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STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY
Department of Natural Resources

1313 Sherman St., Room 215
Denver, Colorado 80203
Phone: (303) 866-3567
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RECEIVED

JUN 30 2015

DIVISION OF RECLAMATION
MINING AND SAFETY



FORM 2 (Public File)

NOTICE OF INTENT TO CONDUCT PROSPECTING OPERATIONS FOR HARD ROCK/METAL MINES

CHECK ONE:

☐

There is an NOI Number Already Assigned to this Operation

NOI#

P-2015-016 (Please reference the file number assigned to this operation)

☐

New NOI

☒

Modification to an Existing NOI

NOI#

(Provide for Modifications to an existing NOI)

GENERAL OPERATION INFORMATION

Type or print clearly, in the space provided, ALL information described below.

I. GENERAL INFORMATION

1. **DATE NOI RECEIVED BY THE DIVISION:** _____ (office use only)

2. **PROJECT NAME:** Santiago Mine

8. **PROSPECTOR:**

Name: Stephen E. Hilgers
Title: Owner
Company Name: Santiago Mining Co., LLC
Street: 6499 Plateau Drive
P.O. Box: _____
City: Englewood
State: Colorado
Zip Code: 80111
Telephone Number: (303) 770-0745
Fax Number: (303) 221-6148

PERSON MLRB SHOULD CONTACT:

Name: Stephen E. Hilgers
Title: Owner
Company Name: Santiago Mining Co., LLC
Street: 6499 Plateau Drive
P.O. Box: _____
City: Englewood
State: Colorado
Zip Code: 80111
Telephone Number: (303) 770-0745
Fax Number: (303) 221-6148

9. **APPLICATION FEE:** \$86. (NOIs and modifications require an \$86 fee which must accompany this notice or it cannot be processed by the Division).

10. **LOCATION INFORMATION:**

County: Clear Creek

PRINCIPAL MERIDAN (check one) ☒ 6th (Colorado) ☐ 10th (New Mexico) ☐ (Ute)

SECTION (write number): S 3

TOWNSHIP (write number and check direction) T 5 North ☐ South ☒

RANGE (write number and check direction)

R75

East

West



QUARTER SECTION (check one):



NE



NW



SE



SW

QUARTER/QUARTER SECTION (check one):



NE



NW



SE



SW

GENERAL DESCRIPTION: (the number of miles and direction to the nearest town and the approximate elevation):

9 miles southwest of Georgetown, CO Elev. 12,500 feet

NOTE: Supply longitude and latitude or UTM coordinates if lands have not been surveyed or as supplemental information to this NOI. GPS measurements will be acceptable for this purpose: _____

39 Degrees 38' 30" N, 105 Degrees 46' 20" W

11. **LAND OWNERSHIP**Private
State

Public Domain (BLM)



National Forest (USFS)



State Sovereign Lands



Other (please describe): _____

If prospecting is located on BLM or USFS land the remaining section must be completed, otherwise go to section II Maps & Drawings

12. **PROSPECTING ON BUREAU OF LAND MANAGEMENT (BLM) LAND AND U.S. FOREST SERVICE (USFS) LAND**

The Division and the BLM/USFS have entered into cooperative agreements that eliminate the need for a prospector to post a financial warranty with each agency and allow them to coordinate the review of the NOI in order to minimize administrative processing time and effort.

G. **CLAIMANT:**

Name: Stephen E. Hilgers

Address: 6499 Plateau Drive

Englewood CO 80111

Telephone: 303-770-0745

Fax Number: 303-221-6148

H. **SITE/CLAIM INFORMATION:**

List names, serial numbers and provide legal description to nearest quarter-quarter section of all sites or claims (attach additional page, if necessary).

NAMESERIAL NUMBERLEGAL DESCRIPTION

Santiago Lode Claim, U. S. Mineral Survey No. 12903

Santiago No. 1 Lode Claim, U. S. Mineral Survey No. 15558

I. **LOCATION MAP:** Attach a USGS 7.5 minute quad, or similar map of adequate scale, which locates the prospecting site(s).

