

LEGISLATIVE FINANCE - HOUSE / SENATE FINANCE COMM. FILES 8879

HB 332 cont. 507 98

Kermit Krause Letter
Kuitsarak Comments
May 8, 1989

Although the Cenaliulriit Program doesn't prohibit offshore mining, it does require any government agency making a consistency determination to make sure that:

[1] Possible adverse impacts of the action on subsistence use must be analyzed and safeguards provided to assure subsistence use.

[2] The action will not curtail the age-old hunter-gather culture of the Yupik.

[3] The action will not remove indispensable fish or game habitat from use by the age-old hunter-gatherer culture of the Yupik.

* * * *

[4] The project will not cause a decrease in the range or extent of diversity within the local ecology that the village depends on for food.⁵⁶ (Emphasis added.)

As noted earlier, the PBIF and RAR simply fail to analyze the effects of fuel spills or mercury poisoning on subsistence uses, much less provide any safeguards which will "assure" continued subsistence use.⁵⁷ For the same reasons, the PBIF does not "make sure" that the proposed action "will not" curtail Yupik culture, remove indispensable fish and game habitat or cause a decrease in the range or extent of diversity within the local ecology that the village depends on for food.

The Cenaliulriit Program also requires stringent management of "essential habitat" such as Goodnews Bay.⁵⁸ Among other things:

⁵⁶ Cenaliulriit Coastal Management Program, Cenaliulriit Coastal Management District (March 1985) at 6-13 (Standards relating to subsistence). Hereinafter "Cenaliulriit Program".

⁵⁷ The analysis of the effect of turbidity and ways to mitigate are also deficient for the reasons discussed earlier.

⁵⁸ Cenaliulriit Program at 6-23 and 24. Of the six criteria, any one of which is sufficient to designate a place "essential habitat", Goodnews Bay and the offshore area satisfies five of them.

+ It has a measurable seasonal concentration of wildlife species.

Kermit Krause Letter
Kuitsarak Comments
May 8, 1989

[1] All essential habitat will be managed to maintain or enhance the biological, physical, and chemical characteristics that contribute to the capacity to support life.

[2] Essential offshore habitat will be managed as a fisheries conservation zone so as to maintain or enhance the state's sport, commercial, and subsistence fishery.

[3] Essential estuary habitat will be managed to assure adequate water flow, nutrients, and oxygen levels and avoid adverse effects on natural drainage patterns.⁵⁹
(Emphasis added.)

Far from managing this essential habitat to "maintain or enhance [its] biological, physical, and chemical characteristics" the proposed disposal could very likely result in mercury poisoning, fuel spills and turbidity, any one of which could destroy the habitat. Incredibly, the PBIF actually justifies the dredging inside the bay because it "could open up navigational channels that

-
- + It has an element necessary for a wildlife species' well-being, such as a migration corridor or a specialized feeding area.
 - + It has a measurable concentration of species utilized by local residents.
 - + It is an essential pupping, calving, rookery nesting, spawning, rearing, wintering, migratory, feeding, or hauling-out area.
 - + It is a high-density breeding, rearing, or nesting area.

⁵⁹ Id. at 6-24. This is not a complete listing of the Cenaliulriit habitat standards. It is also worth noting that the Cenaliulriit Program lists Goodnews Bay and Platinum as "special areas" requiring "careful planning and management". Id. at 7-5. The recent introduction of legislation to declare the entire disposal area a "critical habitat" and withdrawn from mineral leasing is consistent with the Cenaliulriit designation of the vicinity of Goodnews Bay as a "special area".

Kermit Krause Letter
Kuitsarak Comments
May 8, 1989

might be beneficial to future boat navigation and fish migration."⁶⁰ It "might" also do just the opposite, and there's no guarantee the dredging would even be designed to have any of the supposedly beneficial effects described in the PBIF. It might just make a big hole in the bay and drastically alter water flow and natural circulation patterns. Instead of identifying conflicts and developing a "plan to resolve or mitigate them" as is required by law,⁶¹ the PBIF on this point is a blueprint for disaster, which would only exacerbate the conflict.

The CCMP does allow activities which do not conform to the Cenaliulriit habitat standards, but only if it is established that there is a significant public need and no feasible or prudent alternative exists to meet that need.⁶² The PBIF simply doesn't establish such a need, much less determine that there is no alternative available to meet any such need. The most the RAR does is to make an unsupported statement that platinum is "strategic and critical" and dependent on foreign sources.⁶³ One of those sources is Canada, (a friendly North American power) so it is not clear why the fact South Africa and the Soviet Union are also sources is a problem.

Moreover, the RAR also notes there is a "favorable potential" from at least two other on shore sources near the original platinum deposits at Red Mountain and in the Salmon River. One alternative is "retreatment of the existing tailings in the Salmon River valley" and another is "production from known reserve areas . . . to the south."⁶⁴ Yet the PBIF doesn't even deal with the question of why these are not "feasible or prudent" alternatives to meet the as yet unsubstantiated public need. This it must do if this project is to go forward, given the negative effect the disposal will have on essential habitat.

⁶⁰ PBIF at 11.

⁶¹ AS 38.05.830.

⁶² Cenaliulriit Program at 6-25.

⁶³ RAR "Introduction" and A-5.

⁶⁴ RAR at A-7.

Kermit Krause Letter
Kuitsarak Comments
May 8, 1989

F. Violation of DNR Regulations

In her comments on the PBIF, the applicant essentially admits that dredge mining will be harmful to the resources in and near Goodnews Bay, but concludes that: "Sometimes we need to make a hard decision and choose one very important resource to the detriment of another very important resource."⁶⁵ But that is not what DNR's own regulations say. According to 11 AAC 86.500(f) tide and submerged lands are to be opened to OPPs "unless the department finds that . . . mining would be incompatible with significant surface uses" (emphasis added). It is beyond question that the resources at and near Goodnews Bay are "significant", and it is equally clear that mercury poisoning, fuel spills and turbidity mean that dredge mining is "incompatible" with the present use of those resources.

The people of Goodnews Bay simply are not in a position to "choose one very important resource to the detriment of another very important resource." Those people expect DNR to follow its own regulations to ensure that they are not put to this impossible "choice". The people of Goodnews Bay and the surrounding villages depend on the renewable resources of Goodnews Bay and the surrounding waters for their very lives, and dredge mining threatens to destroy those resources. Seen in this light, Ms. Sheardown's "choice" is not just a choice between one resource or another. It is a callous choice between people or platinum.

DNR's regulations also prohibit new applications for OPPs if "adequate funding has not been appropriated for disposal of these minerals under the procedures provided by law."⁶⁶ Admittedly, no funding has been appropriated for this disposal,⁶⁷ but the state is trying to get around that problem by letting the applicant pay for the resource assessment. The problem is those funds are not "appropriated" either. Using state appropriated funds to do the assessment would eliminate the substantial conflict of interest which vitiates the credibility of the resource assessment.

The state has gone even further. It has used the privately financed resource assessment to actually open up new lands for OPPs. This is under the guise of opening only a "small, discreet

⁶⁵ Sheardown letter at 1.

⁶⁶ 11 AAC 86.500(f)(3) (emphasis added).

⁶⁷ PBIF at 7.

Kermit Krause Letter
Kuitsarak Comments
May 8, 1989

portion of tide and submerged lands" and not the entire state.⁶⁸ If that is legitimate, then there is nothing to prevent the state from opening another "small, discreet portion" year after year, letting applicants or potential applicants do the resource assessments and finding it in the state's "best interest" to issue new OPPs. If that is permitted to occur, the state will (as here) effectively gut its own regulation. The regulation seems designed to avoid ill-considered submerged land mining, but that is exactly what DNR is about to do by circumventing it. If it is to proceed with this or any other similar disposal legitimately, DNR will have to change its regulations.

IV. CONCLUSION

The proposed disposal is not in the best interest of the State of Alaska. It is contrary to DNR's own regulations and the Governor's stated policies, inconsistent with an established coastal management program and pending legislation and based on a fatally flawed and suspect resource assessment. Nor should DNR listen to the applicant's contention that she is only applying for a prospecting permit.⁶⁹ Under the state mining laws, if prospecting uncovers "workable mineral deposits", the holder of the OPP is entitled to a noncompetitive mining lease.⁷⁰

The PBIF appears to be based on the correct assumption that once an OPP is issued, mining should be expected to follow. The problem is the PBIF does not adequately consider the effect of mining on existing significant surface uses and essential habitat. The available data indicates that mercury poisoning, fuel spills and turbidity are each likely to destroy or severely affect the existing and thriving commercial fishing and subsistence economy. With that economy would go the culture and way of life of the people whose ancestors have called Mumtrak home for thousands of years. We cannot understand how the state's "best interest" is served by jeopardizing an existing, valuable economy, way of life and ancient culture for a speculative venture which could not be conducted without significant damage to the state's own resources.

We appreciate the opportunity to comment on the state's Preliminary Best Interest Finding, but must urge the Department of Natural

⁶⁸ Id.

⁶⁹ Sheardown letter at 1.

⁷⁰ AS 38.05.250(b).

Kermit Krause Letter
Kuitsarak Comments
May 8, 1989

Resources to reconsider the entire disposal and reject all the OPPs and refrain from opening any new tracts. Alternatively, DNR could obtain sufficient appropriations to do a proper resource assessment written by state personnel. In the meantime, this project should be put on hold at least until the issues presented by mercury poisoning and the pending legislation to designate the disposal area as critical habitat and withdraw it from mineral leasing can be fully considered.

Sincerely,



David S. Case
Attorney for
Kuitsarak, Inc.

cc: Kuitsarak, Inc.
Steve Cowper
Johne Binkley
Lyman Hoffman



United States Department of the Interior



MINERALS MANAGEMENT SERVICE

ALASKA OUTER CONTINENTAL SHELF REGION
949 E. 36TH AVENUE, ROOM 110 ANCHORAGE, AK 99508-4302

OFFICE OF MANAGEMENT & BUDGET

MAR 17 1989

MAR 20 1989

Mr. G.H. Ivey, Director
Alaska Area Native Health Service
250 Gambell Street
Anchorage, Alaska 99501

GOVERNMENTAL COORDINATION

Dear Mr. Ivey:

The Alaska Division of Governmental Coordination (DGC) and the U.S. Minerals Management Service (MMS) co-chair the Coordination Team for the proposed MMS Outer Continental Shelf Minerals Lease Sale in Norton Sound, Alaska. The Coordination Team consists of Federal, State, local, and special interest representatives. The Coordination Team meets to review the issues associated with the proposed lease sale. The MMS is presently preparing the final Environmental Impact Statement (EIS) for the proposed lease sale.

One of the topics discussed in the EIS is the potential for mercury bio-accumulation in the food chain. Both the MMS and the Coordination Team have given considerable attention to the issue of mercury and its potential effects on human health. The community of Nome is of particular concern because of its proximity to past, present, and future offshore mining. A link between proposed new mining and increases in mercury levels in humans has not been established. However, as a result of investigating this issue, the Coordination Team has identified a potential human health problem associated with existing mercury levels in Alaskan coastal populations including Nome residents.

Studies cited in the draft EIS indicate that elevated mercury levels have been found in Canadians and Alaskans engaged in subsistence hunting and fishing who consume large amounts of seal, walrus, fish, and polar bear. However, this situation has not been evaluated in the Nome area, and no information is available regarding the present mercury levels in the residents in Nome.

Current environmental monitoring data from Norton Sound do not suggest mercury levels which would cause acute human poisoning. However, at the "Mercury in the Marine Environment Workshop" held in November of 1988 by MMS, Dr. David Marsh, a world renown neurologist who has researched effects of mercury on developing fetuses, indicated that the major concern to populations consuming large amounts of seafood (such as Nome) is that there may already be mercury levels at or near threshold levels for effects on developing fetuses (10 to 20 ppm in hair). At the threshold level or above, some incidences of psychomotor retardation is expected.

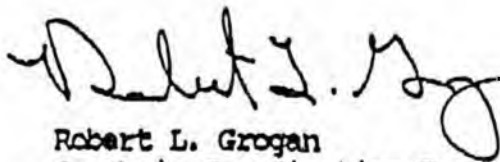
It has been suggested by the Coordination Team that a survey of coastal populations be conducted to determine existing concentrations and establish whether a human health concern exists. The initial target group was of childbearing age. Coordination Team members recommended that, because of proximity to offshore mining activities, Nome be included in the initial survey area.

The Coordination Team has identified that Federal, State, and regional health agencies may be the appropriate entities to conduct this survey and assimilate the base-line information. These agencies include the Alaska Area Native Health (which represents the U.S. Public Health Service and the Indian Health Service), Center for Disease Control, State Division of Public Health and the Norton Sound Health Corporation.

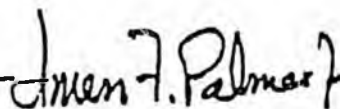
During our January 1989 meeting, the Coordination Team recommended bringing this issue to the attention of the various health agencies and organizations for your joint evaluation. We have provided each of the above listed organizations with an identical notification.

State agency and MMS staff are available to provide additional information. Please contact Patty Bielawski at DGC (274-1581) or Tim Holzer at MMS (261-4597) if you have questions.

Sincerely,



Robert L. Grogan
Co-chair Coordination Team
Division of Governmental Coordination
State of Alaska



Irven F. Palmer
Co-chair Coordination Team
Minerals Management Service

cc: Coordination Team
ALUM (MS 840)
Program Director, OSIM
Observer List
Courtesy Copy List

Eons —

KUITSARAK, INC.
P. O. Box 10
Goodnews Bay, AK 99569

January 12, 1990

JAN 18 1990

Senator John Binkley
P.O. Box V
Juneau, AK 99811

Re: HB No. 332, SB 318 "Critical Habitat" Bills

Dear Senator Binkley:

Thank-you for your consideration. Since the corporation has become directly involved in matters relating to the prevention of mining in and offshore of Goodnews Bay, it would be a good idea to let you know we will fully support your efforts all the way. We would like to see the preservation of Goodnews Bay and offshore continue indefinitely, not only for the sake of the local people, but for the people of the region.

