 BCY	1.142	0 LCY	0	0.0%	637G
9	Revegetation	242 ac.					
10							
22	**Other**						
23	Backfill Ponds	19,199 BCY	1.142	21,925 LCY	200	0.00%	D11R
24	Regrade Haul Roads	0 LCY	1	0 LCY	0	0.00%	992G/777D
25		0 LCY	1	0 LCY	0	0.00%	D11R
26	Backfill Pinabete Diversion	0 BCY	1.142	0 LCY	0	0.00%	992G/777D
27	Regrade Truck Dump Area	0 LCY	1	0 LCY	0	0.00%	992G/777D
28	Regrade Haul Roads	0 BCY	1.142	0 LCY	0	0.00%	637G
29	Road Ripping No Name Project	1 ac.					16H
30							
31							
32	Intentionally Left Blank	0			100	1.00%	
33	Grading Topsoil Areas	0			100	1.00%	16H
34	Revegetation Roads Area 4 Project	1 ac.					
35							
36							
37							
38							
39							
40							

Swell factor = 1.142 Weighted Average Between In-Situ and Stockpile Swells

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.5A
PRODUCTIVITY AND HOURS REQUIRED FOR DOZER USE

Earthmoving Activity:

2 Grading - Dozer

Characterization of Dozer Used (type, size, etc.)[3]

Caterpillar D11R, Universal blade

Description of Dozer Use (origin, destination, grade, haul distance, material, etc.)

-5.0% grade on average
284 ft typical dozer push distance
2,700 Loose clay and sand density [lb/yd^3]

Productivity Calculations[3]:

Operating Adjustment Factor = 0.9 (operator factor) * 1.0 (material factor) * 0.8 (work hour factor) * 1.1 (grade factor) * 0.9 (weight correction factor) * 0.9 (visibility factor) * 1.0 (elevation factor) * 1.1 (production factor) = 0.7

Net Hourly Production = 0.7 (operating adjustment factor) * 1,110 LCY/hr (Normal Hourly Production) = 768 LCY/hr

Hours Required[2] = 2,974,765 LCY (volume to be moved[1]) / 768 LCY/hr (net hourly production) = 3,875.8 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 5B
PRODUCTIVITY AND HOURS REQUIRED FOR DOZER USE

Earthmoving Activity:

23 Backfill Ponds

Characterization of Dozer Used (type, size, etc.)[3]

Caterpillar D11R, Universal blade

Description of Dozer Use (origin, destination, grade, haul distance, material, etc.)

0.0% grade on average
200 ft typical dozer push distance
2,700 Loose clay and sand density [lb/yd^3]

Productivity Calculations[3]:

Operating Adjustment Factor = 0.9 (operator factor) * 1.0 (material factor) * 0.8 (work hour factor) * 1.0 (grade factor) * 0.9 (weight correction factor) * 0.9 (visibility factor) * 1.0 (elevation factor) * 1.1 (production factor) = 0.6

Net Hourly Production = 0.6 (operating adjustment factor) * 1,510 LCY/hr (Normal Hourly Production) = 949 LCY/hr

Hours Required[2] = 21,925 LCY (volume to be moved[1]) / 949 LCY/hr (net hourly production) = 23.1 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 5C
PRODUCTIVITY AND HOURS REQUIRED FOR DOZER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Dozer Used (type, size, etc.)[3]

Caterpillar D11R, Universal blade

Description of Dozer Use (origin, destination, grade, haul distance, material, etc.)

1.0% grade on average
100 ft typical dozer push distance
2,700 Loose clay and sand density [lb/yd^3]

Productivity Calculations[3]:

Operating Adjustment Factor = 0.9 (operator factor) * 1.0 (material factor) * 0.8 (work hour factor) * 1.0 (grade factor) * 0.9 (weight correction factor) * 0.9 (visibility factor) * 1.0 (elevation factor) * 1.1 (production factor) = 0.6

Net Hourly Production = 0.6 (operating adjustment factor) * 2,690 LCY/hr (Normal Hourly Production) = 1,657 LCY/hr

Hours Required[2] = 0 LCY (volume to be moved[1]) / 1,657 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 5D
PRODUCTIVITY AND HOURS REQUIRED FOR DOZER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Dozer Used (type, size, etc.)[3]

Caterpillar D11R, Universal blade

Description of Dozer Use (origin, destination, grade, haul distance, material, etc.)

1.0% grade on average
100 ft typical dozer push distance
2,700 Loose clay and sand density [lb/yd^3]

Productivity Calculations[3]:

Operating Adjustment Factor = 0.9 (operator factor) * 1.0 (material factor) * 0.8 (work hour factor) * 1.0 (grade factor) * 0.9 (weight correction factor) * 0.9 (visibility factor) * 1.0 (elevation factor) * 1.1 (production factor) = 0.6

Net Hourly Production = 0.6 (operating adjustment factor) * 2,690 LCY/hr (Normal Hourly Production) = 1,657 LCY/hr

Hours Required[2] = 0 LCY (volume to be moved[1]) / 1,657 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 5E
PRODUCTIVITY AND HOURS REQUIRED FOR DOZER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Dozer Used (type, size, etc.)[3]

Caterpillar D11R, Universal blade

Description of Dozer Use (origin, destination, grade, haul distance, material, etc.)

1.0% grade on average
100 ft typical dozer push distance
2,700 Loose clay and sand density [lb/yd^3]

Productivity Calculations[3]:

Operating Adjustment Factor = 0.9 (operator factor) * 1.0 (material factor) * 0.8 (work hour factor) * 1.0 (grade factor) * 0.9 (weight correction factor) * 0.9 (visibility factor) * 1.0 (elevation factor) * 1.1 (production factor) = 0.6

Net Hourly Production = 0.6 (operating adjustment factor) * 2,690 LCY/hr (Normal Hourly Production) = 1,657 LCY/hr

Hours Required[2] = 0 LCY (volume to be moved[1]) / 1,657 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 5F
PRODUCTIVITY AND HOURS REQUIRED FOR DOZER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Dozer Used (type, size, etc.)[3]

Caterpillar D11R, Universal blade

Description of Dozer Use (origin, destination, grade, haul distance, material, etc.)

1.0% grade on average
100 ft typical dozer push distance
2,700 Loose clay and sand density [lb/yd^3]

Productivity Calculations[3]:

Operating Adjustment Factor = 0.9 (operator factor) * 1.0 (material factor) * 0.8 (work hour factor) * 1.0 (grade factor) * 0.9 (weight correction factor) * 0.9 (visibility factor) * 1.0 (elevation factor) * 1.1 (production factor) = 0.6

Net Hourly Production = 0.6 (operating adjustment factor) * 2,690 LCY/hr (Normal Hourly Production) = 1,657 LCY/hr

Hours Required[2] = 0 LCY (volume to be moved[1]) / 1,657 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 5G
PRODUCTIVITY AND HOURS REQUIRED FOR DOZER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Dozer Used (type, size, etc.)[3]

Caterpillar D11R, Universal blade

Description of Dozer Use (origin, destination, grade, haul distance, material, etc.)

1.0% grade on average
100 ft typical dozer push distance
2,700 Loose clay and sand density [lb/yd^3]

Productivity Calculations[3]:

Operating Adjustment Factor = 0.9 (operator factor) * 1.0 (material factor) * 0.8 (work hour factor) * 1.0 (grade factor) * 0.9 (weight correction factor) * 0.9 (visibility factor) * 1.0 (elevation factor) * 1.1 (production factor) = 0.6

Net Hourly Production = 0.6 (operating adjustment factor) * 2,690 LCY/hr (Normal Hourly Production) = 1,657 LCY/hr

Hours Required[2] = 0 LCY (volume to be moved[1]) / 1,657 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.8A
PRODUCTIVITY AND HOURS REQUIRED FOR LOADER USE

Earthmoving Activity:

3 Grading - Loader/Truck

Characterization of Loader Used (type, size, etc.)[3]

Caterpillar 992G with 15 CYD Bucket

Description of Loader Use (origin, destination, grade,haul distance, etc.)

Load Caterpillar 777D Trucks
0.88 Bucket Fill Factor
15 Rated Bucket Capacity [LCY]

Productivity Calculations[3]

Cycle Time = (loaded haul time) + (empty haul time) + 0.65 min (basic cycle time) = 0.65 min

Net Bucket Capacity = 15 LCY (heaped bucket capacity) * 0.88 (bucket fill factor) = 13.2 LCY

Net Hourly Production = 13.2 LCY (net bucket capacity) / 0.65 min (cycle time) * 50 min/hr (work hour factor) = 1,015 LCY/hr

Hours Required[2] = 0 LCY (volume to be moved[1]) / 1,015 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.8B
PRODUCTIVITY AND HOURS REQUIRED FOR LOADER USE

Earthmoving Activity:

7 Mitigation - Loader/Truck

Characterization of Loader Used (type, size, etc.)[3]

Caterpillar 992G with 15 CYD Bucket

Description of Loader Use (origin, destination, grade,haul distance, etc.)

Load Caterpillar 777D Trucks
0.88 Bucket Fill Factor
15 Rated Bucket Capacity [LCY]

Productivity Calculations[3]

Cycle Time = (loaded haul time) + (empty haul time) + 0.65 min (basic cycle time) = 0.65 min

Net Bucket Capacity = 15 LCY (heaped bucket capacity) * 0.88 (bucket fill factor) = 13.2 LCY

Net Hourly Production = 13.2 LCY (net bucket capacity) / 0.65 min (cycle time) * 50 min/hr (work hour factor) = 1,015 LCY/hr

Hours Required[2] = 169,832 LCY (volume to be moved[1]) / 1,015 LCY/hr (net hourly production) = 167 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.8C
PRODUCTIVITY AND HOURS REQUIRED FOR LOADER USE

Earthmoving Activity:

5 Topsoil - Loader/Truck

Characterization of Loader Used (type, size, etc.)[3]

Caterpillar 992G with 15 CYD Bucket

Description of Loader Use (origin, destination, grade,haul distance, etc.)

Load Caterpillar 777D Trucks
1.05 Bucket Fill Factor
15 Rated Bucket Capacity [LCY]

Productivity Calculations[3]

Cycle Time = (loaded haul time) + (empty haul time) + 0.65 min (basic cycle time) = 0.65 min

Net Bucket Capacity = 15 LCY (heaped bucket capacity) * 1.05 (bucket fill factor) = 15.8 LCY

Net Hourly Production = 15.8 LCY (net bucket capacity) / 0.65 min (cycle time) * 50 min/hr (work hour factor) = 1,212 LCY/hr

Hours Required[2] = 360,602 LCY (volume to be moved[1]) / 1,212 LCY/hr (net hourly production) = 298 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.8D
PRODUCTIVITY AND HOURS REQUIRED FOR LOADER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Loader Used (type, size, etc.)[3]

Caterpillar 992G with 15 CYD Bucket

Description of Loader Use (origin, destination, grade,haul distance, etc.)

