USDA, Forest Service

PLAN OF OPERATIONS FOR MINING ACTIVITIES ON NATIONAL FOREST SYSTEM LANDS

FS-2800-5 OMB NO. 0596-0022

<u>USE OF THIS FORM IS OPTIONAL!</u> 1st TIME USERS SHOULD DIRECT QUESTIONS REGARDING THIS FORM OR REGULATIONS (36 CFR 228A) TO THE FOREST SERVICE DISTRICT OFFICE NEAREST YOUR AREA OF INTEREST.

	REGULATIONS (3	6 CFR 226A) TO THE FOREST SERVICE L	JISTRICT OFFICE NEAREST TOUR	AREA OF INTEREST.			
Sub	omitted by:						
		Signature	Title	Date (mm/dd/yy)			
Pla	n Received by:						
	· -	Signature	Title	Date (mm/dd/yy)			
		I. GENERAL IN	NFORMATION				
A.	Name of Mine/	Project: Oro Vista					
В.	Type of Operat	ion: Placer gold exploration					
		(lode, placer, mi	ill, exploration, development, pro-	duction, other)			
C.	plan (□repla	/□continuing) operation? (checknes/□modifies/□supplements) a					
D.	Proposed start-up date (mm/dd/yy) of operation: April 1, 2020						
E.	Expected total duration of this operation: 5 years						
F.	If seasonal, expected date (mm/dd/yy) of annual reclamation/stabilization close out: October 30						
G	Expected date (mm/dd/yy) for completion of all required reclamation: October 30, 2025						
		II. PRIN	CIPALS				
A.	A. Name, address and phone number of operator:						
B. Name, address, and phone number of authorized field representative (if other than the operator). Attach authorization to act on behalf of operator. N/A							
C.		and phone number of owners of	the claims (if different than	the operator):			
D.	their involveme	and phone number of any other lent with the operation, if applicable		, and briefly describe			
N	/A						

III. PROPERTY OR AREA

Name of	of claim.	if ap	plicable,	and the	legal	land	descri	ption	where	the o	peration	will be	located.
			,										

<u>2904</u>	77	Name Oro Vista #1	Section 21 & 22	Township T12S	Range R79W
	111			-	_
		Oro Vista #2	21 & 22	T12S	
		Oro Vista #3		_	
				_	_
		IV. DESCRIF	PTION OF THE OPERA	ATION	
A.	boundaries which For where new as widths,	now on a map (USGS quadratic property), if applicable, and all access est Service roads will be use construction is necessary. Figrades, etc., location and similar and equipment that will be used.	s needs such as roads and sed, where maintenance for new construction, inclu ze of culverts, describe m	trails, on and off or reconstruction and construction	the claim. Specify is proposed, and specifications such
Num the n	bers put-in wi	th approximate dimensions of 10 tte (see map) and walk to our wor	feet x 3,737 feet (37,370 SF) cking areas. Any road disturba	or 0.86 acres. We w	rill park at the end of
111111	ng operanion .		r 5 standards.		
	<u></u>		TO Standards.		
В.	Map, Sket creeks or s settling po	ch or Drawing. Show loca prings if known. Show the s nds, stream channels and ru etc. Include sizes, capacitie	ation and layout of the area ize and kind of all surface n-off diversions, waste du	disturbances sud umps, drill pads,	ch as trenches, pits, timber disposal or
B.	Map, Sket creeks or s settling po	ch or Drawing. Show local prings if known. Show the stands, stream channels and ruletc. Include sizes, capacities	ation and layout of the area ize and kind of all surface n-off diversions, waste du	disturbances sud umps, drill pads,	ch as trenches, pits, timber disposal or
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 \mathbf{C} Project Description. Describe all aspects of the operation including mining, milling, and exploration methods, materials, equipment, workforce, construction and operation schedule, power requirements, how clearing will be accomplished, topsoil stockpile, waste rock placement, tailings disposal, proposed number of drillholes and depth, depth of proposed suction dredging, and how gravels will be replaced, etc. Calculate production rates of ore. Include justification and calculations for settling pond capacities, and the size of runoff diversion channels. The Arkansas River is the site of the operation on Oro Vista #1, Oro Vista #3, and Oro Vista #2. A maximum of 1600 SF (square feet) will be disturbed at each site. Each trench will be backfilled and reclaimed as the dredge moves forward on the pay streak. One trench is planned for each season. A 4" dredge will be used to excavate the paystreak trench. The dredge screens material and the fine material , undersized material is pumped to the will be discharged behind the silt fence impoundment (20' x 10' x 6'). Oversized material from dredge will be discharged back into the excavation. The dredge crew will be 4 to 6 men. Operation will be 4 to 6 days per week. No topsoil is to be disturbed. All waste rock, tailings, and gravel will be replaced in excavation trench as the dredge moves forward on the paystreak. 4 to 6 yards of material will be dredged per day. Dredge capacity is 5 yards per hour of sand-sized material. (See App. A – D) The rocks and cobbles produced by the operation will be deposited in to the dredge trench and covered with the 4" size rock and gravel discharged by the dredge as it moves forward on the paystreak. The trench will be backfilled and reclaimed as the dredge moves forward on the paystreak. See attached diagram of dredge trench. (Exhibit E-G). fencing will be secured to cables and multiple layers of silt fencing will be secured to fencing. A rock berm Will be used to secure silt fencing to ground. Drill holes – I will be drilling 20 to 25 holes, 4' to 6' deep. Drill bit is 6" in diameter. We will be using a 2 man hand Auger. We will be drilling on the east side of the river in an old river channel. Drill holes will be kept inside of 20' x 80' area. Drill holes will be reclaimed following FS Standards. (Phase 3 – Pending) For all on-shore highbanking, water being used for this operation will be returned to the same part of the water way, Immediately following processing and settling. On-shore work areas are limited to those areas at least 20' from the Stream and outside of any riparian zones (stream side or wetlan vegetation). Riparian vegetation shall not be Damaged by operations. In-stream operations – the only disturbance authorized within the stream area is the placement of water pumps. Materials too large in size to move by hand or hand-held implements shall remain undisturbed. Anchorage systems For suction dredging equipment shall not span the stream or interfere with the passage of watercraft. Construction of diversion ditches, road building or other significant earthwork is not proposed. No dryland screening is proposed at this time. No slash cutting is proposed. All minimal disturbance in the river Will be reclaimed as the drege moves forward on the paystreak. All mining disturbance in the river will be below The high water mark. Any dry-land disturbance will be reclaimed and reseeded with the FS-approved seed mixture. Reclamation will occur at the end of each mining season.