We know for a fact, almost unanimously the people of Goodnews Bay and Platinum, strongly oppose any attempts by the state, and the mining companies, to come into the pristine environment for purposes of offshore dredging. There are still many questions that need to be answered. Not only do the people of Goodnews Bay and Platinum depend on the Bay and offshore for their living (subsistence and commercial), but villages in the Kuskokwim region extending north of Goodnews Bay also. The Bay is an estuary, and it supports a wide variety of marine inhabitants. It has a history of use by a maritime culture, mainly that of the coastal Yup'ik Eskimos.

We know that the Division of Mining (DOM), under the Department of Natural Resources, has submitted a proposal to allow outside mining companies to come in and "dispose" of the non-renewable resources (if any) for a time span of approximately ten years. After that, just what are the Natives in the area going to do, when the Bay and offshore areas they depend on are destroyed? DOM's proposal has been found to be, and still remains, questionable.

Senator Binkley, Pg. 2

Consequently, we feel it is absolutely imperative HB 332, and SB 318, successfully passes through the Resources Committees of the House and Senate, and all the way onto being signed into law. We applaud you and Representative Hoffman's efforts, on responding to our concerns by submitting similar bills proposing to create the Goodnews Bay area as "critical habitat."

We would appreciate it if we could be informed as soon as possible, after the date becomes known when the "critical habitat" bills are up for consideration by the appropriate Resources Committee.

If there is anything we can do to help, please do not hesitate to call 967-8428, or write to the above address.

Thank-you for your time.

Sincerely,

Vernon Bavilla

Vernon Bavilla
Director

cc:

Gov. Cowper

Representative Hoffman ✓

House Resources Committee Member, Representative George Jacko

Senate Resources Committee Member, Senator Fred Zharoff

Cenaluiriit

Nunam Kitlutsisti

Traditional/IRA Village Councils; Goodnews, Platinum, Quinhagak, Eek,

Tuntutuliak, Kwigillingok, Kongiganak, Atmauthluak, Akiachuk,

Kwethluk

ANCSA Corporations; Platinum, Quinhagak, Eek, Tuntutuliak,

Kwigillingok, Kongiganak, Atmauthluak, Akiachuk, Kwethluk

City Councils, Goodnews, Platinum, Quinhagak, Eek, Tuntutuliak,

Kwigillingok, Kongiganak, Atmauthluak, Kwethluk.

NUNAM KITLUTSISTI

Protectors of the Land, Inc.
P.O. Box 2068 • Bethel, Alaska 99559
907/543-2856

January 17, 1990

Representative Lyman Hoffman
Alaska State Legislature
P.O. Box V (MS 3100)
Juneau, Ak. 99811

Dear Lyman:

Regarding upcoming deliberations on HB #332 which you co-sponsored and its companion SB #318 establishing a Goodnews Bay Critical Habitat Area, be assured that Nunam Kitlutsisti and its Board of Directors wholeheartedly support the intent and purpose of these two bills. Too often in the past we have seen the disruption and devastation resulting from dependance on presumptive management principles where substantial and/or irreversible damage has occurred prior to responsible protective measures being adopted. These concerns were presented in detail through our own and many other responses to the proposed activity so we will not reiterate those many pages of concerned analyses again here.

It is clear from the majority of responses to the preliminary best interest finding by objective and partisan interests alike that it would be extremely difficult, if not practically impossible, for the proposed activity to prevent serious detrimental impacts to the existing renewable resources of this already fully utilized and highly sensitive area. It is of critical importance not only to the migratory and resident populations of marine life and waterfowl populations which are dependant on the area's productivity for their very existence, but to the people who rely on these same populations for their basic sustenance and survival throughout their annual cycles.

It is totally unacceptable to allow this (or any other) development to occur for the possible lucrative pocket lining of a select few, at the risk and expense of a highly developed ecosystem which already supports healthy populations of many species and a people's ability to sustain their own livelihood.

We urge all involved to support HB 332 & SB 318 to the best of their ability throughout the legislative process. If we may be of any service in the duration please don't hesitate to contact us at the above address.

NUNAM KITLUTSISTI

Regards,



Greg Roczicka
Resource Coordinator N/K

cc:

Gov. Steve Cowper
Sen. John Binkley
Sen. Fred Zharoff
Rep. George Jacko
Kuitsarak Inc.
Platinum IRA Council
Quinhagak IRA Council
Eek IRA Council
Kwigillingok IRA Council
Kongiganak IRA Council
AVCP Inc.
RARA

1073

JAN 19 1990



Cenaliulriit

Coastal
Management
District

For the Yukon-Kuskokwim Coastal Resource Service Area
P.O. Box 1169 • Bethel, Alaska 99559 • 907/543-2243

January 15, 1989

Representative Lyman Hoffman
P.O. Box V
Juneau, Alaska 99811

Subject: House Bill 332

Representative Lyman Hoffman:

House Bill 332 reaffirms Cenaliulriit's position on the Goodnews Bay Offshore Mining in and around the bay area. This bill presents the need to preserve important fish and wildlife resources, sensitive habitats, the significance of commercial and subsistence harvesting to villagers, and the need to prevent some probable adverse impacts of exploration and mining.

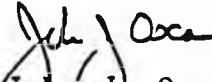
Only a few Natives from Goodnews Bay and Platinum will benefit over a short period, at the price of an essential ecosystem and impacts to the values, traditions and lifestyles; while monetary and economic gains flow elsewhere. The majority of those employed will come from outside the Yukon and Kuskokwim regions, while a majority of subsistence and commercial users suffer along the bay area and estuarine sanctuaries. Quinhagak, Eek, Tuntutuliak, Kwigillingok, Kongiganak and some Kuskokwim fishermen also use that area.

The area is important for essential fish and wildlife habitats such as marine mammal haul outs, herring concentration and migration areas, capeline and smelt spawning areas, clam and mussel beds. Frank Rue, Director of Habitat Division with the Alaska Department of Fish and Game said, "even with seasonal restrictions on mining, it would be difficult to protect the area effectively."

Cenaliulriit endorses the passage of House Bill 332, "An Act establishing the Goodnews Bay Critical Habitat Area; and providing for an effective date."

Thank you for the opportunity to comment.

Qu'yana,
CENALIULRIIT COASTAL MANAGEMENT DISTRICT
Paul Chimiugak, Chairman


John J. Oscar
Coordinator

Cenaliulriit Distribution

cc: Representative Sam Cotten, Speaker of the House
Senator John Binkley
Senator Al Adams
Representative Mike Davis
Representative Richard Foster
Representative George G. Jacko, Jr.
Representative Loren Leman
Representative Eileen Panigeo
Representative Mike Navarre
Representative Swackhammer
Representative Kay Wallis
Bob Polasky, Rural Cap
Joe Chimeralrea, Nunam Kitlutsisti
Vernon Bavilla, Kuitsarak, Inc.
Arviq, Inc., Platinum

Bob - Good News!



INLET SALMON

A DIVISION OF INLET FISHERIES, INC.

P.O. Box 530
Kenai, Ak 99611
(907) 283-9275
(FAX) 283-4097

JAN 15 1990

P.O. Box 690
Kasilof, AK 99610
(907) 262-4730
(FAX) 262-3962

January 11, 1990

Representative Lyman Hoffman
P.O. Box V
Juneau, Alaska 99811

Dear Representative Hoffman,

Inlet Salmon would like to go on record as supporting House Bill # 332. We are very hopeful that your colleagues in the House and Senate will understand how critical it is that this area be set aside for the people that live there and will not be swayed by the short term revenue gains. The Goodnews Bay Critical Habitat Area must be established in order to provide a stable environment for the local residents to survive.

I have included a copy of a letter that I wrote to Kerwin Krause in the Department of Natural Resources detailing our objections to the proposed mining leases in the Goodnews area.

You and Senator Binkley are to be commended for your efforts to protect your constituents way of life. If we can be of any assistance, please let me know. Thank you for your time.

Sincerely,
Scott Earsley
Scott Earsley
Inlet Fisheries, Inc.



INLET SALMON

A DIVISION OF INLET FISHERIES, INC.

P.O. Box 530
Kenai, Ak 99611
(907) 283-9275
(FAX) 283-4097

P.O. Box 690
Kasilof, AK 99610
(907) 262-4730
(FAX) 262-3962

April 30, 1989

State of Alaska
Department of Natural Resources
ATTN: Kerwin Krause
Division of Mining
P.O. Box 107016
Anchorage, Alaska 99510

RE: Issuance of Offshore Prospecting Permits for the Goodnews Bay Area

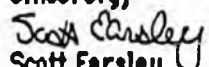
Mr. Krause,

Inlet Salmon would like to go on record as not supporting any offshore prospecting or mining in any of the tracts in the Goodnews Bay Disposal Project Area.

We support resolutions passed by the Platinum Traditional Council, Goodnews Bay Traditional Council, Goodnews Bay, Inc., Quinhegak IRA Council and the Rural Alaska Resource Association that opposed any offshore prospecting or mining because of the possible negative impacts to their subsistence lifestyle. These people subsist primarily from food harvested from the sea, their way of life should not be jeopardized by any development.

The Goodnews Bay area has been nominated as an Area Meriting Special Attention in the Canaliulrit Coastal Management Program. However, the issues addressed in the Consistency Analysis for this lease program are just the general standards for the whole Canaliulrit Coastal Management Program. Since the standards for a Consistency Review for this AMSA will be in greater detail, there should be no further development or leases until all the issues for that area have been identified and addressed.

Unless the proposed prospecting leases can enlist the support of the people that inhabit the area, we do not think that this program should go forward as planned.

sincerely,

Scott Earsley
Secretary
Inlet Fisheries, Inc.

DEAN

NUNAM KITLUTSISTI

Protectors of the Land, Inc.
P.O. Box 2088 • Bethel, Alaska 99559
907/543-2856

April 26, 1989

Mr. Kerwin Krause
Dept. of Natural Resources
Division of Mining
P.O. Box 107016
Anchorage, Ak. 99510

Dear Mr. Krause;

This is in response to the Preliminary Best Interest Finding and Proposed Consistency Determination regarding the issuance of Offshore Prospecting Permits (OPP) in and around the Goodnews Bay area. After thorough review of the document's content and appended studies, we cannot agree with Mr. Gallagher's conclusion that the finding is in the state's best interest. We feel that it is at best a premature decision and inconsistent with approved Cenaliulriit Coastal Management Program standards. (See Attachment A)

At the public meetings which were held in May of 1988 and February 1989, people were given informal information of the Division's and industry's interests. However this is the first actual document we have seen which fully outlines the scope of the proposed activities. It provided an initial 5 week comment period (which was graciously extended) and stated a final decision forthcoming on May 15, 1989. We find it somewhat alarming that the Division stands ready to make a final determination so soon, with no further public input into an issue which could so dramatically affect the area under consideration.

This in itself constitutes a gross presumption that no further substantial research would be necessary after receiving public comments. By moving ahead so quickly, this also places the Division and the public in a reactionary response mode, rather than operating under sound management and planning principles.

Unacceptable as well, is what appears to be a predetermination by the Finding that OPP's will be issued regardless of the level or content of public comment received. This perception is bolstered by the attached reports which go into extensive detail on how mining activities will be carried out. It is true that disclaimers are present at intro and conclusion, but the prevalent tone throughout the document is that the decision has already been made.

Overall, the Finding's review of potential affects to existing resources is incomplete and needs much more in-depth study. The mitigation requirement of restricted seasonal operations is a good start. There is however, not a bit of substantiating data or assurance that residual effects from the proposed activities

NUNAM KITLUTSISTI

would not "winter over" or remain hidden and cause major problems the following spring or in subsequent seasons.

Is the offshore area a settling point for crab and halibut larvae brought north by Bering Sea currents? How extensively might offshore dredging affect inter and sub-tidal zones used for spawning by herring, smelt and capelin? Do the juvenile halibut and razor clam population harvested by locals originate directly out of Goodnews Bay? Might the activities raise the already high turbidity and siltation levels within Goodnews Bay to the point where Eelgrass would begin to die out? How finely balanced is the eco-system within the Bay regarding turbidity and siltation through tidal influence?

The only answer to the above questions that can be derived from the Finding and attached reports is that "it is unknown at this time".

Phrases such as "cannot be determined" or "unknown at this time" are evident throughout the support documentation to the Finding. The doubts and questions raised need to be answered BEFORE exploration and development is allowed to occur.

The issue of sedimentation and turbidity alone is deserving of much more intense consideration than it was given. The attached biological report states clearly the high levels which already exist naturally, and that they may occasionally limit light penetration causing negative survival impacts to the Eelgrass beds. We cannot afford to take the chance of adding to natural levels until we first get a definite determination of what the current situation is, and what mining impacts might be.

Further, siltation in the Finding addresses only the materials which are actually removed from the bottom during dredging operations. What of the disturbed material that is left behind? The attached reports state that the exceptionally strong tidal flows would clear away some of these churned spoils, but neglect to mention or do not know (more likely the latter) where it will eventually end up being deposited. Perhaps from one side of the Bay to the other. It is highly likely that the strong onshore and tidal currents which are recognized as being responsible for some of the existing siltation, will escalate these levels. Again we must stress that the added load and redistribution of these sediments may well be of critical importance, and could potentially destroy what is now a delicately balanced and highly productive eco-system.

Another question unanswered (indeed not even addressed) by the Finding is the potential for heavy metals such as arsenic and mercury to be present in the spoils. Freeing these and other toxic elements into the water columns could have devastating effects on plant and animal life through current and tidal actions both offshore and within Goodnews Bay. Again, another unknown which deserves full-scale investigation prior to any exploration or development.