Load Caterpillar 777D Trucks
0.88 Bucket Fill Factor
15 Rated Bucket Capacity [LCY]

Productivity Calculations[3]

Cycle Time = (loaded haul time) + (empty haul time) + 0.65 min (basic cycle time) = 0.65 min

Net Bucket Capacity = 15 LCY (heaped bucket capacity) * 0.88 (bucket fill factor) = 13.2 LCY

Net Hourly Production = 13.2 LCY (net bucket capacity) / 0.65 min (cycle time) * 50 min/hr (work hour factor) = 1,015 LCY/hr

Hours Required[2] = 0 LCY (volume to be moved[1]) / 1,015 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.8E
PRODUCTIVITY AND HOURS REQUIRED FOR LOADER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Loader Used (type, size, etc.)[3]

Caterpillar 992G with 15 CYD Bucket

Description of Loader Use (origin, destination, grade,haul distance, etc.)

Load Caterpillar 777D Trucks
0.88 Bucket Fill Factor
15 Rated Bucket Capacity [LCY]

Productivity Calculations[3]

Cycle Time = (loaded haul time) + (empty haul time) + 0.65 min (basic cycle time) = 0.65 min

Net Bucket Capacity = 15 LCY (heaped bucket capacity) * 0.88 (bucket fill factor) = 13.2 LCY

Net Hourly Production = 13.2 LCY (net bucket capacity) / 0.65 min (cycle time) * 50 min/hr (work hour factor) = 1,015 LCY/hr

Hours Required[2] = 0 LCY (volume to be moved[1]) / 1,015 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO.50.8F
PRODUCTIVITY AND HOURS REQUIRED FOR LOADER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Loader Used (type, size, etc.)[3]

Caterpillar 992G with 15 CYD Bucket

Description of Loader Use (origin, destination, grade,haul distance, etc.)

Load Caterpillar 777D Trucks
0.88 Bucket Fill Factor
15 Rated Bucket Capacity [LCY]

Productivity Calculations[3]

Cycle Time = (loaded haul time) + (empty haul time) + 0.65 min (basic cycle time) = 0.65 min

Net Bucket Capacity = 15 LCY (heaped bucket capacity) * 0.88 (bucket fill factor) = 13.2 LCY

Net Hourly Production = 13.2 LCY (net bucket capacity) / 0.65 min (cycle time) * 50 min/hr (work hour factor) = 1,015 LCY/hr

Hours Required[2] = 0 LCY (volume to be moved[1]) / 1,015 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.8G
PRODUCTIVITY AND HOURS REQUIRED FOR LOADER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Loader Used (type, size, etc.)[3]

Caterpillar 992G with 15 CYD Bucket

Description of Loader Use (origin, destination, grade,haul distance, etc.)

Load Caterpillar 777D Trucks
0.88 Bucket Fill Factor
15 Rated Bucket Capacity [LCY]

Productivity Calculations[3]

Cycle Time = (loaded haul time) + (empty haul time) + 0.65 min (basic cycle time) = 0.65 min

Net Bucket Capacity = 15 LCY (heaped bucket capacity) * 0.88 (bucket fill factor) = 13.2 LCY

Net Hourly Production = 13.2 LCY (net bucket capacity) / 0.65 min (cycle time) * 50 min/hr (work hour factor) = 1,015 LCY/hr

Hours Required[2] = 0 LCY (volume to be moved[1]) / 1,015 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.8H

PRODUCTIVITY AND HOURS REQUIRED FOR LOADER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Loader Used (type, size, etc.)[3]

Caterpillar 992G with 15 CYD Bucket

Description of Loader Use (origin, destination, grade,haul distance, etc.)

Load Caterpillar 777D Trucks

0.88 Bucket Fill Factor

15 Rated Bucket Capacity [LCY]

Productivity Calculations[3]

Cycle Time = (loaded haul time) + (empty haul time) + 0.65 min (basic cycle time) = 0.65 min

Net Bucket Capacity = 15 LCY (heaped bucket capacity) * 0.88 (bucket fill factor) = 13.2 LCY

Net Hourly Production = 13.2 LCY (net bucket capacity) / 0.65 min (cycle time) * 50 min/hr (work hour factor) = 1,015 LCY/hr

Hours Required[2] = 0 LCY (volume to be moved[1]) / 1,015 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 43

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO.50. 9A
PRODUCTIVITY AND HOURS REQUIRED FOR TRUCK USE

Earthmoving Activity:

3 Grading - Loader/Truck

Characterization of Truck Used (type, size, etc.)[3]

Caterpillar 777D
55 Struck Capacity [LCY]
79 Heaped Capacity [LCY]
67 Adjusted Capacity (Average of Struck and Heaped) [LCY]

Description of Truck Use (origin, destination, grade,haul distance, truck capacity, etc.):

- ft. average haul distance
0.0% Grade (Loaded)
3.0% Rolling Resisance

Productivity Calculation[3]

Loader Passes Per Truck = 67 LCY (truck capacity) / 13.2 LCY (loader bucket net capacity) = 5.1 passes

Net Truck Capacity = 13.2 LCY (loader bucket net capacity) * 5 (loader passes per truck) = 67 LCY

Loading Time Per Truck = 0.65 min (loader cycle time) * 5 (loader passes per truck) = 3.3 min

Truck Cycle Time = 0.0 min (haul time) + - min (return time) + 3.3 min (loading time per truck) + 1.0 min (dump and maneuver time) = 4.3 min

Number of Trucks Required = 4.3 min (truck cycle time) / 3.3 min (truck loading time) = 1 trucks (round down)

Production Rate = 67 LCY (net truck capacity) / 4.3 min (cycle time) = 15.6 LCY/min

Hourly Production = 16 LCY/min (production rate) * 50 min/hr (work hour factor) = 779 LCY/hr

Hours Required[2] = 0 LCY (volume to be moved[1]) / 779 LCY/hr (hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.9B
PRODUCTIVITY AND HOURS REQUIRED FOR TRUCK USE

Earthmoving Activity:

7 Mitigation - Loader/Truck

Characterization of Truck Used (type, size, etc.)[3]

Caterpillar 777D
55 Struck Capacity [LCY]
79 Heaped Capacity [LCY]
67 Adjusted Capacity (Average of Struck and Heaped) [LCY]

Description of Truck Use (origin, destination, grade,haul distance, truck capacity, etc.):

9,242 ft. average haul distance
4.0% Grade (Loaded)
3.0% Rolling Resisance

Productivity Calculation[3]

Loader Passes Per Truck = 67 LCY (truck capacity) / 13.2 LCY (loader bucket net capacity) = 5 passes

Loading Time Per Truck = 0.7 min (loader cycle time) * 5 (loader passes per truck) = 3.3 min

Number of Trucks Required = 12.3 min (truck cycle time) / 3.3 min (truck loading time) = 3 trucks (round down)

Hourly Production = 5 LCY/min (production rate) * 50 min/hr (work hour factor) = 272 LCY/hr

Net Truck Capacity = 13 LCY (loader bucket net capacity) * 5 (loader passes per truck) = 67 LCY

Truck Cycle Time = 5.2 min (haul time) + 2.8 min (return time) + 3.3 min (loading time per truck) + 1.0 min (dump and maneuver time) = 12.3 min

Production Rate = 67 LCY (net truck capacity) / 12.3 min (cycle time) = 5.4 LCY/min

Hours Required[2] = 169,832 LCY (volume to be moved[1]) / 272 LCY/hr (hourly production) = 624 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.9C
PRODUCTIVITY AND HOURS REQUIRED FOR TRUCK USE

Earthmoving Activity:

5 Topsoil - Loader/Truck

Characterization of Truck Used (type, size, etc.)[3]

Caterpillar 777D
55 Struck Capacity [LCY]
79 Heaped Capacity [LCY]
67 Adjusted Capacity (Average of Struck and Heaped) [LCY]

Description of Truck Use (origin, destination, grade,haul distance, truck capacity, etc.):

9,242 ft. average haul distance
4.0% Grade (Loaded)
3.0% Rolling Resisance

Productivity Calculation[3]

Loader Passes Per Truck = 67 LCY (truck capacity) / 16 LCY (loader bucket net capacity) = 4 passes

Loading Time Per Truck = 0.7 min (loader cycle time) * 4 (loader passes per truck) = 2.6 min

Number of Trucks Required = 11.6 min (truck cycle time) / 2.6 min (truck loading time) = 4 trucks (round down)

Hourly Production = 5 LCY/min (production rate) * 50 min/hr (work hour factor) = 272 LCY/hr

Net Truck Capacity = 16 LCY (loader bucket net capacity) * 4 (loader passes per truck) = 63 LCY

Truck Cycle Time = 5.2 min (haul time) + 2.8 min (return time) + 2.6 min (loading time per truck) + 1.0 min (dump and maneuver time) = 11.6 min

Production Rate = 63 LCY (net truck capacity) / 11.6 min (cycle time) = 5.4 LCY/min

Hours Required[2] = 360,602 LCY (volume to be moved[1]) / 272 LCY/hr (hourly production) = 1,328 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.9D
PRODUCTIVITY AND HOURS REQUIRED FOR TRUCK USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Truck Used (type, size, etc.)[3]

Caterpillar 777D
55 Struck Capacity [LCY]
79 Heaped Capacity [LCY]
67 Adjusted Capacity (Average of Struck and Heaped) [LCY]

Description of Truck Use (origin, destination, grade,haul distance, truck capacity, etc.):

100 ft. average haul distance
1.0% Grade (Loaded)
3.0% Rolling Resisance

Productivity Calculation[3]

Loader Passes Per Truck = 67 LCY (truck capacity) / 13 LCY (loader bucket net capacity) = 5 passes

Loading Time Per Truck = 0.7 min (loader cycle time) * 5 (loader passes per truck) = 3.3 min

Number of Trucks Required = 4.3 min (truck cycle time) / 3.3 min (truck loading time) = 1 trucks (round down)

Hourly Production = 15 LCY/min (production rate) * 50 min/hr (work hour factor) = 761 LCY/hr

Net Truck Capacity = 13 LCY (loader bucket net capacity) * 5 (loader passes per truck) = 66 LCY

Truck Cycle Time = 0.1 min (haul time) + 0.0 min (return time) + 3.3 min (loading time per truck) + 1.0 min (dump and maneuver time) = 4.3 min

Production Rate = 66 LCY (net truck capacity) / 4.3 min (cycle time) = 15.2 LCY/min

Hours Required[2] = 0 LCY (volume to be moved[1]) / 761 LCY/hr (hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.9E
PRODUCTIVITY AND HOURS REQUIRED FOR TRUCK USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Truck Used (type, size, etc.)[3]

Caterpillar 777D
55 Struck Capacity [LCY]
79 Heaped Capacity [LCY]
67 Adjusted Capacity (Average of Struck and Heaped) [LCY]

Description of Truck Use (origin, destination, grade,haul distance, truck capacity, etc.):

100 ft. average haul distance
1.0% Grade (Loaded)
3.0% Rolling Resisance

Productivity Calculation[3]

Loader Passes Per Truck = 67 LCY (truck capacity) / 13 LCY (loader bucket net capacity) = 5 passes

Loading Time Per Truck = 0.7 min (loader cycle time) * 5 (loader passes per truck) = 3.3 min

Number of Trucks Required = 4.3 min (truck cycle time) / 3.3 min (truck loading time) = 1 trucks (round down)

