



CONTACT INFORMATION

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PRINTED: 11/19/2001

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: LAGUNA PLACER

ALTERNATE NAMES:
GREATERVILLE AREA MINING PROJ.

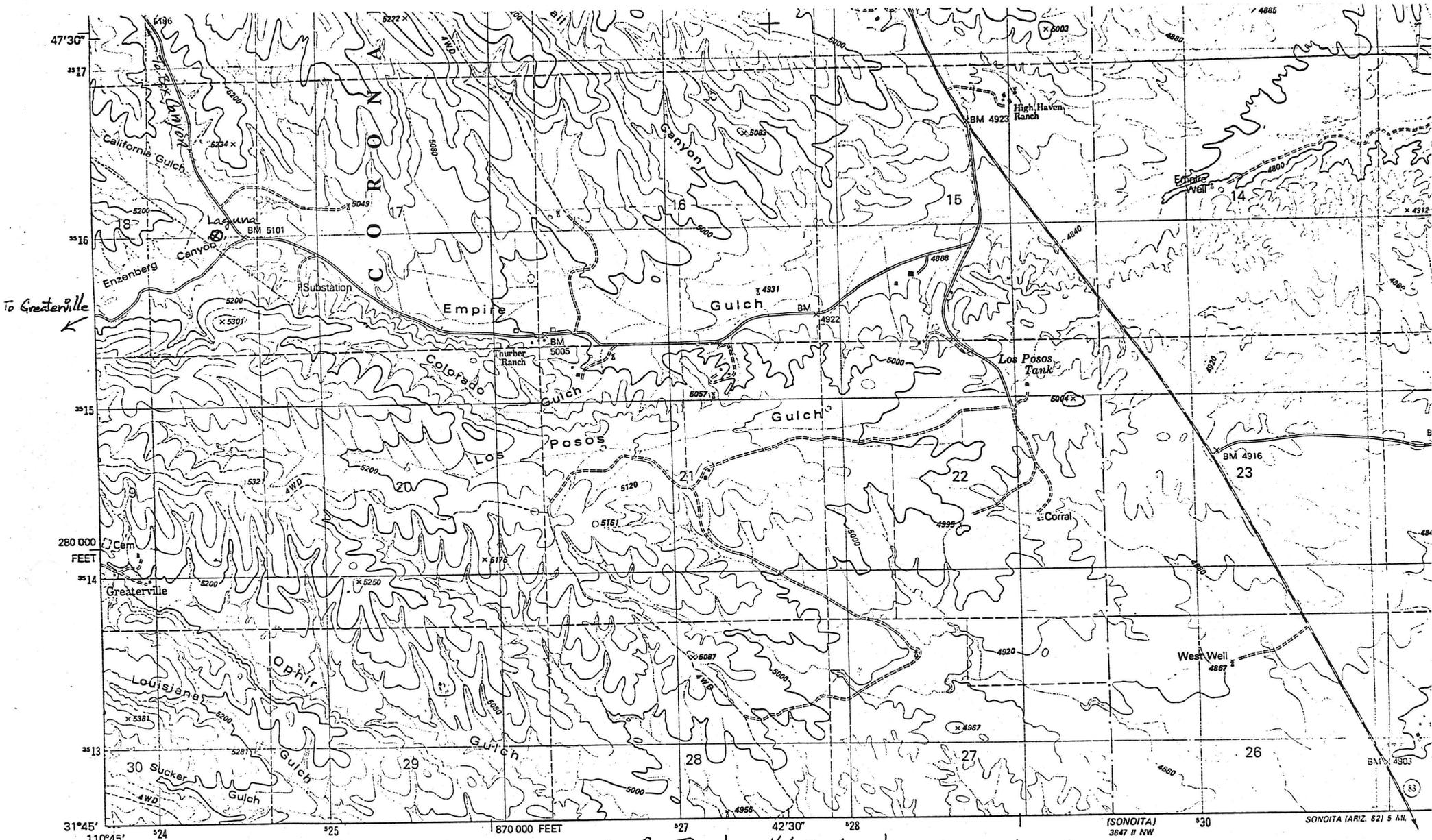
PIMA COUNTY MILS NUMBER: 844

LOCATION: TOWNSHIP 19 S RANGE 16 E SECTION 18 QUARTER SE
LATITUDE: N 31DEG 46MIN 52SEC LONGITUDE: W 110DEG 44MIN 32SEC
TOPO MAP NAME: EMPIRE MOUNTAINS - 15 MIN

CURRENT STATUS: UNKNOWN

COMMODITY:
GOLD PLACER

BIBLIOGRAPHY:
ADMMR LAGUNA PLACER FILE



To Greaterville
←

280 000
FEET

31°45' 110°45' 24 25 27 28 30
Mapped, edited, and published by the Geological Survey

Empire Ranch 7 1/2' Quadrangle

(SONOITA)
3647 II NW
SCALE 1:24 000
SONOITA (ARIZ. 62) 5 AII.



United States
Department of
Agriculture

Forest
Service

Coronado
National
Forest

Nogales
Ranger
District

2251 North Grand Avenue
Nogales, AZ 85621
(602) 281-2296
FAX (602) 670-5075

Reply to: 2810/2820

Date: June 2, 1993

*Laguna Placer (file)
Pima County*

Mr. Marty Durkin
HC1, Box 1090
Sonoita, AZ 85637

Dear Mr. Durkin:

A placer mining operation has been proposed in Township 19 South, Range 16 East, Sections 18, 19, and 29 on the east side of the Santa Rita mountains near Greaterville.

This proposal involves the excavation of nine trenches and the construction of a small, fenced millsite. Upon completion of the operation, the millsite would be completely removed. The trenches would be excavated one at a time, and each trench would be reclaimed before a new one could be excavated. A short segment of road would be constructed to gain access to one of these trenches; this road would be obliterated and re-seeded upon completion of the operation. A short segment of powerline would be installed to connect the millsite to an existing powerline nearby. This powerline would also be removed, and the area reclaimed, at the completion of the project. The proponent proposes to drill a well in the northeast corner of the mill area.

Two ponds would be included in the mill area with dimensions of 100 feet by 200 feet and 200 feet by 400 feet. The ore would be processed using gravity methods, and no chemicals would be used in any part of the operation. A water tank would also be installed at the mill area, as would a 1,000-gallon fuel storage tank. The fuel storage tank and well will be subject to other permit processes with the State. Please see the enclosed map for the location of the proposed trenches, millsite, road, and powerline.

Please submit any comments you may have about this proposal to this office by June 18, 1993. If you have any questions, please contact Chuck Dexheimer at this office or Kathryn Devenport, Forest Geologist, at (602) 670-4525 (Tucson).

Sincerely,

Jerry Lockwood
JERRY LOCKWOOD
District Ranger

Enclosure



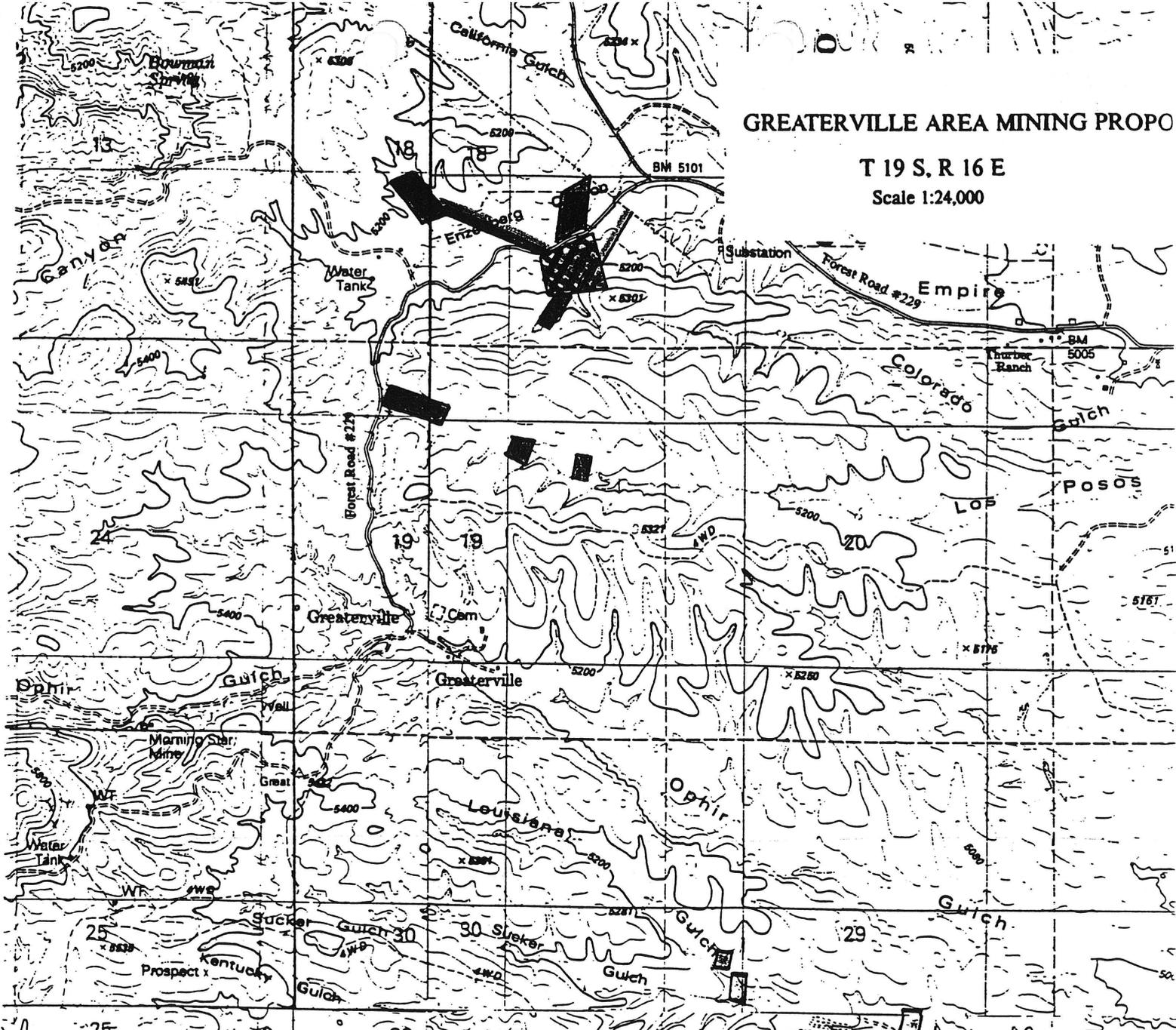
Caring for the Land and Serving People

FS-6200-28b(4/88)

GREATERVILLE AREA MINING PROPO

T 19 S, R 16 E

Scale 1:24,000



MILLSITE AREA



TRENCHES



NEW ROAD CONSTRUCTION



NEW POWERLINE



OAKDALE RANCH

P.O. BOX 34
13200 E. GREATERVILLE ROAD
SONOITA, ARIZONA 85637

June 15, 1993

Mr. Jerry Lockwood
District Ranger
United States Department of Agriculture
Forest Service
2251 North Grand Avenue
Nogales, Arizona 85621

Re: Placer Mining Operation

Dear Mr. Lockwood:

We have received your letter dated June 2, 1993 regarding the proposed placer mining operation near Greaterville, Arizona. We are sending this letter in reply as requested. While your letter does describe the location and relative size of the planned facility, it leaves many questions unanswered, which causes us alarm over the initiation of this operation.

As residents in the area of the proposed mining operation, we are very concerned over potential activities associated with the facility that could negatively and irreversibly impact the area. Our concerns can be summarized into the following categories:

- Ownership of the facility;
- Operation of the facility;
- Effects on the local groundwater supply;
- Effects on the local air quality; and
- Facility associated traffic.

We have listed below what we feel are relevant comments and questions which should be addressed and adequately answered before permitting the initiation of the proposed mining activities.

