

THE MOLY NEWS



**MOUNT
EMMONS** 
AMAX INC.

P.O. Box 579
Crested Butte, Colorado 81224

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Helicopter, New System Aid Map Job

In order to provide more detailed topographic information for future engineering, detailed maps will be produced from surveying and aerial photography currently underway on Mt. Emmons. This mapping program will include all of the alternative mine, mill, and tailing sites presently being considered. The maps will be done on a 1" = 200 ft. scale, with five-foot contour intervals. An area of approximately 110 square miles will be covered.

Panel points will be located in the field so that known field locations can be identified on aerial photographs. These points are to be placed in the field in July by helicopter, and consist of a tagged steel pin driven into the ground, with about two inches above the ground.

Each point will be identified by a cloth "X", with each leg about one foot wide and three feet long. On com-

pletion of the mapping, the cloth will be picked up, and the steel pin will be left in case future mapping is required.

Surveying will not require a "line of sight," between panel points. A new technique utilizes inertial guidance principles and systems, and a mini-computer aboard a helicopter eliminates the need of cutting trees or brush between panel points. No road construction will be required for this program.

Spanmark Auto-Surveying System approaches the fulfillment of the geodesist's and surveyor's dreams -- a self contained, automated and independent inertial measurement system capable of instantly acquiring all necessary geodetic data wherever it traverses.

It permits highly accurate surveys while driving at land vehicle speeds over varying terrain or while flying in a helicopter.

Use of the Spanmark system provides the facilities to complete in weeks, surveys which formerly took months, and to complete in months, surveys which formerly took years.

In essence, the system is a precise inertial platform which measures the distances and direction the system has travelled from a known point every seventeen milliseconds. It also includes an on-site, off-line mini-computer that converts acquired data into hard copy. Generally, data provided by Spanmark is immediately useable, requiring no further computations. All data can be provided on computer compatible magnetic tapes.

The technique requires that the helicopter carrying the surveying computer and related equipment be able to land within view of the panel points identified on the ground. Location of the

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Map project observers are (left to right) Climax officials Max Gilwix, Jim Ludwig, and Emmons Manager Ralph Barnett.



View From The Top

by Ralph Barnett

This newsletter on Mt. Emmons Project personnel and activities is the first in what we expect to be an extended series. "The Moly News" will focus primarily on project activities and will be distributed to employes, interested local residents, and others.

Progress we make during the next two years in our evaluation of the molybdenum deposit on Mt. Emmons is a matter of considerable public interest and we hope this newsletter helps provide a better understanding of what's going on.

I'm pleased with the progress we are making in rounding out our project staff. It's a staff which brings with it a wealth of experience from our Climax and Henderson Mines and other AMAX operations. The members of our professional staff are listed on page four.

As you know, we face a very challenging project. Additional information on the size and configuration of the deposit must be obtained in order to complete our mine planning work. Ore samples must be obtained for metallurgical testing. Several alternative mine, mill and tailing sites must be carefully evaluated. Much field information and data will be needed during the next two years before feasibility studies can be completed.

A critical part of the project during the next two years will be our involvement with local, state and federal government agencies. These agencies must approve some of our field study plans and will be involved in our evaluation of development alternatives through the use of the Colorado Review Process. An important element of this work is obtaining and considering public input as project planning progresses. This is being done by Art Biddle, our External Affairs Manager, and his staff.

We are pleased that the Mt. Emmons Project has been selected by the State of Colorado to test procedures in the Colorado Review Process. This pro-

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MEET THE STAFF

Rock Clues Help Don Ranta Locate, Assess Ore Bodies

"Reading the rocks" is a very important part of the Mt. Emmons Project and it's handled by Dr. Don Ranta, resident geologist. Ranta's work involves locating and identifying the size, shape, and grade of the molybdenum deposit located inside Mt. Emmons. It involves the difficult process of analyzing core samples taken from drill holes 1200 to 1500 feet deep, and located on 600-foot centers.

Location of the drill holes is of the utmost importance in determining the extent and grade of the ore body. Don coordinates with Boyles Brothers Drilling Company to locate drill holes exactly, so that the amount of geological information obtained is maximized. Ranta's staff includes five full-time geologists and five geological technicians who split the core and prepare it for shipment to a testing lab in Denver.

Don grew up in the iron mining country of northern Minnesota, where he attended the University of Minnesota and obtained his Bachelor's degree. He then attended the Mackay School of Mines in Nevada, where he obtained his Master's degree. Ranta later earned a PhD at Colorado School of Mines. Prior to moving to Gunnison County, he was senior geologist at the AMAX Henderson mine near Empire.