The question of the state assigning priority over the opposing interests presents no difficulty whatsoever with a little reasonable deliberation. To postpone further action until more of these concerns are answered means that a private venture may have to wait some years before capitalizing on the area. On the other hand, if damage to the aquatic environment is a result, it may

NUNAM KITLUTS STI

take generations to recover. According to the geological reports these mineral deposits were placed somewhere around 100 million years ago. It is extremely doubtful that they will go anywhere in the foreseeable future. Developing first without knowing or understanding the consequences is an inequitable and irresponsible trade-off.

The people of Platinum and Goodnews Bay have ardently voiced their concerns on many of the issues presented above. Their greatest fear is losing the environment and resources which provide for their livelihood to a short-term capital gain activity. Renewable resources are the only long term value that supports self-sufficiency in their area.

To their perspective, someone from Anchorage came out from Anchorage last year and informed them that offshore mining of the area was being looked into. Someone showed up again a couple of months ago to say that plans were in the works, but as yet nothing had been developed that was ready for review. One month later the Preliminary Finding appeared in the mail, containing proposals directly within and around areas which they had identified earlier as critical to the local subsistence economy.


We are sure the Division of Mining was being up-front and operating in good faith under its own standards. The rural perspective however, is that something to which they have had minimal input and voiced a strong concern and opposition the two times they were consulted, is being shoved down their throats...

We are asked to review this document as a Preliminary Finding only. As we all know exploration and development go hand in hand. If economically recoverable deposits are located, they will be pursued vigorously and to the fullest extent; And the deplorable fact is, money talks louder than people. Let's get our priorities in the right order this time. A full assessment and understanding of negative impacts MUST come first before any exploration or development is allowed to take place.

Offshore development in this area should hinge on the existence of a cooperative relationship between the affected villages, regulatory agencies, and developmental interests. Without this status their will continue to be distrust and misunderstanding at the local level, substantial non-compliance with consistency determinations at the administrative level, and increased operational costs to the industry. Difficulties with upland disposal areas, disruptive cultural contact, increased pressure, competition, and threats to existing renewable resource levels, name only a few.

In all fairness and equity to the area with its diverse and productive environments, exploration and development should be postponed indefinitely in the Goodnews Bay area. Until, at a minimum, substantiated information is available to ascertain the full effects of any proposed mining activities on the area's renewable resources.

Regards,


Greg Raczicka
Resource Coordinator N/K

NUNAM KITLUTSISTI

cc - Cenaliulriit
Rep. Lyman Hoffman
City of Goodnews Bay
City of Platinum
RARA
AVCP

NUNAM KITLUTSISTIAttachment A

The following standards from the Cenaliulriit Coastal Management Program, though given some recognition by the Preliminary Finding, are still far from being adequately addressed. Too many short and long term questions raised by the proposed action remain unanswered. Only the first few steps have been taken in determining the resultant consequences of the proposed activities. There exists significant cause for concern due to the high degree of potential conflicts and degradation to the renewable resources of the area. The Preliminary Finding as it now stands cannot be considered to be in compliance with Cenaliulriit standards.

Issue 5. Subsistence

Standard:

5.1 Possible adverse impacts of the action on subsistence must be analyzed and safeguards provided to assure subsistence use.

Response: The analyses and safeguards provided are based on incomplete information.

5.2 The action will not curtail the age-old hunter/gatherer culture of the Yup'ik.

Response: The action could have severe implications on the culture through degradation of primary habitats and the attendant increase in human population inherent to the proposed activities.

5.3 The action will not remove indispensable fish or game habitat from use by the age-old hunter-gatherer culture of the Yup'ik.

Response: There is likely to be significant removal of fish and game habitat as a result of the proposed action.

5.6 The project will not cause a decrease in the range or extent of diversity within the local ecology that the village depends on for food.

Response: The action has high potential to cause a decrease in the range and diversity of plant and animal populations within the local ecology.

Issue 6. Environmental Management

Standard:

6.1 The action will not damage the fragile ecosystem of the area to the extent that species cannot recover to previous levels of abundance.

Response: The action could result in significant damage to the local ecosystem, causing extreme difficulties for species to maintain or return to previous population levels. Arguments to the contrary are based on unknowns.

NUNAM KITLUTSISTI

Attachment A cont.

Issue 7. Development In General

Standard:

7.5 Mining and mineral processing will be regulated, designed, and conducted to be compatible with the standards of the Alaska Coastal Management Program, adjacent land uses, and state and national needs.

Response: The action could have severe negative impacts on adjacent land uses and is not compatible with the Alaska Coastal Management Program through Cenaliulriit standards.

Issue 8. Fish and Wildlife Habitats

Standard:

8.2 All essential habitat will be managed to maintain or enhance the biological, physical, and chemical characteristics that contribute to its capacity to support life.

Response: The proposed action has a high potential of negative impacts to essential habitat.

8.3 Essential offshore habitat will be managed as a fisheries conservation zone so as to maintain or enhance the state's sport, commercial, and subsistence fishery.

Response: The proposed has a high potential for degradation of the area's commercial and subsistence fisheries.

8.4 Essential estuary habitat will be managed to assure adequate water flow, natural circulation patterns, nutrients, and oxygen levels.

Response: The effect the proposed action would have on essential estuary habitat is an unknown quantity. Nutrients and oxygen levels could be severely impacted.

8.5 Essential wetland and tidal habitat will be managed to assure adequate water flow, nutrients, and oxygen levels and avoid adverse affects on natural drainage patterns.

Response: The effect of the proposed action on essential tidal habitat is an unknown quantity. Nutrients and oxygen levels could be severely impacted.

8.8 Essential high-energy coastal habitat will be managed to assure the adequate mix and transport of sediments and nutrients and avoid redirection of transport processes and wave energy.

Response: The proposed action has extremely high potential of causing severe negative impacts to the level and content of existing sediment and nutrient mix within the area.

KUITSARAK, INC.
P.O. BOX 10
GOODNEWS BAY, ALASKA 99589

April 29, 1989

Representative Lyman Hoffman
Pouch V
Juneau, Alaska 99811

Re: Goodnews Bay Offshore Mining Disposal, as proposed by the
Division of Mining, Department of Natural Resources.


Dear Representative Hoffman:

Your constituents of Mumtrak (Goodnews Bay) are living a very fragile way of life in today's fast-paced world. And with the recent proposals by DNR, Mining Division, to open up Goodnews Bay and nearby waters for offshore mining, is placing our way of life, when considering our economic dependency on the Bay (based on renewable resources), in jeopardy.

The subsistence way of life, and the existing commercial dependency upon the bay, is the safest bet for the psychological well-being of the local people, some twenty or hundred years in the future. The locals surrounding the bay are not looking for some 50 jobs that will end in a "bust" cycle. Our Economic Base is growing, and we would like to see that continue. We do not want to witness the destruction of our foundation, especially by some "alien" company who will come in for his or her own economic gain, regardless of the consequences.

As constituents, we are asking for your support in our opposition to the proposal by the Division of Mining, DNR, to open up the Bay for mining purposes. Please consider the letter to the Director, Resolution 89-03-07, the newspaper article, and my testimony during the hearing held in Goodnews Bay on April 19, 1989. Thank-you for your consideration.

Sincerely,


Vernon Bavilla
President

cc: file
Attachments(4)

We feel that the statement is incorrect and misleading. On page 13 of your finding you also state that "with proper timing exploration activities will have negligible effects on fish migrations, fish spawning, marine mammals, clam beds or blue mussel beds." The Departments claims of "proper timing" are all too shallow and weak a defense when there is a tremendous and irreplaceable wildlife habitat at stake.

Of your report, on page B-14 of the biological resource assessment by Dames and Moore, the fourth paragraph states in reference to Grey Whales: " ..any major damage to their food chains would undoubtedly have a negative effect on their numbers.."

Can we assume then Mr. Gallagher, that one or more 100 foot bucketline dredge working 24 hours a day devastating a rich sea floor to cause such damage? In section B page 16 it addresses the subject of exploration impacts inside Goodnews Bay. In reference to bird nesting colonies and Eagle nests at Beluga hill it states: " These species could be threatened by potential fuel spill pollution during fuel transfer and handling on exploration vessels. Disturbance effects could also result from the combined effects of harassment by workers and vessel traffic..."

Of the same report, on page B-17 when considering mining impacts it states: " The swelling effect of Dredge spoil material could result 'n the creation of islands or increasingly shallow water.." Further it states: " Detailed impacts and constraints to marine reclamation cannot be determined..."

We must ask you Mr. Gallagher, did you actually read the biological impacts as written in the report for the OPP applicant and then in good conscience deem it to be of insignificant wildlife impact? The last sentence of the next page indicates further mitigation measures such as " Develop a fuel spill contingency plan and have a good supply of spill clean up equipment on site. " We all know how well such plans work now, do we not?

On page five of the summary as prepared by WGM Inc. it states that " ..impacts of exploration...are limited to fuel spills and increased ship traffic and noise that could cause their displacement.." This was in reference to local wildlife. As you probably had read but surely cannot fully embrace, is the fact that residents of this Bay area lead a subsistence lifestyle. As this is being typed boats of seal hunters float in the Bay hoping to bring home fresh meat.

Further of the same summary by WGM Inc. on page 5 it states; " biological activity will be lost.....longterm biological impacts could result if critical species such as eelgrass failed to recolonize..." In the next paragraph it speaks of turbidity as a result of exploration : " If this were to cause destruction of eelgrass beds, a decline in the commercial and subsistence fishery would probably result."

For these reasons and more to be discussed, we feel all plans of providing prospecting permits to be a long term monumental exercise in poor judgement tantamount to the Valdez incident, and obviously done without full regard to the environment whatsoever, or the residents indigenous to the area. Is that truly in the best interests of the state then ? Its residents ?

April 19 1989

To: Gerald Callagher, Director DNR Division of mining

After review of the preliminary "best interest finding" regarding the issuance of offshore prospecting permits in and near Goodnews Bay Alaska, we, the undersigned concerned residents of Platinum Alaska, respond.

Our findings of the proposed offshore prospecting permits show that the informational material as provided is rather slanted and downplayed in terms of its perspective towards the overall environmental and social-cultural impacts that this activity will generate.

We, the residents of Platinum, wish to maintain the quality of our lives, preserve its pristine ecosystem, and protect our community from unwanted population growth and the resultant social impacts it will most definitely have on our subsistence community.

Mr. Gallagher, we understand that under State law, that before issuing a permit you are required to prepare a written finding that the States interests will best be served by issuance of said permit. (AS 38.05.035 e) It must also document whether the plan is consistent with the Alaska Coastal Management program. What we seek to do here is state why we determine it is not at all acceptable and not in the best interests of State, Coastal Management, or the residents of Goodnews Bay and Platinum.

Biological resources are the mainstay of life here. Our most sensitive marine environment is a rich and tremendously valuable ecosystem, providing for its aboriginal peoples for centuries. It takes many years of intense observation for one to fully comprehend the wildlife values here, and interlocking relationships each species has critical to each other.

Our offshore areas are not renewable like a new mowed lawn. Capelin and smelt use the surfzone for spawning in Spring. All species use the offshore area as a migration corridor. Grey whales, an endangered species, Beluga and Bowhead whales Walrus and Sea Lion use this route predictably. Its disruption or loss would then dislocate these species. Their presence in the food chain is based on bottom food supplies.

A diverse array of organisms, clams, snails, crabs, fish and more live on the bottom. Crabs and clams are abundant. Nineteen species of marine mammals inhabit the nearshore area. Herring spawning areas are dependent upon the presence of eelgrass beds. Tens of thousands of Pelagic seabirds and migrating waterfowl use the shorelines, tidelands and Bay. Mr. Gallagher, in page 10 of your best interest finding, last sentence of the fifth paragraph you state : " In general, the offshore coastal areas are less environmentally sensitive and are utilized less than those areas within Goodnews Bay."

Under State law, (11 AAC 86.500) this area is open to prospecting permit applications unless the State finds that " mining would be incompatible with significant surface use..." Looking at the long term effects of exploration and eventual Dredging our area then, destroying our ecosystem, disrupting and damaging a wildlife migration corridor causing biological upheaval and relocation of myriad species, reducing the local fishery and disrupting the subsistence way of life, is that incompatible in your perspective ?

Mr. Callagher, the mitigation alternatives as proposed are not at all substantial enough in terms of overall safeguards. They are shallow, contrived, and inadequate. Other perhaps less obvious impacts are at issue. The overall quality of life is at stake for the residents of the area. On page A-9 as written by Westervelt Engineering it states: " Two seperate dredging systems may be required.... and as a result " a substantial ^{facility} would be established in the area..." (page A-10)

We ask, on Native land claims ? We absolutely do not want to see a sudden boom of activity and then find a mining camp in our midst, which would require a fuel storage facility, waste and refuse disposal. The other demands on community infrastructure would be only unhealthy.

An increase in population would impact the school creating unreasonable classroom conditions. There is a limited amount of supplies available, housing and services. The population here would double. Then we would have a situation where these outsiders would compete for our resources of fish and game recreationally, and we do not want that.

Many times over in the mining plan summary it indicates that local jobs would be generated. People here do well enough and do not need to work on or with such mineral activity. Local job offers is hardly equitable when weighing the overall upheaval of such a project. Further, we feel that few if any would actually take part in this proposed crime.

After the tragic incident at Valdez, we wish to protect our lands and our way of life. Your proposed best interest findings projects only the most negative and overwhelmingly detrimental impacts to this region. Be advised then we do not want this to occur now or in the future.

The City council of Platinum

Joseph M. Ramirez Joseph M. Ramirez
Phillip Solomon Phillip Solomon
Anna M. Small Anna M. Small
Linda Echuck Linda Echuck
Paul Moses Paul Moses
Margaret Echuck Margaret Echuck
Absent Dave Gilbert

Godnews City council
 Dept. of fish and game
 Dept. of fish and Wildlife
 Gov. Steve Cowper
 Greenpeace
 Tundra Drums
 Cenaliulriit

Kuitsarak, Inc:
P.O. Box 10
Goodnews Bay, AK 99539

March 20, 1989

Gerald Gallagher, Director
Dept. of Natural Resources,
Division of Mining
P.O. Box 107016
Anchorage, AK 99510

Re: Comments on Goodnews Bay (herein "Mumtrak") Offshore Mining
Proposal, by DNR, Mining Division

Dear Gerald:

Thank you for sending a copy of the "Preliminary finding of the director." Please consider this letter before making any decisions that will affect the people of Mumtrak adversely.