J. Are prospect sites (e.g., drill holes, trench locations, etc...) staked on the ground? Yes ☒ No ☐

K. Specify the Land Management Agency, Address and Telephone Number:

United States Department of Agriculture, Forest Service, Clear Creek Ranger District
101 Highway 103, P. O. Box 3307, Idaho Springs CO 80452 303-567-3000

L. The prospector is required to document that the NOI has been sent to the BLM or the USFS. Processing of the NOI will not begin until the prospector has submitted evidence acceptable to the Division that the NOI was sent to the BLM or USFS. Check one:

- ☐ Evidence of notification is attached to this NOI for BLM Land
☒ Evidence of notification is attached to this NOI for USFS Land.
☐ Other proof of notice is attached to this NOI

II. MAPS & DRAWINGS

Accurate topographic base map showing the location of the proposed project must be submitted with this notice. The prospector may submit a U.S.G.S. 7.5 minute quadrangle, or similar map of adequate scale that:

3. identifies the proposed prospecting site(s) or activity areas involving surface disturbance. Activity areas include all drill holes, mud pits, excavations, trenches, adits, shafts, tunnels, rock dumps, stockpiles, impoundments and prospecting roads, and
4. includes sufficient detail to identify and locate known prospecting features and facilities that may be affected and those that are not anticipated to be affected. This includes the location of all drill holes, mud pits, excavations, trenches, adits, shafts, tunnels, rock dumps, stockpiles, impoundments and prospecting roads. Color photographs, adequately labeled (including date, orientation and location), of the prospecting site may be used to fulfill this requirement if included with the NOI submittal.

III. PROJECT DESCRIPTION

7. **Mineral(s) and/or Resource(s) being Investigated:** Gold, silver, lead, copper, zinc, 500 tons in 9. below

8. **Estimated dates of commencement and completion:**

Commencement: 10/01/2012,

Completion: 10/31/2016,

500.00

9. **Amount of material to be extracted, moved or proposed to be moved:** _____

10. **Identify the type or method of prospecting proposed and quantity (place an "X")**

- | | | | |
|--|---|---|-----------------------------------|
| <input checked="" type="checkbox"/> Cuts | <input checked="" type="checkbox"/> Pits | <input checked="" type="checkbox"/> Trenches | <input type="checkbox"/> Declines |
| <input type="checkbox"/> Shafts | <input checked="" type="checkbox"/> Tunnels | <input checked="" type="checkbox"/> Adits | |
| <input type="checkbox"/> Air Drilling | <input type="checkbox"/> Fluid Drilling | <input checked="" type="checkbox"/> Drilling & Blasting | |

11. Describe proposed surface excavation or other land disturbance, including roads, pits, trenches, waste piles, drill pads and collar areas of underground workings, ponds, etc...

Surface dump ore from the Santiago 3rd, 4th & 5th levels (areas are on the land surface) will be removed from the site for testing and processing. A road will be extended along an existing trail to the 3rd level dump. No trenches or ponds will be constructed.

12. **Proposed Disturbance** (approximate) Describe the proposed drilling to be conducted, including anticipated number of holes, diameter, depth, location, etc... Submit additional pages if necessary:

- A. Drill Pads: Quantity 0.00 Average Width _____ (ft) Average Length _____ (ft)
 B. Drill Holes: Quantity 0.00 Depth _____ (ft) Diameter _____ (in)
 C. Mud Pits: Quantity 0.00 Average Width _____ (ft) Average Length _____ (ft)
 Average Depth 0.00 (ft)

Described proposed underground work, including reopening of old workings, advancement of adits or shafts, trenches, pits, cuts, rock dumps, or other types of disturbance, describe type, quantity and general dimensions:

Santiago 3rd and 4th levels will not be reopened, no removal of underground waste or ore is anticipated. Underground water, if encountered, will not be disturbed nor pumped out. These levels do not discharge water naturally.

- F. Other Disturbances (please describe):

Some of the existing dump ore will be removed from the 3rd 4th and 5th level surface areas on the Santiago claim. Most or all of the 500 tons of dump ore will be removed from the mine site.

- G. Indicate Chemicals and Fuels used or stored on site. List type, quantity and method to store.