Ownership of the Facility

Your letter does not identify the owners of the proposed facility. We realize that more than any other factor, the owner will dictate how the facility will be constructed, operated, and maintained during its operating life. Have the owners operated similar operations and are they willing to submit references from residents near these operations which indicate that they have operated them responsibly? Is the owner sufficiently capitalized to ensure

proper and timely construction, operation, and removal of the facility including any potential contingencies associated with the facility? It has come to our attention that no other gold placer mining operations are currently operating in Arizona. Has it been adequately determined that this operation will be profitable? Can the Forest Service insure the residence of this area that due to its unique natural splendor (juniper, oaks, grassland, and a cool mountain climate within a 40 minute drive from Tucson) and the lack of deeded property in the immediate area, that this operation is not a potential front for future land use development? What future use for the land does the owner have planned?

Operation of the Facility

We have a number of concerns regarding the operation of the facility. We feel that before permission to allow construction and operation of the facility be granted that it is necessary to know what will be mined and what processes will be used. While your letter states that no chemicals will be used in any part of the operation and that only gravity methods will be employed, we feel it prudent, if not already required by law, to require that the owner have process and construction plans for the operation prepared by a professional engineer licensed in the State of Arizona. There should also be enforceable provisions implemented to ensure that the plant's process is not changed once the operation begins, and that the facility be operated by only qualified and experienced personnel.

Also of concern is the lack of a proposed schedule of construction, operation, and dismantling of the proposed temporary facility. We feel that the owner of the facility should be required to submit an implementation and demolition plan and schedule which would be enforceable and contains associated stipulated penalties should the schedule not be followed due to negligence of the owner.

The owner should also submit proposed plant staffing, and daily hours of operation. Additionally, the owner should submit proof that adequate sanitary facilities will be provided for operating staff.

Effects on the Local Groundwater Supply

The aquifer in this area is the only source of potable water for the local residents. Any degradation of the groundwater supply could have severe effects to the health of the residents as well as severe impacts on property values and other financial issues. The two proposed ponds at the mill site present a potential for

percolation of process water to the aquifer and the owner should state his intentions regarding providing liners in them. We feel as a minimum that the owner should conduct an environmental impact study which delineates potential adverse effects to the aquifer caused by his operation, and that he should either obtain an aquifer protection permit or provide proof that the Arizona Department of Environmental Quality has exempted the facility from this requirement in accordance with Title 18 of the Arizona Administrative Code. We feel that it is also necessary to determine if there are any waste streams, the disposition of these waste streams, and how they will be managed. If there is to be any discharge to any waters of the United States or their tributaries, the owner must show proof that he has obtained a National Pollutant Discharge Elimination System Permit from the United States Environmental Protection Agency before being allowed to commence operation.

We believe the owner should also disclose the quantities of water to be pumped at the facility, and what portions will be consumed, disposed, and recharged to the aquifer. If he has not already done so, the owner should show proof that he has contacted the Arizona Department of Water Resources to determine if the proposed site is located within the Tucson Active Management Area and whether or not it complies with the Second Management Plan for the Tucson Active Management Area and the Arizona Groundwater Management Act.

The owner should also be required to show that he has taken proper precautions regarding installation of the fuel storage tank to ensure containment in case of leakage.

Effects on the Local Air Quality

Two items cause concern regarding air quality. The first item deals with the fuel storage tank, which implies that a combustion source with associated emissions will be located on site. The owner will be required by Pima County to obtain an emission permit from the Department of Environmental Quality, and proof that he has obtained this permit should be required. The second item is dust control. How does the owner propose to control blowing dust and tailings from his operation?

Facility Associated Traffic

The operation of this facility implies that there will necessarily be a certain amount of traffic involving heavy equipment. We feel that it should be the responsibility of the owner to conduct a detailed study of existing public roads which he is proposing to

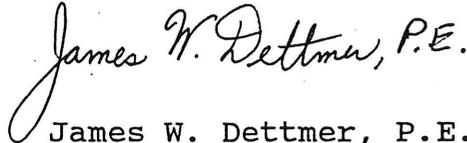
use for facility traffic to determine what improvements would be necessary to support this traffic. The owner should be made responsible for any road improvements necessary to support heavy equipment traffic associated with the proposed activities.

When the proponent has responded to the concerns voiced in this correspondence, we feel it would be appropriate to schedule a public presentation and comment on the proposed facility. We thank you for this opportunity to comment on this proposed mining operation and hope you will keep us informed of any progress.

Sincerely,



Hope Fillman
P.O. Box 34
13200 E. Greaterville Rd.
Sonoita, Az. 85637



James W. Dettmer, P.E.
P.O. Box 735
13200 E. Greaterville, Rd.
Sonoita, Az. 85637



Martin E. Durkin
HCR 1090
13500 E. Greaterville Rd.
Sonoita, Az. 85637



Moreau W. Durkin
HCR 1090
13500 E. Greaterville Rd.
Sonoita, Az. 85637

w/ ATTACHMENT:

CC: Mr. Jim Kolbe, U.S. Congress
Mr. Ed Pastor, U.S. Congress
Mr. John McCain, U.S. Senate
Mr. Dennis DeConcini, U.S. Senate
Mr. Bruce Babbitt, U.S., Secretary of the Interior
Mr. Edward Fox, Director, Ariz. Dept. of Environmental Quality
Mr. LeRoy Kissinger, Director, Ariz. Dept. of Mines and Mineral Resources

**PLAN OF OPERATIONS
FOR MINING ACTIVITIES
ON NATIONAL FOREST LANDS**

Submitted by G. Montgomery Agent Operator March 14 1991
Signature Title Date

Plan Received by Charles Dehner MINERALS STAFF 3/21/91
Signature Title Date

I. GENERAL INFORMATION

- A. Name of Mine/Project ORO GRANDE! PROJECT
- B. Type of Operation PLACER
(lode, placer, mill, exploration, development, production, other)
- C. Is this a (new) (continuing) operation? (CIRCLE ONE)
If continuing a previous operation, this plan (replaces/modifies) a previous plan of operation. (CIRCLE ONE)
- D. Proposed start-up date of operation Testing to commence upon approval
- E. Proposed duration of operations 1 to 2 years
- F. Proposed seasonal reclamation close-out date Reclamation will be an on going part of testing.

II. PRINCIPALS

A. Name, address and phone number of operator G. Montgomery
602-449-3602 AS OF 10/7/94
602-449-3602 Ph # 602-449-3602 582 P.O. Box 614
Sonoita, Arizona 85637-0614

B. Name, address, and phone number of authorized field representative (if other than the operator). Attach authorization to act on behalf of operator.
None at present but will notify F.S. if any changes.

C. List the owners of the claims (if other than the operator)

<u>Granville Montgomery, SR.</u>	<u>B.L. Montgomery</u>
<u>Granville Montgomery, JR.</u>	<u>Doneta Montgomery</u>
<u>Georgia Montgomery</u>	<u>Vivian Joos</u>
<u>Allen Joos</u>	<u>Georgette Montgomery</u>

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

D. List name and address of any other lessees, assigns, agents, etc. and briefly describe their involvement with the operation, if applicable:

None at present but will notify F.S. of any changes.

III. PROPERTY OR AREA

Name of claim and the legal land description where the operation will be conducted.

MC #	Name	Section	Township	Range
310987	G.E.M. 1	17-18 & 19	19S.	16E.
310988	G.E.M. 2			
310989	G.E.M. 3	311330	G.E.M. 7	
310990	G.E.M. 4	311331	G.E.M. 8	
310991	G.E.M. 5	311332	G.E.M. 9	
310992	G.E.M. 6			

(MC# 311333 G.E.M. 10 claim no mineral, G.E.M. 10 is null and void.)

IV. DESCRIPTION OF THE OPERATION

A. Access. Show on a map (USGS quadrangle map or a National Forest map, for example) the claim boundaries and describe and show on the map all access needs, on and off the claim. Specify what Forest Service existing roads will be used, where maintenance or reconstruction is proposed and where any new construction is necessary. For new construction, include construction specifications such as widths, grades, etc. Show location and size of culverts. Describe maintenance plans. Describe the type and sizes of vehicles and equipment that will be traveling the access routes.

One loader 275A, one test plant and test misc. test support equipment, 25 yards per hour plant. One water truck or one haul truck, optional one or the other. Use existing roads, pickups will be used to access property.

B. Attach map, sketch or drawing showing location and layout of the area of operation. Include names and locations of any streams, creeks, and springs. Describe and explain on the map the type of operation, method or techniques you propose (examples: drilling, open pit mining, dredging, milling, etc.; include locations, capacity, size, amount, etc.). Show on the map and describe below the size and kind of all surface disturbance, such as trenches, pits, settling ponds, stream channels and run-off diversions, waste dumps, drill pads, timber disposal or clearance, etc. Include sizes, capacities, acreage, amounts, locations, materials involved, etc.

SEE MAP. Gulches involved: Chispa, both branches, Empire Gulch and its tributaries.

Each phase of test will be under five acres. Cross cutting placer field to varyify values. Area will be flaged prior to field visit by F.S.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

C. Project Description Describe all aspects of the operation: how mining will be accomplished, topsoil stockpiled, waste rock placed, tailing disposed of, etc. Calculate production rates and total volumes of waste rock and ore. Include justification and calculations for settling pond capacities and sizing of runoff diversion channels.

1. For first 12 months:

Topsoil will be stock piled to one side. Millable ores removed and stock piled for future milling. Waste rock and over burden will be returned to disturbed area. The ground will be put back to its original contour. Run off diversion channels should not be needed. During the first phase of operation, bulk testing will be carried out in the placer field. A 25 yard test plant will be put in service to test placer ores for possible commercial values. Plant support equipment will be used to cross cutting of the areas of interest and testing of these gravels. Purpose to block out yardage and values.

2. For total life of project:

One can only speculate as to the life of this project until total yardage of millable ores and amount of water available. Assuming all areas of interest prove to be millable and assuming enough water can be obtained to justify setting up an operation. Plan of operation dated Feb. 6, 1991 on file with F.S. will be implemented.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

D. Describe the Equipment and Vehicles you propose to use in your operation (Examples: drill, dozer, wash plant, mill, etc.). Include: sizes, capacity, frequency of use, etc.

One loader, 275 Michigan, one water truck or haul truck, one placer testing plant,
Pickups to access project area.

E. Structures. Describe and include justification for the structures or facilities planned for the operation. Include such things as storage sheds, mill buildings, thickener tanks, fuel storage, powder magazines, pipe lines, water diversions, trailers, sanitation facilities, etc. Include justification and calculations for sizing of tanks, pipelines and water diversions. The fuel storage facilities should include containment structures that will hold the volume of the largest storage tank in case of a tank failure or leak. Show the locations on the sketch map.

No structures will be needed during test phase. Fuel and oil will be hauled in to equipment so no tanks will be needed.

V. ENVIRONMENTAL PROTECTION MEASURES (SEE 36 CFR 228.8)

A. Air Quality. Describe measures to be taken to minimize impacts on air quality such as obtaining a burning permit for slash disposal or dust abatement on roads.

Will to the best of my ability adhere to recommendations made by F.S.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

B. Water Quality. State how applicable state and federal water quality standards will be met. Describe what measures or management practices will be used to minimize water quality impacts and meet applicable standards.

1. If water is to be used in the operation (processing ore, washing ore, solution make-up, etc.) state how the water will be stored, treated and disposed of. If ponds of any type are proposed, such as for storage or settling, state how they will be designed and built. Provide storage capacities and water balance calculations. State how ponds will be maintained on an annual basis.
2. Describe methods to control runoff and erosion to prevent entry into surface water for 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 what measures will be used to minimize potential water quality impacts during winter closure, if applicable.
5. If land application is proposed for wastewater disposal, the location and operation of the land application system should be described.

The area in which the project is in is outside the Tucson water control area, and
there is no limits on amount of water used. There is a hand dug well located on
G.E.M. #6. See Map. Test plant maybe set up here for testing placers, or may haul
water to test area. Two small ponds will be needed to recycle water at well site.

C. Solid Wastes. State how any tailing, dumpage, or other waste produced by operations will be disposed of or treated so as to minimize adverse impacts. Include a statement that all unburnable garbage and refuse will be hauled off-Forest to a sanitary landfill.

Tailings from mill will be held in a pond, once full excess water will be pumped off
and pond allowed to dry. The topsoil will be put back over it and it will be put
back to its original contour. Unburnable refuage generated by project will be removed
to a landfill.