I am sure you are well aware of the local residents' opposition to any move that will open up the Bay for poisoning, especially by outside mining companies, who will come into the bay for their own gain, regardless of the consequences. After reading an article on offshore mining poisoning (see attachment), I strongly feel there is insufficient studies done concerning the effects that offshore mining has on marine life, and the people who eat them, while surrounding such operations. You may also know that the Yup'ik residents of Mumtrak, and the surrounding Native villages, are heavily dependent on the Bay and its resources for their livelihood.

Mr. Gallager, when a state system intends to deprive its Yup'ik citizens of their cultural way of life, all for its own economic gain, does it not sound like economic genocide being placed against the affected people, namely, the people of Mumtrak? I would say so. If the state does allow the mining companies to proceed with prospecting and leasing, then it is allowing for the persecution of the people in the surrounding Bay to begin. Therefore, it is a violation of our human rights. History has shown the U.S. to be notorious for their human rights violations against the original inhabitants. If you decide in favor of the mining companies,

Page 2
Mr. Gallager:

I won't be surprised at all. History is trying to repeat itself here. The system you represent can become the perpetrator. You are making the choice.

In this modern day, I hear a lot about four worlds - Western Civilization being the 1st. The Soviet Union being the 2nd. Then there are the "Third World" countries. I supposedly belong to the "Fourth World," a makeup of Indigenous groups throughout the globe. Only throughout history, Forth World people have been, and still continue to be, persecuted by state systems. We just want to be left alone, yet your system has forced its way into our lives. In this day and age, nothing is impossible. The people look forward to the day when persecutions against them will exist only in the past.

Let this letter spark some thought.

Sincerely,



Vernon Bavilla
Chairman

Enclosures

cc:Gov. Steve Cowper
Sen. John Binkley
Rep. Lyman Hoffman
Attorney David S. Case
Director, Division of Governmental Coordination
Editor, Tundra Drums

State to warn western towns of mercury risk

By PATTI EPLER
Daily News reporter

Mercury poisoning may be threatening the health of western Alaska residents who eat large amounts of seafood, state and federal officials say.

Concerns over mercury also could derail a proposed federal mining lease sale off the coast of Nome, because officials are worried that dredging for gold stirs up already high levels of mercury in the sea floor and spreads the contaminant to fish and other marine creatures eaten by people.

A letter signed by state and federal officials will be sent soon to health organizations in the Norton Sound area suggesting tests be conducted of coastal residents to determine current mercury levels in people, according to Patty Blelawski of the state Division of Governmental Coordination and Alan Powers of the federal Minerals Management Service.

Mercury in some forms is known to have striking effects on the nervous system, ranging from emotional problems like anxiety and depression to speech disorders and loss of motor control. The expression "mad as a hatter" refers to mercury poisoning that afflicted hatters who used the substance to soften the felt in hats and frequently became mentally ill after years in the profession, according to a health handbook.

The issue of mercury poisoning among coastal people has been raised by scientists

Please see Back Page, MERCURY

Anchorage Daily News
March 15, 1984

MERCURY: State recommends testing

Continued from Page A-1

with the Minerals Management Service who are identifying environmental impacts that could occur if the federal government allows offshore gold mining in Norton Sound near Nome.

The government is considering holding a lease sale in January. Western Gold Exploration and Mining Co., or WestGold, now operates the world's largest offshore dredge to scrape gold from the sea floor on state leases.

In 1987, WestGold asked that it be allowed to move to federal waters. Since then, two other companies have expressed an interest in such a sale.

The state is involved in the sale through a joint state-federal coordination team that is reviewing issues associated with the sale.

"I think what has caused the concern is it's pretty well known... that folks who eat a lot of fish and organs of marine mammals ingest more mercury than those who don't," said Powers. "That translates generally to Native populations along the Bering Sea."

Bielawski and Powers say no one knows for sure whether mining aggravates a natural mercury problem. It's also not known whether the form of mercury found in the Norton Sound area is highly toxic to humans, they said.

Studies of WestGold's dredging operation have reported elevated levels of mercury in the water but the state thinks the studies are inconclusive, Bielawski said.

And Power said the studies, conducted by the Environmental Protection Agency and the state Department of Environmental Conservation, seem to be using flawed testing methods that are picking up other metals in the water but reporting it all as mercury.

Still, a draft environmental impact statement recently released by MMS says the proposed mining program could have a major impact on human health. The draft includes a chapter devoted to health effects which says mercury contamination of food sources "could pose a serious health threat to Nome residents harvesting seals, walrus, fish, shellfish and birds."

The draft report says a 1976 study of Yupik mothers with infants in the Yukon-Kuskokwim Delta showed mercury levels up to five times higher than Anchorage mothers, because the Yupik women frequently ate seal and fish while the Anchorage women did not. The draft report said it's likely mercury levels in Nome residents would be comparable to those in the delta area.

Bielawski did not know if any more recent studies of mercury had been done or if the state had taken steps after the 1978 study to alert health officials to potential mercury problems.

In November, the coordination team brought experts on mercury to Anchorage for a three-day workshop. One noted physician, Dr. David Marsh, suggested that mercury levels in coastal communities, particularly Nome, may already be dangerously high, to the point of affecting developing fetuses.

Marsh, reached at his New York home, declined to talk about the mercury issue on Tuesday. "I couldn't possibly talk about it over the phone," he said. "It's much too complicated."

At the conference, according to people who attended, Marsh urged that residents be tested to see what level of mercury already existed, then monitored to see if the contamination increased over time.

The coordination team is passing that recommendation along to Nome-area public health agencies. Powers didn't know what other communities would receive the letter and Bielawski wasn't sure if it would be distributed along the Bering Sea coast, although, she said, "it's a potential issue for any of the coastal populations."

Who would pay for the tests has not been resolved, Bielawski said.

When tests would be conducted also is unclear, and neither Bielawski nor Powers could say that mercury levels in Nome residents would be determined before they decide to proceed with the sale.

Powers said the sale might be delayed until tests are conducted. But he emphasized that a clear link between offshore mining and mercury in residents has not been established.

"I don't know that there's a mercury problem and I don't know that mining is going to create a mercury problem," he said. "We want to be careful not to raise a big scare about this."

Kristine Benson of the Alaska Center for the Environment attended the mercury workshop last fall. "It left you shaking your head," Benson said, "over why there seems to be a move to go ahead with the leasing when there are so many unanswered questions."

"I think the next step is to test the population that's at risk," she said, suggesting companies interested in mining pay for the tests. "They shouldn't be putting these women at risk for their own profits."

KUITSARAK, INC.
P.O. BOX 10
GOODNEWS BAY, ALASKA 99589

April 29, 1989

Representative Lyman Hoffman
Pouch V
Juneau, Alaska 99811

**Re: Goodnews Bay Offshore Mining Disposal, as proposed by the
Division of Mining, Department of Natural Resources.**

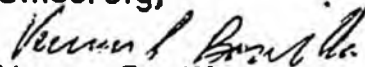
Dear Representative Hoffman:

Your constituents of Mumtrak (Goodnews Bay) are living a very fragile way of life in today's fast-paced world. And with the recent proposals by DNR, Mining Division, to open up Goodnews Bay and nearby waters for offshore mining, is placing our way of life, when considering our economic dependency on the Bay (based on renewable resources), in jeopardy.

The subsistence way of life, and the existing commercial dependency upon the bay, is the safest bet for the psychological well-being of the local people, some twenty or hundred years in the future. The locals surrounding the bay are not looking for some 50 jobs that will end in a "bust" cycle. Our Economic Base is growing, and we would like to see that continue. We do not want to witness the destruction of our foundation, especially by some "alien" company who will come in for his or her own economic gain, regardless of the consequences.

As constituents, we are asking for your support in our opposition to the proposal by the Division of Mining, DNR, to open up the Bay for mining purposes. Please consider the letter to the Director, Resolution 89-03-07, the newspaper article, and my testimony during the hearing held in Goodnews Bay on April 19, 1989. Thank-you for your consideration.

Sincerely,


Vernon Bavilla
President

cc: file
Attachments(4)

QANIRTUUQ, INCORPORATED

QUINHAGAK, ALASKA 99655

PHONE NO. (907)-556-8211

RESOLUTION 90-01

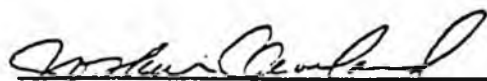
A RESOLUTION OF QANIRTUUQ, INC. SUPPORTING HOUSE BILL #332, AN ACT ESTABLISHING GOODNEWS BAY CRITICAL HABITAT AREA AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, The Goodnews Bay area is utilized by villages in their commercial fishing efforts for their economic well being, and;

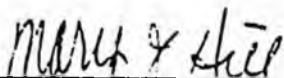
WHEREAS, The area is also utilized for subsistence hunting and fishing.

THEREFORE BE IT RESOLVED THAT, Qanirtuuq, Inc. supports H.B.#332 an act establishing Goodnews Bay critical habitat area and providing for an effective date.

PASSED AND APPROVED this 11 day of January, 1990, by the Board of Directors of Qanirtuuq, Inc.



Joshua Cleveland
Chairman of the Board



Mary J. Hill
Secretary

TO REPRESENTATIVE LYMAN HOFFAN

JAN 19 1990

295

POUCH V

FROM

QANIRTUQA, INC

PO. BOX 69

QUINHATIC, AK 99655

JUNEAU AK 99811

SUBJECT

DATE / /

MESSAGE ENCLOSED IS A RESOLUTION PASSED BY THE BOARD OF DIRECTORS IN SUPPORT OF HOUSE BILL #332. THE BOARD OF DIRECTORS AND QANIRTUQA, INC WISHES YOU A HAPPY ^{NEW} YEAR. THANK-YOU.

SIGNED

W. J. Small / President

REPLY

SIGNED

DATE / /

REDIFORM 45 472

SEND PARTS 1 AND 3 INTACT - PART 3 WILL BE RETURNED WITH REPLY.

CARBONLESS

POLY PAK (50 SETS) 4P472

PLATINUM TRADITIONAL VILLAGE
PLATINUM TRADITIONAL COUNCIL
BOX 49

PLATINUM, ALASKA 99651

Resolution opposing Platinum Mining Proposal in the Good-
news Bay, Chagvan Waters.

- Whereas; The Village of Platinum is an Alaska Native village traditionally organized and recognized by the United States thru the Secretary of the Interior; and
- Whereas; The Platinum Traditional Council is the tribal governing body of the village of Platinum; and
- Whereas; Local residents rely heavily in the subsistence resources from its waters; and
- Whereas; The local residents money resources comes from its commercial fisheries; and

Now Therefore Be It Resolved that the Platinum Traditional Village, Platinum Traditional Council strongly opposes Platinum Mining Proposal in the Goodnews Bay and Chagvan Waters.

Adopted this 18 Day of April, 1989,

Quorum Constituted by 5 For 5 Against 0

Mervin Kilbuck
Traditional Council President

James V. Korayuk
Attest: Secretary

cc: Files

City of Goodnews Bay
P.O. Box 70
Goodnews Bay, Alaska 99589-0070
(907) 967-8614

Resolution No. 89-Offshore

A Resolution of Concurrence with Entities that oppose the State of Alaska's proposal to open up the Goodnews Bay, Alaska Offshore Area to mining activities.

Whereas: The City Council of Goodnews Bay, Alaska is the local governing body, and

Whereas: The State of Alaska through the Department of Natural Resources, Mining Division is in the process of hearings for it's proposal to open up the Goodnews Bay offshore Area to mining, and

Whereas: The proposed area is used by renewable subsistence resources and commercial fishery resources that would suffer in detrimental ways as a result of proposed mining activities, and

Whereas: The now infamous Prince Williams Sound Oil Spill will effect the amount of fish and other foodstuffs that are used by Alaskans for sustenance, now

Therefore Be It Resolved that the City Council of Goodnews Bay, Alaska joins Entities in opposing the State of Alaska, Department of Natural Resources, Mining Division proposal to open up the Goodnews Bay Offshore area to exploration and mining activities.

By Quorum of the City Council of Goodnews Bay, Alaska this 12th day of April, 1989.

Mayor Lua S. Small
Norothy A. Kulis
Anessa Hanok
William Walter

Bessie A. Halila
Henry Chinglik
D. W. [Signature]
Attest: City Clerk

copy/file

Dept. of Natural Resources
Division of Mining
Attn: Kerwin Krause
P.O. Box 107016
Anchorage, Alaska 99510

April 5, 1989

Hello Mr. Krause;

First of all I want to thank you and your colleagues for giving the public a chance to see if we can stop this proposal before it kills off unlimited number of coastal animals, fishes, shelled beings and plants where living coastal resources and humans survive using. If the Division of mining is not going to replace the income of the fishermen of GoodNews, Platinum, Yukon and Kuskokwim recieves, why try and destroy the economic provider which like I mentioned, your office will not be able to provide on a long term bases? Everybody understands that the state of Alaska is going broke and its pushing for developement to keep alive. But to destroy living creature which you can not reproduce or recreate is not a way to do it. There is an example here in our region, its' Tuluksak River mining activity. What its doing is that it is poisoning the river year round. Arsenic material deeps on running down river, and water can not be consumed. Same results will occur even on the coastal region where tides and current never ever stops. Conserving our valuable resources should be supported and be held on to instead of wasting it. The beauty of Creation is the gift to Mankind from God himself to be enjoyed as food or as some food along the chain of variety of food sources of the living resources. And mankinds' got the ability to destroy everything in a single day. This proposal is just going to get few people rich, why let them take advantage of the Natives food which they will never pay for or replace?

cc; Office files
Cenaliulriit-Bethel
Yupit Nation

In Peace;

Fritz George
Fritz George
Land Manager

Native Village of Kwinhagak

Quinhagak IRA Council
Quinhagak, Alaska 99655
Phone: (907) 556-8449

RESOLUTION 89-02

A resolution of the Native Village of Kwinhagak, Quinhagak IRA Council defining it's objection to the Alaska Board of Game's and Fisherie's proposed Walrus Sanctuary in the (Naunvak Bay) Cape Pierce Area.