Hourly Production = 15 LCY/min (production rate) * 50 min/hr (work hour factor) = 761 LCY/hr

Net Truck Capacity = 13 LCY (loader bucket net capacity) * 5 (loader passes per truck) = 66 LCY

Truck Cycle Time = 0.1 min (haul time) + 0.0 min (return time) + 3.3 min (loading time per truck) + 1.0 min (dump and maneuver time) = 4.3 min

Production Rate = 66 LCY (net truck capacity) / 4.3 min (cycle time) = 15.2 LCY/min

Hours Required[2] = 0 LCY (volume to be moved[1]) / 761 LCY/hr (hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.9F
PRODUCTIVITY AND HOURS REQUIRED FOR TRUCK USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Truck Used (type, size, etc.)[3]

Caterpillar 777D
55 Struck Capacity [LCY]
79 Heaped Capacity [LCY]
67 Adjusted Capacity (Average of Struck and Heaped) [LCY]

Description of Truck Use (origin, destination, grade,haul distance, truck capacity, etc.):

100 ft. average haul distance
1.0% Grade (Loaded)
3.0% Rolling Resisance

Productivity Calculation[3]

Loader Passes Per Truck = 67 LCY (truck capacity) / 13 LCY (loader bucket net capacity) = 5 passes

Loading Time Per Truck = 0.7 min (loader cycle time) * 5 (loader passes per truck) = 3.3 min

Number of Trucks Required = 4.3 min (truck cycle time) / 3.3 min (truck loading time) = 1 trucks (round down)

Hourly Production = 15 LCY/min (production rate) * 50 min/hr (work hour factor) = 761 LCY/hr

Net Truck Capacity = 13 LCY (loader bucket net capacity) * 5 (loader passes per truck) = 66 LCY

Truck Cycle Time = 0.1 min (haul time) + 0.0 min (return time) + 3.3 min (loading time per truck) + 1.0 min (dump and maneuver time) = 4.3 min

Production Rate = 66 LCY (net truck capacity) / 4.3 min (cycle time) = 15.2 LCY/min

Hours Required[2] = 0 LCY (volume to be moved[1]) / 761 LCY/hr (hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.9G
PRODUCTIVITY AND HOURS REQUIRED FOR TRUCK USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Truck Used (type, size, etc.)[3]

Caterpillar 777D
55 Struck Capacity [LCY]
79 Heaped Capacity [LCY]
67 Adjusted Capacity (Average of Struck and Heaped) [LCY]

Description of Truck Use (origin, destination, grade,haul distance, truck capacity, etc.):

100 ft. average haul distance
1.0% Grade (Loaded)
3.0% Rolling Resisance

Productivity Calculation[3]

Loader Passes Per Truck = 67 LCY (truck capacity) / 13 LCY (loader bucket net capacity) = 5 passes

Loading Time Per Truck = 0.7 min (loader cycle time) * 5 (loader passes per truck) = 3.3 min

Number of Trucks Required = 4.3 min (truck cycle time) / 3.3 min (truck loading time) = 1 trucks (round down)

Hourly Production = 15 LCY/min (production rate) * 50 min/hr (work hour factor) = 761 LCY/hr

Net Truck Capacity = 13 LCY (loader bucket net capacity) * 5 (loader passes per truck) = 66 LCY

Truck Cycle Time = 0.1 min (haul time) + 0.0 min (return time) + 3.3 min (loading time per truck) + 1.0 min (dump and maneuver time) = 4.3 min

Production Rate = 66 LCY (net truck capacity) / 4.3 min (cycle time) = 15.2 LCY/min

Hours Required[2] = 0 LCY (volume to be moved[1]) / 761 LCY/hr (hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.9H
PRODUCTIVITY AND HOURS REQUIRED FOR TRUCK USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Truck Used (type, size, etc.)[3]

Caterpillar 777D
55 Struck Capacity [LCY]
79 Heaped Capacity [LCY]
67 Adjusted Capacity (Average of Struck and Heaped) [LCY]

Description of Truck Use (origin, destination, grade,haul distance, truck capacity, etc.):

100 ft. average haul distance
1.0% Grade (Loaded)
3.0% Rolling Resisance

Productivity Calculation[3]

Loader Passes Per Truck = 67 LCY (truck capacity) / 13 LCY (loader bucket net capacity) = 5 passes

Loading Time Per Truck = 0.7 min (loader cycle time) * 5 (loader passes per truck) = 3.3 min

Number of Trucks Required = 4.3 min (truck cycle time) / 3.3 min (truck loading time) = 1 trucks (round down)

Hourly Production = 15 LCY/min (production rate) * 50 min/hr (work hour factor) = 761 LCY/hr

Net Truck Capacity = 13 LCY (loader bucket net capacity) * 5 (loader passes per truck) = 66 LCY

Truck Cycle Time = 0.1 min (haul time) + 0.0 min (return time) + 3.3 min (loading time per truck) + 1.0 min (dump and maneuver time) = 4.3 min

Production Rate = 66 LCY (net truck capacity) / 4.3 min (cycle time) = 15.2 LCY/min

Hours Required[2] = 0 LCY (volume to be moved[1]) / 761 LCY/hr (hourly production) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.9I
PRODUCTIVITY AND HOURS REQUIRED FOR TRUCK USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Truck Used (type, size, etc.)[3]

Caterpillar 777D
55 Struck Capacity [LCY]
79 Heaped Capacity [LCY]
67 Adjusted Capacity (Average of Struck and Heaped) [LCY]

Description of Truck Use (origin, destination, grade,haul distance, truck capacity, etc.):

100 ft. average haul distance
1.0% Grade (Loaded)
3.0% Rolling Resisance

Productivity Calculation[3]

Loader Passes Per Truck = 67 LCY (truck capacity) / 13 LCY (loader bucket net capacity) = 5 passes

Loading Time Per Truck = 0.7 min (loader cycle time) * 5 (loader passes per truck) = 3.3 min

Number of Trucks Required = 4.3 min (truck cycle time) / 3.3 min (truck loading time) = 1 trucks (round down)

Hourly Production = 15 LCY/min (production rate) * 50 min/hr (work hour factor) = 761 LCY/hr

Net Truck Capacity = 13 LCY (loader bucket net capacity) * 5 (loader passes per truck) = 66 LCY

Truck Cycle Time = 0.1 min (haul time) + 0.0 min (return time) + 3.3 min (loading time per truck) + 1.0 min (dump and maneuver time) = 4.3 min

Production Rate = 66 LCY (net truck capacity) / 4.3 min (cycle time) = 15.2 LCY/min

Hours Required[2] = 0 LCY (volume to be moved[1]) / 761 LCY/hr (work hour factor) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

WORKSHEET NO. 50.9J
PRODUCTIVITY AND HOURS REQUIRED FOR TRUCK USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Truck Used (type, size, etc.)[3]

Caterpillar 777D
55 Struck Capacity [LCY]
79 Heaped Capacity [LCY]
67 Adjusted Capacity (Average of Struck and Heaped) [LCY]

Description of Truck Use (origin, destination, grade,haul distance, truck capacity, etc.):

100 ft. average haul distance
1.0% Grade (Loaded)
3.0% Rolling Resisance

Productivity Calculation[3]

Loader Passes Per Truck = 67 LCY (truck capacity) / 13 LCY (loader bucket net capacity) = 5 passes

Loading Time Per Truck = 0.7 min (loader cycle time) * 5 (loader passes per truck) = 3.3 min

Number of Trucks Required = 4.3 min (truck cycle time) / 3.3 min (truck loading time) = 1 trucks (round down)

Hourly Production = 15 LCY/min (production rate) * 50 min/hr (work hour factor) = 761 LCY/hr

Net Truck Capacity = 13 LCY (loader bucket net capacity) * 5 (loader passes per truck) = 66 LCY

Truck Cycle Time = 0.1 min (haul time) + 0.0 min (return time) + 3.3 min (loading time per truck) + 1.0 min (dump and maneuver time) = 4.3 min

Production Rate = 66 LCY (net truck capacity) / 4.3 min (cycle time) = 15.2 LCY/min

Hours Required[2] = 0 LCY (volume to be moved[1]) / 761 LCY/hr (work hour factor) = 0 hrs

Data Sources:

1) Volume to be moved from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.11A

PRODUCTIVITY AND HOURS REQUIRED FOR SCRAPER USE

Earthmoving Activity:

4 Grading - Scrapers

Characterization of Scraper Used (type, size, etc.)3

Caterpillar 637G Scrapers Push-Pull Pair

24 Struck Capacity [yd^3]

34 Heaped Capacity [yd^3]

29 Adjusted Capacity (Average of Struck and Heaped) [yd^3]

Description of Scraper Use (origin, destination, grade, haul distance, material, etc.)

1,502 ft. average haul distance

0.0% Grade (Loaded)

3% Rolling Resisance

Productivity Calculations[3]:

Cycle Time[3] = 1.0 min (load time per pair) + 0.9 min (loaded trip time) + 0.6 min (maneuver and spread time) + 0.7 min (return trip time) = 3.2 min

Net Hourly Production = 29 LCY (adjusted capacity) * 50 min/hr (work hour factor) / 3.2 min (cycle time) * 2 (number of scrapers) = 906 LCY/hr

Hours Required[2] = 160,857 LCY (volume to be handled[1]) / 906 LCY/hr (net hourly production) = 177 hrs

Data Sources:

1) Acres from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.11B
PRODUCTIVITY AND HOURS REQUIRED FOR SCRAPER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Scraper Used (type, size, etc.)3

Caterpillar 637G Scrapers Push-Pull Pair

24 Struck Capacity [yd^3]

34 Heaped Capacity [yd^3]

29 Adjusted Capacity (Average of Struck and Heaped) [yd^3]

Description of Scraper Use (origin, destination, grade, haul distance, material, etc.)

100 ft. average haul distance

1.0% Grade (Loaded)

3% Rolling Resisance

Productivity Calculations[3]:

Cycle Time[3] = 1.0 min (load time per pair) + 0.1 min (loaded trip time) + 0.6 min (maneuver and spread time) + 0.1 min (return trip time) = 1.8 min

Net Hourly Production = 29 LCY (adjusted capacity) * 50 min/hr (work hour factor) / 1.8 min (cycle time) * 2 (number of scrapers) = 1,657 LCY/hr

Hours Required[2] = 0 LCY (volume to be handled[1]) / 1657 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Acres from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.11C
PRODUCTIVITY AND HOURS REQUIRED FOR SCRAPER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Scraper Used (type, size, etc.)3

Caterpillar 637G Scrapers Push-Pull Pair

24 Struck Capacity [yd^3]

34 Heaped Capacity [yd^3]

29 Adjusted Capacity (Average of Struck and Heaped) [yd^3]

Description of Scraper Use (origin, destination, grade, haul distance, material, etc.)