Unleaded gas, 50 gallons, stored in MSHA approved tanks or containers. Diesel, 100 gallons, tanner gas (spray can), starting fluid (spray can), WD-40 lubricant and 90W grease will be stored in a fire-resistant container at least 100 feet from the nearest adit/portal. Adequate spill containment will be installed under each fuel storage container.

- F. New Road(s): Length 500.00 (ft) Width 10.00 (ft)
 Significantly Upgraded Road(s) Length 300.00 (ft) Width 10.00 (ft)

Are culverts or other crossings proposed? If so, please describe: _____

No. Road will follow an existing trail to the 3rd level surface ore dump. The existing road will be widened from 8' to 10'. This road goes to the 4th level adit and surface ore dump.

G. Total project area to be disturbed 1.00 (acres)

K. Describe the equipment to be used for the prospecting operations:

2-yard front-end loader, 12-ton end dump haul truck, 375 CFM air compressor, 480V 200
KVA diesel generator, skid-steer loader, pickup trucks

L. Describe and locate any structures to be constructed (i.e. stockpiles, ponds, impoundments):

Santiago & Santiago No. 1 claims will have a storage shed erected outside of the 4th level
adit.

M. Describe anticipated relationship to surface water and groundwater (proximity to streams, penetration of ground water aquifers):

Leavenworth Gulch is 7000 feet to southeast. Surface water is contained by a natural
bowl (Mt. McClellan glacial cirque). Underground water migration is unknown.
Groundwater will not be disturbed under this NOI permit.

IV. OPERATION AND RECLAMATION MEASURES:

1. The Board suggests that a photographic record of the pre-prospecting and post-prospecting conditions be kept by the prospector. These photos should be taken from the same location and by the same method to clearly show the pre-prospecting condition of the land and the reclamation efforts. Upon completion of reclamation and request for bond or surety release, the Board may consider the photos as evidence of adequate reclamation, and thus, be able to act more quickly on the request for release.
2. Provide a description of the native vegetation of the area to be disturbed, including tree, shrub, and grass communities of the area. Color photographs, sufficient to adequately represent the ecology of the site and adequately labeled (including date, orientation and location), may be used in lieu of a written description. Based on the quality of the photographs, the Division may require additional detail.

Excellent pre-prospecting photographic records have been kept by the owner.
Descriptions of the native vegetation are included in the attached botanist's reclamation
plan (prepared by Steve Popovich, ARP Botanist). The proposed prospecting area is
above treeline and is vegetated with low shrubs, grasses, forbs and mosses. Very little
existing native vegetation will be disturbed.

8. Describe the estimated topsoil depth and how topsoil will be salvaged, stockpiled and redistributed for the re-establishment of vegetation. Specify approximate topsoil redistribution depth:

No topsoil exists in the areas of anticipated disturbance. Part of the level 5 dump has been capped with riprap (unmineralized granite). Adequate topsoil will be spread to an average depth of 2" (per Popovich) over the disturbed areas once reclamation can begin. If necessary, topsoil will be imported (delivered) to the mine site for reclamation.

9. Describe how drill holes will be plugged (refer to Rule 5.4 of the Rules for required abandonment procedures):

No drilling will be conducted during this permitted time.

10. Describe how portals, adits, shafts, ponds, excavations, or other disturbances will be reclaimed (refer to Rule 3 and Rule 5 for specific reclamation performance standards). You may wish to contact the Division for closure specifications.

No adits will be opened under this NOI.

11. Describe how roads will be reclaimed or returned to their pre-prospecting (or better) condition:

The proposed extension of the road to the 3rd level will be maintained at 10' in width. Future mining may require the use of this road if underground mining is resumed. The road to the 4th level will also be maintained at 10'. The main road to the mine will be graded as the operating budget allows, and snow plowing may be done to extend the working season.

12. List the seed mixture to be used in the re-establishment of vegetation. See the attached seed mixture calculation to obtain PLS/acre. For assistance with formulating seed mixtures and rates, contact the local NRCS if on private land, BLM/USFS if on public land or State Land Board if on state land.