D. Scenic Values. State how scenic values will be protected. Examples are screening, slash disposal, timely reclamation, etc.

Reclamation will be an on going part of this operation. Worked out areas will be
reclaimed and graded back to its original contour reseeding of reclaimed land will be
done within six month after ore has been removed.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

E. Fish and Wildlife. All practicable measures to maintain and protect fisheries and wildlife habitat affected by the operations must be taken, and should be defined. Most of those measures involve avoidance of critical habitat such as along streams and bogs when planning roads, dumps, etc. Opportunities during reclamation to prevent erosion or plant browse or forage species should be described.

There are no fish in project area and mining and milling should have no impact on wildlife in project area. Reseeding of the area will enhance the habitat of the land.

F. Cultural Resources. Describe procedures for protection of historic and archeological values. The Forest Service is responsible for insuring that the area to be covered by the operating plan is inventoried prior to plan approval to determine the presence of significant cultural resources and will specify protective and/or mitigation measures to be taken by the operator. If previously undiscovered cultural resources (historic or prehistoric objects, artifacts, or sites) are exposed as a result of operations, the operator shall not proceed until he is notified by the District Ranger that he has complied with provisions for mitigating unforeseen impacts as required by 36 CFR 228.4(e) and 36 CFR 800.

Should during the life of the project, cultural resources be uncovered, operator will cease operations as described and will comply with regulations and immediately notify ranger. Will adhere to recommendations made by Biologist, environmental analyst.

G. List all hazardous substances (by name and quantity required) which you intend to use or generate during the proposed operation. Operations USING or GENERATING HAZARDOUS SUBSTANCES must attach copies of other Federal and State agency permits, including all stipulations and conditions pertaining to the permit.

N.A.

H. With regard to hazardous substances, discuss handling, storage, security (fencing), identification (signing), or other special operations requirements necessary to conduct the proposed operation.

No hazardous material will be used in milling process.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

1. Close-out Reclamation. This section should describe the removal of structures and facilities, and the reclamation of the access road. It should specify that roads no longer needed: (1) be closed, (2) bridges and culverts be removed, (3) cross drains, dips, or water bars be constructed, and (4) the road surface be shaped to as near a natural contour as practicable and be stabilized. Show the expected date for completion of all reclamation.

Reclamation will be an on going part of the project. At projects end buildings, mill and mill support equipment will be removed and mill operating area will be reclaimed before all equipment is removed. Project will use existing roads and there will be no need for bridges. Access to project mining area will be kept in gulches and will be confined to placer field. Reclamation will be completed within six months of the end of the test period.

VI. FOREST SERVICE EVALUATION OF PLAN OF OPERATIONS

- A. Recommended Changes/Modifications for Plan of Operations: TOPSOIL WILL BE STOCKPILED AND SOEDED WITH NATIVE GRASS SEED TO STABILIZE SOIL AND PREVENT SOIL LOSS. DUST ABATEMENT OF MILL SITE AND ACCESS ROADS MAY BE REQUIRED DEPENDING ON ACTUAL PRODUCTION AND WEATHER CONDITIONS. ONLY ONE TRENCH OPEN AT ONE TIME. FENCING OR OTHER ACTIONS TO REDUCE HAZARD OF WILDLIFE, LIVESTOCK AND GENERAL PUBLIC FROM EQUIPMENT, MACHINERY AND OPEN TRENCHES. NO WATER DISCHARGE FROM PONDS. BURNING OF MATERIAL WILL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL FROM AUTHORIZED OFFICIALS. ALL REFUSE WILL BE HAULED TO NEAREST LANDFILL. OPERATION RESTRICTED TO DAYLIGHT HOURS. HAZARDOUS MATERIAL (FUEL/OIL) SPILLS WILL BE CLEANED UP WITHIN 24 HOURS OF DISCOVERY — NO MORE THAN FIVE 55 GALLON DRUMS WILL

- B. Bond - As a further guarantee of faithful performance with the reclamation requirements ^(CONTINUED) agreed upon in the plan of operations, the operator delivers herewith and agrees to maintain a surety bond, cash, bond, irrevocable letters of credit in the sum of _____ (\$_____).

ACKNOWLEDGMENTS

- A. It is understood that should the nature of the operation change a modified or supplemental plan of operations may be required.
- B. It is understood that approval of this plan of operations does not constitute: (1) Certification of ownership to any person named herein; and (2) Recognition of the validity of any mining claim named herein.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

- C. It is understood that a bond equivalent to the actual cost of performing the agreed upon mitigation and reclamation measures may be required before this plan can be approved.
- D. It is understood that approval of this plan does not relieve me of my responsibility to comply with any other applicable State or Federal laws, rules or regulations.
- E. It is understood that any information provided with this plan that is marked confidential will be treated by the agency in accordance with that agency's laws, rules and regulations.

I/We have reviewed and agree to comply with all conditions in this plan of operations, including the recommended changes and reclamation requirements. I/We understand that the bond will not be released until the Forest Officer in charge gives written approval of the reclamation work.

A. Montecarlo
Operator (or Authorized Official)

March 14, 1991
(Date)

OPERATING PLAN APPROVAL:

(Name)

(Title)

(Authorized Officer)

(Date)

Public reporting burden for this collection of information is estimated to average 2 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. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, Room 404-W, Washington, D.C. 20250; and to the Office of Management and Budget, Paperwork Reduction Project (OMB #0596-0022), Washington, D.C. 20503.

APPENDIX B

**Spill Prevention Control
and
Countermeasure Plan
Granville Montgomery
Greaterville Mining Proposal**

**Nogales Ranger District
Coronado National Forest
Pima County, Arizona**

Fuel necessary to operate equipment during the initial phase of this project, development of mill site, access road and powerline route, will be brought to the work site in State and Federal approved containers in the back of a pick-up truck. No fuel or any other hazardous substance will be stored at the work site without a Spill Prevention Control and Countermeasure Plan submitted to and approved by the authorized Forest Service officer.

F W OF OPERATIONS
03050294-04
GRANDY MONTGOMERY

10/17

AT MILL SITE AT ANY ONE TIME. HAZARDOUS MATERIAL
WILL BE REMOVED TO A ^{STATE} AUTHORIZED DISPOSAL SITE. HAUL
ROUTE FOR EQUIPMENT WILL BE APPROVED PRIOR TO
MOVE-IN / MOVE-OUT BY AUTHORIZED OFFICER. ROAD
IMPROVEMENTS (CULVERTS / CATTLE GUARDS) WILL BE PROMPTLY
REPAIRED. NO CONSTRUCTION / RECONSTRUCTION WITHOUT PRIOR
WRITTEN APPROVAL BY AUTHORIZED OFFICER.



United States Department of the Interior

OFFICE OF HEARINGS AND APPEALS

INTERIOR BOARD OF LAND APPEALS

4015 WILSON BOULEVARD

ARLINGTON, VIRGINIA 22203

JACQUELINE BALEN

IBLA 83-604

Decided June 15, 1983

Appeal from decision of Arizona State Office, Bureau of Land Management, declaring unpatented mining claim abandoned and void. A MC 117316.

Affirmed.

1. Federal Land Policy and Management Act of 1976: Recordation of Affidavit of Assessment Work or Notice of Intention to Hold Mining Claim—Mining Claims: Recordation

Under sec. 314 of the Federal Land Policy and Management Act of 1976, 43 U.S.C. § 1744 (1976), the owner of an unpatented mining claim located after Oct. 21, 1976, must file both in the office where the location is of record and in the proper office of BLM a notice of intention to hold the mining claim or evidence of performance of annual assessment work on the claim prior to Dec. 31 of each year following the calendar year in which the claim was located. There is no provision for waiver of this mandatory requirement, and where evidence of assessment work or notice of intention to hold the claim is not filed in both places, for whatever reasons, the claim is conclusively presumed to be abandoned.

2. Notice: Generally--Regulations: Generally--Statutes

All persons dealing with the Government are presumed to have knowledge of pertinent statutes and regulations duly promulgated thereunder.

APPEARANCES: Jacqueline Balen, pro se.

INDEX CODE:

43 CFR 3833.2-1

OPINION BY ADMINISTRATIVE JUDGE HENRIQUES

Jacqueline Balen 1/ appeals the April 15, 1983, decision of the Arizona State Office, Bureau of Land Management (BLM), which declared the unpatented Laguna placer mining claim, A MC 117316, abandoned and void because no proof of labor or notice of intention to hold the claim was filed with BLM on or before December 30, 1981, as required by section 314 of the Federal Land Policy and Management Act of 1976 (FLPMA), 43 U.S.C. § 1744 (1976), and 43 CFR 3833.2-1.

The claim was located in December 1980, and was recorded with BLM on December 16, 1980, as required by FLPMA. The record does not show any proof of labor or notice of intention to hold the claim as being filed with BLM in calendar year 1981.

Appellant states that the requirement for assessment work did not attach to her claim until September 1, 1981. Work on the claim was done under a permit granted by the United States Forest Service. She was unaware that she was required to file a notice of intention to hold the claim in 1981.

Section 314 of FLPMA provides in part:

Sec. 314(a) * * * The owner of an unpatented lode or placer mining claim located after the date of this Act [October 21, 1976] shall, prior to December 31 of each year following the calendar year in which the said claim was located, file the instruments required by paragraphs (1) and (2) of this subsection:

(1) File for record in the office where the location notice or certificate is recorded either a notice of intention to hold the mining claim (including but not limited to such notices as are provided by law to be filed when there has been a suspension or deferment of annual assessment work); an affidavit of assessment work performed thereon; or a detailed report provided by the Act of September 2, 1958 (72 Stat. 1701; 30 U.S.C. 28-1), relating thereto.

(2) File in the office of the Bureau [of Land Management] designated by the Secretary a copy of the official record of the instrument filed or recorded pursuant to paragraph (1) of this subsection, including a description of the location of the mining claim sufficient to locate the claimed lands on the ground.

* * * * *
(c) The failure to file such instruments as required by subsections (a) and (b) shall be deemed conclusively to constitute an abandonment of the mining claim * * * by the owner * * *.

1/ The names of the locators shown on the location notice are: Jacqueline Balen, Kay Samuelson, Kathy Samuelson, Karen Samuelson, Kim Samuelson, Grover Bonham, Dennis Ingham, and Mark Johnson.

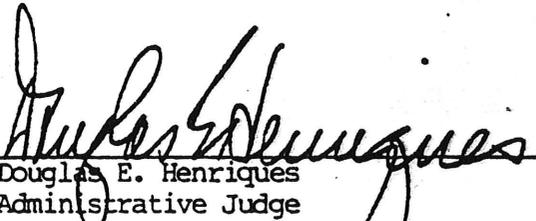


[1] Thus, the owner of an unpatented mining claim located in 1980 must file either a proof of labor or a notice of intention to hold the claim, both in the county recorder's office where the location notice is of record and in the proper office of BLM, prior to December 31, 1981. Where, as to this claim, no proof of labor or notice of intention to hold the claim was filed with BLM in 1981, the mining claim was properly deemed to be abandoned and void. As neither proof of labor or a notice of intention to hold the claim was filed, the statutory consequences of conclusive presumption of abandonment attached by operation of law without any action or decision by any administrative official. Homestake Mining Co., 73 IBLA 117 (1983);^a Eleanor A. Belser, 72 IBLA 232 (1983);^b Gregory A. Voetsch, Sr., 69 IBLA 124 (1982);^c Lynn Keith, 53 IBLA 192, 88 I.B. 369 (1981).^d In enacting FLPMA, Congress did not invest the Secretary of the Interior with authority to waive or excuse noncompliance with the statute or to afford any relief from the statutory consequences. Lynn Keith, *supra*.

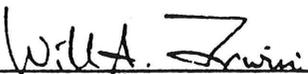
[2] All persons who deal with the Government are presumed to have knowledge of the law and regulations duly promulgated thereunder. Federal Crop Insurance Corp. v. Merrill, 332 U.S. 380 (1947); Donald H. Little, 37 IBLA 1 (1978);^e 44 U.S.C. §§ 1507, 1510 (1976).

Appellant may wish to consult with BLM about the possibility of relocating this claim.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision appealed from is affirmed.