100 ft. average haul distance

1.0% Grade (Loaded)

3% Rolling Resisance

Productivity Calculations[3]:

Cycle Time[3] = 1.0 min (load time per pair) + 0.1 min (loaded trip time) + 0.6 min (maneuver and spread time) + 0.1 min (return trip time) = 1.8 min

Net Hourly Production = 29 LCY (adjusted capacity) * 50 min/hr (work hour factor) / 1.8 min (cycle time) * 2 (number of scrapers) = 1,657 LCY/hr

Hours Required[2] = 0 LCY (volume to be handled[1]) / 1657 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Acres from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.11D
PRODUCTIVITY AND HOURS REQUIRED FOR SCRAPER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Scraper Used (type, size, etc.)3

Caterpillar 637G Scrapers Push-Pull Pair

24 Struck Capacity [yd^3]

34 Heaped Capacity [yd^3]

29 Adjusted Capacity (Average of Struck and Heaped) [yd^3]

Description of Scraper Use (origin, destination, grade, haul distance, material, etc.)

100 ft. average haul distance

1.0% Grade (Loaded)

3% Rolling Resisance

Productivity Calculations[3]:

Cycle Time[3] = 1.0 min (load time per pair) + 0.1 min (loaded trip time) + 0.6 min (maneuver and spread time) + 0.1 min (return trip time) = 1.8 min

Net Hourly Production = 29 LCY (adjusted capacity) * 50 min/hr (work hour factor) / 1.8 min (cycle time) * 2 (number of scrapers) = 1,657 LCY/hr

Hours Required[2] = 0 LCY (volume to be handled[1]) / 1657 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Acres from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.11E
PRODUCTIVITY AND HOURS REQUIRED FOR SCRAPER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Scraper Used (type, size, etc.)3

Caterpillar 637G Scrapers Push-Pull Pair

24 Struck Capacity [yd^3]

34 Heaped Capacity [yd^3]

29 Adjusted Capacity (Average of Struck and Heaped) [yd^3]

Description of Scraper Use (origin, destination, grade, haul distance, material, etc.)

100 ft. average haul distance

1.0% Grade (Loaded)

3% Rolling Resisance

Productivity Calculations[3]:

Cycle Time[3] = 1.0 min (load time per pair) + 0.1 min (loaded trip time) + 0.6 min (maneuver and spread time) + 0.1 min (return trip time) = 1.8 min

Net Hourly Production = 29 LCY (adjusted capacity) * 50 min/hr (work hour factor) / 1.8 min (cycle time) * 2 (number of scrapers) = 1,657 LCY/hr

Hours Required[2] = 0 LCY (volume to be handled[1]) / 1657 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Acres from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.11F
PRODUCTIVITY AND HOURS REQUIRED FOR SCRAPER USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Scraper Used (type, size, etc.)3

Caterpillar 637G Scrapers Push-Pull Pair

24 Struck Capacity [yd^3]

34 Heaped Capacity [yd^3]

29 Adjusted Capacity (Average of Struck and Heaped) [yd^3]

Description of Scraper Use (origin, destination, grade, haul distance, material, etc.)

100 ft. average haul distance

1.0% Grade (Loaded)

3% Rolling Resisance

Productivity Calculations[3]:

Cycle Time[3] = 1.0 min (load time per pair) + 0.1 min (loaded trip time) + 0.6 min (maneuver and spread time) + 0.1 min (return trip time) = 1.8 min

Net Hourly Production = 29 LCY (adjusted capacity) * 50 min/hr (work hour factor) / 1.8 min (cycle time) * 2 (number of scrapers) = 1,657 LCY/hr

Hours Required[2] = 0 LCY (volume to be handled[1]) / 1657 LCY/hr (net hourly production) = 0 hrs

Data Sources:

1) Acres from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.12A
PRODUCTIVITY AND HOURS FOR MOTOR GRADER USE -- GRADING

Earthmoving Activity:

29 Road Ripping No Name Project

Characterization of Grader Used (type, size capacity, etc.)[3]

Caterpillar 16H

Description of Grader Route (push distance,% blade effective length, operating speed, etc.):

9.75 Ripper width [ft]

Productivity Calculations[3]:

Contour Grading:

Hourly Productivity = 3.4 mi/hr (speed) x 9.75 ft. (effective blade width) x 5,280 ft/mi (conversion factor) / 43,560 ft^2 /ac (conversion factor) x 0.83 (work hour factor) x 0.90 (availability) = 3.0 ac / hr

Hours Required = 0 ac (acreage to be graded[1]) / 2.99 ac/hr (hourly productivity) = 0 hr

Scarification:

Hourly Productivity = 1.25 mi/hr (work speed) x 9.75 ft. (scarifier width) x 5,280 ft/mi (conversion factor) / 43,560 ft^2 /ac (conversion factor) x 0.83 (work hour factor) x 0.90 (availability) = 1.1 ac / hr

Hours Required = 1 ac (acreage to be ripped[1]) / 1.10 ac/hr (hourly productivity) = 1 hr

Total Hours Required[2] = 0 hr (grading hours required) + 1 hr (scarification hours required) = 1 hr

Data Sources:

1) Acres from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.12B
PRODUCTIVITY AND HOURS FOR MOTOR GRADER USE -- GRADING

Earthmoving Activity:

33 Grading Topsoil Areas

Characterization of Grader Used (type, size capacity, etc.)[3]

Caterpillar 16H

Description of Grader Route (push distance,% blade effective length, operating speed, etc.):

11.9 Ripper width [ft]

Productivity Calculations[3]:

Contour Grading:

Hourly Productivity = 3.4 mi/hr (speed) x 11.90 ft. (effective blade width) x 5,280 ft/mi (conversion factor) / 43,560 ft^2 /ac (conversion factor) x 0.83 (work hour factor) x 0.90 (availability) = 3.7 ac / hr

Hours Required = 243 ac (acreage to be graded[1]) / 3.65 ac/hr (hourly productivity) = 67 hr

Scarification:

Hourly Productivity = 1.25 mi/hr (work speed) x 9.75 ft. (scarifier width) x 5,280 ft/mi (conversion factor) / 43,560 ft^2 /ac (conversion factor) x 0.83 (work hour factor) x 0.90 (availability) = 1.1 ac / hr

Hours Required = - ac (acreage to be ripped*) / 1.10 ac/hr (hourly productivity) = - hr

Total Hours Required[2] = 67 hr (grading hours required) + 0 hr (scarification hours required) = 67 hr

Data Sources:

1) Acres from Worksheet 3
2) Hours required go to Worksheet 13
3) Caterpillar Performance Handbook, Edition 37

*No Ripping on Topsoiled Areas

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.13A

SUMMARY CALCULATION OF EARTHMOVING COSTS - Dozers

	Project	Equipment Type[1]	Ratio	Equipment Unit Costs [$/hr][2]		Labor Costs [$/hr][3]		Total Hours Required[4]		Total Cost [$]
2	Grading - Dozer	D11R Dozer	100%	($511	+	$ 21)	*	3,876	=	$ 2,060,114
23	Backfill Ponds	D11R Dozer	100%	($511	+	$ 21)	*	23	=	$ 12,278
32	Intentionally Left Blank	D11R Dozer	100%	($511	+	$ 21)	*	-	=	$ -
32	Intentionally Left Blank	D11R Dozer	100%	($511	+	$ 21)	*	-	=	$ -
32	Intentionally Left Blank	D11R Dozer	100%	($511	+	$ 21)	*	-	=	$ -
32	Intentionally Left Blank	D11R Dozer	100%	($511	+	$ 21)	*	-	=	$ -
32	Intentionally Left Blank	D11R Dozer	100%	($511	+	$ 21)	*	-	=	$ -
									Total Cost =	**$ 2,072,392**

Equipment and Accesory Identification

1) Caterpillar D11R with Universal Blade

Data Sources:

2) PRIMEDIA Equipmentwatch, "Cost Reference Guide for Construction Equipment," 2011 1st half edition. (see Table 12-B-23)
3) Labor Cost based on 2011 contract with ACME Inc. (see Table 12-B-24)
4) Total Hours Required from Worksheet 5

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.13B

SUMMARY CALCULATION OF EARTHMOVING COSTS - Loaders

	Project	Equipment Type[1]	Ratio	Equipment Unit Costs [$/hr][2]		Labor Costs [$/hr][3]		Total Hours Required[4]		Total Cost [$]
3	**Grading - Loader/Truck**	992G Loader	100%	($ 348	+	$ 18)	*	-	= $	-
		16M Grader	50%	($ 208	+	$ 19)	*	-	= $	-
		D9R Dozer	100%	($ 230	+	$ 21)	*	-	= $	-
		Water Truck	50%	($ 175	+	$ 16)	*	-	= $	-
7	**Mitigation - Loader/Truck**	992G Loader	100%	($ 348	+	$ 18)	*	167	= $	61,346
		16M Grader	50%	($ 208	+	$ 19)	*	84	= $	19,005
		D9R Dozer	100%	($ 230	+	$ 21)	*	167	= $	42,046
		Water Truck	50%	($ 175	+	$ 16)	*	84	= $	15,954
5	**Topsoil - Loader/Truck**	992G Loader	100%	($ 348	+	$ 18)	*	298	= $	109,166
		16M Grader	50%	($ 208	+	$ 19)	*	149	= $	33,819
		D9R Dozer	100%	($ 230	+	$ 21)	*	298	= $	74,821
		Water Truck	50%	($ 175	+	$ 16)	*	149	= $	28,390
32	**Intentionally Left Blank**	992G Loader	100%	($ 348	+	$ 18)	*	-	= $	-
		16M Grader	50%	($ 208	+	$ 19)	*	-	= $	-
		D9R Dozer	100%	($ 230	+	$ 21)	*	-	= $	-
		Water Truck	50%	($ 175	+	$ 16)	*	-	= $	-
32	**Intentionally Left Blank**	992G Loader	100%	($ 348	+	$ 18)	*	-	= $	-
		16M Grader	50%	($ 208	+	$ 19)	*	-	= $	-
		D9R Dozer	100%	($ 230	+	$ 21)	*	-	= $	-
		Water Truck	50%	($ 175	+	$ 16)	*	-	= $	-
								Total Cost	= $	**384,546**

Equipment and Accesory Identification

1) Caterpillar 992G Loader with standard 15 cubic yard bucket
   Caterpillar 16M Grader, standard blade, road maintenance time = 1/2 loader time
   Caterpillar D9R Dozer with Semi-Universal Blade time = loader time
   10,000 gal. Water truck, road maintenance time = 1/2 loader time

Data Sources:

2) PRIMEDIA Equipmentwatch, "Cost Reference Guide for Construction Equipment," 2011 1st half edition. (see Table 12-B-23)
3) Labor Cost based on 2011 contract with ACME Inc. (see Table 12-B-24)
4) Total Hours Required from Worksheet 8 and Note 1 above

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.13C
SUMMARY CALCULATION OF EARTHMOVING COSTS - Loaders