Accompanying Don in his move to Crested Butte are his wife, Linda, who is busy making plans for remodeling their recently acquired home in Mt. Crested Butte, and their three children: Karn 8, Eric, 6, and Kristin, 2.

Don enjoys many of the sports available in Gunnison country, including downhill skiing, backpacking, hunting and fishing. He and his family recently took up cross-country skiing and skating.

As if this weren't enough to keep him busy, Don taught a one-credit-

GUNNISON OFFICE SCHEDULED

Art Biddle, External Affairs Manager for the Mount Emmons Project, has announced that the project will open an office in Gunnison in the fall. The office will be located at 126 No. Main Street, in a building owned by Bill Mauer of Gunnison. It will open October 1.



Don Ranta

hour night class named "The Economic Evaluation of Mine Properties," in the Geology Department at Western State College last Spring.

History, Culture Reps Visit Town, Emmons Project

On Tuesday, May 30, representatives from the Colorado State Historical Preservation Society and the Federal Heritage Conservation-Recreation Service visited the Mt. Emmons Project.

Visitors were Steve Hart, Chairman of the State Society, Arthur Townsend, State Historical Preservation Officer, and Bob Stewart of the Federal agency. They were in town at the invitation of the Mt. Emmons Project, and Myles Rademan, Town Planner for Crested Butte. The visitors were given a briefing on the status of the Mt. Emmons Project, and were to review the project in light of the designation of Crested Butte as a National Historical District.

A tour of the Mt. Emmons Project west of Crested Butte was conducted for the officials by Art Biddle, Project External Affairs Manager. Rademan conducted them on a tour of the town of Crested Butte.

Computer System Will Aid Planning

(Continued)

cess coordinates local, state and federal government review of project plans at the early stages of project planning. Its objective is to make the Mt. Emmons Project a model of coordinated industry/government planning.

We are also pleased that the County has decided to use COMARC's geo-based information system, which will improve the County's ability to handle growth management and land use planning. We are participating in the funding of this project and believe that it can be a tool which will help produce reasoned decision-making in the future based upon objective and consistently applied criteria.

Everyone on the project is looking forward to becoming better acquainted with the people and communities in Gunnison County. It's vital that all of us make an extra effort to understand local goals and concerns.

The Moly News is published monthly by the External Affairs staff of the Mt. Emmons Project, Box 579, Crested Butte, CO, 81224, and produced by Advertising West of Gunnison. Letters, comment, information, photos and other material should be sent to Terry Hamlin, Manager of Local Affairs, address above.

Summer Meetings Give AMAX Varied Input From Local Groups

Several meetings have been held to gain public input on the AMAX summer operations plans that were submitted to the U. S. Forest Service May 24. A meeting was held June 8 at the request of the Town Council of Crested Butte, to explain AMAX's summer plans on the Mt. Emmons Project.

An additional meeting was requested by the High Country Citizen's Alliance for the Forest Service to hear additional concerns and gain public input from local Crested Butte residents on the Mt. Emmons Project. The meeting was held June 17 in the old Railroad Depot in Crested Butte.

The Gunnison County Planning Commission, headed by Chairperson Mrs. Dora Mae Trampe, met on Friday, June 16 and received from AMAX an explanation of proposed summer plans. The Forest Service was present

at the meeting to hear comment on the plans.

Concerned residents of the North Fork Valley, which includes the towns of Somerset, Paonia and Hotchkiss, also requested a meeting with the Forest Service on June 20. Mt. Emmons Project Local Affairs Manager Terry Hamlin and Environmental Affairs Manager Gary Andes attended the meeting and discussed the Mt. Emmons summer plans.

Health Chiefs Visit Gunnison County

Dr. Boyd Bigelow of St. Anthony's Hospital in Denver, and Pat Harvey, Health and Safety Coordinator for Climax Western Operations, met with Dr. Mason Light recently and toured the Gunnison County Public Hospital. They also talked with Crested Butte Fire Chief John Liebson and Ambulance Service Director, Fran Adams, concerning the types of emergency equipment available, and discussed the availability of trained emergency medical personnel.

Their tour was preliminary to review of the existing facilities and equipment in preparation for coordinating medical services that would be required in conjunction with the proposed development of Mt. Emmons.

Dr. Bigelow organized the St. Anthony "Flight for Life" program and is a consultant for AMAX in medical related matters.

Harrison Western Takes Over Drifting

Ralph Barnett, Mt. Emmons Project Manager, has announced that the contract between AMAX and U. S. Energy Corporation covering the underground drifting at the Keystone Mine was cancelled by mutual agreement Saturday, June 17.