- WHEREAS, The Native Village of Kwinhagak, Quinhagak IRA Council is recognized by the United States Government, organized through the Department of Interior, and;
- WHEREAS, The Quinhagak's poor economic condition forces the local people to rely heavily on the subsistence year round, and;
- WHEREAS, The Quinhagak community will always rely on the subsistence harvest as a life style, and;
- WHEREAS, The Quinhagak subsistence resources (food) includes the Walrus, which are available year round, and;
- WHEREAS, The Native Village of Kwinhagak, Quinhagak IRA Council on behalf of it's people wishes to participate in rejecting the proposed Walrus Sanctuary, and;

THEREFORE BE IT RESOLVED THAT, The Walrus Commission rescind the proposed Walrus Sanctuary in the Togiak National Refuge (Naunvak) Cape Pierce.

NOW THEREFORE BE IT FURTHER BE RESOLVED THAT The Eskimo Walrus Commission accept the objection of the Quinhagak Native People for the Sanctuary at (Naunvak) Cape Pierce.

QUORUM CONSTITUTED BY 5

VOTING FOR 5
VOTING AGAINST _____

DATED THIS 6th DAY OF April 1989.

John O. Mark
I.B.A. COUNCIL PRESIDENT

Wanilie Basilla
Vice President

[Signature]
Secretary/ Treasurer

[Signature]
member

[Signature]
member

[Signature]
member

member

cc/files; Quinhagak IRA Council
Togiak Councils, Goodnews Bay Councils, and Platinum Traditional Council.
Cunahadrist, Nunum Killutristi, fish & Wildlife Service - Anch., T.N.W.R. - Dillingham.

Native Village of Kwinhagak

Quinhagak IRA Council
Quinhagak, Alaska 99655
Phone: (907) 556-8449
RESOLUTION 89-01

RESOLUTION OPPOSING PLATINUM MINING PROPOSAL IN THE GOODNEWS BAY WATERS AND CHAGVAN WATERS.

- WHEREAS, The Native Village of Kwinhagak, Quinhagak I.R.A. Council is recognized by the United States Government Organized through the Department of Interior, and
- WHEREAS, The residents of Quinhagak go to Goodnews Bay and Platinum to Commercial Fish for salmon and herring during the Commercial Fishing seasons, and
- WHEREAS, The Quinhagak residents basically are subsistence people and are highly dependent on the natural resources of the Goodnews Bay and Platinum area, and
- WHEREAS, The Native Village of Kwinhagak, Quinhagak I.R.A. Council strongly opposes Platinum Mining Proposal in the Goodnews Bay waters and Chagvan waters, and
- WHEREAS, Cenaliulriit resolved to oppose the proposed Platinum Mining in the Goodnews Bay Waters and Chagvan Waters presented by the Division of Mining Department of Natural Resource State of Alaska, and
- WHEREAS, The Native Village of Kwinhagak Supports Cenaliulriit Resolution 89-02-01 and
- NOW THEREFORE BE IT RESOLVED THAT The Native Village of Kwinhagak, Quinhagak I.R.A. Council support Cenaliulriit Resolution 89-02-01.

ADOPTED THIS 4th DAY OF April 1989,

QUORUM CONSTITUTED BY 5
5 FOR
AGAINST

John O. Mark
I.R.A. COUNCIL PRESIDENT

[Signature]
ATTEST: SECRETARY/

cc; files

-Dept. of Natural Resources, Division of Mining - Anchorage
Cenaliulriit, Ilunam Kitlutsisti, Platinum Council, Goodnews Bay Council
Tulika Councils

AKIACHAK NATIVE COMMUNITY
Akiachak Indian Reorganization Act Council
Post Office Box 70
Akiachak, Alaska 99551
(907)825-4626

APR 10 1989

April 6, 1989

To Whom It May Concern:

Enclosed is the Resolution 89-03-02 of the Akiachak IRA Council opposing Goodnews Bay Offshore Mining Project. The resolution is self-explanatory and any questions should be addressed to the signatory below at the above phone number.

AKIACHAK NATIVE COMMUNITY
Akiachak IRA Council

Willie Kasayulie
Willie Kasayulie

Chairman and Chief Executive Officer

cc: Office of the Governor
DCRA Commissioner
DNR Commissioner
Senator John Binkley
Representative Lyman Hoffman
AVCP, Incorporated
Cenaliulriit
Goodnews Bay Traditional Council
Kuitsarak, Incorporated
City of Goodnews Bay
files

AKIACHAK NATIVE COMMUNITY
Akiachak Indian Reorganization Act Council
Post Office Box 70
Akiachak, Alaska 99551
(907)825-4626

Resolution Opposing Goodnews Bay Offshore Mining Project

Resolution 89-03-02

WHEREAS, The Akiachak IRA Council is the governing authority for the Akiachak Native Community; and

WHEREAS, The Council has become aware of mineral mining proposals in the vicinity of the Mumtrak (Goodnews Bay) homelands and water-ways; and


WHEREAS, The Mumtrak residents share the cultural identity of the residents of Akiacuar (Akiachak) through dependence of subsistence caught resources from land and sea throughout countless generations; and

WHEREAS, No evidence exists of the effects the off-shore mining activity will have on the resources in Goodnews and Kuskokwim Bays to substantiate off-shore mineral activity.

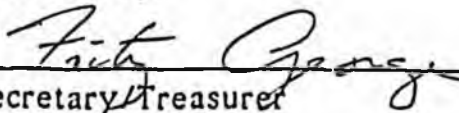
NOW THEREFORE BE IT RESOLVED THAT:

1. The Akiachak IRA Council hereby opposes the proposed mineral off-shore mining in the Goodnews Bay and Chagvan waters;
2. The emotional, cultural and physical well-being of the Mumtrak people should be given primary consideration; and
3. The existing and future subsistence and commercial uses of renewable resources be given the highest priority when any decision is to be made concerning the Goodnews Bay Offshore Mining Proposal.

Passed and approved this 29th day of March 1989.


Chairman

Attested by:


Secretary/Treasurer

Traditional Village Council
P.O. Box 58
Goodnews Bay, Alaska 99589
March 25, 1989

RECEIVED
MAR 30 1989

Governor Steve Cowper
State of Alaska
P.O. Box A
Juneau, Ak. 99811-0101
RE: Opposing Offshore mining

GOVERNOR'S OFFICE

Dear Governor Cowper,

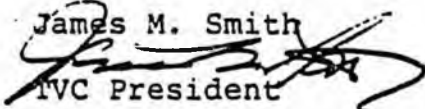
At the joint meeting of the TVC, City Councils, and the Health Board held in Goodnews Bay Comm. hall March 24, 1989, the enclosed resolution opposing the Goodnews Bay Offshore Project was approved and adopted.

In our communication between the leader to leader, lets keep in mind that our residents major money resource producer is in it's fisheries.

Lets support the developement of the Fisheries, rather than endangering by mining or drilling, which can be destructive to the water Life.

Thank you for considering our concerns and your time.

Sincerely,

James M. Smith

TVC President

Enclosures

cc: file

Governor Cowper, City, and Trad. Councils of Togiak, Trad. council of Platinum, IRA Council of Akiachuk, AVCP Bethel, Senator Binkley, Representative Hoffman, Senator Adams, Rural Alaska Resources Assn., Cenaliulriit, Yukon/Kuskokwim Fisheries Task Force, D.G. Hoffman Commissioner Department of Comm. & Regional Affairs

Resolution 89-Mining-01

A Resolution opposing the Offshore Mining in Goodnews Bay Area and other Fishing Region Waters.

Whereas, the Goodnews Bay Traditional Village Council is recognized by the Department of the Interior through it's Secretary, and

Whereas, the Traditional Village Council represents it's residents in Social, Health, and Economic interests, and

Whereas, local residents rely heavily in the Subsistence resources from it's Waters, and

Whereas, the local residents money resources comes from it's Fisheries, and

Whereas, Residents knew that the past drilling in the Goodnews Bay effected a decline in fish, and other water life, and

Whereas, the residents opposed the Goodnews Bay Offshore mining.


Now Therefore Be It Resolved that the Goodnews Bay Traditional Village Council rejects the Goodnews Bay Offshore mining project proposed by the Department of the Natural Resources, Mining Division, and

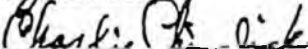
Be It Further Resolved that this resolution supports the Fishing Organizations, Traditional, and City Councils, Corporations, and other organized groups opposing the Offshore mining and drilling in the subsistence and commercial fishing area waters.

Duly adopted by the quorum on this 24th day of March, 1989.


Traditional Village Council, President

TVC Member


TVC Member


TVC Member


TVC Member

cc: file
City and Trad. Councils of Togiak
Traditional Village Council of Platinum
IRA Council of Akiachuk
AVCP Bethel
Gov. Steve Cowper
Senator Binkley
Representative Hoffman
Senator Adams
Rural Alaska Resources Assn.
Cenaliurrit
Yukon/Kuskokwim Fisheries Task Force

STEVE COWPER
GOVERNOR



g *Longo*
Jerry G

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

April 21, 1989

APR 25 1989

Mr. James M. Smith
President
Traditional Village Council
P.O. Box 58
Goodnews Bay, AK 99589

Dear Mr. Smith:

Thanks for providing me with a copy of the Traditional Village Council's resolution opposing offshore mining in Goodnews Bay. I appreciate your sharing your comments with me and have taken them into consideration.

I have also sent copies of your letter and resolution to my Commissioners of the Departments of Environmental Conservation, Fish and Game, Natural Resources, and to the Director of the Division of Governmental Coordination for their consideration.

Again, thanks for taking the time to write.

Sincerely,

S/S Steve Cowper

Steve Cowper
Governor

cc/enc: Commissioner Dennis Kelso
Commissioner Don Collinsworth
Commissioner Lennie Gorsuch
Bob Grogan

111

Resolution 89-Mining-01

A Resolution opposing the Offshore Mining in Goodnews Bay Area and other Fishing Region Waters.

Whereas, the Goodnews Bay Traditional Village Council is recognized by the Department of the Interior through it's Secretary, and

Whereas, the Traditional Village Council represents it's residents in Social, Health, and Economic interests, and

Whereas, local residents rely heavily in the Subsistence resources from it's Waters, and

Whereas, the local residents money resources comes from it's Fisheries, and

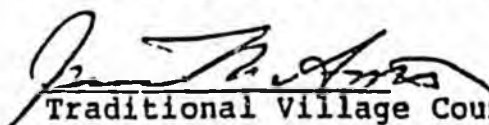
Whereas, Residents knew that the past drilling in the Goodnews Bay effected a decline in fish, and other water life, and

Whereas, the residents opposed the Goodnews Bay Offshore mining.


Now Therefore Be It Resolved that the Goodnews Bay Traditional Village Council rejects the Goodnews Bay Offshore mining project proposed by the Department of the Natural Resources, Mining Division, and

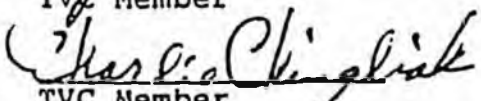
Be It Further Resolved that this resolution supports the Fishing Organizations, Traditional, and City Councils, Corporations, and other organized groups opposing the Offshore mining and drilling in the subsistence and commercial fishing area waters.

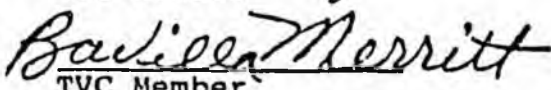
Duly adopted by the quorum on this 21th day of March, 1989.


Traditional Village Council, President

TVC Member


TVC Member


TVC Member


TVC Member

KUITSARAK, INCORPORATED

RESOLUTION NO. 89-03-07

TO OPPOSE THE GOODNEWS OFFSHORE MINING PROJECT PROPOSAL AND LEASE SALE BY THE STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES, MINING DIVISION (DNR).

WHEREAS, Kuitsarak Incorporated, is a corporation established under the Alaska Native Claims Settlement Act of 1971, for the best interest of the people of Mumtrak (Goodnews Bay), and

WHEREAS, the people of Mumtrak, since prehistory have always subsisted, and still do, for their main diet of fish and mammals from the renewable resources of Goodnews Bay and nearby waters, and

WHEREAS, the commercial fishing industry in Goodnews Bay is the only income for the majority of the residents of Mumtrak, and,

WHEREAS, the State of Alaska, through DNR, Mining Division, is considering a proposal to open up the Bay and nearby waters for offshore dredge mining to private mining companies, and

WHEREAS, the consequences of such a move would only benefit the outside companies and would result in a "Boom/Bust" form of economic development at the expense of the established economy based on renewable resources.

WHEREAS, standard or modified buckline dredge mining of the Bay would increase turbidity, destroy existing marine habitat and wildlife dependent on the bottom of the bay and would poison the Bay with minerals, and

WHEREAS, the results of such an action would only be detrimental for the health and well-being of the people who depend on the very Bay and its' life for their survival.

NOW THEREFORE BE IT RESOLVED THAT:

1. Kuitsarak, Inc., opposes any decision to open up Goodnews Bay and nearby waters for mining purposes, and
2. The State of Alaska, through the Department of Natural Resources, Mining Division, should halt all lease sales to private companies and deny any proposal to open up Goodnews Bay and nearby waters for prospecting or mining purposes.
3. The emotional, cultural, and physical well-being of the people of Mumtrak, Alaska, should be given primary consideration before any action is taken, and

4. Existing and future subsistence and commercial uses of renewable resources should be given the highest priority when any decision is to be made concerning the Goodnews Bay Offshore Mining Proposal.