 Douglas E. Henriques
 Administrative Judge

We concur:


 Will A. Irwin
 Administrative Judge


 R. W. Mullen
 Administrative Judge

- a) GFS(MIN) 129(1983)
- b) GFS(MIN) 100(1983)
- c) GFS(MIN) 16(1983)
- d) GFS(MIN) 86(1981)
- e) GFS(MIN) 96(1978)

ARIZONA DEPARTMENT OF MINERAL RESOURCES
Mineral Building, Fairgrounds
Phoenix, Arizona

make new f.c.

MILS # 844

1. Information from: Mr. Albert Amerson

Address: _____

2. Mine: LAGUNA PLACER 3. No. of Claims - Patented _____
(Pima Co.) Unpatented 1

4. Location: Approx. 3.2 miles west of State Highway 83 near junction of Box Canyon & Greaterville roads (See Empire Ranch SE 1/4 quadrangle)

5. Sec. SE 1/4 18 Tp. 19S Range 16E 6. Mining District Greaterville

7. Owner: Jacqueline Balen

8. Address: 5130 Calle La Cima, Tucson, AZ 85718; phone 299-5471

9. Operating Co.: _____

10. Address: _____

11. President: _____ 12. Gen. Mgr.: _____

13. Principal Metals: Au 14. No. Employed: _____

15. Mill, Type & Capacity: _____

16. Present Operations: (a) Down (b) Assessment work (c) Exploration
(d) Production (e) Rate _____ tpd.

17. New Work Planned: Mr. Amerson doesn't expect much work to be done in the immediate future.

18. Misc. Notes: No current activity. One pit about 20 feet deep and another about 15 feet deep dug in the channel or flood plain of Enzenberg Canyon just before it enters Empire Gulch. A "Gold Claimer" is on the property but it hasn't been operated for some time.

I don't believe the pits have been dug to bedrock. The gravel is probably thick in this area. Amerson doesn't believe much gold has been recovered.

Date: August 16, 1983

Michael W. Greeley
(Signature) (Field Engineer)

HMC

Granville Montgomery EA

D.B.
N.N.

↓
P/a

**ENVIRONMENTAL ASSESSMENT
for
GRANVILLE MONTGOMERY
GREATERVILLE MINING PROPOSAL
on the
NOGALES RANGER DISTRICT
CORONADO NATIONAL FOREST
SANTA CRUZ COUNTY, ARIZONA
June 1994**

CHAPTER 1 - PROJECT SCOPE

Purpose and Need for Action

Mr. Granville (Grandy) Montgomery has submitted a Plan of Operations (POO) to explore and mine placer gold off of mining claims staked on National Forest lands that are part of the Coronado National Forest. His plan is submitted in accordance with the requirements of 36 CFR 228a which permit the Forest Service to manage mineral and exploration activity proposed for mining claims as the activity relates to surface resource management. Mr. Montgomery also desires to receive a prospecting permit to explore for placer gold on National Forest lands where the minerals have acquired status and the remainder of the minerals are owned by Mr. Montgomery.

The Forest Service was required by regulations at 36 CFR 228a to respond to a complete Plan of Operations submitted for activity on mining claims within 30 days; however, these time frames were changed by regulations at 36 CFR 215 and 217 that were mandated by Section 322 of the Department of the Interior and Related Agencies Appropriations Act for Fiscal Year 1993. These regulations mandate periods for comments, appeals, and formal resolution of appeals, a process that can take up to 140 days.

The objective of the regulations are to provide the proponent an opportunity to explore and, if warranted, develop the mineral resource in a manner that is cost-efficient for the proponent and which minimizes adverse impacts to other Forest resources. This is in keeping with existing laws and Forest Service policy.

The activity proposed for the lands having acquired status requires the Regional Forester recommendation of approval to the Bureau of Land Management (BLM) for issuance of a hardrock prospecting permit at 43 CFR 3562. This is an action separate from that proposed; but, since the operator intends to blend the exploration and mining, the activity is addressed to assess total cumulative effects of the combined actions. This is consistent with the Council of Environmental Quality (CEQ) guidelines on the assessment of cumulative impacts of proposed actions. This Environmental Assessment (EA) will provide the mitigations that will be incorporated in the Regional Forester's conditions for consent of a Bureau of Land Management prospecting permit and, if appropriate, mining lease.

Mr. Montgomery originally submitted a mining proposal in January 1990. The proposal was found to be incomplete for the purpose of evaluating potential effects, and additional information was requested. Subsequent plans submitted by Mr. Montgomery in 1991 and 1992 were also incomplete. Extensive written and oral communication between the Forest Service, Bureau of Land Management, and Mr. Montgomery have led to the January 1993 revised Plan of Operations to occur near the Greaterville area of the Santa Rita Mountains. Both this Plan and a composite map of the project proposal are included in Appendix A of the Environmental Assessment. (PR #2)

The proposal, as submitted, calls for exploration of nine trenches in Township 19 South, Range 16 East, Sections 18, 19, and 29 with the use of a portable placer processing plant, 25 yards or 19 meters per day. Approximately two to four acres (0.8 - 1.6 hectares) or less of surface would be disturbed and subsequently

reclaimed, exclusive of the area needed for the millsite. This is referred to in the alternative descriptions as Phase I, Exploration.

The results of the exploration will be analyzed by Mr. Montgomery to determine the economic viability of production. If exploration does not produce the values needed for profitability, the operation will terminate and the area will be reclaimed. If any or all of the trenches appear to contain economic values, the development phase, Phase II, will commence.

Phase II, Production, will proceed as follows. First, a small millsite will be constructed. A well will be drilled, estimated at 100 feet (30 meters) in depth and 0.5 feet (150 centimeters) in diameter, cased. A powerline spur of approximately 300 feet (90 meters) in length will be run from an existing powerline. An access road of about 300 feet (90 meters) in length, 16 feet (4.5 meters) in width will be constructed from an existing road to the mill. The option exists to drill the well and build the access road during Phase I if it is prudent to do so. A 1,000-gallon (3,785 liters) tank will be installed to store water for ore processing. Two ponds are proposed. The smaller pond will be approximately 100 feet by 400 feet (30 meters by 60 meters). The larger one will be approximately 200 feet by 400 feet (60 meters by 120 meters). The depth should not exceed 25 feet (7.5 meters). The millsite will be fenced for public safety and range and wildlife protection. After the mill is constructed, the trenches will be excavated and the material processed using gravity methods. No chemicals, other than water, are proposed for use in the processing of the material. The millsite and ponds represent 2.5 acres (1 hectare) of disturbance. A total of 39.5 acres (16 hectares) would be disturbed as a result of mining; but, due to the requirement of concurrent reclamation, not more than four acres (1.6 hectares) would be expected to not be reclaimed at any one time. Acreages include all lands involved with this project, acquired and public domain.

Nature of Decision

Four of the nine trenches within the proposal occur on unpatented mining claims on land which is subject to mineral exploration under the 1872 Mining Law. This land is referred to within the body of this document as "locatable land" due to the fact any United States citizen has the statutory right to "locate" a mineral or minerals within land which bears this status. These are the three trenches in Section 18 of Township 19 South, Range 16 East and the westernmost trench in Section 10 of the same Township and Range. (See map).

The Nogales District Ranger is the official responsible for the decision regarding the approval of the proposal for these four trenches and for the millsite. For these four trenches, and for the millsite portion of the proposal, the District Ranger can decide to:

1. Approve the Plan of Operations as submitted;
2. Approve a modified Plan of Operations or one to which stipulations have been added; or,
3. Provide approval following the preparation of a final Environmental Impact Statement (EIS) to be filed with the Council on Environmental Quality, as provided in 36 CFR 228.4(f).

Five of the nine trenches within the proposal occur on National Forest lands where 50 percent of the minerals have acquired status and 50 percent are privately owned. (See map). Mr. Montgomery holds (owns) a private lease for the private mineral estate. Minerals having private, acquired, or combined status are managed differently than those minerals that are locatable under the mining law. These lands are considered "Weeks Law" lands since their acquisition was by purchase, donation, or an exchange that did not create Public Domain status for the lands. The lands are not patentable, regardless of the mineral value. The only way the surface and Federal mineral estate can leave Federal ownership is by the authorities of the General Exchange Act of March 20, 1922, the Federal Land Exchange Facilitation Act of August 20, 1988, FLPMA-1976 and other authorities.

Any portion of the mineral estate in acquired or "Weeks Law" lands owned by the Federal Government is managed by the Bureau of Land Management. An individual desiring to prospect and explore for hardrock minerals on acquired lands must first apply to the Bureau of Land Management for a prospecting permit. The permit is issued after concurrence of issuance by the Regional Forester, the payment of acreage fees, and posting a reclamation bond with the Bureau of Land Management. The permit is good for two years and can be extended under certain conditions for an additional four years.

If a valuable discovery is made, as verified by the Bureau of Land Management, the permittee is entitled to a preference right lease. The initial term of the lease is 20 years and extendible in 10-year increments. A royalty is paid on the value of the minerals recovered, subject to annual minimums. Since 50 percent of the minerals are private, the royalty would be half of what would be due if all the minerals were Federally owned.

For the five trenches for which the minerals are subject to "Weeks Law" status and partial ownership, the District Ranger may make a recommendation to the Forest Supervisor who will then make a recommendation to the Regional Forester. The Regional Forester will make the final recommendation to the Bureau of Land Management to:

1. Approve the proposal as submitted;
2. Approve the proposal with various modifications and/or stipulations;
3. Approve the proposal following the preparation of a final Environmental Impact Statement to be filed with the Council on Environmental Quality, as provided in 36 CFR 228.4(f); or,
4. Disapprove the proposal. The right to mine in this area is not protected by statute on lands with "Weeks Law" status, although it is Forest Service policy to promote orderly mineral exploration and development.

If the Regional Forester consents to the issuance of a prospecting permit, the mitigations developed by this document can be used as a foundation for the Regional Forester's terms and conditions of consent. By statute, the Bureau of Land Management must abide by the Forest Service recommendation.

Issues, Concerns, and Opportunities

These Issues, Concerns, and Opportunities (ICOs) were raised both within and outside of the Forest Service during the scoping phase of this analysis. On April 26, 1991, an Interdisciplinary Team (ID Team) held a field review of the project as proposed at that time. Additional specialist reviews were conducted as new information was made available by the proponent. Public comments were requested by letter on May 7, 1993 and June 2, 1993 after the revised operating plan was received. From these comments, a consolidated list of Issues, Concerns, and Opportunities was established. Those ICOs which were either outside of the scope of the analysis or which are handled the same in all action alternatives are summarized in the first part of this section. The second part of this section lists the ICOs which were considered in development of alternatives.

ISSUES, CONCERNS, and OPPORTUNITIES which WERE NOT EVALUATED by ALTERNATIVE

This section includes those ICOs that were considered outside the scope of this analysis or were to be handled the same way in all alternatives through standard requirements. They are not considered signifi-

cant from the standpoint of potential effects. Specific issues and concerns are reported verbatim in the project record.

**SCOPE of PROJECT
KNOWLEDGE of MINERAL DEPOSIT
QUALIFICATIONS of OPERATOR**

CONCERN:

Several concerns were expressed about the mining operation being approved before it is determined to be prudent from an economic standpoint and whether there are any minerals left from previous mining attempts. Included were concerns as to the extent of further adverse resource impacts. The possible use of chemicals in the mining operation was of particular concern. The qualifications of the mining proponent were also questioned.

RESPONSE:

The Forest Service's role is strictly related to the control and management of surface disturbances related to the operation proposed and not the economic viability of the project.

If the Forest Service believes an area proposed is non-mineral in character and the proponent either will not consider a small scale exploration operation or insists on conducting an operation that will cause significant surface resource disturbance, the only recourse the Forest Service has is to seek contest of the claims. Denying right of entry is generally not an option since the claimant has a statutory right of entry subject to law and other regulations.

