



COLORADO


Division of Reclamation,
Mining and Safety

Department of Natural Resources

MINERALS PROGRAM INSPECTION REPORT

PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Weathers Mine #1	MINE/PROSPECTING ID#: M-1999-089	MINERAL: Borrow material for construction, Sand, Clay	COUNTY: Yuma
INSPECTION TYPE: Monitoring	WEATHER: Clear	INSP. DATE: August 31, 2023	INSP. TIME: 14:00
OPERATOR: Byron J. & LaLani R. Weathers	OPERATOR REPRESENTATIVE: Bryon Weathers	TYPE OF OPERATION: 110c - Construction Limited Impact	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$22,000.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
INSPECTOR(S): Nikie Gagnon	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: October 18, 2023	

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Hydrologic Balance

PROBLEM/POSSIBLE VIOLATION: Problem #1: The site is improperly impounding surface drainage/runoff. This is a problem related to C.R.S. 34-32.5-116(4)(h) and Rule 3.1.6(1)(a) governing injury to existing water rights. The Division of Water Resources (DWR) requires that any stormwater runoff intercepted by this operation that is not diverted or captured in priority must infiltrate into the ground or be released to the stream system within 72 hours; otherwise the operator will need to make replacements for evaporation through a substitute water supply plan approved by DWR or a plan for augmentation decreed by the water court.

CORRECTIVE ACTIONS: By the corrective action due date, the operator shall submit photo evidence demonstrating that appropriate grading and/or removal of impediments to proper surface drainage have been achieved to prevent the continued impoundment of surface water. Alternatively, the operator shall provide evidence that measures are being taken (e.g., application for a substitute water supply plan) to gain compliance with DWR for the impounded water at the site.

CORRECTIVE ACTION DUE DATE: 11/20/2023

INSPECTION TOPIC: Financial Warranty

PROBLEM/POSSIBLE VIOLATION: Problem #2: The financial warranty is not adequate to reclaim the site in accordance with the approved reclamation plan. This is a failure to maintain the proper financial warranty

amount to complete reclamation of the affected lands pursuant to C.R.S. 34-32.5-117(4)(b) and Rule 4.2.1(1). **CORRECTIVE ACTIONS:** The Division has recalculated the required financial warranty for reclaiming the site in accordance with the approved reclamation plan (see enclosed bond estimate). Any comments regarding the Division's bond estimate and/or evidence demonstrating reclamation work has been completed shall be submitted by the corrective action due date. If, by the corrective action due date, no comments or additional information has been received, a notice of surety increase will be mailed to the operator for the amount shown in the enclosed bond estimate. The operator will have 60 days from the date on the surety increase notice to post the additional required financial warranty.
CORRECTIVE ACTION DUE DATE: 11/01/2023

OBSERVATIONS

This inspection was conducted as part of the Division of Reclamation, Mining and Safety's (Division or DRMS) routine monitoring program for permitted operations. Nikie Gagnon, with the Division, conducted the inspection. Byron Weathers, (Operator) accompanied the Division during the inspection.

The Weathers Mine #1 is located 9.5 miles south of Yuma CO, east of County Road C and south of County Road 29. The site is a 110c operation permitted to affect 9.99 acres. Affected lands will be reclaimed to support a pastureland post-mining land use. The site was not active at the time of inspection. A front-end loader was the only piece of equipment observed on site.

Gen Compliance with Mine Plan:

The Weathers Mine #1 is a triangle shaped permit area split into two mining areas on the east and west sides of an access road. The current disturbance area which includes the topsoil berms around the perimeter is approximately 6 acres. The stripped area of active mining is approximately 3.5 acres. On September 19, 2014, the Division approved a technical revision (TR-1) to the original permit to allow the Operator to disturb the entire 9.99 acres by removing the requirement for a 15-foot offset around the permit area. This mine is intermittently active, and mining has progressed slowly in recent years.

The east side of the permit area was inactive. No evidence of recent mining was observed; however, stockpiles of mined material are stored within the pit. The slopes on the east side are approximately 3H:1V below the topsoil berm that runs along northern and eastern sides of the pit, and the pit floor is fairly level. Sunflowers, annual weeds, and grasses were observed growing on the pit floor and side slopes in this area.