5. Kuitsarak, Inc. requests support from Native organizations, conservation advocates and other interested parties for this position.

Adopted by quorum on this 7th day of March 1987, by the Board of Directors.

Vernon S. Bonilla

Chairman

ATTEST:

Maarie K. Scholtz
Secretary/Treasurer



Cenaliulriit

Coastal
Management
District

For the Yukon-Kuskokwim Coastal Resource Service Area
P.O. Box 1169 • Bethel, Alaska 99559 • 907/543-2243

February 27, 1989

Dear Traditional Council:

Attached is a resolution Cenaliulriit Board of Directors passed during the board meeting, February 23, 1989 in Bethel.

The resolution is opposing offshore mining in Goodnews Bay and outside the Bay. Your support is needed to oppose this project. Sometime in mid March Department of Natural Resources (DNR) will held a public hearing in Goodnews Bay, Platinum and Bethel. We will inform you when the exact date is set for public hearing.

Enclose is the study of offshore mining in Goodnews Bay by DNR.

Sincerely,

Anna Phillip
Coordinator

enclosures

cc: Files
Cenaliulriit Board of Directors
Ms. Estus, DGC
Mr. Duffy, DCRA



Cenaliulriit

Coastal
Management
District

For the Yukon-Kuskokwim Coastal Resource Service Area
P.O. Box 1169 • Bethel, Alaska 99559 • 907/543-2243
RESOLUTION 89-02-01

RESOLUTION OPPOSING PLATINUM MINING PROPOSAL IN THE GOODNEWS BAY WATERS AND CHAGVAN WATERS.

- WHEREAS, Cenaliulriit Coastal Management District represents 43 villages as a Coastal Resource Service Area under the authority of Section 46.40.110-180 of the Alaska Coastal Management Act; and
- WHEREAS, The seven member elected Board of Directors has the right and obligation to oversee the performance of the staff and the working of the district; and
- WHEREAS, The Cenaliulriit Board of Directors has become aware of Platinum mining proposal in the Goodnews Bay waters and outside the Goodnews Bay waters, and
- WHEREAS, In the past, when drilling was done in the Goodnews Bay waters, the people in the area began seeing dead Smelt and Herring Fish, and
- WHEREAS, The residents of Goodnews Bay and Platinum have already expressed opposition to Platinum mining in the Goodnews Bay waters and Outside the Goodnews Bay waters, and
- WHEREAS, The area residents basically are subsistence people and therefore are highly dependent on the natural resources of the Goodnews Bay area, and
- WHEREAS, The area residents get their very important meager cash income for the year from commercial fishing for Herring and Salmon Fish, and
- WHEREAS, The sound and clean environment is very important to continuing presence of the natural resources, and
- WHEREAS, One of Cenaliulriit's objectives is to look after a sound and clean environment in the district.

NOW THEREFORE BE IT RESOLVED that the Cenaliulriit Board of Directors expresses its opposition to the proposed Platinum mining in the Goodnews Bay waters and Chagvan waters, and

BE IT FURTHER RESOLVED that copies of this resolution be sent to Governor Steve Cowper, Division of Mining DNR, Senator Binkley, Senator Adams, Representative Hoffman, Representative Wallis, Representative Foster, Alaska Department of Fish and Game Habitat Division, Subsistence Division, AVCP, Nunam Kitlutsisti, Fish and Game Advisory Board, Yukon/Kuskokwim Fisheries Task Force and Village IRA and Traditional Councils.

ADOPTED THIS 23rd DAY OF February 1989, BY THE
CENALIULRIIT BOARD OF DIRECTORS AT THE CENALIULRIIT BOARD MEETING
BETHEL, ALASKA.

Paul Chimiugak
Paul Chimiugak, Chairman

Peter Black
Attested By: Peter Black, Secretary/Treasurer

y g y g a
RURAL ALASKA RESOURCES ASSOCIATION

P.O. Box 200908
Anchorage, Alaska 99520
(907) 279-2511

March 16, 1989

MEMBERS:

Aleutian Pribilof
Islands Association, Inc.

Bristol Bay Native
Association

Central Council,
Tlingit & Haida

Copper River Native
Association

Kawerak, Inc.

Kodiak Area Native
Association

Maniilaq Association

The North Pacific Rim

North Slope Borough

Nunam
Kitlutsisti

Tanana Chiefs
Conference, Inc.

Tyonek,
Native Village of

ASSOCIATE MEMBERS:

Koyukon
Development Corporation

Bering Sea
Fishermen's Association

RURAL CAP STAFF:

Rob Palasky

Governor Steve Cowper
State of Alaska
P.O. Box A
Juneau, AK 99811-0101

DEPARTMENT OF
NATURAL RESOURCES

Dear Governor Cowper:

MAR 20 1989

At a meeting of the Rural Alaska Resources Association (RARA) held in Juneau February 20-21, the enclosed resolution opposing the Goodnews Bay Offshore Project was unanimously adopted.

RARA believes there is insufficient information on the effect of the proposal on fish, marine mammals, waterfowl and other renewable resources. We understand the project is currently being considered by the Department of Natural Resources.

We believe that rural Alaskans must be assured that the renewable resources that sustain their livelihood are adequately protected before a major development project, such as the Goodnews Offshore Project, proceeds.

Thank you for hearing our concern in this matter.

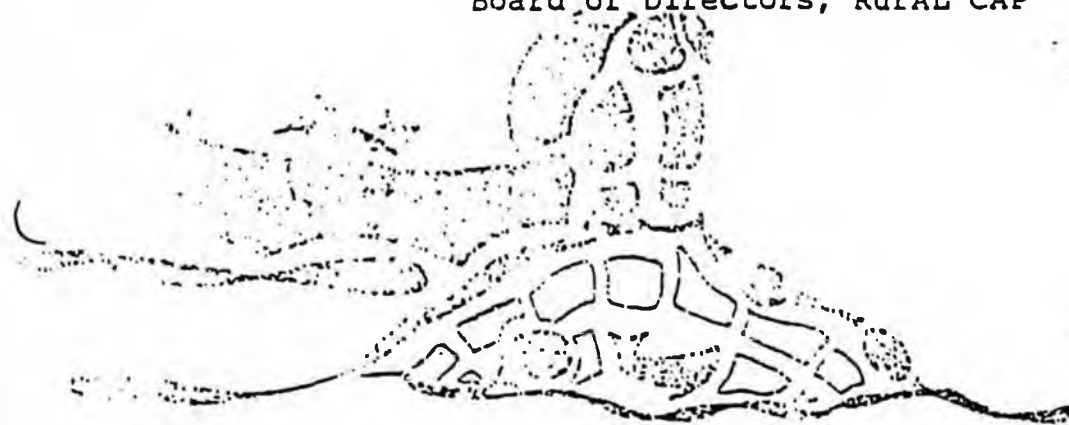
Sincerely,

Arnold Melsheimer

Arnold Melsheimer, Acting Chairman
RURAL ALASKA RESOURCES ASSOCIATION

Enclosure: Resolution 89-5

cc: Lennie Boston-Gorsuch, Commissioner, Dept. of
Natural Resources
Nunam Kitlutsisti
Traditional Council, Goodnews Bay
Board of Directors, RURAL CAP



RURAL ALASKA RESOURCES ASSOCIATION

P.O. Box 200908
Anchorage, Alaska 99520
(907) 279-2511

MEMBERS:

RESOLUTION 89-5

Aleutian/Pribilof
Islands Association, Inc.

Bristol Bay Native
Association

Central Council,
Tlingit & Haida

Copper River Native
Association

Kawerak, Inc.

Kodiak Area Native
Association

Manniqa Association

The North Pacific Rim

North Slope Borough

Nunam
Kitlitsisti

Tanana Chiefs
Conference, Inc.

Tyonek,
Native Village of

ASSOCIATE MEMBERS:

Koyukon
Development Corporation

Bering Sea
Fishermen's Association

RURAL CAP STAFF:

Bob Polasky

ENTITLED: TO SUPPORT GOODNEWS BAY (MUMTRAK) IN ITS
OPPOSITION TO THE GOODNEWS OFFSHORE PROJECT.

WHEREAS, the Rural Alaska Resources Association
(RARA) is reliably informed that the people
of Goodnews Bay oppose the Goodnews Offshore
Project now being considered by the
Department of Natural Resources (DNR), Mining
Division; and

WHEREAS, the proposal to open up Goodnews Bay and
nearby waters for offshore dredge mining to
private mining companies is likely to have an
adverse impact on subsistence and commercial
use of renewable resources and to otherwise
adversely affect the environment; and

WHEREAS, there is insufficient information on the
effect of the proposal on fish, marine
mammals, waterfowl, and other renewable
resources;

NOW, THEREFORE, BE IT RESOLVED

that the Rural Alaska Resources Association
supports the community of Goodnews Bay
(Mumtrak) in their opposition to the DNR
Goodnews Offshore Project proposal.

ADOPTED unanimously in Juneau, Alaska on February 21,
1989 by members of the Rural Alaska Resources Association.

Arnold Melsheimer

Arnold Melsheimer, Actg. Chairman
RURAL ALASKA RESOURCES ASSN.

February 21, 1989

Date. *[Signature]*

[Signature]

April 19, 1989

Department of Natural Resources
Division of Mining
ATTN: Kerwin Krause
P.O. Box 107016
Anchorage, Alaska 99510
Telephone: 762-2162

Karin Sheardown
3512 Campbell Airstrip Rd.
Anchorage, Alaska 99504

HAND DELIVERED

Dear Mr. Krause:

I have reviewed the Preliminary Best Interest Finding and Proposed Consistency Determination regarding the issuance of offshore prospecting permits in and near Goodnews Bay, Alaska. Please accept this letter as my comments.

I don't think that the State should reject any OPP's unless it can be shown that prospecting will have an extreme adverse effect. The Preliminary Best Interest Finding of the Director says:

"Extreme adverse effects created by a disposal will be avoided by deletion of certain areas from that disposal."

These potential 'extreme adverse effects' don't relate to prospecting at all, they relate to mining. I'm not applying for a mining permit. If we're successful in discovering valuable platinum deposits, then we can weigh the costs, benefits, and 'extreme adverse effects'.

By the time a platinum discovery is made, platinum may be considered so precious that it takes precedence over other competing resources. For example the new platinum-dependent cold nuclear fusion process may prove to be a boon to mankind and tremendous benefit to the U.S.A.

New technologies with their marvelous benefits bring with them a price. They compete with the old methods and eventually replace the outdated and inefficient. In the best situations we may find areas where diverse resources such as fish and minerals can be harvested without competing with each other, but most of the time we must compromise. Sometimes we need to make a hard decision and choose one very important resource to the detriment of another very important resource.

In the preliminary best interest finding, the State is saying that it will never be in the State's best interest to choose the platinum over the herring. My logic tells me otherwise. Platinum deposits are severely restricted in their distribution, if we can't mine them where they are, then we have no other choice. We have to do without platinum. There's no other place in the U.S.A. with a similar platinum potential to the one at, in and near Goodnews Bay. On the other hand,

Goodnews Bay isn't even the best place in the State to get herring. I believe that if we only knew whether or not the platinum was there and how much was there, we would then be in a position to decide which was more important--the herring or the platinum. I think that at some concentration of platinum, it must be in the State's best interest to choose the platinum over the herring.

The State can't make a truly informed choice unless it knows where the platinum is, how much of it is there, and whether or not it can be successfully extracted. If the State grants the prospecting permits, it will allow us to find those answers. What justifiable reason could the State use to prevent us from gaining this information?

The preliminary finding admits,

"Exploration activities in the portions of the bay containing eelgrass would have very little impact upon the biological productivity associated with the eelgrass..."

The preliminary finding goes on to say that upon mining, the eelgrass would be destroyed so let's reject the OPP's. The point I'm trying to make is that if exploration is not going to cost the State anything or cause any harm, then why won't the State allow us to complete the prospecting? I think it would make sense for the State to have this information before making so important a decision to lock up our precious resources.

According to the Preliminary Best Interest Finding, Inlet Oil Corp. converted a portion of three Goodnews Bay OPP's into a lease after showing working platinum deposits off of Beluga Mountain. They lost the lease for failure to pay rent. What were the 'extreme adverse effects' of Inlet Oil's activities? What would have happened if they had continued to pay their rent? Is it fair for me to be locked out of the old lease area and not even be given the opportunity to see if there is a workable deposit? I don't think it's fair at all.

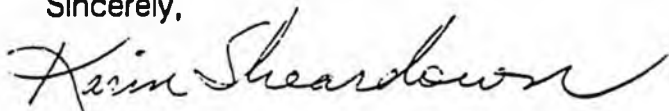
There is an important point to consider if the State decides to prohibit prospecting over parts of the offshore area. It will be unfair to me to flatly reject my applications, because if the State later changes its mind, I won't get any benefit. Suppose that I'm successful in outlining some very valuable ores and right next to me is part of an ore deposit on ground the State has rejected. Then seeing the value of these resources, the State may reappraise its best interest and decide to reopen these valuable tracts for someone else. If the State decides to prohibit prospecting on some or parts of my OPP applications, then to be fair to me my applications should be put on hold again rather than rejected.

Another point should be considered if the State decides to prohibit exploration. With a couple of exceptions, the State proposes to reject certain applications in total.

Surely the arbitrary boundaries of these applications cannot coincide exactly with sensitive areas. Are there not some parts of these applications less sensitive or nonsensitive? Particularly within Goodnews Bay, it appears that entire OPP's are recommended for rejection even though they are not entirely over sensitive ground.

Thank you for considering my comments.

Sincerely,

A handwritten signature in cursive script that reads "Karin Sheardown". The signature is fluid and connected, with a prominent flourish at the end.