Harrison Western Corporation of Lakewood, Colorado will complete the underground drifting program. The company started work Monday, June 19.

MISS MOLY



by S. WOCTIS

State, AMAX Assist Computer Planning Project

The Colorado Department of Local Affairs has awarded Gunnison County an impact assistance fund planning grant of \$157,000.

This money, in addition to the \$100,000 which AMAX has agreed to contribute and \$25,000 in EPA 208 planning funds, makes a total of \$282,000 available to the county. It will be used to implement COMARC's computer geo-based information system in the County.

The COMARC system combines map-making data and information storage with public involvement techniques providing a method for using public input in planning.

COMARC will provide a common land data base which can be used by local, state and federal government agencies and by AMAX as planning for the Mt. Emmons Project proceeds. Implementation of the COMARC system will provide the County with an additional tool to use in growth manage-

ment planning.

The State of Colorado, in making the grant to Gunnison County, plans to carefully evaluate the performance of the system for possible future state-wide applications. North Carolina recently purchased the system and is using it in their statewide timber and resource management programs.

Several Gunnison County and Mt. Emmons Project representatives recently attended a seminar in San Francisco sponsored by COMARC.

Emmons Management Staff Listed

Following are the names and titles of members of the management staff of the Mt. Emmons Project:

SENIOR MANAGEMENT

Ralph Barnett, Project Manager

EXTERNAL AFFAIRS

Art Biddle, External Affairs Manager
Terry Hamlin, Manager of Local Affairs

Gary Andes, Manager of Environmental Control

Pete Doran, Environmental Baseline Field Studies Manager

GEOLOGY

Don Ranta, Resident Geologist
Reese Ganster, Geologist
Sandy Gunow, Geologist
Fred Dowsett, Geologist
Joe Blumberg, Geologic technician
Scott Weinstein, Geologic technician
Keith Bell, Geologic technician
Bill Swan, Geologic technician
Pat Patterson, Draftsman

ENGINEERING

Gary Snell, Planning Superintendent
Horace Ham, Chief Engineer
Lloyd Stephens, Senior Engineer
Warren Seeton, Engineer
Ben Laukaitis, Engineer
Mike Richardson, Engineer

PROJECT ADMINISTRATION

Jack Dwyer, Controller
Chris Harnish, Field Accountant
Sandy Jay, Secretary
Elizabeth May, Secretary
Elizabeth Julin, Secretary

CONTRACTORS:

Pete Foley, Foreman, C. Ryan and Sons.
Bob Eberhard, Foreman, Boyles Brothers.
Ray Nations, Project Manager, U. S. Energy.
Ed Perusek, Superintendent, U. S. Energy.

State Will Handle Job Applications

Due to the large number of persons seeking employment on the Mount Emmons Project, AMAX and sub-contractors U. S. Energy and C. Ryan and Sons Construction are not taking employment applications either at the Crested Butte Local Affairs Office or at the project site west of Crested Butte, according to Terry Hamlin, Local Affairs Manager for AMAX.

Hamlin added that AMAX is currently not hiring, and that persons interested in employment should contact the Colorado Job Service office, 307 No. Main Street, Gunnison.

Emmons Fields Two Softball Teams

Two softball teams will be playing for the Mt. Emmons Project this summer. The Mt. Emmons Hard Rockers will be playing in the Crested Butte League. The team was organized by Geologic technician Scott Weinstein who is in charge of a winning season.

Playing in the Gunnison League on behalf of the Mt. Emmons Project will be a team organized by local legal counsel Dick Bratton. The team will play under the name of the Mt. Emmons Miners. If there are any disputes with the umpire, we expect that Coach Bratton will be able to arbitrate the matter.

Both teams will be sporting T-shirts printed by Crested Butte's Sue Anderson in her shop, Empire Tunnel Graphics.

New Maps To Be Available To Public

(Continued)

panel points has been purposely picked in areas which do not appear to contain stands of trees, so that helicopter landing can be accomplished without significant surface disturbance.

However, some clearing of brush may be required in a few locations so that the helicopter can land. Where possible, panel points will be relocated slightly to reduce or eliminate clearing.

Once the panel points are located on the ground, surveys and mapping

are performed by helicopter and fixed-wing aircraft, and can be completed in a relatively short period. Actual surveying will probably occur in late August and early September.

Helicopters will be based at the Keystone Mine, and pilots are instructed not to fly over Crested Butte.

Maps produced by this program will be available to the Forest Service, other government agencies, and private landowners when the work is completed.