	Project	Equipment Type[1]	Ratio	Equipment Unit Costs [$/hr][2]	Labor Costs [$/hr][3]	Total Hours Required[4]	Total Cost [$]
32	**Intentionally Left Blank**	992G Loader	100%	($ 348 +	$ 18)	* - =	$ -
		16M Grader	50%	($ 208 +	$ 19)	* - =	$ -
		D9R Dozer	100%	($ 230 +	$ 21)	* - =	$ -
		Water Truck	50%	($ 175 +	$ 16)	* - =	$ -
32	**Intentionally Left Blank**	992G Loader	100%	($ 348 +	$ 18)	* - =	$ -
		16M Grader	50%	($ 208 +	$ 19)	* - =	$ -
		D9R Dozer	100%	($ 230 +	$ 21)	* - =	$ -
		Water Truck	50%	($ 175 +	$ 16)	* - =	$ -
32	**Intentionally Left Blank**	992G Loader	100%	($ 348 +	$ 18)	* - =	$ -
		16M Grader	50%	($ 208 +	$ 19)	* - =	$ -
		D9R Dozer	100%	($ 230 +	$ 21)	* - =	$ -
		Water Truck	50%	($ 175 +	$ 16)	* - =	$ -
32	**Intentionally Left Blank**	992G Loader	100%	($ 348 +	$ 18)	* - =	$ -
		16M Grader	50%	($ 208 +	$ 19)	* - =	$ -
		D9R Dozer	100%	($ 230 +	$ 21)	* - =	$ -
		Water Truck	50%	($ 175 +	$ 16)	* - =	$ -
32	**Intentionally Left Blank**	992G Loader	100%	($ 348 +	$ 18)	* - =	$ -
		16M Grader	50%	($ 208 +	$ 19)	* - =	$ -
		D9R Dozer	100%	($ 230 +	$ 21)	* - =	$ -
		Water Truck	50%	($ 175 +	$ 16)	* - =	$ -
						Total Cost =	**$ -**

Equipment and Accesory Identification

1) Caterpillar 992G Loader with standard 15 cubic yard bucket
Caterpillar 16M Grader, standard blade, road maintenance time = 1/2 loader time
Caterpillar D9R Dozer with Semi-Universal Blade time = loader time
10,000 gal. Water truck, road maintenance time = 1/2 loader time

Data Sources:

2) PRIMEDIA Equipmentwatch, "Cost Reference Guide for Construction Equipment," 2011 1st half edition. (see Table 12-B-23)
3) Labor Cost based on 2011 contract with ACME Inc. (see Table 12-B-24)
4) Total Hours Required from Worksheet 8 and Note 1 above

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.13D
SUMMARY CALCULATION OF EARTHMOVING COSTS - Trucks

		Project	Equipment Type[1]	Ratio	Equipment Unit Costs [$/hr][2]		Labor Costs [$/hr][3]		Total Hours Required[4]		Total Cost [$]
3	**Grading - Loader/Truck**		777D Truck	100%	($ 244	+	$ 16)	*	-	=	$ -
7	**Mitigation - Loader/Truck**		777D Truck	100%	($ 244	+	$ 16)	*	624	=	$ 161,814
5	**Topsoil - Loader/Truck**		777D Truck	100%	($ 244	+	$ 16)	*	1,328	=	$ 344,049
32	**Intentionally Left Blank**		777D Truck	100%	($ 244	+	$ 16)	*	-	=	$ -
32	**Intentionally Left Blank**		777D Truck	100%	($ 244	+	$ 16)	*	-	=	$ -
32	**Intentionally Left Blank**		777D Truck	100%	($ 244	+	$ 16)	*	-	=	$ -
32	**Intentionally Left Blank**		777D Truck	100%	($ 244	+	$ 16)	*	-	=	$ -
32	**Intentionally Left Blank**		777D Truck	100%	($ 244	+	$ 16)	*	-	=	$ -
32	**Intentionally Left Blank**		777D Truck	100%	($ 244	+	$ 16)	*	-	=	$ -
32	**Intentionally Left Blank**		777D Truck	100%	($ 244	+	$ 16)	*	-	=	$ -
									Total Cost =		**$ 505,863**

Equipment and Accesory Identification

1) Caterpillar 777F Dump Truck, mechanical drive, standard bed

Data Sources:

2) PRIMEDIA Equipmentwatch, "Cost Reference Guide for Construction Equipment," 2011 1st half edition. (see Table 12-B-23)
3) Labor Cost based on 2011 contract with ACME Inc. (see Table 12-B-24)
4) Total Hours Required from Worksheet 9

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.13E
SUMMARY CALCULATION OF EARTHMOVING COSTS - Scrapers

	Project	Equipment Type[1]	Ratio	Equipment Unit Costs [$/hr][2]		Labor Costs [$/hr][3]		Total Hours Required[4]		Total Cost [$]
4	**Grading - Scrapers**	631E Scraper	100%	($ 411	+	$ 18)	*	177	=	$ 76,177
		631E Scraper	100%	($ 411	+	$ 18)	*	177	=	$ 76,177
		16M Grader	13%	($ 208	+	$ 19)	*	22	=	$ 5,042
		Water Truck	13%	($ 175	+	$ 16)	*	22	=	$ 4,233
32	**Intentionally Left Blank**	631E Scraper	100%	($ 411	+	$ 18)	*	-	=	$ -
		631E Scraper	100%	($ 411	+	$ 18)	*	-	=	$ -
		16M Grader	13%	($ 208	+	$ 19)	*	-	=	$ -
		Water Truck	13%	($ 175	+	$ 16)	*	-	=	$ -
32	**Intentionally Left Blank**	631E Scraper	100%	($ 411	+	$ 18)	*	-	=	$ -
		631E Scraper	100%	($ 411	+	$ 18)	*	-	=	$ -
		16M Grader	13%	($ 208	+	$ 19)	*	-	=	$ -
		Water Truck	13%	($ 175	+	$ 16)	*	-	=	$ -
32	**Intentionally Left Blank**	631E Scraper	100%	($ 411	+	$ 18)	*	-	=	$ -
		631E Scraper	100%	($ 411	+	$ 18)	*	-	=	$ -
		16M Grader	13%	($ 208	+	$ 19)	*	-	=	$ -
		Water Truck	13%	($ 175	+	$ 16)	*	-	=	$ -
32	**Intentionally Left Blank**	631E Scraper	100%	($ 411	+	$ 18)	*	-	=	$ -
		631E Scraper	100%	($ 411	+	$ 18)	*	-	=	$ -
		16M Grader	13%	($ 208	+	$ 19)	*	-	=	$ -
		Water Truck	13%	($ 175	+	$ 16)	*	-	=	$ -
								Total Cost	**=**	**$ 161,628**

Equipment and Accesory Identification

1) Caterpillar 631E Scraper Push-Pull Pair
Caterpillar 16M Grader, standard blade, road maintenance time = 1/8 scraper time
10,000 gal. Water truck, road maintenance time = 1/8 scraper time

Data Sources:

2) PRIMEDIA Equipmentwatch, "Cost Reference Guide for Construction Equipment," 2011 1st half edition. (see Table 12-B-23)
3) Labor Cost based on 2011 contract with ACME Inc. (see Table 12-B-24)
4) Total Hours Required from Worksheet 8 and Note 1 above

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.13F

SUMMARY CALCULATION OF EARTHMOVING COSTS - Scrapers

	Project	Equipment Type[1]	Ratio	Equipment Unit Costs [$/hr][2]		Labor Costs [$/hr][3]		Total Hours Required[4]		Total Cost [$]
32	**Intentionally Left Blank**	631E Scraper	100%	($ 411	+	$ 18)	*	-	= $	-
		631E Scraper	100%	($ 411	+	$ 18)	*	-	= $	-
		16M Grader	13%	($ 208	+	$ 19)	*	-	= $	-
		Water Truck	13%	($ 175	+	$ 16)	*	-	= $	-
32	**Intentionally Left Blank**	631E Scraper	100%	($ 411	+	$ 18)	*	-	= $	-
		631E Scraper	100%	($ 411	+	$ 18)	*	-	= $	-
		16M Grader	13%	($ 208	+	$ 19)	*	-	= $	-
		Water Truck	13%	($ 175	+	$ 16)	*	-	= $	-
32	**Intentionally Left Blank**									
32	**Intentionally Left Blank**									
32	**Intentionally Left Blank**									
								Total Cost =	**$**	**-**

Equipment and Accesory Identification

1) Caterpillar 992G Loader with standard 15 cubic yard bucket
   Caterpillar 16M Grader, standard blade, road maintenance time = 1/8 scraper time
   10,000 gal. Water truck, road maintenance time = 1/8 scraper time

Data Sources:

2) PRIMEDIA Equipmentwatch, "Cost Reference Guide for Construction Equipment," 2011 1st half edition. (see Table 12-B-23)
3) Labor Cost based on 2011 contract with ACME Inc. (see Table 12-B-24)
4) Total Hours Required from Worksheet 8 and Note 1 above

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.13G

SUMMARY CALCULATION OF EARTHMOVING COSTS - Motor Graders

	Project	Equipment Type[1]	Ratio	Equipment Unit Costs [$/hr][2]		Labor Costs [$/hr][3]		Total Hours Required[4]		Total Cost [$]
29	**Road Ripping No Name Project**	16M Grader, ripping	100%	($ 215	+	$ 19)	*	1	= $	273
33	**Grading Topsoil Areas**	16M Grader	100%	($ 208	+	$ 19)	*	67	= $	15,149

Total Cost = $ 15,422

Equipment and Accesory Identification

1) Caterpillar 16M Motor Grader with Ripper Blade

Data Sources:

2) PRIMEDIA Equipmentwatch, "Cost Reference Guide for Construction Equipment," 2011 1st half edition. (see Table 12-B-23)
3) Labor Cost based on 2011 contract with ACME Inc. (see Table 12-B-24)
4) Total Hours Required from Worksheet 12

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.13H

SUMMARY CALCULATION OF EARTHMOVING COSTS - Drilling

	Project	Equipment Type[1]	Ratio	Equipment Unit Costs [$/hr][2]		Labor Costs [$/hr][3]		Total Hours Required[4]		Total Cost [$]
1	**Drill & Blast**	DMM2 Drill	100%	($ 406	+	$ 21)	*	0	= $	-
32	**Intentionally Left Blank**	DMM2 Drill	100%	($ 406	+	$ 21)	*	0	= $	0

Total Cost = $ 0

Equipment and Accesory Identification

1) Ingersoll-Rand DMM2 Crawler-type Drill

Data Sources:

2) PRIMEDIA Equipmentwatch, "Cost Reference Guide for Construction Equipment," 2011 1st half edition. (see Table 12-B-23)
3) Labor Cost based on 2011 contract with ACME Inc. (see Table 12-B-24)
4) Total yardage drilled from 12-B-25 D&B

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.14A
REVEGETATION COSTS

Name and Description of Areas to be Revegetated:

9 Revegetation

Description of Revegetation Activities

Costs For Seeding = 242 ac (Acreage to be reseeded) * (325.4 $/ac. (cost for seedbed preparation) + 2536.5277 $/ac. (cost for seeding, fertilizing, mulching, and irrigation)) = $ 692,959

20% Contingency for vegetation failure:

Costs For Reseeding = 48 ac (Acreage to be reseeded) * (325.4 $/ac. (cost for seedbed preparation) + 2536.5277 $/ac. (cost for seeding, fertilizing, mulching, and irrigation)) = $ 138,592

Other Revegetation Activity for this Area (e.g. Soil Sampling):

TOTAL REVEGETATION COST = $ 831,551

Data Sources:

Navajo Mine records for contractor planting costs

Seedbed Preparation includes discing and ripping, drill seeding, topsoil and spoil sampling

Irrigation costs are included with seeding, fertilizing and mulching costs

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.14B
REVEGETATION COSTS

Name and Description of Areas to be Revegetated:

34 Revegetation Roads Area 4 Project

Description of Revegetation Activities

20% Contingency for vegetation failure:

Costs For Seeding = 1 ac (Acreage to be reseeded) * (325.41 $/ac. (cost for seedbed preparation) + 2536.5277 $/ac. (cost for seeding, fertilizing, mulching, and irrigation)) = $ 3,661

20% Contingency for vegetation failure:

Costs For Reseeding = 0.3 ac (Acreage to be reseeded) * (325.41 $/ac. (cost for seedbed preparation) + 2536.5277 $/ac. (cost for seeding, fertilizing, mulching, and irrigation)) = $ 732

Other Revegetation Activity for this Area (e.g. Soil Sampling):

TOTAL REVEGETATION COST = $ 4,394

Data Sources:

Navajo Mine records for contractor planting costs

Seedbed Preparation includes discing and ripping, drill seeding, topsoil and spoil sampling

Irrigation costs are included with seeding, fertilizing and mulching costs

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.14C
REVEGETATION COSTS

Name and Description of Areas to be Revegetated:

32 Intentionally Left Blank

Description of Revegetation Activities

Costs For Seeding = - ac (Acreage to be reseeded) * (325.4 $/ac. (cost for seedbed preparation) + 2536.5277 $/ac. (cost for seeding, fertilizing, mulching, and irrigation)) = $ -

20% Contingency for vegetation failure:

Costs For Reseeding = 0 ac (Acreage to be reseeded) * (325.4 $/ac. (cost for seedbed preparation) + 2536.5277 $/ac. (cost for seeding, fertilizing, mulching, and irrigation)) = $ -

Other Revegetation Activity for this Area (e.g. Soil Sampling):

TOTAL REVEGETATION COST = $ -

Data Sources:

Navajo Mine records for contractor planting costs

Seedbed Preparation includes discing and ripping, drill seeding, topsoil and spoil sampling

Irrigation costs are included with seeding, fertilizing and mulching costs

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.14D
REVEGETATION COSTS

Name and Description of Areas to be Revegetated:

32 Intentionally Left Blank

Description of Revegetation Activities

20% Contingency for vegetation failure:

Costs For Seeding = (- ac [Acreage to be reseeded]) * (325.4 $/ac. [cost for seedbed preparation] + 2536.5277 $/ac. [cost for seeding, fertilizing, mulching, and irrigation]) = $ -

Reseeding 20% of permenent program lands that were revegged during or before 1999:

Costs For Reseeding = (0 ac [Acreage to be reseeded*]) * (325.4 $/ac. [cost for seedbed preparation] + 2536.5277 $/ac. [cost for seeding, fertilizing, mulching, and irrigation]) = $ -

Other Revegetation Activity for this Area (e.g. Soil Sampling):

TOTAL REVEGETATION COST = $ -

Data Sources:

Navajo Mine records for contractor planting costs

Seedbed Preparation includes discing and ripping, drill seeding, topsoil and spoil sampling

Irrigation costs are included with seeding, fertilizing and mulching costs

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.15A
PRODUCTIVITY AND HOURS FOR DRILL USE

Earthmoving Activity:

1 Drill & Blast

Characterization of Drill Used

Drill Model	IR DMM2 Drill				
Drill Bit Diameter	10.63 [in]	Burden	26 [ft]	1,233	Volume Shot per hole [bcy]
Drill Rod Length	35 [ft]	Bench Height	40 [ft]		
Penetration Rate	228 [ft/hr]	Spacing	32 [ft]		

Description of Activity:

Drilling holes to provide space for explosives

Calculation:

Cycles per Hour = 60 min (time available) / (10.5 min (drill time) + 1.6 min (rod feed time) + 0.4 min (rod pull time) + 2.0 min (misc.)) = 4.1 cycles/hr

Operating Delays = 30.0 min (lunch) + 15.0 min (shift change) + 10.0 min (blasting) + 6.0 min (service time) + 5.0 min (moving) + 5 min (misc.) = 71 min
= 14.8% of a shift
= 85.2% operational utilization

Effective Pit Utilization (EPU) = 85.2% (operational utilization) * 90.0% (availability) = 76.7%

Maximum Penetration Rate = 40 ft (bench height) * 4.1 cycles/hr (cycles per hour) * 76.7% EPU (pit utilization) = 126.5 ft/hr

Maximum Production:

per Scheduled Shift = 26 ft (burden) * 32 ft (spacing) * 126.5 ft/hr (max. penetration rate) * 8.0 hr/shift (hours in a shift) / 27 ft^3/yd^3 (conversion factor) = 31,184 bcy/shift

per Scheduled Hour = 31,184 bcy/shift (max. production per sched. shift) / 8 hr/shift (conversion factor) = 3,898 bcy/hr

Drill Hours Required = - bcy (volume to be blasted) / 3,898 bcy/hr (production rate) = - hr

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.15B
PRODUCTIVITY AND HOURS FOR DRILL USE

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Drill Used

Drill Model	IR DMM2 Drill				
Drill Bit Diameter	10.63 [in]	Burden	26 [ft]	1,233	Volume Shot per hole [bcy]
Drill Rod Length	35 [ft]	Bench Height	40 [ft]		
Penetration Rate	228 [ft/hr]	Spacing	32 [ft]		

Description of Activity:

Drilling holes to provide space for explosives

Calculation:

Cycles per Hour = 60 min (time available) / (10.5 min (drill time) + 1.6 min (rod feed time) + 0.4 min (rod pull time) + 2.0 min (misc.)) = 4.1 cycles/hr

Operating Delays = 30.0 min (lunch) + 15.0 min (shift change) + 10.0 min (blasting) + 6.0 min (service time) + 5.0 min (moving) + 5 min (misc.) = 71 min
= 14.8% of a shift
= 85.2% operational utilization

Effective Pit Utilization (EPU) = 85.2% (operational utilization) * 90.0% (availability) = 76.7%

Maximum Penetration Rate = 40 ft (bench height) * 4.1 cycles/hr (cycles per hour) * 76.7% EPU (pit utilization) = 126.5 ft/hr

Maximum Production:

per Scheduled Shift = 26 ft (burden) * 32 ft (spacing) * 126.5 ft/hr (max. penetration rate) * 8.0 hr/shift (.) / 27 ft^3/yd^3 (conversion factor) = 31,184 bcy/shift

per Scheduled Hour = 31,184 bcy/shift (max. production per sched. shift) / 8 hr/shift (conversion factor) = 3,898 bcy/hr

Drill Hours Required = 0 bcy (volume to be blasted) / 3,898 bcy/hr (production rate) = 0 hr

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.15C
PRODUCTIVITY AND COSTS FOR BLASTING ACTIVITIES

Earthmoving Activity:

1 Drill & Blast

Characterization of Blasting Parameters

Ingersoll Rand DMM2 Drill

Burden	26 [ft]	Powder Factor [lb/bcy]	0.9 [lb/bcy]
Bench Height	40 [ft]	Volume Shot per hole [bcy]	1,233 [bcy]
Spacing	32 [ft]		

Description of Activity:

ANFO used with boosters and primacord for explosive load

Calculation:

Total ANFO Required = 0 bcy (volume to be blasted) * 0.9 lb/bcy (powder factor) = 0 lb

Miscellaneous Powder Supplies = 0 lb (ANFO required) * 0.1 (contingency factor) = 0 lb

Cord Cost per Hole =(26 ft (burden) + 32 ft (spacing) + 40 ft (bench height))* 10% (waste factor) * 0.26 $/ft (cord unit cost) = 28 $/hole

ANFO Cost per Hole = 1,233 bcy (volume shot per hole) * 0.9 lb/bcy (powder factor) * 0.26 $/lb (ANFO unit cost) = 288 $/hole

Primer Cost per Hole = 1 (primers per hole) * 6.56 $/ea (primer unit cost) = 6.56 $/hole

Volumetric Blasting Cost =(28 $/hole (cord cost per hole) + 288 $/hole (ANFO cost per hole) + 6.56 $/hole (primer cost per hole))/ 1,233 bcy (volume shot per hole) = 0.26 $/bcy

Total Blasting Cost = 0.26 $/bcy (volumetric blasting cost) * - bcy (volume to be blasted) = 0

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.15D
PRODUCTIVITY AND COSTS FOR BLASTING ACTIVITIES

Earthmoving Activity:

32 Intentionally Left Blank

Characterization of Blasting Parameters

Ingersoll Rand DMM2 Drill

26	Burden [ft]	0.9	Powder Factor [lb/bcy]
32	Spacing [ft]	1,233	Volume Shot per hole [bcy]
40	Bench Height [ft]		

Description of Activity:

ANFO used with boosters and primacord for explosive load

Calculation:

Total ANFO Required = 0 bcy (volume to be blasted) * 0.9 lb/bcy (powder factor) = 0 lb

Miscellaneous Powder Supplies = 0 lb (ANFO required) * 5% (contingency factor) = 0 lb

Cord Cost per Hole =(26 ft (burden) + 32 ft (spacing) + 40 ft (bench height))* 10% (waste factor) * 0.26 $/ft (cord unit cost) = 28 $/hole

ANFO Cost per Hole = 1,233 bcy (volume shot per hole) * 0.9 lb/bcy (powder factor) * 0.26 $/lb (ANFO unit cost) = 288 $/hole

Primer Cost per Hole = 1 (primers per hole) * 6.56 $/ea (primer unit cost) = 6.56 $/hole

Volumetric Blasting Cost =(28 $/hole (cord cost per hole) + 288 $/hole (ANFO cost per hole) + 6.56 $/hole (primer cost per hole))/ 1,233 bcy (volume shot per hole) = 0.26 $/bcy

Total Blasting Cost = 0.26 $/bcy (volumetric blasting cost) * 0 bcy (volume to be blasted) = $ 0

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.15E

Other Reclamation Activity Costs

Earthmoving Activity:

Rip-Rap for Channels and Drop Structures

Calculation:

See detailed calculations in Appendix 12-C

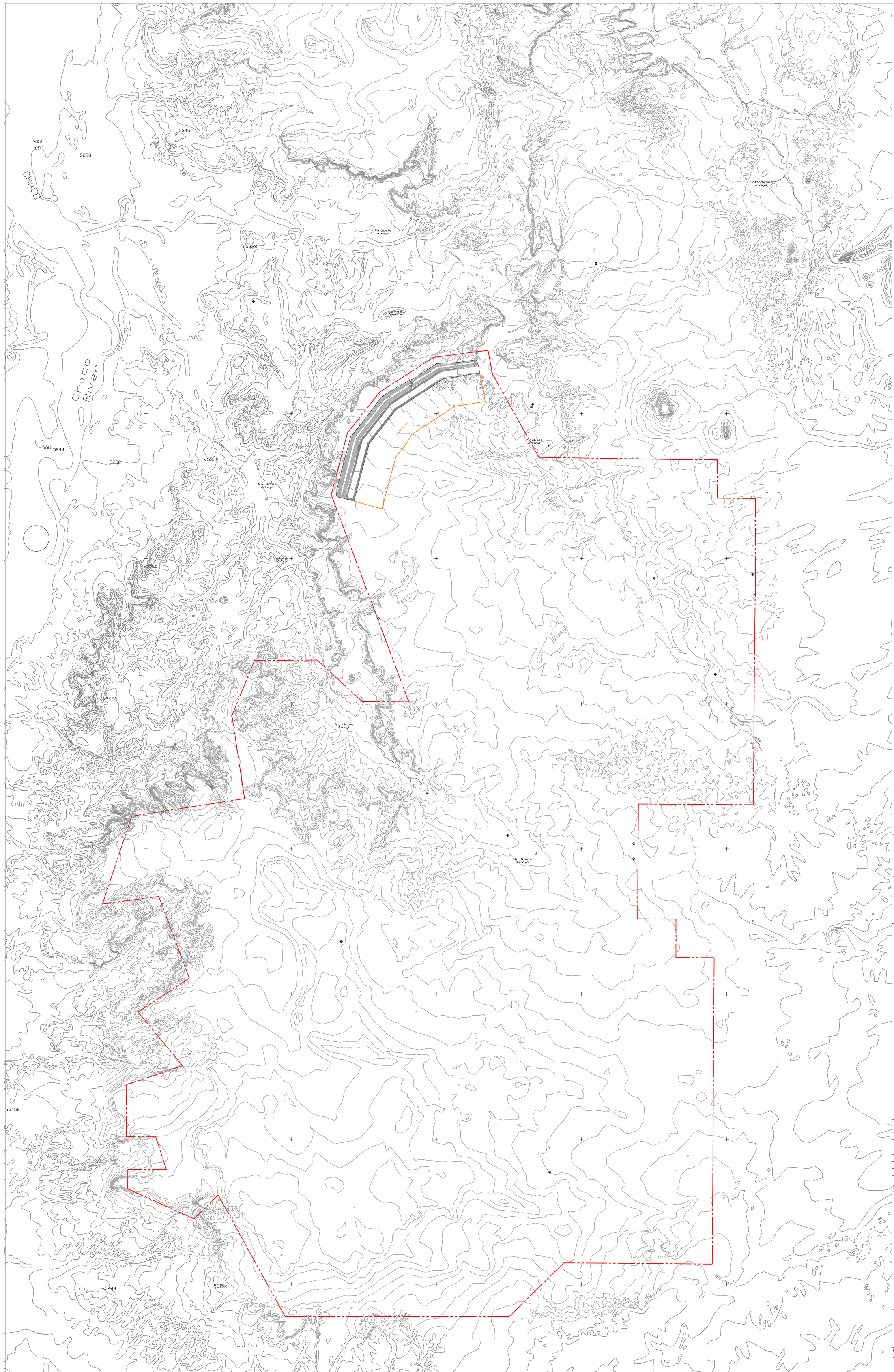
Cost for No Name Project:	$	-
Total:	$	-

Project: No Name Permit
Date: Apr-2026

WORKSHEET NO. 50.16
BOND 2025 to 2029 - NO NAME BOND SUMMARY SHEET

			2024 Estimate	
1	Total Facility and Structure Removal Costs		$	-
2	Total Earthmoving Costs		$	3,139,850
3	Total Revegetation Costs		$	835,944
4	Total Other Reclamation Activities Costs		$	0
5	**Subtotal: Total Direct Costs**		**$**	**3,975,795**
	Indirects (Based on Line 5)	%		
6	Mobilization and Demobilization	1.0%	$	39,758
7	Contingencies	2.0%	$	79,516
8	Engineering Redesign Fee	1.8%	$	71,564
9	Contractor Profit and Overhead	15.0%	$	596,369
10	Reclamation Management Fee	3.9%	$	155,056
11	**Subtotal 2024 Indirect Costs:[1]**		**$**	**942,263**
	Bond Release			
	Subtotal Bond Release			**$0**
	Total Mar. 2024 No Name Bond Cost Estimate		$	4,918,058
	Bond Inflations	%		
	Mar. 2025 Inflation	**6.66%**	**$**	**5,245,600**
	Mar. 2026 Inflation	6.66%	$	5,594,957
	Mar. 2027 Inflation	6.66%	$	5,967,582
	Mar. 2028 Inflation	TBD		
	Mar. 2029 Inflation	TBD		
	Mar. 2030 Inflation	TBD		

[1] Sum of items 5 through 10



LEGEND

- × 5338.5 — SPOT ELEVATION
- 5300 — INDEX CONTOUR
- INTERMEDIATE CONTOUR
- 218 / 5422.45 — HORIZ. & VERT. CONTROL
- LEASE BOUNDARY
- MONITORING WELLS
- Topsoil Removal

1000 0 1000 2000

CONTOUR INTERVAL: 10'

Topo Revised by

Aero-Graphics, Inc.

2930 South West Temple
Salt Lake City, Utah 84115

CERTIFICATION STATEMENT

I, Shawn T. Smith, hereby certify that this drawing was reviewed by me and that the information shown is complete and accurate to the best of my knowledge.

SHAWN T. SMITH — NEW MEXICO — 21090 — LICENSED PROFESSIONAL ENGINEER

Original certified signed exhibits are maintained at the mine site and at OSM.

REV. No.	DATE	DRAFT. BY	REVISION DESCRIPTION	PREP'D BY	E.G.	P.E.	DATE CERTIFIED
				APPROVALS			

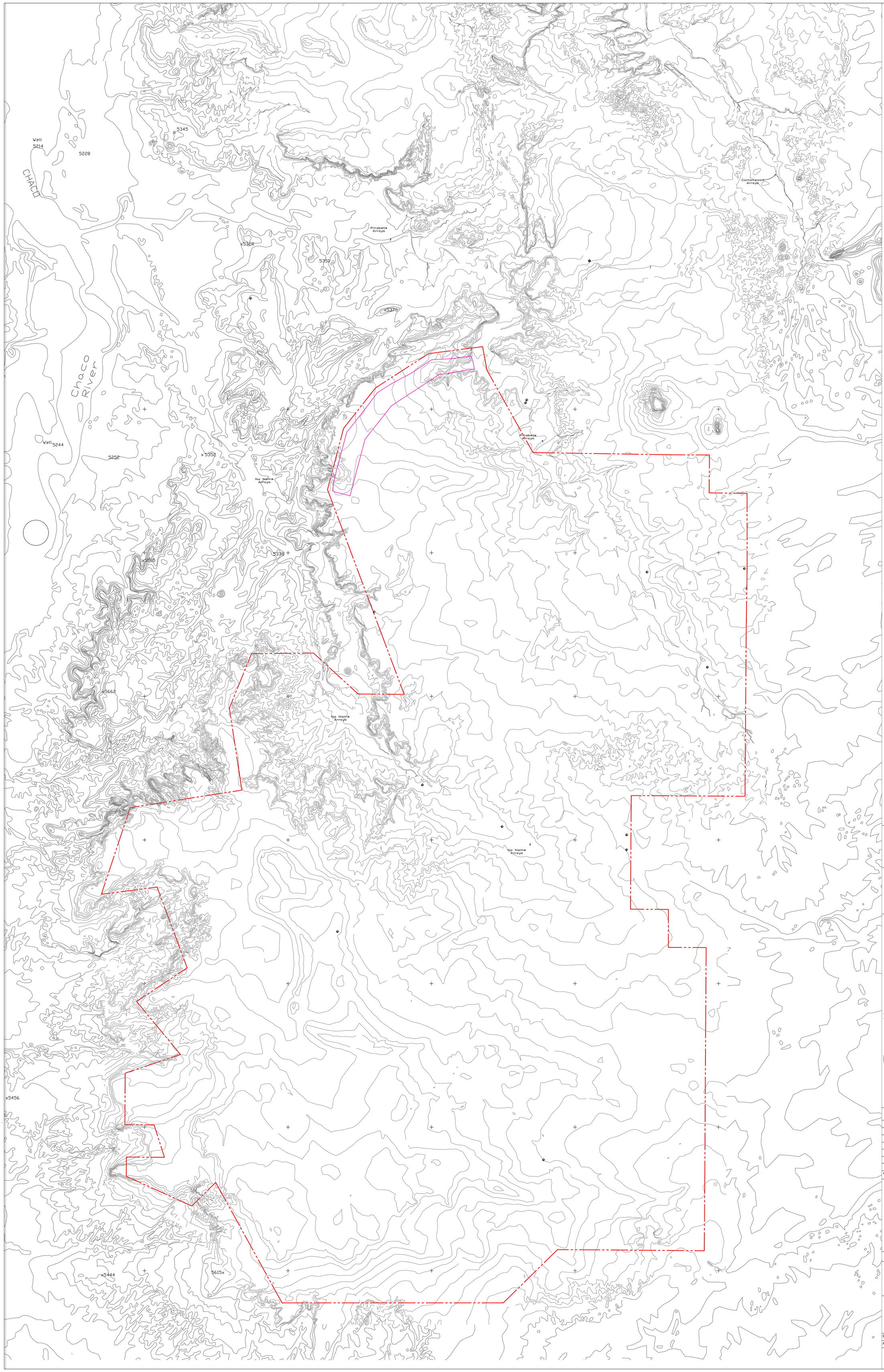
Navajo Transitional Energy Company

EXHIBIT 50.1-1

NAVAJO MINE NO NAME PERMIT

POST MINE TOPOGHAPHY BOND SCENARIO 2025

PREPARED BY RY	DRAWN BY RY	SCALE: 1" = 1000'
APPROVED BY	DATE 09/08/25	



LEGEND

- × 5338.5 — SPOT ELEVATION
- 5300 — INDEX CONTOUR
- INTERMEDIATE CONTOUR
- 218 / 5422.45 — HORIZ. & VERT. CONTROL
- LEASE BOUNDARY
- MONITORING WELLS
- BOXCUT DISTURBANCE

1000 0 1000 2000

CONTOUR INTERVAL: 10'

Topo Revised by

Aero-Graphics, Inc.

2930 South West Temple
Salt Lake City, Utah 84115

CERTIFICATION STATEMENT

I, Shawn T. Smith, hereby certify that this drawing was reviewed by me and that the information shown is complete and accurate to the best of my knowledge.

SHAWN T. SMITH — NEW MEXICO — 21090 — LICENSED PROFESSIONAL ENGINEER

Original certified signed exhibits are maintained at the mine site and at OSM.