The west side of the permit area was inactive during this inspection; however, evidence of recent mining activity was observed. A sloped u-shaped cut face curves around the west side and a vertical highwall runs along the north side of this area. Two pits at different depths have been excavated within the pit floor. The slopes around the western pit wall were observed to be close to 3H:1V however no consistent grade is maintained around the pit. The mine plan calls for maintaining exterior slopes at 3H:1V to minimize side slope grading during reclamation and the floor of the mine will be graded as level as possible. A stockpile of mined material was observed in the northwest corner.

Hydrologic Balance:

Mining at this site is occurring above the water table, which, according to the approved mining plan, is around 150 feet below the ground surface. The soil is sandy and the approved mine plan states that all water is expected to soak into the ground and not accumulate for any length of time. The east side of the permit area

was dry during this inspection, however, cracked soil in a low spot at the center of the pit floor showed signs of previous standing water.

On the west side, the pit floor and the deeper excavated pits appear to be collecting storm water. Soil cracks were evident in two areas and several inches of water was observed below the northern highwall in the northeast corner in an excavated pit. Based on the color of the water, and staining of the pit walls above the water indicating the water was higher at one point in time, stormwater is not draining quickly. Additionally, Google imagery from 08/2022 and 09/2023 shows standing water in both the east and west mining areas.

The Operator should be aware that Rule 3.1.6(1)(a) states "Disturbances to the prevailing hydrologic balance of the affected land and of the surrounding area and to the quantity or quality of water in surface and groundwater systems both during and after the mining operation and during reclamation shall be minimized by measures, including, but not limited to compliance with applicable Colorado water laws and regulations governing injury to existing water rights." The Division of Water Resources (DWR) requires that any stormwater runoff intercepted by this operation that is not diverted or captured in priority must infiltrate into the ground or be released to the stream system within 72 hours; otherwise the operator will need to make replacements for evaporation through a substitute water supply plan approved by DWR or a plan for augmentation decreed by the water court. A problem is cited in this report (see Problem #1) for improperly impounding surface drainage/runoff. The Operator will need to submit photo evidence to the Division demonstrating that appropriate grading and/or removal of impediments to proper surface drainage have been achieved to prevent the continued impoundment of surface water. Alternatively, the operator shall provide evidence that measures are being taken (e.g., application for a substitute water supply plan) to gain compliance with DWR for the impounded water at the site.

Topsoil:

Topsoil is stored in three berms on the east, south and north sides of the pits. The only equipment on site was a front-end loader parked in front of the topsoil berm than runs along the northern boundary of the west side of the access road. The Division observed a small excavation in this topsoil pile. The Division reminded the Operator that the topsoil stored on site must be stored to minimize erosion and disturbance and should only be used to reclaim the affected mining area.

Signs and Markers:

A mine sign was posted in accordance with Rule 3.1.12(1) at the entrance to the pit and the boundaries are marked in the corners with metal posts and a barbed wire fence runs along the south property line.

Financial Warranty:

The reclamation cost estimate was last calculated in July 2014. After conducting this inspection, the Division recalculated the cost for reclaiming the site in accordance with the approved reclamation plan and found that the current bond of \$22,000.00 is inadequate. A problem is cited in this report (see Problem #2) for failure to maintain the proper financial warranty amount to complete reclamation of the affected lands pursuant to C.R.S. 34-32.5-117(4)(b) and Rule 4.2.1(1). The Division calculated the cost to reclaim the proposed disturbance of 9.9 acres to be in the amount of \$36,260.00 (see enclosed bond estimate), which is \$14,260.00 more than the currently held financial warranty. The Operator is being provided two weeks to review the Division's bond estimate and submit any comments and/or evidence demonstrating reclamation work has been completed. If, by the corrective action due date, no comments or additional information has been received, a notice of surety increase will be mailed to the operator for the amount shown in the enclosed

bond estimate. The operator will have 60 days from the date on the surety increase notice to post the additional required financial warranty.

This concludes the Division's Inspection Report; a subset of photographs taken during the time of the inspection are included below. If you need additional information or have any questions, please contact me at Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at 303866-3567 x8126, or by email at nikie.gagnon@state.co.us.

PHOTOGRAPHS



Photo 1: Looking northeast into the east side pit. Topsoil is stored above the pit on the northern and eastern sides. Stockpile of material in the pit (circled).



Photo 2: Looking east at the east pit. Stockpiled overburden at the base of the eastern wall (circled)



Photo 3: Looking west into the west side pit



Photo 4: Looking southeast at a pit excavated in the west side. Soil evidence of previous standing water in the pit.



Photo 5: Looking west below the u-shaped highwall in the west mining area. Soil evidence of previous standing water.