Karin Sheardown

GOODNEWS RESOURCES INC.

935 Marine Building, 355 Burrard Street, Vancouver, BC V6C 2G8
Telephone: (604) 687-7169 Telecopy: (604) 682-4033

VIA COURIER

April 17, 1989

Mr. Gerald Gallagher
Director, Division of Mining
Alaska Department of Natural Resources
Suite 880
3601 C Street
Anchorage, Alaska 99503

Re: Goodnews Bay Offshore Project

Dear Mr. Gallagher:

As you are aware, Neptune Resources Inc. is interested in participating in the mineral exploration and development of the offshore lands near Goodnews Bay, Alaska. This letter sets forth our comments on the Preliminary Finding of the Director and Coastal Consistency Determination Regarding Issuance of Offshore Prospecting Permits in and near Goodnews Bay, Alaska, dated March 9, 1989.

Within Goodnews Bay

As explained in the resource assessment report and preliminary best interest finding, the ecological, environmental and subsistence characteristics of the Goodnews Bay estuary are unique. Your decision to reject certain of the applications in the Bay is therefore understandable, although we request that you carefully review the rejections in order to see if there are certain additional lands which might be issued to the applicant.

Outside of Goodnews Bay

Outside of Goodnews Bay the potential for the discovery of significant mineral resources is quite high while the potential for conflict with non-mineral resources and subsistence activities is much less than in the Bay. We therefore submit that it is not appropriate to reject any of the applications outside of the Bay, but rather that it is more appropriate to issue all such applications with specific conditional time closures and other stipulations designed to protect the non-mineral resources. This will allow the State to limit operations in sensitive areas while still permitting mineral exploration.

After the sensitive areas have been explored and the mineral potential determined, the State will be in a much better position to balance the competing mineral and non-mineral resource interests. If the applications are rejected at this early stage before there is a chance to obtain information as to the mineral resources, the State will be foreclosing an opportunity to develop what may be a very important resource. In addition, it is unfair to the applicant (who now has a priority right) to reject certain lands now which at some later time the State may decide to open up to mineral exploration and development.

As a member of the mining industry, we want to express our appreciation to the Division of Mining for committing the time and effort necessary to conduct the Goodnews Bay offshore lands disposal. We look forward to participating in mineral exploration and development in this and other areas of the State.

Yours very truly,

GOODNEWS RESOURCES INC.

A handwritten signature in cursive script, appearing to read "Harris Saxon". The signature is written in dark ink and is positioned above the printed name and title.

Harris Saxon
Executive Vice President

/mw.H335

GOODNEWS RESOURCES INC.

935 Marine Building, 355 Burrard Street, Vancouver, BC V6C 2G8
Telephone: (604) 687-7169 Telecopy: (604) 682-4033

VIA TELECOPY

August 22, 1989

David S. Case, Esq.
Suite 1380
550 West Seventh Avenue
Anchorage, Alaska 99501
U.S.A.

Re: Goodnews Bay Offshore Lands

Dear David:

I am writing to express our disappointment that the people of Goodnews Bay have refused to meet with representatives of our company to discuss the proposed issuance of offshore prospecting permits in the Goodnews Bay area. As you know, we offered to travel to the villages of Goodnews Bay and Platinum to discuss the concerns of the local people and to attempt to work out a compromise which would protect the legitimate interests of the local communities and still allow our company to explore the offshore lands for platinum resources.

The concepts which we had hoped to discuss with the local people are outlined below:

- (1) Relinquishment of Rights Inside Goodnews Bay - There is a substantial difference between the resources and environmental issues inside Goodnews Bay and outside Goodnews Bay. At the present time there are offshore prospecting permit applications covering most of the Bay and we also own a group of state mining claims in the very northwest corner of the Bay. Although we are interested in the mineral potential of the lands inside the Bay, we recognize that the Bay is a very sensitive ecosystem and supports important subsistence and commercial fishing uses. Therefore, we are prepared to consider relinquishing most or even all of the offshore prospecting permit applications and state mining claims inside the Bay. Such a compromise on our part would go a long way towards accommodating the concerns of the people of Goodnews Bay and Platinum.
- (2) Stipulations on Permits to be Issued - We are prepared to work with the people of Goodnews Bay and Platinum, the Department of Natural Resources, the Department of Fish and Game, the Department of Environmental Conservation, and the Cenahulrit Coastal Management District to develop stipulations which will allow us to conduct exploration operations on the offshore lands outside the Bay in a manner which ensures

the protection of subsistence and commercial fishing resources and the environment. We envision stipulations similar to those proposed in the March 9, 1989 preliminary best interests finding for the Goodnews Bay area and in the June 22, 1989 final best interests finding for the Nome area. Specific stipulations will be designed to protect the mouth of the Bay, mammal haul out areas, and near shore zones used for fish migration and spawning.

- (3) Environmental and Biological Studies - We are prepared to undertake environmental and biological studies in the areas which will be affected by our operations. These studies will allow the appropriate agencies to better regulate our operations and to protect the subsistence and fishing resources and environment.
- (4) Employment - Our proposed operations will create numerous opportunities for employment of local people. We are prepared to undertake all reasonable efforts to hire people from Goodnews Bay and Platinum for these jobs and to coordinate such hiring through the village corporations or other appropriate entities.
- (5) Job Training - We are prepared to establish a job training program in order to ensure that the local people have the skills necessary to participate in the employment opportunities created by our operations. Initially the program will consist of on-the-job training and then be expanded as required to provide more technical training.
- (6) Scholarships - In addition to the job training program, we are prepared to fund several college scholarships for students from Goodnews Bay and Platinum who are interested in careers in mineral exploration and development. These students will then be in a position to participate in the management of our operations in the area.
- (7) Contractor Preference - To the extent services or goods which are needed for our operations are available locally, we are prepared to purchase these from the local people. The most obvious examples are the hiring of local boats and the purchase of supplies through local village stores.
- (8) Lease of Village Corporation Lands - Our operations will require certain facilities to be sited on the uplands in the area. To the extent the village corporations are willing to do so, we are prepared to lease such lands from them and thereby provide rental income to the local communities.
- (9) Economic Interest in Mining Operations - We are also prepared to consider the granting to the village corporations of small net profits interests in the actual mining operations so that the local people will benefit directly from any profits made from mining minerals in the area.
- (10) Area Management Committee - We are prepared to establish an area management committee, similar to the one established by WestGold at Nome, with representatives from Goodnews Bay and Platinum, the relevant state and federal agencies, and the coastal zone management district. This committee will act in an advisory capacity and enable the local communities to be briefed on our operations and have input into such operations.

The above summarizes the ideas we hoped to discuss with the people of Goodnews Bay and Platinum at our meeting. Although I have discussed these ideas with you verbally on many occasions, I thought that it would be useful to put them in writing so that there would be no misunderstanding as to our intentions.

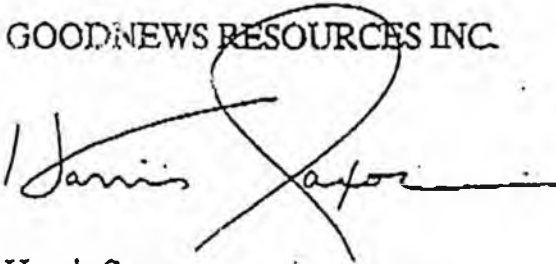
It is extremely frustrating for us when the people of Goodnews Bay will not even agree to meet with us in their village to discuss their concerns. As you know, on two earlier occasions our representatives who were in Goodnews Bay were met with the same refusal to discuss the issues.

As a last attempt at initiating a meaningful dialogue between our company and your clients, we request that you explain our proposals to the people of Goodnews Bay and ask them to reconsider their refusal to meet with us. If they continue to refuse, our only alternative will be to request the Department of Natural Resources to issue the offshore prospecting permits in accordance with the March 9, 1989 preliminary best interests finding.

In order that this matter not continue to drag on indefinitely, I request that you respond to me by September 6, 1989.

Very truly yours,

GOODNEWS RESOURCES INC.

A handwritten signature in cursive script, appearing to read "Harris Saxon", written over a large, stylized circular flourish.

Harris Saxon
Executive Vice President

/mw.H470

cc: Mr. Jerry Gallagher

LAW OFFICE OF
DAVID S. CASE

DAVID S. CASE
CARLENE FAITHFUL

660 WEST SEVENTH AVENUE, SUITE 1380
ANCHORAGE, ALASKA 99501-2688

FAX: (907) 258-4814
TELEPHONE: (907) 278-0500

BY TELEFAX
(604) 682-4033

September 6, 1989

Mr. Harris Saxon
Executive Vice President
Goodnews Resources, Inc.
935 Marine Building,
355 Burrard Street
Vancouver, B.C. V6C 2G8

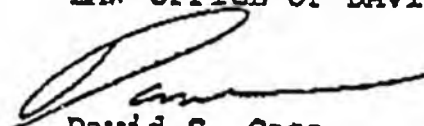
Dear Harris:

Re: Goodnews Bay-September Meeting

I am writing on behalf of Kuitsarak, Inc. in response to your letter of August 22, 1989. The corporation has reviewed your letter and asked me to advise you that they see no purpose in a meeting to discuss the question of the offshore mining proposal. The corporation, and I believe almost the entire population of both Platinum and Goodnews Bay, remain unalterably opposed to any form of mining in the vicinity.

Sincerely,

LAW OFFICE OF DAVID S. CASE



David S. Case
Attorney at Law

DSC/cmt
cc: Client
Kuit:Saxon2.ltr

Op-Ed

Tundra Downs
4-27-89

After review of the preliminary "best interest finding" regarding the issuance of offshore prospecting permits in and near Goodnews Bay Alaska, we, the undersigned concerned residents of Platinum Alaska, respond.

Our findings of the proposed offshore prospecting permits show that the informational material as provided is rather slanted and downplayed in terms of its perspective towards the

Biological resources are the mainstay of life here. Our most sensitive marine environment is a rich and tremendously valuable ecosystem, providing for its aboriginal peoples for centuries. It takes many years of intense observation for one to fully comprehend the wildlife values here, and interlocking relationships each species has critical to each other.

Our offshore areas are not renewable like a new mowed

ly sensitive and are utilized less than those areas within Goodnews Bay."

We feel that the statement is incorrect and misleading. On page 13 of you finding you also state that "with proper timing exploration activities will have negligible effects on fish migrations, fish spawning, marine mammals, clam beds or blue mussel beds." The Department's claims of "proper timing" are all too shallow and weak a defense when

Offshore mining project overwhelmingly detrimental to area

by The Platinum City Council

overall environmental and social-cultural impacts that this activity will generate.

We, the residents of Platinum, wish to maintain the quality of our lives, preserve its pristine ecosystem, and protect our community from unwanted population growth and the resultant social impacts it will most definitely have on our subsistence community.

Mr. Gallagher, we understand that under State law, that before issuing a permit you are required to prepare a written finding that the States interests will best be served by issuance of said permit. (AS 38.05.035 e) It must also document whether the plan is consistent with the Alaska Coastal Management program. What we seek to do here is state why we determine it is not at all acceptable and not in the best interests of State, Coastal Management, or the residents of Goodnews Bay and Platinum.

lawn. Caplin and smelt use the surfzone for spawning in Spring. All species use the offshore area as a migration corridor. Grey whales, an endangered species, Beluga and Bowhead whales Walrus and Sea Lion use this route predictably. Its disruption or loss would then dislocate these species. Their presence in the food chain is based on bottom food supplies.

A diverse array of organisms, clams, snails, crabs, fish and more live on the bottom. Crabs and clams are abundant. Nineteen species of marine mammals inhabit the nearshore area. Herring spawning areas are dependant upon the presence of eelgrass beds. Tens of thousands of Pelagic seabirds and migrating waterfowl use the shorelines, tidelands and Bay. Mr. Gallagher, in page 10 of your best interest finding, last sentence of the fifth paragraph you state: "In general, the offshore coastal areas are less environmental,

there is a tremendous and irreplaceable wildlife habitat at stake.

Of your report, on page B-14 of the biological resource assessment by Dames and Morre, the fourth paragraph states in reference to Grey Whales: "any major damage to their food chains would undoubtedly have a negative effect on their numbers."

Can we assume then Mr. Gallagher, that one or more 100 foot bucketline dredge working 24 hours a day devastating a rich sea floor to cause such damage? In section B page 16 it addresses the subject of exploration impacts inside Goodnews Bay. In reference to bird nesting colonies and Eagle nests at Beluga hill it states: "These species could be threatened by potential fuel spill pollution during fuel transfer and handling on exploration vessels. Disturb-

See OP-ED page 33

from the combination effects of harassment by workers and vessel traffic."

Of the same report, on page B-17 when considering mining impacts it states: "The swelling effect of Dredge spoil material could result in the creation of islands or increasingly shallow water..." Further it states: "Detailed impacts and constraints to marine reclamation cannot be determined..."

We must ask you Mr. Gallagher, did you actually read the biological impacts as written in the report for the OPP applicant and then in good conscience deem it of insignificant wildlife impact? The last sentence of the next page indicated further mitigation measures such as "Develop a fuel spill contingency plan and have a good supply of spill clean up equipment on site." We all know how well such plans work now, do we not?

On page five of the summary as prepared by WGM Inc. it states that "impacts of exploration... are limited to fuel spills and increased ship traffic and noise that could cause their displacement..." This was in reference to local wildlife. As you probably had read but surely cannot fully embrace, is the fact that residents of this Bay area lead a subsistence lifestyle. As this is being typed boats of seal hunters float in the Bay hoping to bring home fresh meat.

Further of the same summary by WGM Inc. on page 5 it states; "biological activity will be lost... longterm biological impacts could result if critical species such as eelgrass failed to recolonize..." In the next paragraph it speaks of turbidity as a result of exploration: "If this were to cause destruction of eelgrass beds, a decline in the commercial and subsistence fishery would probably result."