A. Provide plant name and seeding rate

Plant Name	Seeding Rate (PLS/acre)
See attached sheet (Popovich)	

B. Describe the method for seed bed preparation, and application method for grass/forb seeding:

Topsoil will be spread loosely over affected areas to a depth of 2". Seed mix will be broadcast over topsoil on flat areas to be reclaimed. Slopes that will require reclamation will be stabilized with biodegradable matting with fertilizer and seed mix either sprayed on or the mesh will be coated with fertilizer and seed mix then placed and secured to each slope. Erosion controls will be used in accordance with accepted practices.

V. TERMS AND CONDITIONS FOR PROSPECTING OPERATIONS:

3. Reclamation measures shall be fulfilled in a timely manner and completed within five (5) years of completion of prospecting activities.
4. The prospecting operations described in this Notice will be conducted in such a manner as to minimize surface disturbances. In addition to the measures required in Rule 5, precautions to be taken include:
 - A. Confinement of operations to areas near existing roads or trails, where practicable. Existing roads which are to remain as permanent roads after prospecting activities are completed shall be left in a condition equal to or better than the pre-prospecting condition;
 - B. Drilling shall be conducted in such a way as to prevent cuttings and fluids from directly entering any dry or flowing stream channel. Drill cuttings must be spread to a depth no greater than one-half (1/2) inch or buried in an approved disposal pit;

- C. Proper and timely abandonment of drill holes upon completion of drilling;
 - D. Reclamation of affected lands upon completion of operations or phases of an operation;;
 - E. Backfilling and revegetating any pits to blend in with the surrounding land surface;
 - F. Safeguarding mine entries, trenches and excavations from unauthorized entry at all times;
 - G. Disposal of any trash, scrap metal, wood, machinery, and buildings;
 - H. Control of noxious weeds within the area affected by the prospector
- 3. The prospecting operations shall be conducted in such a manner as to comply with all applicable local, state and federal laws and regulations including applicable state and federal air and water quality laws and regulations.
 - 4. The prospecting operations shall be conducted so as to minimize adverse effects upon wildlife to include covering of open drill holes until properly plugged.
 - 5. During the prospecting operations, the operator will perform the necessary stabilization and reclamation work to ensure those areas affected by prospecting activities are erosionally and geotechnically stable.
 - 6. All prospecting operations shall be in compliance with the Colorado Mined Land Reclamation Act, as amended (34-32-101 et seq. C.R.S.), and all rules and regulations currently in effect or promulgated pursuant thereto. See 2 CCR 407-1, Mined Land Reclamation Board Hardrock /Metal Mining Rules.

VI. ADDITIONAL TERMS AND CONDITIONS FOR PROSPECTING ON BLM/USFS LANDS

- 4. The prospector will supply a copy of this NOI to the appropriate BLM and/or USFS office.
- 5. The prospector authorizes the MLRB to discuss the information in this Notice of Intent with the BLM and/or USFS.
- 6. If on BLM land, the prospector will complete reclamation to the standards described in 43 CFR 3809.1-3 (d) and implement reasonable measures to prevent unnecessary or undue degradation of lands during operations.

VII. FINANCIAL WARRANTY

A financial warranty must be provided for the cost of reclamation of the disturbance described in this Notice. The prospector can either file a "One Site Prospecting Financial Warranty" or a "Statewide Financial Warranty." **The financial warranty must be submitted and approved by the Division prior to entry upon lands for the purpose of prospecting.**

An One-Site Prospecting Financial Warranty is usually filed by individuals or companies where prospecting activities are limited to a single area. It must be filed in the amount of \$2,000 per acre for land to be disturbed, or such other amount as determined by the Division, based on the projected costs of reclamation. A Statewide Financial Warranty is usually filed by companies with multiple prospecting sites. It must be filed in an amount equal to the estimated cost of reclamation per acre of affected land for all anticipated sites statewide. (You may increase the Statewide bond at any time in order to cover additional or expanded prospecting activities.)

VIII. SIGNATURE REQUIREMENT

Please place you initials on the line provided:



I hereby verify that the foregoing information is true and accurate and commit to the reclamation of the aforementioned prospecting site as required by the Colorado Mined Reclamation Act and the rules as specified in the Hard Rock/Metal Mining Rules and Regulations and this NOI form.