In seeking to *patent* a mining claim, the operator must demonstrate his/her operation is economically viable. Likewise, to patent a millsite claim, the operator must show he/she has a viable source of ore and that the land on which the millsite is located is non-mineral in character. Since the operator in this instance is not applying for a patent, it is not a part of normal Forest Service procedure to do the same sort of economic analysis as might be done in the case of a patent exam; however, the proponent has proposed exploration of the trenches with a portable mill first, 25 plus yards per day. This exploration would occur in sections of the trenches, although the entire surface area of each proposed trench may be disturbed by transportation of the equipment, stockpiles, and small ponds. Millsites are not normally built before an ore source can be proven, and the quantification of that ore source will take place during the first phase of this operation.

All action alternatives address the concern for determining the extent of the available ore and economics by separating the proposal into Phase I, Exploration, and Phase II, Production. The profitability of this operation will be evaluated in Phase I of the proposal which consists of "testing" to determine ore quantities.

Historically, the Greaterville Placer is one of the largest placers in Arizona. The placer has been worked at various times since the mid-1800s, and much of the placer sought for exploration and mining under this plan have been mined in the past. The Forest Service manages under a principle of Multiple Use management which includes responsible exploration and development of mineral reserves. All Plans of Operations received by the Forest Service are evaluated and approved or mitigated based on environmental impact and mitigation considerations. The purpose of this review is to evaluate and document potential adverse impacts. The decision on how to proceed with the proposal is based on this assessment.

This analysis is based upon the plan which is submitted, and this plan states no chemicals will be utilized in the beneficiation process. It is prudent and standard procedure, for the protection of the miner, to have his ore tested before the design of a millsite to find out what the best method of beneficiation is. It is true that gravity methods without chemical use can, in some instances, be more effective and efficient in small scale production than in large scale production. If the proponent fails to do this testing and later discovers chemicals are needed, no chemical use will be approved without another environmental analysis, including public scoping.

A proponent is not required to have a good operating history in past operations in order to gain approval of an operating plan. The Forest Service has no legal basis to deny a proponent on these grounds; however, the Forest Service does have the authority to require a bond that would fully cover the costs involved if the operation were to be abandoned. It also has the authority to monitor the operation and to make sure all of the contractual requirements of the operating plan are being met.

FRAUD CONCERNS

CONCERN: Concern was expressed that the mining operation might be just a front to get title to public land for future land use development.

RESPONSE: The proponent will have no legal right to use the land for any other purpose than whatever mining activity is approved by the Forest Service and/or through the Bureau of Land Management. The Bureau of Land Management administers 50 percent of the minerals in the two easternmost trenches in Section 19 and the three trenches in Section 29. In order to have authority to use the land for private purposes on those lands within the proposal, which are locatable, a patent would need to be obtained. The trenches in which the Bureau of Land Management controls 50 percent of the mineral rights are not subject to patent. To do this, a thorough application and review process must be completed. This includes a rigorous examination by a Federal mineral examiner to prove an economically viable deposit has been discovered. This process is rigorous and subject to many levels of review. At present, all first-half of patent certificates, as well as the patents, are approved at the Secretary of Interior level.

SANITATION CONCERNS

CONCERN: People felt that adequate sanitary facilities should be provided for the mining employees.

RESPONSE: The operator is legally required to provide adequate sanitary facilities for his employees under standards administered by the Mining Safety and Health Administration (MSHA). This would be required under any action alternative.

EMISSION CONCERNS

CONCERN: Concerns were expressed over the existence of a fuel storage tank and emissions from the equipment use.

RESPONSE: The operator must fulfill the requirements of Federal regulations found at 40 CFR 112 and complete a Spill Prevention Control and Countermeasure Plan.

This plan must be reviewed and sealed by a registered, professional engineer. The Forest Service will then review the plan and either accept it or send it back until it complies with the regulations. The operator must then install the tank in accordance with the plan. Exhaust emissions from the mining operation are expected to be minor. All fuel-consuming equipment must meet applicable emission standards.

DISPOSAL of CLEARED TREES

CONCERN: The removal of some oak trees would be necessary as part of the mining operation. People felt the operator should have to pay for the wood just like anyone else cutting trees on public land.

RESPONSE: A mining claimant is legally entitled to use timber within his claim land for uses which directly support the mining operation. All other uses are subject to the same rules, permits, and fees which apply to the sale of fuelwood or timber on other parts of the Forest.

FIRE PREVENTION and SUPPRESSION

CONCERN: People were concerned the proposed operation would increase the likelihood of wildfires and wanted to know how they would be prevented or suppressed.

RESPONSE: Federal regulations found at 36 CFR 228.11 require that an operator shall comply with all applicable Federal and State fire laws and regulations, shall take all reasonable measures to prevent and suppress fires on the area of operations, and shall require his employees, contractors, and subcontractors to do likewise. Equipment, such as generators and chain saws, must have approved spark arresters. These are standard requirements for all action alternatives.

PERMITTING CONCERNS

CONCERN: People said the operator should either obtain an aquifer protection permit or provide proof that the Arizona Department of Environmental Quality (ADEQ) has exempted the facility from this requirement in accordance with Title 18 of the Arizona Administrative Code. In addition, if there is to be any discharge to any waters of the United States or their tributaries, the operator must show proof he has obtained a National Pollutant Discharge Elimination System Permit from the United States Environmental Protection Agency before being allowed to commence operation.

RESPONSE: Since no chemicals have been proposed as a part of this operation, some of these permits do not apply; however, the operator is required to comply with all point and non-point discharge permitting requirements by both the State and Federal governments.

CONCERN: It was noted the operator should show proof he has contacted the Arizona Department of Water Resources to determine if the proposed site is located within the Tucson Active Management Area and whether or not it complies with the Second Management Plan for the Tucson Active Management Area and the Arizona Groundwater Management Act.

RESPONSE: The proponent does need to obtain a well drilling permit from the Arizona Department of Water Resources. He also may need a groundwater protection permit. The Arizona Department of Environmental Quality makes this determination on an application-by-application basis. He must also fulfill requirements found at 40 CFR 112 to receive approval for the installation of the fuel tank.

The Forest Service attempts to identify any possible permits required from other agencies and to notify the proponent of his responsibility to obtain such permits. The permittee is also responsible for obtaining any permits required that the Forest Service neglects to identify. It is also Forest Service policy to notify all appropriate State and Federal regulatory agencies of the proposed project and assessment.

OPERATIONS CONCERNS

CONCERN: Concerns were raised over how the operations would be conducted, including such things as treatment of excess material, extent or size of facilities, staffing, and scheduling of operations.

RESPONSE: These operational questions are part of the alternative descriptions to the extent they are applicable. Staffing and scheduling of work are left up to the discretion of the operator unless they have some bearing on evaluation of effects.

RECLAMATION and BONDING CONCERNS

CONCERN: Many comments were received about the question of reclamation after mining and the ability of the Forest Service to assure adequate restoration. Included were specific questions about plant species used for restoration, the timing of restoration activities, and the ability to restore due to changes in soil structure. Much of the concern comes from the fact the area has been mined before and some results are still evident.

RESPONSE: Reclamation requirements will be part of all mineral development alternatives. The main components of these requirements are described in the alternative descriptions to the extent necessary to evaluate environmental effects. A reclamation bond will cover all mining activities being proposed should the proponent abandon the operation or fail to reclaim the land according to Forest Service standards. Several of the areas proposed for exploration and mining have been disturbed by mining in the past. Mining this material again provides an opportunity to return the land to a higher level of aesthetics and surface productivity in the reclamation process.

CONCERNS about CONFLICT of STATED MANAGEMENT GOALS for the AREA

CONCERN: A concern was expressed that the Forest Service has stated it wished to make a "showplace" of recently acquired lands, and this will not be possible after a mining operation.

RESPONSE: The Forest Service has no legal grounds to deny a mining plan on the basis it conflicts with a plan to showcase an area for good grazing practices. The right to mine on locatable Federal land is statutory. The role of the Forest Service, in this instance, is to insure the mining occurs in a manner which is environmentally sound.

The mining operation provides an additional "showcase" opportunity by showing how minerals under three different mineral estates—public domain, acquired, and private—can be managed along with range, recreation, and other multiple-use activities.

PROPERTY VALUE CONCERNS

CONCERN: Local residents are concerned the mining proposal may have a detrimental effect on them and property values.

RESPONSE: Due to limited scope and duration of this operation and the strict reclamation requirements, we have no reason to believe property values will be affected substantially in the long term. We recognize some people do not approve of mining operations regardless of the scale; however, we believe any effect to personal values from this proposal will be of short duration.

Resource management on National Forests has historically considered the adjacent and nearby landowners; however, the lands must be managed according to law and regulation and the rights vested to the claimant by the 1872 Mining Law cannot be denied with due process (contest) or payment of just compensation. The Forest Service can provide no assurance to any adjacent or nearby private landowner that the National Forest lands will not be managed for multiple-use purposes.

TRAFFIC, ROAD MAINTENANCE, and PROTECTION CONCERNS

CONCERN: There are concerns over possible adverse impacts to the existing roads and bridges from use by heavy mining equipment such as ore-hauling trucks. People wanted to know who would be responsible for road maintenance and how much new construction would be necessary. Gates being left open were also a concern to livestock operators.

RESPONSE: Road construction and maintenance needs associated with mineral development are described as part of the alternatives. Major truck traffic will be generally confined to the mine site. Beneficiated material is usually taken for processing in smaller trucks. Any anticipated effects to the environment are included in the evaluations under each appropriate section in Chapter 3, Estimated Effects of Alternatives. The operator must comply with weight limits on roads and bridges and is responsible for damages if these limits are violated.

RECREATIONAL VALUE and USE CONCERNS

CONCERN: Existing recreational uses of the area include camping, hiking, horseback riding, driving for pleasure, hunting, and 'panning' for gold. Concerns were expressed that these activities might be curtailed or adversely affected by the mining activity.

The Nogales Ranger District is currently considering locations for a segment of the Arizona Trail which would pass through the project area. In addition, several staging areas for Off-Highway Vehicle (OHV) use are being considered near the project area. This raises a future concern of how the proposed mining project might affect the possible location of the Arizona Trail that goes north from Kentucky Camp to Oak Tree Canyon just north of Box Canyon Road and the placement of two Off-Highway Vehicle staging areas.

RESPONSE: Currently, the area does not receive much recreational use in the form of camping, hiking, and horseback riding. Any use of this type that would occur during project activity would be affected mainly by displacement (camping) or by visual quality impacts. The project locations would not prevent general access of the area to hikers, campers, or those on horseback. The actual areas that would be disturbed from the mining are relatively small and scattered over a large area. Because of the limited and seasonal nature of the use and lack of concentrated use areas, this is not considered a significant concern for existing uses. (PR #56)

The planned trail and Off-Highway Vehicle staging areas will be located nearby, but not on the area proposed for mining. The operator will be responsible for fencing dangerous areas and placing intervisible warning signs around the perimeter of the operation. The operation will be a curiosity to a number of National Forest users, and the operator will be asked to assist with interpretive information for the public. (PR #62)

The operation provides additional recreational and educational opportunities to the public. Interpretation can be provided for the duration of the project as well as after the project is completed.

ECONOMIC OPPORTUNITY of the PROJECT

- OPPORTUNITY:**
- A. Phase I - The operator will employ approximately two full-time and two part-time personnel, and will be purchasing goods and services from the Tucson/Nogales area for the conduct and evaluation of the property.
 - B. Phase II - The operator will employ approximately five full-time and three part-time personnel to operate equipment, provide security, and operate the mill. Trucks will be contracted to haul beneficiated material to mills for further processing. Goods and services needed for mining, milling, and reclamation will come from the Tucson/Nogales area. Employees and contractors will pay local, State, and Federal taxes and purchase other goods and services. The gold recovered will be used for jewelry and other products that will have added value to the economy.

**ISSUES, CONCERNS, and OPPORTUNITIES (ICOs) CONSIDERED
In the DEVELOPMENT and EVALUATION of ALTERNATIVES**

The following ICOs were considered in the development of alternatives and mitigation measures, and each was then evaluated by alternative. They have been summarized here based on specific comments received internally and from the affected and interested publics. (See PR #8, #14, #15, #22, #38, #44, #48, #49, #51, #53, and #59)

LIVESTOCK MANAGEMENT CONCERNS

CONCERN: The livestock grazing permittee on whose allotment the mining operation would occur believes it could have an adverse impact on the livestock cattle operation. It would be a disturbance factor to the cattle and a potential danger to cattle. The potential danger to livestock would come from falling into open trenches. Disturbance would be in the form of activities which could adversely affect the normal movement of livestock during their grazing periods, and also restrict their use of the involved areas. Of particular concern is the most southeasterly trench in Section 29, Louisiana Gulch near the fence and Forest road. It would close access to the main well and corrals with drinkers, which are currently the only permanent water source, and would create disturbance in an area crucial to the cattle operation.