Operation timeline: Phase 1 on Oro Vista #1, Phase 2 on Oro Vista #3, and Phase 3 on Oro Vista #2
See attached Diagrams
D. Equipment and Vehicles. Describe that which is proposed for use in your operation (Examples:
drill, dozer, wash plant, mill, etc.). Include: sizes, capacity, frequency of use, etc.
1 - 4" suction dredge
centrifuge to process material
1 - 8hp generator
1 - Air compressor with 8hp engine
1 – 2 man auger – 6" drill bit to be used on Oro Vista #2 (phase 3)
Hand tools
Passenger truck and trailer
E. Structures. Include information about fixed or portable structures or facilities planned for the operation. Show locations on the map. Include such things as living quarters, storage sheds, mill
buildings, thickener tanks, fuel storage, powder magazines, pipelines, water diversions, trailers, sanitation facilities including sewage disposal, etc. Include engineering design and geotechnical information for project facilities, justification and calculations for sizing of tanks, pipelines and water diversions, etc.
6' tall x 20' long x 10' wide silt impoundment. This will be removed at the end of each season. Job box
Caution signs
Portable toilet
(see Map – Appendix A)
V. ENVIRONMENTAL PROTECTION MEASURES (SEE 36 CFR 228.8)
A. Air Quality. Describe measures proposed to minimize impacts on air quality such as obtaining a burning permit for slash disposal or dust abatement on roads.
No burning of slash is proposed. The small scale mining operation will not create dust problems. Vehicle traffic will
be minimal. We will drive slowly along the access road, so as not to stir up dust.
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- B. Water Quality. State how applicable state and federal water quality standards will be met. Describe measures or management practices to be used to minimize water quality impacts and meet applicable standards.
 - 1. State whether water is to be used in the operation, and describe the quantity, source, methods and design of diversions, storage, use, disposal, and treatment facilities. Include assumptions for sizing water conveyance or storage facilities.
 - 2. Describe methods to control erosion and surface water runoff from all disturbed areas, including waste and tailings dumps.
 - 3. Describe proposed surface water and groundwater quality monitoring, if required, to demonstrate compliance with federal or state water quality standards.
 - 4. Describe the measures to be used to minimize potential water quality impacts during seasonal closures, or for a temporary cessation of operations.
 - 5. If land application is proposed for waste water disposal, the location and operation of the land application system must be described. Also describe how vegetation, soil, and surface and groundwater quality will be protected if land application is used.

When I receive State and Federal water quality standards, I will modify the mining operation to meet water quality Standards. I will construct a silt fence impoundment to catch all silt, sand, and clay from the centrifuge discharge.