Photo 6: Looking north, excavation in the northeast corner of the west area. Standing water and tumbleweeds accumulating here.



Photo 7: Looking north at highwall in the west area. Topsoil stored in berm above the pit. Tumble weeds accumulating at the base of the pit. Drainage flows to the east and is trapped in the pit area.



Photo 8: Backside of berm above the east pit. A buffer is currently maintained between the pit and the permit boundary.



Photo 9: Backside of topsoil berm located above the eastern pit.



Photo 10: Backside of topsoil pile located about the western pit.



Figure 1: Google Earth imagery from 9/2023. Red line indicates the approximate permit boundary.

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS-----	<u>N</u>	(FN) FINANCIAL WARRANTY-----	<u>PB</u>	(RD) ROADS-----	<u>N</u>
(HB) HYDROLOGIC BALANCE-----	<u>PB</u>	(BG) BACKFILL & GRADING-----	<u>N</u>	(EX) EXPLOSIVES-----	<u>N</u>
(PW) PROCESSING WASTE/TAILING----	<u>N</u>	(SF) PROCESSING FACILITIES-----	<u>N</u>	(TS) TOPSOIL-----	<u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE-	<u>Y</u>	(FW) FISH & WILDLIFE-----	<u>N</u>	(RV) REVEGETATION----	<u>N</u>
(SM) SIGNS AND MARKERS-----	<u>Y</u>	(SP) STORM WATER MGT PLAN----	<u>N</u>	(RS) RECL PLAN/COMP--	<u>N</u>
(ES) OVERBURDEN/DEV. WASTE-----	<u>N</u>	(SC) EROSION/SEDIMENTATION---	<u>N</u>	(ST) STIPULATIONS-----	<u>N</u>
(AT) ACID OR TOXIC MATERIALS-----	<u>N</u>	(OD) OFF-SITE DAMAGE-----	<u>N</u>		

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

Inspection Contact Address

Bryon Weathers
Byron J. & LaLani R. Weathers
11955 CR 37
Yuma, CO 80759

Enclosure: Division's Bond Estimate

CC: Amy Eschberger, DRMS

COST SUMMARY WORK

Task description: _____

Site: Weathers Mine #1

Permit Action: 2023 Inspection

Permit/Job#: M1999089

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 10/12/2023

County: Yuma

Filename: M089-000

User: NCG

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Slope Grading and Reduction	DOZER	1	6.68	\$2,955
002	Replace Topsoil on 9.9 acres	DOZER	1	29.27	\$12,942
003	Revegetate 9.9 acres	REVEGE	1	9.90	\$9,672
004	Mob/Demob of Reclamation Equipment	MOBILIZE	1	2.20	\$1,997
<u>SUBTOTALS:</u>				48.05	\$27,566

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 24.03
Profit: 10.00

Total = \$557

Total = \$289

Total = \$1,564

Total = \$2,757

TOTAL O & P = \$5,166

CONTRACT AMOUNT (direct + O & P) = \$32,732

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500

Total = \$500

Engineering work and/or contract/bid preparation: 4.25

Total = \$1,391

Reclamation management and/or administration: 5.00

\$1,637

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$8,694

TOTAL BOND AMOUNT (direct + indirect) = \$36,260

BULLDOZER WORKTask description: **Slope Grading and Reduction**Site: **Weathers Mine #1**Permit Action: **2023 Inspection**Permit/Job#: **M1999089****PROJECT IDENTIFICATION**Task #: **001**State: **Colorado**Abbreviation: **None**Date: **10/12/2023**County: **Yuma**Filename: **M1999089**User: **NCG**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8SU**Horsepower: **310**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$241.38	NA
Operating Cost/Hour:	\$143.92	100
Ripper own.	\$14.11	NA
Cost/Hour:		
Ripper op. Cost/Hour:	\$1.86	25
Operator Cost/Hour:	\$41.30	NA
Total unit Cost/Hour:	\$442.57	
Total Fleet Cost/Hour:	\$442.57	

MATERIAL QUANTITIESInitial Volume: **4,060**Swell factor: **1.250**Loose volume: **5,075 LCY**Source of estimated volume: **Application - 25' H x 700' L, 1H:1V to 3H:1V**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **75 feet**Unadjusted hourly production: **1,017.1 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **-30 %**Average site altitude: **4,200 feet**Material weight: **2,650 lbs/LCY**Weight description: **Decomposed rock - 25% Rock, 75% Earth****Job Condition Correction Factor**Operator Skill: **0.750**Source
(AVG.)

Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7474

Adjusted unit production: 760.18 LCY/hr

Adjusted fleet production: **760.18** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.582/LCY

Total job time: **6.68** Hours

Total job cost: **\$2,955**

BULLDOZER WORKTask description: **Replace Topsoil on 9.9 acres**Site: **Weathers Mine #1**Permit Action: **2023 Inspection**Permit/Job#: **M1999089****PROJECT IDENTIFICATION**Task #: **002**State: **Colorado**Abbreviation: **None**Date: **10/12/2023**County: **Yuma**Filename: **M1999089**User: **NCG**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8SU**Horsepower: **310**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$241.38	NA
Operating Cost/Hour:	\$143.92	100
Ripper own. Cost/Hour:	\$14.11	NA
Ripper op. Cost/Hour:	\$1.49	20
Operator Cost/Hour:	\$41.30	NA
Total unit Cost/Hour:	\$442.20	
Total Fleet Cost/Hour:	\$442.20	

MATERIAL QUANTITIESInitial Volume: **13,310**Swell factor: **1.215**Loose volume: **16,172 LCY**Source of estimated volume: **DRMS: 9.9 acres at 10" depth**Source of estimated swell
factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **200 feet**Unadjusted hourly
production: **491.9 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push
gradient: **-20 %**Average site altitude: **4,200 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil****Job Condition Correction Factor**Operator Skill: **0.750**Source
(AVG.)

Material consistency:	1.000	(CAT HB)
Dozing method:	1.100	(50% SL)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.1233

Adjusted unit
production: 552.55 LCY/hr
Adjusted fleet
production: **552.55** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.800/LCY

Total job time: **29.27** Hours
Total job cost: **\$12,942**

REVEGETATION WORKTask description: Revegetate 9.9 acresSite: Weathers Mine #1Permit Action: 2023 InspectionPermit/Job#: M1999089**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 10/12/2023County: YumaFilename: M1999089User: NCGAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	121.00	pound	\$0.62	\$75.42
Triple superphosphate, 0-46-0	87.00	pound	\$0.89	\$77.43
			Total Fertilizer Materials Cost/Acre	\$152.85

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$41.82
Total Fertilizer Application Cost/Acre	\$41.82

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$451.62

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Rye, Annual Tetraploid - Barmultra	1.00	4.36	\$1.65
Orchardgrass - Paiute	1.50	18.60	\$6.11
Crested Wheatgrass - Hy-Crest	1.00	4.59	\$3.98
Crested Wheatgrass - Nordan	1.00	4.59	\$3.90
Alfalfa - Ladak (inoculated)	0.50	2.41	\$1.28
Smooth Brome - Lincoln	1.00	3.33	\$3.33
Yellow Sweet Clover - Madrid	0.75	4.48	\$2.12
Totals Seed Mix	6.75	42.36	\$22.36

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00
Total Seed Application Cost/Acre	\$232.00

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
Totals Nursery Stock Cost / Acre					\$0.00

JOB TIME AND COST

No. of Acres:	9.9	Cost /Acre:	\$900.65
Estimated Failure Rate:	30%	Cost /Acre*:	\$254.36
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$8,916.44
Reseeding Job Cost:	\$755.45
Total Job Cost:	\$9,672
Job Hours:	9.90

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob of Reclamation Equipment**Site: **Weathers Mine #1**Permit Action: 2023 InspectionPermit/Job#: M1999089**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 10/12/2023County: YumaFilename: M1999089User: NCGAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D8T - 8SU	53.08	\$255.49	\$175.95	1	\$431.44	\$175.95	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.73	\$82.29	1	\$89.02	\$82.29	\$250.00

Subtotals: **\$520.46** **\$258.24** **\$500.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	\$15.83	1	\$15.83	\$15.83

Subtotals: **\$15.83** **\$15.83**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>YUMA</u>	
Total one-way travel distance:	<u>12.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$1,987.68</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$9.50</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.30</u>	<u>0.30</u>
Return Time (Hours):	<u>0.30</u>	<u>0.30</u>
Loading Time (Hours):	<u>0.25</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.25</u>	<u>NA</u>
Subtotals:	<u>1.10</u>	<u>0.60</u>

JOB TIME AND COST

Total job time:	<u>2.20</u>	Hours
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Total job cost:	<u>\$1,997</u>
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