CULTURAL RESOURCE CONCERNS

CONCERN: The area is known to contain prehistoric and historic cultural resources. The concern is how these might be impacted and how they would be protected. Much of the area was mined previously and this may be of significance itself. Surveys for cultural resources were conducted beginning with the original proposal. Several previously unknown prehistoric sites were found and resulted in a modification of the proposal to avoid them.

One previously known historic site is the widespread placer pits and mounds resulting from previous mining activity. These occur throughout the area currently proposed for mining.

QUALITY of LIVING CONCERNS

CONCERN: There are concerns over adverse effects to natural scenic beauty and concerns over noise and air pollution because the proposed activities would be near a maintained road which is much used by the general public and near a planned segment of the Arizona Trail noted under the previous discussion on effects to recreation activities. Any effects from additional noise and dust on wildlife or livestock were considered under separate sections.

WATER and WATERSHED CONCERNS**CONCERN:**

The project area is part of the watershed for Cienega Creek which is of particular interest to other land management agencies and local governments who have downstream management responsibilities.

The primary concern from a watershed standpoint is the potential for adding additional sediment loads to the channels during heavy runoff events. The sediment could come from unstabilized or unprotected material stockpiled as a result of trenching. Part of the trenching and stockpiling operation would be in or very near the channels or floodplains. This in turn could lead to gully erosion and scouring of protective vegetation which would have an adverse effect on overall channel stability and dynamics. The trenches themselves could lead to additional headcutting and gully erosion if not correctly rehabilitated.

Water quality could be adversely affected from the mining operation. Turbidity could be increased from the addition of excessive sediment loads. When the earth is turned over and exposed to the air and water, chemical reactions can occur which have the potential to release chemicals and heavy metals, sulfates, etc., into the environment.

In addition, there is a concern the withdrawal of well water to be used in this project operation would lower the water table and have an adverse effect on other users. The proposal does not include the direct use of chemicals for the extraction or processing of ore, so effects to water quality from the use of chemicals were not evaluated. See previous section.

BIOLOGICAL CONCERNS—VEGETATION/WILDLIFE**CONCERN:**

One concern is the ability to re-establish a vegetative cover on the disturbed areas to prevent future loss of soil and vegetation needed for wildlife habitat and livestock forage. The area is currently covered by oaks and various native and naturalized grass species. The excavation for gold will result in removing topsoil and bring large quantities of coarse material to the surface which is not conducive to establishment of the desired vegetative cover.

Since there is always a concern about potential adverse effects to Threatened, Endangered, and Sensitive (TE&S) plants and animals, the area was surveyed for these species. While there is no particular concern for Threatened, Endangered, and Sensitive species, the evaluations are summarized in Chapter 3. There were no concerns about potential effects to other wildlife species or their habitat within the project area. (PR #55)

CHAPTER 2 - DESCRIPTION of ALTERNATIVES**OTHER ALTERNATIVES CONSIDERED**

The original operating plan submitted by the proponent in January 1990 by Granville Montgomery was considered by field personnel from the Forest Service and Bureau of Land Management. Subsequent modifications were suggested by the two agencies to address the question of adequate exploration (testing) of mineral extent prior to initiating full production. As a result, the proponent modified the extent of his proposal during the period between 1991-1993.

ALTERNATIVES CONSIDERED in DETAIL**ALTERNATIVE A**

This alternative is the "No Action" alternative. The "No Action" alternative, for the purposes of this environmental analysis, would involve disapproval of the Plan of Operations for the proposed mining project. While the Forest Service can require or impose reasonable environmental constraints or conditions on a proposed operation, we do not have the authority to deny a United States citizen his statutory right to mine on locatable Federal lands without due process (contest) or the payment of just compensation. The Act of May 10, 1872, (17 Stat. 91, as amended), known as the General Mining Law is specific on the rights it confers.

The consideration of this alternative, however, provides a sound baseline against which all options can be compared. It is also consistent with 40 CFR 1502.14(c), National Environmental Policy Act Regulations, to "... include reasonable alternatives which are not within the jurisdiction of the lead agency." Although the "No Action" alternative is theoretically viable for those portions of the land where the minerals are 50 percent privately owned, it is Forest Service policy to promote the orderly mineral exploration and development when such exploration and development can be done in an environmentally responsible manner. Any denial made to the proponent to work on these lands would likely be based upon a failure of the proposal to meet the criteria which establishes "prospecting" as opposed to development since the permit applied for on those lands is for prospecting only; however, the 50 percent of the mineral estate that is privately owned has status similar to that of locatable minerals in that denial of access without good cause could be viewed as a taking and subject the Federal government to the paying of just compensation. Unless there is sufficient reason, it makes little sense to approve a plan for locatable minerals and deny consent for the leasable mineral rights within the same general ecosystem.

ALTERNATIVE B

This alternative is based on the proposed operation as submitted in January 1993.

The complete proposal involves the excavation of nine trenches and the construction of a fenced millsite. Upon completion of the operation, the millsite would be completely removed unless another operation is approved within 90 days of completion of the current proposal. A short segment of road, one quarter mile long by 16 feet wide would be constructed to gain access to one of these trenches. This road would be obliterated and re-seeded upon completion of the operation unless another operation were to be approved within 90 days of completion of this project. A short segment of powerline would be installed to connect the millsite to an existing powerline nearby with the same reclamation requirements for removal and revegetation that apply to the millsite and road. A well would be drilled in the northeast corner of the mill

area. See the project location map. It is estimated that less than 50,000 gallons per day would be needed for mineral processing. A substantial amount of water would be recycled using, one pond for storage.

There would be an initial stage of exploration with a portable placer mill with a capacity of approximately 25-32 yards per day. Each of the proposed trenches would be explored in sections to "block out" or identify the ore values. The trenches are approximately 100 x 150 feet and would be excavated to an approximate depth of 10 to 30 feet under full development. Less excavation might be done in the initial testing. The overburden would be stored nearby until it can be replaced in the trenches after removal of the mineralized portion. This is known as Phase I, Exploration.

After the initial exploratory stage of the operation, complete mill facilities would be installed at the site marked "millsite" on the project map. This would include a 1,500-yard-per-day capacity placer mill, two ponds with dimensions of 100 x 200 feet and 200 x 400 feet. The maximum depth of these ponds will be 25 feet. It would be less if bedrock is encountered at a more shallow depth. A fuel storage tank with a 1,000-gallon capacity would be installed as would a water tank. No chemicals would be used in the beneficiation process. The nine trenches would be excavated in their entirety with the exception of those portions of the planned area which would be used for stockpiling of sediments. State safety parameters for slope stability would apply to the inner sides of each trench. This is known as Phase II, Production.

The following are estimates of potential new disturbance from implementation of this proposed operation, Phases I and II. They represent maximum acreages used to estimate environmental effects.

<u>FACILITY</u>	<u>TOTAL ACRES</u>
Access road	0.5 acre (0.2 hectare)
Powerline spur	0.5 acre (0.2 hectare)
Mine trenches (9)	27 acres (11 hectares) aggregate, estimated at an average of three acres per trench, excluding temporary material storage
Overburden temporary storage	9 acres (3.6 hectares) aggregate, estimated at an average of one acre per trench
Millsite--plant and ponds	2.5 acres (one hectare)
Total Acres	39.5 acres (16 hectares) Total aggregate disturbance of locatable, acquired, and private mineral areas. Excluding the millsite, no more than five acres (two hectares) should be open and not reclaimed at any time.

Typical equipment which might be utilized in either phase could include:

1. D-9 Dozer (56.4 tons)
2. 35-Yard Haul Truck (36.1 tons)
3. 45-Ton Scraper (45 tons)
4. 5-Yard Loader (23.1 tons)
5. 8-Yard Loader (49.4 tons)
6. Possibly a Water Truck

The weights of these pieces of equipment were estimated using weights for these pieces of corresponding CAT machinery:

1. CAT D-9N - 14-foot width
2. CAT #769
3. CAT 45-Ton Scraper - 12-foot width
4. CAT #966F - 10-foot width wheelbase
5. CAT #988 - 12-foot width wheelbase

Actual weight of the proponent's equipment may vary slightly as used equipment may be acquired after the approval of the project. Any significant increase in weight over the disclosure in this document will be subject to additional review and approval by the District Ranger.

The Forest Service would bond the proponent for the costs of rehabilitation and reclamation of the project area, including the obliteration and/or removal of any new roads or structures and rehabilitation of the Forest roads used during the project. A lesser bond would be required for the initial exploratory phase of the proposal. Full bonding would occur for each phase of the operation as it is approved before any activity could begin. Required bonding could be reduced if concurrent reclamation practices are employed and work is acceptable to the Forest Service. The Bureau of Land Management would bond separately for the disturbances planned and approved on the "50-50" lands.

The following stipulations placed on the proposed operation are deemed necessary to meet minimum requirements of law and regulation and to insure minimum reclamation needs:

1. A transportation plan and a plan for road modification or reconstruction would need to be submitted to the Forest Service for review before any transport of heavy equipment into the site could be approved.

The operator will have two options for moving his equipment into the site.

- a. Option #1 will be to design and construct a bridge on Forest Road 62, Box Canyon Road, which is capable of supporting the weight of the equipment which has been proposed. Engineering designs for this bridge must be submitted to either Pima County and/or the Arizona State Department of Transportation for review before new bridge construction can be approved. Plans must be reviewed by the agency or agencies who maintain the roadway at the entrance and exit points of the new construction.
- b. Option #2 will be for the operator to move his equipment into the site via Gardner Canyon Road. Currently, portions of this road will not accommodate some of the equipment which has been proposed for transport to the site. This includes some gated areas. Before final approval can be given to the operator to transport the equipment over this route, proposed design modifications must be submitted for review and approval by the Forest Service. The reclamation bond will include an assessment for rehabilitation of the road immediately after the transport of the equipment into the site and for the trip out of the site. (Phases I and II)

2. The operator would be required to maintain or reconstruct any portions of his travel route impacted by heavy equipment use and/or frequent travel of heavy trucks.
3. The operator would be restricted from operating heavy machinery on Forest lands during wet conditions.
4. The maximum width of any new road construction, or any existing road reconstruction, shall not exceed 16 feet.
5. Sanitation facilities which meet Mining Safety and Health Administration standards, and which have Forest Service approval, would be installed for employees.
6. Suspension of the operation for a period in excess of 90 calendar days shall constitute abandonment of the operation unless this period has been approved by the authorized officer. Bond monies will be applied to reclamation in the event of abandonment.
7. No refuse will be burned on site. All refuse will be hauled to an established landfill which is licensed to accept the type of refuse being deposited there.
8. Any mining which occurs on the trenches which are under application for a prospecting permit by the Bureau of Land Management will be milled separately from locatable. All gold recovered from this prospecting will be the property of the United States Government. The Bureau of Land Management will be involved in the final determination of values from the prospecting sites before a lease can be considered. No mining or exploration will occur on the "50-50" lands until a Bureau of Land Management prospecting permit or lease is issued. (Phases I and II)
9. Reclamation will occur within 90 days of completion of the project unless an extension has been approved by the authorized officer. (Phases I and II)
10. Although the well may be developed instead of development of ponds at the proposed millsite during the exploratory stages, the entire surface area of the proposed trenches would be available for processing and stockpiling of material, including construction of smaller ponds suitable to the scale of exploration which is 25 to 32 yards per day. Water must be hauled from the well to the trench sites. (Phase I)
11. Pond depth will be limited to 25 feet at its deepest point at the millsite unless otherwise approved by the authorized officer. Other details of the millsite operation which have been verified verbally by the proponent and made part of this document will be made part of the final Plan of Operations and prospecting permit proposal. (Phase II)
12. A bond will be calculated for Phase I, Exploration. Operations will not commence until that bond is received in full. Phase II, Production, will not commence until the requirements listed below are met and an additional bond amount is received. The bond amount for the second phase of the operation will be figured at the time of bonding as labor and equipment prices fluctuate. Additional environmental analysis and documentation may be required if the additional details change substantially from those assumed in this current analysis and documented in this Environmental Assessment.
13. The well will not be closed or plugged before consulting with the Forest Service.
14. Upon completion of mining, the operator will meet with the Forest Service to determine final reclamation and revegetation performance objectives that are most appropriate for the area and cost effective for the operator.