A rock berm will be constructed around the base of the impoundment to stabilize the impoundment and keep the Sand, silt and clay from migrating back into the river. A rock berm will be constructed around the inside of the impoundment to hold the silt fence material down to the bed of the river. The impoundment will not be constructed Until after peak run-off. That way the river will not wash out the impoundment.

- 1. Water will be used to wash and screen the river gravel to material. The operation will be in the river Below the high water mark in the active river channel. The water used to screen the gravel will be discharged back Into the river from the dredge. The water discharged from the centrifuge will be discharged behind the silt fence Impoundment. That water will filter through the silt fence, back into the river. See attached diagram of centrifuge (see Exhibit G).
- 2. The silt, sand, and clay behind the impoundment will be covered with the rock and cobbles and stabilized By the edge of the river bank, so they cannot migrate back into the river. The oversize rock and cobbles will be Placed in the dredge trench and covered with the discharge from the dredge. Disturbed area will be reclaimed as the Dredge moves forward on the paystreak.
- 3. If required, water testing will be above the operation site, at the operation site, and below the operation site. If required, multiple layers of silt fencing will be used on the silt fence impoundment to filter out as much of the silt and clay to meet water quality standards (see Exhibit E).
- 4. Any disturbance from the mining operation will be reclaimed, reseeded, and restabilized as per FS guidelines.
 - 5. No land application is proposed for the waste water.

To minimize sediment entering the Arkansas River, a small settling pond or a small plastic pool or inflatable pool
will be used to catch and settle out sediment before reintroducing water back into the Arkansas River or reused for
future dredging.
EC Dort Management Duration will be followed only be accepting within the stores about
FS Best Management Practices will be followed while operating within the stream channel.
I will obtain all necessary permits to comply with the Clean Water Act. This could include 401, 402, or 404 permits from the Army Corps of Engineers.
C. Solid Wastes. Describe the quantity and the physical and chemical characteristics of solid was produced by the operation. Describe how the wastes will be disposed of including location and design of facilities, or treated so as to minimize adverse impacts.
All trash will be removed from the National Forest daily.
A portable toilet will be used for human waste. Waste will be properly disposed of off National Forest.
D. Scenic Values. Describe protection of scenic values such as screening, slash disposal, or timely reclamation.
All excavation sites (dredge and auger holes) will be reclaimed at the end of the mining season.
Pictures will be taken before and after the operation to ensure the preservation of scenic values.
E. Fish and Wildlife. Describe measures to maintain and protect fisheries and wildlife, and their habitat (includes threatened, endangered, and sensitive species) affected by the operations. No dredging will occur from September 30 to April 1 to protect fish spawning habitat.
Silt fencing will be used to contain the sand, silt, and clay (fine materials) to keep it from entering the river.
I will follow standard protocols established by CPW (see Appendix H) and the USFS for preventing the spread of
aquatic invasive species.
All waders, wetsuits, and equipment will be washed to avoid the spread of aquatic invasive species. Then the
Equipment, waders and wetsuits will be cleaned with a Quaternary Ammonia Compound from the list that was
Provided by CPW. Using the recommended minimum active QAC concentration for effective disinfection is 0.4% or
4.0ml of QAC per L of water. The recommendation for any QAC used by general public to disinfect waders is 6 oz.
Per gallon. All equipment brought into the river will receive whirling disease cleaning and will undergo inspection
For Noxious weeds consistent with FS requirements and standards (see Exhibit H).

F. Cultural Resources. Describe measures for protecting known historic and archeological values, or new sites in the project area.

No operations will be conducted in areas where the Forest Service designates as having historic or archaeological Values. I will not proceed with operations if previously undiscovered cultural resources (historic or prehistoric

Obje	cts, artifacts, or sites) are exposed as a result of operations until the District Ranger has been notified, and have
Com	plied with provisions for mitigating unforeseen impacts as required by 36 CFR 228.4(e) and 36 CFR 800.
G.	Hazardous Substances.
	1. Identify the type and volume of all hazardous materials and toxic substances which will be used or generated in the operations including cyanide, solvents, petroleum products, mill, process and laboratory reagents.
	mining waste, hazardous materials, all fuel, oil and equipment and excess excavated materials will be stored away
	drainages and wet areas to avoid contaminating water. Gas and oil will be stored according to FS standards
	feet away from the river on top of a container that would trap any possible spills. Fueling of equipment will
Take	place outside of the river corridor (100' away).
	2. For each material or substance, describe the methods, volume, and frequency of transport (include type of containers and vehicles), procedures for use of materials or substances, methods, volume, and containers for disposal of materials and substances, security (fencing), identification (signing/labeling), or other special operations requirements necessary to conduct the proposed operations.
	line will be stored in 5 gallon gas containers. Oil will be stored in plastic quart containers. They will be stored
Insid	e of half of one 55 gallon plastic drum, 100' from the river. All gas and oil will be removed from the site daily.
The g	gas and oil will be transported to and from the mine site in a private vehicle, inside of a 55 gallon half drum.
	3. Describe the measures to be taken for release of a reportable quantity of a hazardous material or the release of a toxic substance. This includes plans for spill prevention, containment, notification, and cleanup.
All o	perations will stop and appropriate agencies will be notified if there is a release of a toxic substance.
All fu	ueling will take place 100' or greater from the river. All fueling will be in one location (see site map). All fuel
Tank	s will be fueled inside of one-half of a 55 gallon drum to contain any fuel that might be spilled. Any dirt that
migh	t be contaminated will be removed from the site and properly disposed of off National Forest.