REV. No.	DATE	DRAFT. BY	REVISION DESCRIPTION	APPROVALS: PREP'D BY	E.G.	P.E.	DATE CERTIFIED

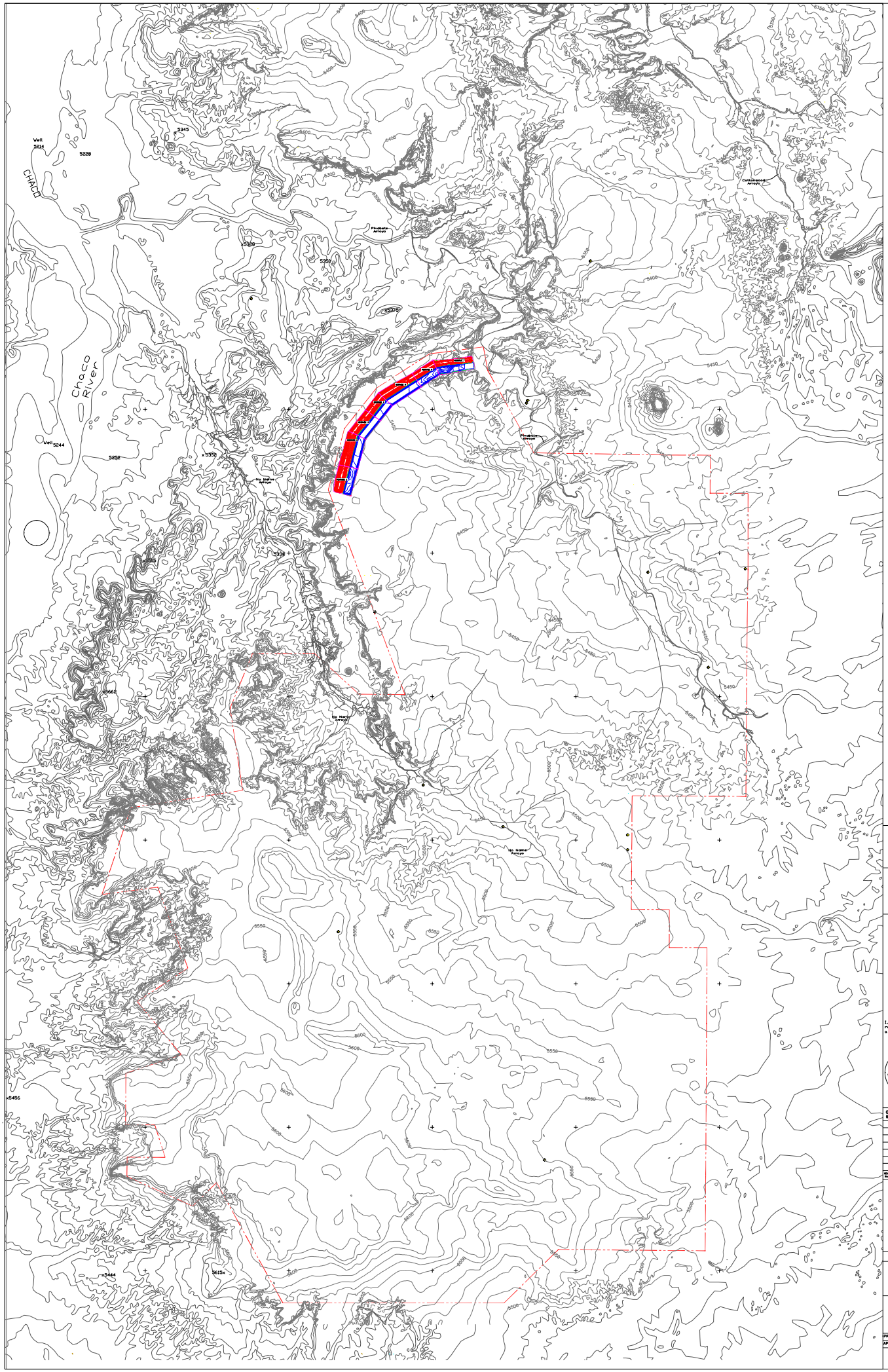
Navajo Transitional Energy Company

EXHIBIT 50.1-2

NAVAJO MINE NO NAME PERMIT

BOND FINAL SURFACE BOND SCENARIO 2025

PREPARED BY RY	DRAWN BY RY	SCALE: 1" = 1000'
APPROVED BY	DATE 09/08/25	



LEGEND

- SPOT ELEVATION
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- HORIZ. & VERT. CONTROL
- LEASE BOUNDARY
- MONITORING WELLS
- 10' CUT INTERVALS
- 10' FILL INTERVALS
- REGRADE BLOCKS

1000 0 1000 2000

CONTOUR INTERVAL: 10'

Topo Revised by
Aero-Graphics, Inc.
2930 South West Temple
Salt Lake City, Utah 84115

CERTIFICATION STATEMENT

I, Shawn T. Smith, hereby certify that this drawing was reviewed by me and that the information shown is complete and accurate to the best of my knowledge.

Digitally signed by Shawn Smith
Reason: I have reviewed this document
Location:
Date: 2026.04.08 08:37:01-06'00'

Original certified signed exhibits are maintained at the mine site and at OSM.

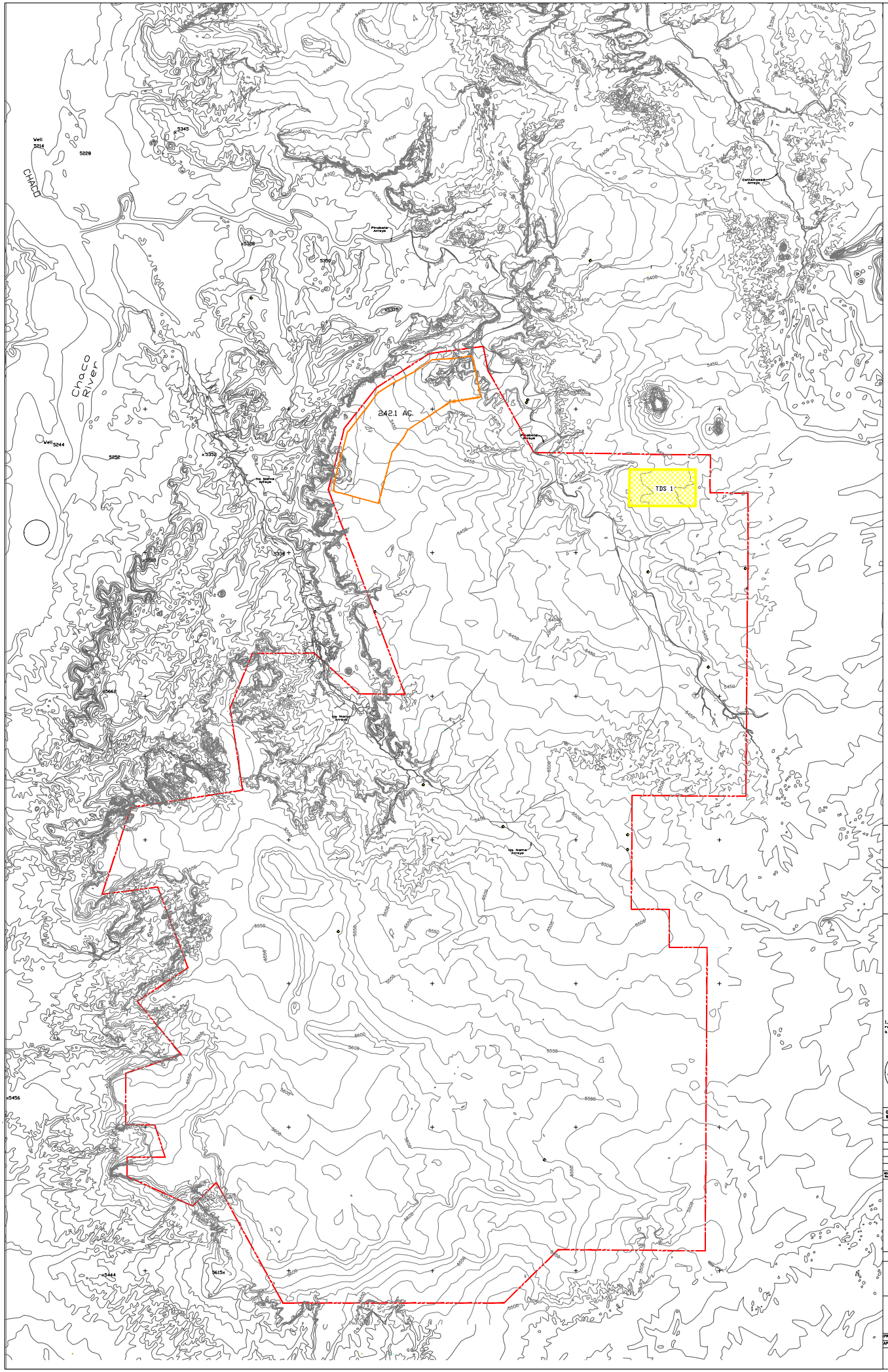
NO.	DATE	INITIALS	REVISION DESCRIPTION	NEW AS CAL PAD BOUNDARY

Navajo Transitional Energy Company

EXHIBIT 50.4-1

NAVAJO MINE NO NAME PERMIT
REGRADE BLOCKS & CUT/FILL MAP
BOND SCENARIO 2025

PREPARED BY RY	DRAWN BY RY	SCALE: 1" = 1000'
APPROVED BY	DATE 08/08/25	



Topo Revised by

Aero-Graphics, Inc.

2930 South West Temple
Salt Lake City, Utah 84115

CERTIFICATION STATEMENT

I, Shawn T. Smith, hereby certify that this drawing was reviewed by me and that the information shown is complete and accurate to the best of my knowledge.

Digitally signed by Shawn Smith
Reason: I have reviewed this document
Location:
Date: 2026.04.08 08:37:44-06'00'

Original certified signed exhibits are maintained at the mine site and at OSM.

NO.	BY	DATE	REVISION DESCRIPTION	APP'D AS TO TECHNICAL

Navajo Transitional Energy Company

EXHIBIT 50.4-2

NAVAJO MINE NO NAME PERMIT

TOPSOIL BLOCKS
BOND SCENARIO 2025

PREPARED BY	RY	DRAWN BY	RY
APPROVED BY		DATE	08/08/25

SCALE: 1" = 1000'

Table 50.4-1 Summary of NNP Reclamation Bond Amount

			2024 Estimate	
1	Total Facility and Structure Removal Costs		$	-
2	Total Earthmoving Costs		$	3,139,850
3	Total Revegetation Costs		$	835,944
4	Total Other Reclamation Activities Costs		$	0
5	**Subtotal: Total Direct Costs**		**$**	**3,975,795**
	Indirects (Based on Line 5)	%		
6	Mobilization and Demobilization	1.0%	$	39,758
7	Contingencies	2.0%	$	79,516
8	Engineering Redesign Fee	1.8%	$	71,564
9	Contractor Profit and Overhead	15.0%	$	596,369
10	Reclamation Management Fee	3.9%	$	155,056
11	**Subtotal 2024 Indirect Costs:[1]**		**$**	**942,263**
	Bond Release			
	Subtotal Bond Release			**$0**
	Total Mar. 2024 No Name Bond Cost Estimate		$	4,918,058
	Bond Inflations	%		
	Mar. 2025 Inflation	**6.66%**	**$**	**5,245,600**
	Mar. 2026 Inflation	6.66%	$	5,594,957
	Mar. 2027 Inflation	6.66%	$	5,967,582
	Mar. 2028 Inflation	TBD		
	Mar. 2029 Inflation	TBD		
	Mar. 2030 Inflation	TBD		

[1] See Appendix 50.A for a detailed calculation of the No Name reclamation bond amount