Additional Information/Documents Required

1. The transportation plan for the proposed equipment prior to the start of Phase I;
2. The proposed reconstruction of portions of the Gardner Canyon route if no new bridge is constructed which can support the weight of the equipment on the Greaterville/Box Canyon route. Bridge plans and the appropriate approvals must be submitted if the proponent chooses to build a bridge;
3. A detailed millsite plan which describes each piece of equipment to be used, where it will be placed, and the construction plans for any structures to be added to the site such as concrete pads. Any excavation into the hillside should be shown on the plan as well as stabilization measures and proposed reclamation after millsite removal. All must be submitted prior to Phase II;
4. A schedule of hours of operation and a list of employees who will be on site (Phase II);
5. A proposed schedule of construction of the millsite (Phase II);
6. A "pit plan" which details, among other things, the height and width of the bench walls and their slope values (Phase II); and,
7. A Spill Prevention Control and Countermeasure Plan for the fuel storage tank which follows the regulations found at 40 CFR 112. (Refer to copy in Appendix B). The responsibility for the preparation and certification of this plan is that of the operator. The Forest Service will then review the plan and either accept it or return it to the proponent until it complies with the regulations. The operator must then install the tank in accordance with the plan.

ALTERNATIVE C - PREFERRED ALTERNATIVE

The operation under this alternative would be the same as under Alternative B with the following additional stipulations which apply to either Phase I or II as noted. These requirements of the mining operator are deemed necessary to mitigate or eliminate potential adverse effects from the operation. They are considered to be reasonable requirements for this particular operation.

1. During the exploratory phase, the amount of material to be stockpiled would be limited to the amount which could be processed within five days. During full production, the amount of material to be stockpiled would be limited to 5,000 yards. An exception to this would be excess material utilized to provide drainage control by berm construction or some other drainage control technology. Water will be hauled by truck during the exploratory phase.
2. The operator would be responsible for the repair or replacement of any undue damage to livestock permittees' gates which may be caused by the transport of heavy equipment and/or frequent travel of the route by operations personnel. Cattleguards may be installed at the operator's discretion under the guidance of the Forest Service.
3. A contingency plan must be submitted for review and approval by the Forest Service which addresses the protection of the stockpiled sediments and the ponds from release in the event of a 25-year runoff event. The Forest Service will either approve or return the plan for revision.
4. Those sediments which are removed from the top 10 to 12 inches of the trenches must be separately stockpiled and replaced as the top layer upon refilling of the trenches.

5. Only one trench may be open at a time, and the material from that trench must be completely refilled before another trench may be opened. The operator is encouraged to mine involving concurrent reclamation techniques, if at all possible.
6. All disturbed areas must be contoured to the pre-project contours upon completion of the project. If exploration does not indicate full development, the trench will immediately be contoured.
7. All disturbed areas must be revegetated with native grasses and oak seedlings to approximate the pre-project density of this vegetation. The oak seedlings must be at least three years old and must be planted either during the winter when they are dormant or during the summer monsoon season when water availability is more secure. Bond moneys related to revegetation will not be released until successful revegetation has been achieved.
8. It will be the responsibility of the operator to work with the grazing permittee(s) and the Forest Service to make the trenches safe for livestock in the area. This may be as simple as following State requirements for safe slope values on the inside of excavated areas. If cattle entrance to the trenches becomes a problem, some kind of fencing or other barricade method may become necessary.
9. Those portions of the operation which are proposed to occur on locatable land—the three trenches in Township 19 South, Range 16 East, Section 18, and the westernmost trench in Section 19—will be approved for a period of 18 months from the date final approval is given to begin operations. This allows for 120 days for development of each trench and 60 days for the construction of the millsite and transport of equipment to the site. Any activities occurring after this time will require an extension to be approved by the authorized officer. This extension will be for a defined period of time. Any expansion of the operation will require additional environmental analysis and approval by the authorized officer.
10. The hours of operation will be restricted to Monday through Saturday during daylight hours, but not before 6:00 a.m. and not after 7:00 p.m. unless there are valid reasons. (Phases I and II)
11. The mining operator will be responsible for the control of excessive dust emissions. The need for dust control will be determined by the authorized officer. These emissions may be controlled through the use of a water truck or some other approved technology. (Phases I and II)
12. No occupation will be permitted during the exploratory stage of the operation. During full production, occupation will be permitted for only one watchman. Approval for this occupation will be subject to periodic review. (Phases I and II)
13. Exploration will commence with the easternmost trench in Township 19 South, Range 16 East, Section 19. The sequence is numbered on the attached map.

SEQUENCE of TRENCH TEST EXCAVATION

TRENCH NUMBER	TRENCH NAME	TYPE of LAND
1	Louisiana-Sucker	50-50
2	Louisiana-Sucker	50-50
3	Louisiana-Sucker	50-50
4	Los Posos East	50-50
5	Los Posos West	50-50
6	Chispa West	Locatable
7	Chispa East	Locatable
8	Empire-Enzenberg	Locatable
9	Goodhope	Locatable

14. The operator will consider and implement, to the extent practical, the following recommendations to mitigate visual impacts:
- Avoid geometric shapes, hard edges, and sharp corners when defining the boundary of proposed trenching and roadway activities. Activities should be shaped, to the extent possible, with the natural terrain and existing forested areas and avoid cutting sharply into steep slopes.
 - Maintain vegetation along roadways where possible. Large trees, shrubs, and grass cover with 100 feet of the edge of the roadway will soften visual impacts.
 - Only remove trees located where trenches are to be dug unless directed otherwise. It may be desirable to feather the edges of an activity that removes trees in a geometric form.
 - Where trees are removed, cut stumps flush with the ground or remove stumps entirely.
 - Avoid damage to trees that are to remain. Avoid injuring tree limbs or trunks with construction equipment. Do not stockpile topsoil or trench material within drip line of trees to remain.
- Wherever it is agreeable and practical, recommendation "a" would help to mitigate visual resource concerns, but it is in no way a requirement of the operator for those trenches located on locatable lands, those trenches being in Township 19 South, Range 16 East, Section 18, and the westernmost trench in Section 19. (Phases I and II)
15. A recommendation will be made by the Forest Service to the Bureau of Land Management that approval of a hardrock prospecting permit be contingent upon the applicant installing a suitable alternative water supply before prospecting occurs on the leased lands.

CHAPTER 3 - AFFECTED ENVIRONMENT and ESTIMATED EFFECTS of ALTERNATIVES

Estimated effects of each alternative were based on an evaluation of the concerns listed in Chapter 1 under the section on Issues, Concerns, and Opportunities considered in detail. Direct, indirect, and cumulative effects were considered as appropriate for each concern grouping. This chapter summarizes those effects considered important to final alternative selection. Additional detail is contained in resource specialist reports contained in the project record as noted.

LIVESTOCK MANAGEMENT CONCERNS**Current Situation**

The area of proposed mining is within an area under grazing permit to Cecile M. and Sarah E. Barchas of High Haven Ranch. It was previously grazed by Robert Bowman of Box Canyon Ranch as part of his Forest grazing allotment and permit. The mining operation will not reduce the forage capacity of the area under permit by any appreciable amount; therefore, this is not a particular concern of the Forest managers or the grazing permittee. The concerns have to do with direct injury to livestock, lack of availability of water in one pasture, and disturbance causing the livestock to deviate from normal grazing patterns.

Effects (PR #46 and PR #61)

Alternative A - Under the No Action alternative, livestock operations would continue as approved in the Allotment Management Plans.

Alternative B - The State of Arizona requires slopes in any mining excavation be stable. During the operation, slopes will not exceed three to one on the ends of the trenches. The dangers posed by the slope and sides of the trenches will not exceed the danger of slopes which occur as part of the natural landscape; however, it is conceivable cattle entrance into the trenches might become a problem and losses might occur.

In the alternative, there would be no requirements on time of work or stipulations to reduce dust from the operation; therefore, livestock disturbance could be a problem in some areas.

While mining takes place in Louisiana Gulch, the permittee may have to find alternative water sources or defer grazing in that area until the existing water sources are again available.

Alternative C - If cattle entrance to the trenches becomes a problem, some kind of fencing or other barricade method would be required of the mining operator. With these measures, no injury to livestock is anticipated.

Additional stipulations address the issue of dust control by limiting the hours of operation to daylight hours, Monday through Saturday, and by requiring dust control if excessive emissions become a problem. In this way, any adverse effects to livestock operations should be minimized to an acceptable level.

There should be an overall improvement to range with the reclamation and revegetation of the mining disturbances. Grasses and forbs that are conducive for good range management can be included in the revegetation prescription.

A recommendation will be made to the Bureau of Land Management that the three trenches in Louisiana Gulch not be approved as part of the prospecting permit until an alternative water supply is in place for the grazing permittee in that area.

CULTURAL RESOURCE CONCERNS**Current Situation**

Surveys for cultural resource sites were conducted in May 1990 and again in September 1991, October 1992, and November 1992. These surveys identified up to nine previously unidentified prehistoric sites and extended the limits of previously identified historic sites. This field work resulted in several changes agreed to by the mining proponent leading to the operating plan submitted in January 1993.

Effects (PR #1 and PR #37)

Alternative A - If no mining is undertaken, there will be no adverse effects to the known cultural resource sites. The Forest would continue with National Register eligibility evaluation for site AR03-05-02-483, historic placer pits and mounds.

Alternative B - Cultural resource sites AR03-05-002-448, 481, and 482 can be avoided by the mining operation and therefore, will not be adversely affected. Site AR03-05-02-483 cannot be avoided as it consists of the widespread historic placer pits and mounds resulting from past mining efforts. Since this site is eligible for the National Historic Register, a "No Adverse Effect" determination is necessary for purposes of compliance with 36 CFR 800. Since there is no requirement in Alternative B to contour disturbed areas to pre-project condition, a "No Adverse Effect" determination may not be possible and the Forest Service would not grant final clearance for the project to proceed.

Alternative C - Cultural resource sites AR03-05-002-448, 481, and 482 can be avoided by the mining operation and therefore, will not be adversely affected. Site AR03-05-02-483 cannot be avoided as it consists of the widespread historic placer pits and mounds resulting from past mining efforts. Since this site is eligible for the National Historic Register, a "No Adverse Effect" determination was made for purposes of compliance with 35 CFR 800. Clearance for the entire project was approved on January 1, 1993 based on avoidance and mitigation requirements noted in the final survey report and included in the alternative descriptions. Cumulative effects were considered in this evaluation and determination.

QUALITY of LIVING CONCERNS**Current Situation**

Several residences are located within or near the project area. The homes are scattered as in a typical rural farming or ranching setting. Activities from mining would be evident to the people living in the immediate area and could affect their sense of solitude and enjoyment of the rural setting as well as create direct effects from noise and dust.

Effects

Alternative A - There would be no effect on local residents as no mining activity would be permitted based on this proposal.

Alternative B - Under this alternative, the mining operation could continue any hour of the day or day of the week. There would be no specific requirements to reduce the potential for dust from mining activities. Effects to the local residents from noise and dust could be greater under this alternative based on the whims of the operator.

Alternative C - Specific requirements are included in Alternative C to minimize any potential effects to local residents from dust and noise created by the mining activities. The operation would be restricted to daylight hours, Monday through Saturday. Dust abatement would be required along haul roads. There is no guarantee a specific individual would not still be offended by the activity; however, these requirements are standard practices used to reduce any inconvenience.

VISUAL, AURAL, AIR QUALITY CONCERNS

Current Situation

The activities are proposed near a visually sensitive travelway and would also be seen from visually sensitive trails in the Mount Wrightson Wilderness. Another segment of the Arizona Trail is being planned for this area. Because of the limited scope and duration of this project, neither the dust nor the noise concerns are anticipated to be a substantial problem under any alternative; however, reasonable mitigation measures have been included in Alternative C in the event they do pose a problem.