H. Reclamation. Describe the annual and final reclamation standards based on the anticipated schedule for construction, operations, and project closure. Include such items as the removal of structures and facilities including bridges and culverts, a revegetation plan, permanent containment of mine tailings, waste, or sludges which pose a threat of a release into the environment, closing ponds and eliminating standing water, a final surface shaping plan, and post operations monitoring and maintenance plans.
$\underline{I \ will \ backfill \ all \ excavations \ immediately \ following \ the \ completion \ of \ mining \ operations \ (concurrent \ and \ contemporaneous \ operations)}$
Reclamation).
Seasonal reclamation will include the removal of the silt impoundment, contouring and regrading disturbances.
Final reclamation will take place at the end of the five year operating period.
Upon final reclamation, all excavations will be restored to the original natural contour
And graded to match the surrounding topography. Reseeding will be done with the FS approved seed mixture (see
Appendix I). All equipment related to the mining operation will be removed at the end of the mining season.
I will reclaim the disturbance on the access road at the end of mining operations. This may include regrading, Contouring, ripping, and seeding, if necessary.
VI. FOREST SERVICE EVALUATION OF PLAN OF OPERATIONS A. Required changes/modifications/special mitigation for plan of operations:

B. **Bond.** Reclamation of all disturbances connected with this plan of operations is covered by Reclamation Performance Bond No. , dated (mm/dd/yy) , signed by (Principal) and (Surety), for the penal sum of . This Reclamation Performance Bond is a guarantee of faithful performance with the terms and conditions listed below, and with the reclamation requirements agreed upon in the plan of operations. This Reclamation Performance Bond also extends to and includes any unauthorized activities conducted in connection with this

The bond amount for this Reclamation Performance Bond was based on a bond calculation worksheet. The bond amount may be adjusted during the term of this proposed plan of operations in response to changes in the operations or to changes in the economy. Both the Reclamation Performance Bond and the bond calculation worksheet are attached to and made part of this plan of operations.

Acceptable bond securities (subject to change) include:

operation.

- 1. Negotiable Treasury bills and notes which are unconditionally guaranteed as to both principle and interest in an amount equal at their par value to the penal sum of the bond; or
- 2. Certified or cashier's check, bank draft, Post Office money order, cash, assigned certificate of deposit, assigned savings account, blanket bond, or an irrevocable letter of credit equal to the penal sum of the bond.

VII. TERMS AND CONDITIONS

- A. If a bond is required, it must be furnished before approval of the plan of operations.
- B. Information provided with this plan marked confidential will be treated in accordance with the agency's laws, rules, and regulations.
- C. Approval of this plan does not constitute certification of ownership to any person named herein and/or recognition of the validity of any mining claim named herein.
- D. Approval of this plan does not relieve me of my responsibility to comply with other applicable state or federal laws, rules, or regulations.
- E. If previously undiscovered cultural resources (historic or prehistoric objects, artifacts, or sites) are exposed as a result of operations, those operations will not proceed until notification is received from the Authorized Officer that provisions for mitigating unforeseen impacts as required by 36 CFR 228.4(e) and 36 CFR 800 have been complied with.
- F. This plan of operations has been approved for a period of <u>5 years</u> or until (mm/dd/yy) **12/31/2025**. A new or revised plan must be submitted in accordance with 36 CFR part 228, subpart A, if operations are to be continued after that time period.

VIII. OPERATING PLAN ACCEPTANCE

☐I/☐We have reviewed and agreed to comply with all conditions the required changes, modifications, special mitigation, and reclar	1 1
□I/□We understand that the bond will not be released until the A written approval.	Authorized Officer in charge gives
□Operator (or □Authorized Representative)	(Date) (mm/dd/yy)
IX. OPERATING PLAN APPR	OVAL
(Name)	(Title)
(Authorized Officer)	(Date)

"According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB number. The valid OMB number for this information collection is 0596-0022. The time required to complete this information collection is estimated to average 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information."