I have enclosed the required permit fee.



I authorize the Division to contact and copy the BLM and/or USFS on any correspondence related to the prospecting operation, if the prospecting operation is located on federal public land.



I have also enclosed the appropriate reclamation surety amount or will post an amount as determined by the office, based on the projected costs of reclamation.



I understand that I am not authorized to create any surface disturbance until the surety amount is posted and approved in writing from the Division of Reclamation, Mining and Safety.



I accept and agree to comply with the foregoing terms and conditions and with all of the provisions of Rules 3 and 5, and C.R.S. 34-32-101.



I hereby certify that concurrent with submittal of this NOI to the Division, I have sent notice to the Boards of County Commissioners in the Counties where the proposed activities will occur. This notice also indicated that non-confidential information regarding the proposed activities will be available for review at the Division's website.

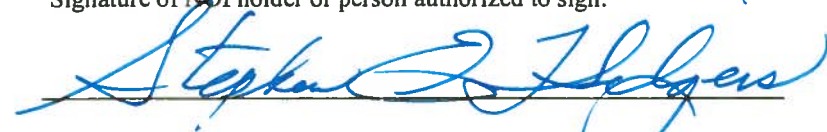
This form has been approved by the Mined Land Reclamation Board pursuant to section 34-32-113, C.R.S., of the Mined Land Reclamation Act. Any alteration or modification of this form shall result in voiding any NOI issued on the altered or modified form and subject the operator to cease and desist orders and civil penalties for operating without a NOI pursuant to section 34-32-123, C.R.S.

I, the undersigned, being the NOI holder or the person authorized to sign on behalf of the NOI holder, declare that the information given in this NOI form is true and correct.

SIGNATURES MUST BE IN BLUE INK

Signed and dated this 30th day of June 2015

Signature of NOI holder or person authorized to sign:



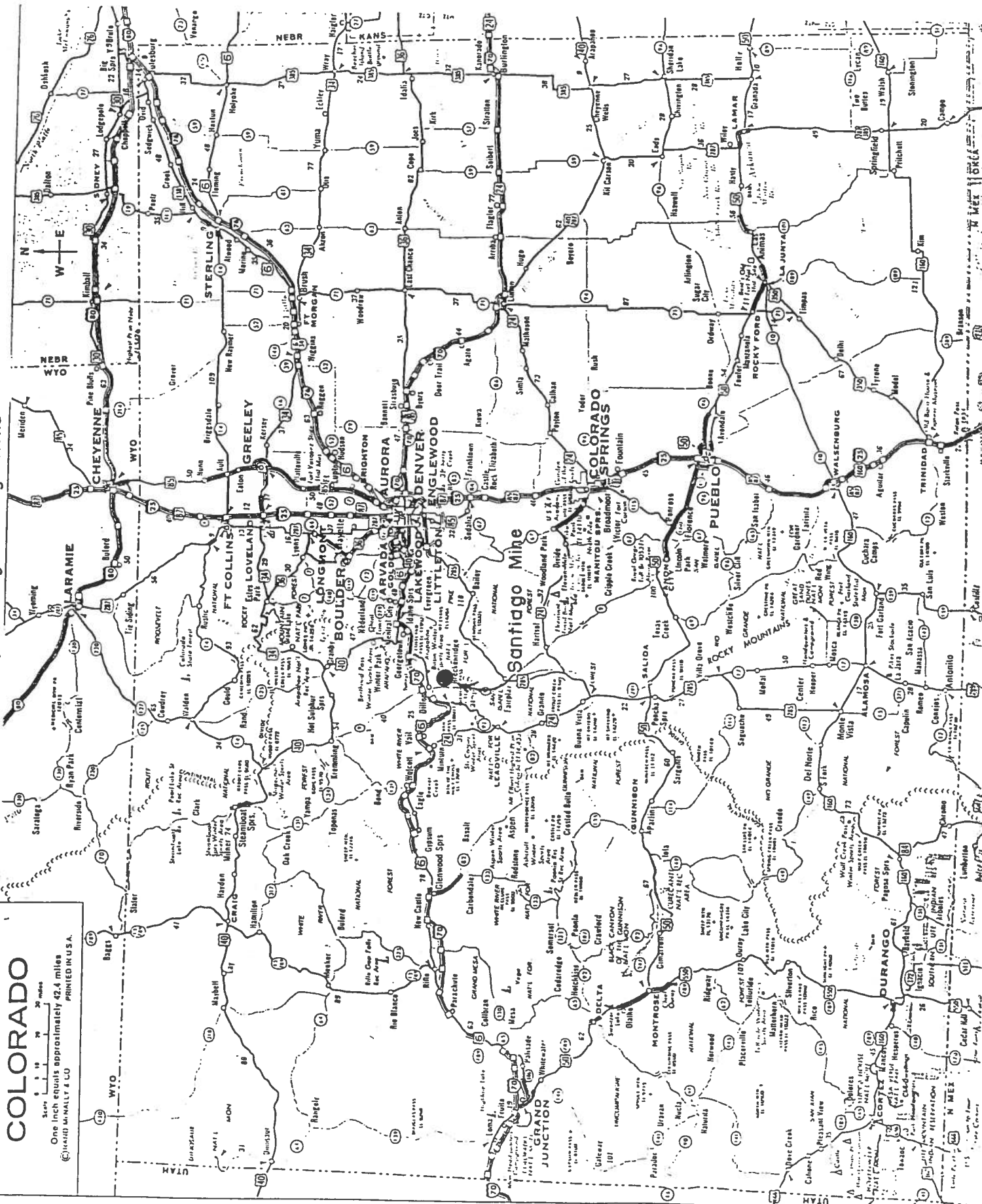
Name (typed or print) Stephen E. Hilgers