Effects

Alternative A - With no mining activity, there would be no change in the current visual appearance of the area and no additional effects to occasional recreationists from noise or dust.

Alternative B - Alternative B does mention the possible use of a water truck for dust control, but does not define what would trigger the need for that control or obligate the operator to take action. Under this alternative, the mining operations could occur any time of the day or week. Potential effects from noise or dust could occur and there would be no requirement for the operator to mitigate them.

No specific measures are included in the proposed operating plan to mitigate adverse effects to visual resources. While the operator would be required to rehabilitate disturbed areas to prevent soil erosion, it would not necessarily return the area to conditions prior to treatment; therefore, any change in the current visual situation would remain for the long term.

Alternative C - Under Alternative C, a stipulation would be in place that would limit the operation to daylight hours during the days of Monday through Saturday. This would allow for quiet hours during the evenings and on Sundays. A stipulation would also be in place that would require the proponent to control excessive dust emissions. The Forest Service would have the authority to establish at what point this dust control becomes necessary. While effects from noise and dust cannot be completely eliminated, they can be minimized to a reasonable level when necessary.

Under Alternative C, the operator will be required to mitigate visual concerns through various stipulations. One requirement is to commence locatable operations in the least visible area proposed, the easternmost trench in Section 19 of Township 19 South, Range 16 East. Other requirements include items such as planning the operation so that vegetation is left for screening, wherever possible, tree stumps are to be cut flush to the ground, and calls for protective treatment of remaining trees. Alternative C also requires the area be revegetated with native grasses and oak seedlings to approximate the pre-project density of grasses and trees. Some change in the existing visual condition is expected, but the effect will be minimized, especially in the long term.

WATER and WATERSHED CONCERNS**Current Situation**

The project area is included within watersheds considered to be in good and nearly optimum watershed condition; however, the channels of these watersheds have been extensively mined in the past and cannot be considered pristine or natural. It is apparent these channels can respond after mining activity and return to a stable and satisfactory condition. There are no existing water sources available in the immediate area to meet the needs of the mining proponent, so the proposal includes drilling a well on site. Since chemicals will not be utilized in the milling process, the question of direct chemical pollution was not addressed in this analysis. The potential of chemical alteration due to exposure of overburden material to normal weathering agents was considered as part of the sedimentation concern.

Under both action alternatives, a well is proposed. This will require the mining proponent to get a permit from the Arizona Department of Water Resources. Due to State law, the well would become property of the United States.

Another permit that may be required is a groundwater protection permit. The proponent will need to contact the Arizona Department of Environmental Quality for information related to that permit.

Effects (PR #15, #34, #54, and #56a)

Alternative A - With no mining activity, the watersheds would remain in their current satisfactory condition. No additional water would be removed from the water table.

Alternative B - Under Alternative B, no measures are proposed to prevent the release of sediments in the event of heavy storms. While this event is considered to be remote, the possibility does exist, and up to 2,000 tons of additional sediment could be added to the channels on any given day. This is equivalent to an entire year's sediment load under natural conditions. The additional sediment could, in turn, adversely affect the channel dynamics and result in additional headcutting and scouring of protective vegetation downstream. The additional sediment could also adversely affect water quality in terms of turbidity. Also, heavy metals could leach from the overburden material if released into the channels during a flood event.

Based on the annual rainfall, approximately eight inches (20 centimeters), and size of watershed involved in this mining proposal, the effects to the water table from removal of up to 50,000 gallons per day would not be measurable. The distance to Cienega Creek, over eight miles (13.4 kilometers), also makes it unlikely that water flow at that site would be adversely affected.

Alternative C - Under Alternative C, a stipulation is included for the exploratory phase that the amount of overburden to be stockpiled would be limited to the amount which could be processed within five days. During the full production phase, the amount of material to be stockpiled at any one time will be limited to 5,000 cubic yards (3,823 cubic meters). A contingency plan to protect the sediments from escape in the instance of a 25-year runoff event would be submitted and approved before excavation could begin. This plan could include measures such as covering and anchoring the sediment piles or could include other technologies. Quantities in excess of these figures could be excavated if they were used for the construction of flood-control berms or structures. Implementation of these requirements would eliminate additional sediments being added to the channel system under the most likely flood occurrence. Effects to the channel dynamics or to water quality should be negligible.

The Forest Service will monitor the compliance of the operator with stabilization measures, and the State Mine Inspector and Department of Environmental Quality may also perform inspections.

**RECLAMATION BOND BREAKDOWN
for
GRANVILLE MONTGOMERY**

Plan of Operations Approved 1994

Move In/Move Out with D-8 CAT or Equivalent

Permit	\$ 75.00
10 hours for move in/move out at \$75.00 per hour	\$ 750.00

Access Road Reclamation

20 hours of CAT time at \$135.00 per hour	\$ 2,700.00
Five (5) hours of District personnel time at \$20.00 per hour	\$ 100.00

Power Line Reclamation

Five (5) hours to close out access point with CAT at \$135.00 per hour	\$ 675.00
Five (5) hours of District personnel time at \$20.00 per hour	\$ 100.00

Millsite Reclamation

Five (5) hours to back fill tailings pad at \$135.00 per hour	\$ 675.00
Five (5) hours to remove tailings at \$135.00 per hour	\$ 675.00
16 hours of District personnel time at \$20.00 per hour	\$ 320.00

Backfill Trenches

16 hours to backfill trenches at \$135.00 per hour	\$ 2,160.00
32 hours of District personnel time at \$20.00 per hour	\$ 640.00

Seed Mix for (+ or -) 36 Acres at \$127.50 per acre

\$ 4,590.00

One (1) pound Sand Dropseed at \$3.75 per pound (\$3.75)	
Three (3) pounds Plains Lovegrass at \$38.00 per pound (\$114.00)	
Three (3) pounds Sideoats Gramma at \$3.25 per pound (\$9.75)	

TOTAL 13,460.00

General Administration

Fifteen percent of reclamation total (\$13,460.00)	2,019.00
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TOTAL 15,479.00

Reclamation Bond Rounded to Nearest One Hundred

TOTAL RECLAMATION BOND	\$15,500.00
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Based on the annual rainfall of eight inches (20 centimeters) and size of watershed involved in this mining proposal, the effects to the water table from removal of up to 50,000 gallons per day would not be measurable. The distance to Cienega Creek, approximately eight miles (13 kilometers), also makes it unlikely that water flow at that site would be adversely affected.

BIOLOGICAL CONCERNS—VEGETATION/WILDLIFE

Current Situation

The project area and immediate surrounding area consists of scattered oaks and herbaceous species, primarily grass. Although drainages are involved, they are not considered of a riparian nature. The area is occupied and used by a variety of wildlife species. No Threatened, Endangered, and Sensitive species are known to occur within the area, although it provides habitat suitable for some species. The area has been disturbed in the past by similar mining activities as now being proposed. While some evidence of past activity can be seen, the vegetation has returned over time to that found on adjacent undisturbed areas.

Effects (PR #39, #42, and #55)

Alternative A - With no mining activity, there would be no additional effect to vegetation or wildlife species within the project area.

Alternative B - The proposed operating plan does not include any specific measures to revegetate the area after mining activity ceases. The operator would be required to rehabilitate the area to stabilize soils, but this would not necessarily include native woody species as well as grasses. This could result in a less desirable situation from an aesthetic and wildlife habitat standpoint over the long term. While the project is under way, the potential for adverse effects to vegetation or wildlife habitat are considered to be minimal because of the limited amount of disturbance, about 40 acres (16.2 hectares) total, but not expected to exceed six acres (2.4 hectares) at any one time.

Wildlife species would be disturbed while the project activities are under way. Due to the limited nature of this proposal and extent of surrounding available habitat, this effect is not considered to be of consequence.

The time of survey for Threatened, Endangered, and Sensitive species prevented the determination of presence for two sensitive plant species, the wooly fleabane and beardless chinch weed, which have habitat requirements similar to the project area. The area is also potential habitat for the yellow-nosed cotton rat which was not considered in the original survey. The areas of planned disturbance are too small to impact the populations as a whole, and there is no concern over species viability. In addition, the area was disturbed in the past from similar operations; and, if the species now exist on the sites, it is reasonable to assume they would eventually once again occupy the area once rehabilitation is complete.

It was determined by Forest Service biologists there would be no effect from this proposal on Federally listed threatened or endangered plants or animals. The Biological Evaluation was submitted to the U. S. Fish and Wildlife Service on February 24, 1993. No response was received.

Alternative C - Under Alternative C, measures are included that would require the area be replanted with native grasses and all oak trees removed would be replaced by viable oak seedlings which are of the same species and are several years old. These oaks would be planted during the winter when they are dormant or during the monsoon season when the soil has sufficient moisture for growth. This would minimize any long-term effects to vegetation and habitat for wildlife species using the project area. While the project is under way, the potential for adverse effects to vegetation or wildlife habitat are considered to be minimal

because of the limited amount of disturbance, approximately 40 acres (16.2 hectares) total, not expected to exceed six acres (2.4 hectares) at any one time.

Wildlife species would be disturbed while the project activities are under way. Due to the limited nature of this proposal, this effect is not considered to be of consequence. This effect is lessened even further by the requirements to limit mining activity to daylight hours and six days per week.

The time of survey for Threatened, Endangered, and Sensitive species prevented the determination of presence for two sensitive plant species, the wooly fleabane and the beardless chinch weed, which have habitat requirements similar to the project area. The area is also potential habitat for the yellow-nosed cotton rat which was not considered in the original survey. The areas of planned disturbance are too small to impact the populations as a whole, and there is no concern over species viability. In addition, the area was disturbed in the past from similar operations; and, if the species now exist on the sites, it is reasonable to assume they would eventually once again occupy the area once rehabilitation is complete.

It was determined by Forest Service biologists that there would be no effect from this proposal on Federally listed threatened or endangered plants or animals. The Biological Evaluation was submitted to the U. S. Fish and Wildlife Service on February 24, 1993. No response was received.

OPPORTUNITIES

Alternative A - Under this opportunity, all of the opportunities for range and recreational improvements, plus the economic gains to the employees, vendors, and roll-over in the secondary markets, would be lost. While these economic losses would not be significant on a global scale, the contributions of small businesses and operations are important to local economies.

Alternatives B and C - The project provides two direct benefits. The first is economic since Mr. Montgomery would be hiring local persons to work at his mine and local contractors and vendors to provide goods and services. The gold recovered would be processed and given added value in the jewelry, electronic, or industrial areas. Mr. Montgomery would also pay a royalty on the gold recovered from lands under lease. He will pay a permitting fee whether or not the area is mined.

Other benefits include: road improvement, watershed and range improvements, soil and water improvements, Threatened, Endangered, and Sensitive specie identifications and interpretations, educational and interpretive opportunities, and "showcase" opportunities.

CHAPTER 4 - CONSULTATION

Initial scoping letters requesting input to the Granville Montgomery mine exploration proposal were sent to adjacent land owners, grazing allotment permittees, 50-50 mineral rights' leases, and the Sierra Club on May 7, 1993 and June 2, 1993. The United States Fish and Wildlife and the Arizona Game and Fish Department were given the opportunity to comment on the Biological Evaluation on February 24, 1993.

The initial time allowed for public involvement was until June 18, 1993, although comments received as late as August and September were accepted.

Internal and other agency comments were received in writing during the analysis period. An Interdisciplinary Team (ID Team) was identified to complete the extensive and intensive reconnaissance, to evaluate and compare the alternatives, and to estimate the environmental effects for the alternatives.

Issues, Concerns, and Opportunities (ICOs) were developed from public responses, internal reports, and other agency comments. All Issues, Concerns, and Opportunities considered to be outside the project scope or insignificant to the analysis are summarized in this document and dismissed with appropriate rationale. All remaining Issues, Concerns, and Opportunities are summarized and addressed for each alternative under the discussion of environmental effects. Although all resources were considered during the analysis process, only those considered to have substantial effects, both beneficial and detrimental, are addressed in detail in the Environmental Assessment.

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