Title/Position: Owner President

INDEX MAP, Showing Santiago Mine

COLORADO

Scale 0 10 20 30 miles
One inch equals approximately 42.4 miles
(C) HAGED MANALLY & CO. PRINTED IN U.S.A.



NATIVE PLANT SPECIES ATTACHMENT

- A. Native plant species (seed or transplants) used for alpine revegetation at 12,000' are limited to those listed below. The contractor may suggest additional or alternate species, but use of species not listed here are subject to approval by the Forest Service. **A minimum of 7 species chosen from the list below is required.** At least three graminoids, two forbs, and two shrubs shall be used.

Achillea lanulosa, alpine varieties

Antennaria spp. collected from the alpine habitats in or adjacent to the project area

Artemesia arctica

Artemesia scopulorum

Carex scopulorum

Danthonia intermedia or *parryi*, whichever occurs on site

Deschampsia cespitosa

Heterotheca pumila

Juncus drummondii

Penstemon whippleanus

Phacelia sericea

Phleum alpinum

Poa alpina [true *P. alpina* only]

Polemonium viscosum

Salix spp. collected from the alpine habitats in or adjacent to the project area

Trisetum spicatum

Vaccinium scoparium

- B. Nursery obtained seed must be certified weed seed free based upon an "All States" exam. Results of the exam shall be presented to the CO prior to project implementation.
- C. Seed shall be applied at or above a rate of 15 pounds total pure live seed (PLS) per acre.

II. Prepare soil in revegetation sites prior to seeding and transplanting by decompacting it to a depth of 2 inches.

III. Cover seeded areas with a certified weed-free mulch such as straw, biodegradable matting such as Excelsior brand aspen fiber, jute erosion control matting, or a similar product, and secure in place to prevent wind loss of seeds, soil, and moisture.

Prepared by:

Steve Popovich, ARP Botanist

Wendy Magwire, CCRD Wildlife Biologist

August 27, 2007

Division of Reclamation, Mining, and Safety

Fee Receipt for P2015016

Santiago Mining Co., LLC

000000000

Receipt #: 19808

Date: 06/30/2015

Permit: P2015016

Payment Method	Revenue Code	Fee Description/Notes	Amount
106 msr	4300-PNOI	Minerals Prospecting Application Fee/NOI P2015-016 paid by Centen Metals Holding Company LLC	\$86.00
Receipt Total:			\$86.00