For these reasons and more to be discussed, we feel all plans of providing prospecting permits to be a long term monumental exercise in poor judgment tantamount to the Valdez incident, and obviously done without full regard to the environment whatsoever, or the residents indigenous of the area. Is that truly in the best interests of the state then? Its residents?

Under State law, (11 AAC 86.500) this area is open to prospecting permit applications unless the State funds

compatible with significant surface use..." Looking at the long term effect of exploration and eventual Dredging our area then, destroying our ecosystem, disrupting the subsistence way of life, is that incompatible in your perspective?

Mr. Gallager, the mitigation alternatives as proposed are not at all substantial enough in terms of overall safeguards. They are shallow, contrived, and inadequate. Other perhaps less obvious impacts are at issue. The overall quality of life is at stake for the residents of the area. On page A-9 as written by Westervelt Engineering it states: "Two separate dredging systems may be required...and as a result a substantial facility would be established in the area..." (page A-10).

We ask, on Native land claims? We absolutely do not want to see a sudden boom of activity and then find a mining camp in our midst, which would require a fuel storage facility, waste and refuse disposal. The other demands on community infrastructure would be only unhealthy.

An increase in population would impact the school creating unreasonable classroom conditions. There is a limited amount of supplies available, housing and services. The population here would double. Then we would have a situation where these outsiders would compete for our resources of fish and game recreationally, and we so want that.

Many times over in the mining plan summary it indicates that local jobs would be generated. People here do well enough and do not need to work on or with such mineral activity. Local job offers is hardly equitable when weighing the overall upheaval of such a project. Further, we feel that few if any would actually take part in this proposed crime.

After the tragic incident at Valdez, we wish to protect our lands and our way of life. Your proposed best interest findings projects only the most negative and overwhelming detrimental impacts to this region. Be advised then we do not want this to occur now or in the future.

The City Council of Platinum; Joseph M. Ramirez, Phillip Solomon, Anna M. Small, Linda Echuck, Paul Moses, Margaret Echuck, Dave Gilbert.

STATE OF ALASKA



LYMAN F. HOFFMAN
CO-CHAIRMAN
HOUSE FINANCE COMMITTEE

P.O. BOX V
UNEAU, ALASKA 99811
(907) 465-3706

HOUSE OF REPRESENTATIVES

DISTRICT 25

AKIACHAK
AKIAK
ATMALTLEAK
BETHEL
CHEFORNAK
EEK
GOODNEWS BAY
KASIGLUK
KIPNUK
KONGIGANAK
KWETHLUK
KWIGILLINGOK
MERORUK
NAPAKIAK
NAPASKIAK
NEWTOK
NIGHTMUTE
NUNAPITCHLUK
OSCARVILLE
PLATINUM
QUINHAGAK
TOKSOOK BAY
TUNTUTLIAK
TUNUNAK

February 2, 1990

Contact: Representative Hoffman
or Bob Herron in Bethel 543-3541

.....FOR IMMEDIATE RELEASE.....

House Committee hears Goodnews Bay Critical Habitat Area Bill

More than a half dozen concerned citizens of the Yukon - Kuskokwim Delta, including spokesman for AVCP, Nunam Kitlutsisti and the Cenaliulriit Coastal Resource Agency testified before the House Resources Committee on the potential effects of HB 332 on Wednesday, January 30, 1990. This bill, sponsored by Bethel Representative Lyman Hoffman would prohibit offshore prospecting development and protect one of Alaska's richest marine ecosystems. The area outlined in the bill is home to a multitude of marine life that Yu'pik people of the Delta have relied on for centuries. Herring, salmon, and smelt are just a few species of fish found in significant numbers in Goodnews Bay and surrounding areas. Additionally, thousands of ducks, geese and swans, the endangered Gray whale, the rare Stellar sea lion, and beluga whales all frequent the bay. Also, a major blue mussel bed extends from the vicinity of Flat Cape south along the coast to Platinum.

"Protecting the renewable natural resources means protecting the natural economic viability of the region," said Rep. Hoffman. The residents of the communities of Goodnews Bay and Platinum are reliant on the marine resources for commercial and subsistence harvests. Hoffman introduced the legislation in response to the Department of Natural Resources (DNR) proposal to issue offshore prospecting permits (OPP) in and around Goodnews Bay based on a questionable Resources Assessment Report. Biologists and local residents are concerned that the mining development could ruin beds of eel grass, the foundation of the area's ecosystem. "The mining would take place at the same time as the harvest. "Scientists don't know what that could do to the fish, and whales or what effect sediment will have on the eel grass. It's better to act on the side of caution than to sell our future for a few pieces of silver, or in this case, platinum," said Hoffman.

"It is my understanding that there is no empirical knowledge of offshore platinum deposits in the Goodnews Bay mining district. The only known discovery site was a result of coring done seaward of the Salmon River estuary. Also, technology to harvest the micron sized placer platinum deposits of the Goodnews Bay area by conventional gravity sediment filtration systems does not currently exist," added Rep. Hoffman.

"It is our opinion that the current proposal by DNR and the OPP applicant are speculative, and that during the ten year period of the proposed offshore prospecting permit, the State of Alaska would gamble that a unique environment would be exposed to sediment and toxic heavy metals in the hopes that a suitable technology may be developed," concluded Representative Lyman Hoffman.

The next hearing on House Bill 332 is scheduled for Tuesday, February 6 before the House Resources Committee.

Goodnews Bay going platinum?

Will mining pose risk to habitat?

By BECKY NORSWORTHY
Times Business Writer

Beneath the turbid waters of the Goodnews Bay area may lie mind-boggling deposits of platinum, but how much would remain a secret of the sea under pending legislation to create a Goodnews Bay critical habitat area.

Waves and glacial action pushing against a platinum-bearing peak called Red Mountain have eroded half the mountain into Kuskokwim Bay, according to mining engineers and geologists, and strong currents have carried away the platinum-bearing rock.

Where the miners' settled, though, is still an open question. Words like undefined, unknown



and hypothetical abound in descriptions of the offshore platinum.

A professional paper published by the U.S. Geological

Survey in 1973 estimated there might be 5 million ounces of platinum group minerals in offshore placer deposits at Goodnews Bay, but a USGS spokesman said that figure is just an estimate and not backed up by hard data.

Willis White, associate branch chief of the Alaska branch of the USGS, said the geological survey has no revised estimates of offshore platinum resources.

Onshore, the prospects are better known. Mining has been done onshore along creeks and the Salmon River since the 1830s, yielding 650,000 ounces of platinum. Federal and state agencies estimate 500,000 ounces remain onshore.

R.A. Hanson Co. of Spokane has held mining claims on federally owned land since 1900, but is currently in a development rather than a production stage, said Ron Dowers, the company's mine manager.

Environmentalists and native villagers say the area offshore is critical habitat for fish, sea mammals and migratory waterfowl, crucial to the subsistence and commercial fishing lifestyles of the Yupik peoples in the villages of Goodnews Bay, Platinum and other Southwest Alaska communities.

Miners see the Goodnews Bay area as critical habitat for platinum, which in an ironic twist is an essential component of auto emissions devices called catalytic converters, aimed at reducing air pollution.

The silvery metal, worth \$500.80 an ounce on Friday, also has defense and other high-tech applications and is highly prized for jewelry, especially in Japan, according to mining engineers.



Pat Edwards displays a platinum ingot at Alaska Precious Metals.

Times photo by DOUGLAS VAN REETH

Jerry Gallagher, director of the state's Division of Mining, said House Bill 332 and Senate Bill 318 cover virtually the whole area the division of mining has considered for offshore mining.

About 62,500 acres of primarily tidal and submerged lands owned by the state, reaching from the mean high-tide mark to the three-mile limit, would be included in the critical habitat area proposed, he said.

Both the Senate and House bills specifically prohibit mineral entry and mineral leasing.

Onshore mining would not be affected by the legislation, he said.

In the middle of the head-on clash are offshore prospecting permits for which Karen Sheardown filed in 1982, covering roughly 55,000 acres offshore in Goodnews Bay itself and along the coast outside the bay. Sheardown and her husband, Ron Sheardown, own Greatland Exploration.

Goodnews Resources Inc. would finance and be involved in offshore exploration of Sheardown's permit areas, said Tony Smith, former state commerce commissioner and now an attorney in private practice in Anchorage. Smith represents Goodnews Resources.

The Department of Natural Resources has been conducting meetings and hearings since 1988, working with the Department of Fish and Game and Department of Environmental Conservation and with local communities to

Bay legislation pits villagers against miners

By BECKY NORSWORTHY
Times Business Writer

The question of whether Goodnews Bay and the surrounding waters will be a critical habitat area rather than one of the nation's prime platinum mining prospects has squared environmentalists and Yupik villagers against mining interests.

Legislation pending in the state House and Senate would create the critical habitat area, and would specifically prohibit mineral entry and mineral leasing.

Rep. Lyman Hoffman, D-Bethel, sponsored the bill in the House. Sen. John Binkley, R-Bethel, sponsored the Senate version.

Hoffman said he introduced the legislation because residents of the area contacted him with their concerns about offshore exploration and possible mining.

The ecosystem there is critical, Hoffman said.

He said testimony in favor of the bill has come from the entire Yukon-Kuskokwim area.

"These people represent an area approximately the size of the state of Washington, and all of them were in favor of the legislation," he said.

Steve Borell, executive director of the Alaska Miners Association, said the decision of whether to close the Goodnews Bay area to mining must be addressed as a national issue because of the nation's dependence on foreign sources for the metal.

At the state level, he fears signals such as a closure would send to the mining industry, which he said is now looking more favorably at development in Alaska in light of the opening of Greens Creek silver mine near Juneau and Red Dog zinc and lead mine near Kotzebue.

"A lot of companies that had previously left Alaska are now looking again at Alaska, and the imposition of this kind of a lockup or set-aside over a known resource is tragic," Borell said, both for the state and



Photo courtesy U.S. BUREAU OF MINES

Part of the Goodnews Bay area being considered by the

Legislation: Platinum mining controversy

Continued from page G-1

for the company that has spent money seeking offshore exploration permits.

Tony Smith is a former state commerce commissioner and now an attorney in Anchorage. He represents Goodnews Resources Inc., the company pursuing the state's approval of offshore prospecting permits that could ultimately become mineral leases.

"I think that the critical habitat legislation is an effort to prevent mining out there," Smith said.

He said environmental concerns can be addressed under the system that now controls mining there.

"My client does not dispute the fact that there are environmental considerations that need to be taken into account," Smith said.

Smith said Goodnews Resources Inc. is an Alaska business, incorporated in the state, but with Canadian shareholders.

"International capital, that's what we have here," he said.

Smith said Karen Sheardown, who applied for the offshore prospecting permits, and her husband, Ron Sheardown, are longtime Alaskans, as are others in the corporation.

Goodnews Resources has made overtures to residents of the villages of Goodnews Bay and Platinum, but villagers have refused to meet with the company, Smith said.

"There's a sense that mining companies were from outside, and were going to come up and be insensitive to the people, and that's just not the case," Smith said.

"If they won't meet with us, won't

talk with us, won't deal on the issue, it makes it very difficult," Smith said.

Vernon Bavilla, secretary-treasurer of Kultarak Inc., the village corporation for Goodnews Bay, said Kultarak is opposed to any off-shore mining or any kind of development that would jeopardize the ecosystem of Goodnews Bay.

"We already have a functioning economic base combining both commercial and subsistence use of the natural resources," Bavilla said.

"It is totally against the established economy here, totally against cultural values," he said.

"What are we going to do when our established economy is displaced?" he said.

"The mining industry kept throwing the words 'strategic mineral' around. Why is the state willing to risk an established economy for a short-term economic development?" he said. "Is it worthy enough to destroy pristine environment and the culture?"

"People will be affected, and the impacts most likely will be negative," Bavilla said.

The Alaska Environmental Lobby, a coalition of 19 member groups from within the state, also supports the bills.

Bill Glude, a spokesman for the lobby, said the Goodnews Bay area is a productive ecosystem that is critical to the local people.

"It appears that the mining could easily jeopardize their whole economy and current way of life," Glude said. "I don't think I've ever seen a critical habitat area proposal with such strong local support."

"I think we always come back to the fact that if we destroy the habitat and

the way of life that's dependent on that, a very rich way of life in this area, it's gone," Glude said. "On the other hand, if we lock up the minerals in one small portion of this area we have alternate sources, and if we ever decided that we absolutely must have those minerals, they're there. The fact is the minerals don't go away, but the way of life can."

John Oscar, program coordinator for Cenallurrit Coastal Management, which includes 43 area villages, said the Cenallurrit board of directors has reviewed the Goodnews Resources Inc. project and considers it inconsistent with its policies.

He fears offshore mining would put subsistence and commercial fishing at risk.

Not only Goodnews Bay and Platinum but also villagers from Quinagak, Kongiganak, Kwigillingok, Tuntutullak and Eek use the area for subsistence and commercial fishing and recreation, he said.

Oscar said dredging offshore might expose trace metals such as mercury and cadmium.

"The villagers' diets are predominantly fish and marine mammals, which are known to accumulate toxic metals from their surroundings," Oscar said.

He also worries about the water becoming more turbid from dredging.

"Goodnews Bay is naturally turbid, and some areas may be at the limits of acceptable turbidity for survival of eelgrass, which is essential habitat for herring spawning," he said.

He said the issue is "short-term benefits derived from a short-lived project

versus subsistence and commercial fishing."

Calista Corp., the regional native corporation for the area, has been involved with platinum exploration onshore, both on its own and in a joint venture with Ashton Mining Ltd. of Australia, according to Bruce Hickok, the corporation's sub-surface resource manager.

"Currently, Calista is continuing to explore the area," he said. "A couple of mining companies a month sort of kick the tires of Goodnews Bay."

Offshore mining within the bay is not supported by Calista, he said.

"We are at this point not supportive of any actions in the bay," Hickok said. "We are very interested in keeping the options for offshore exploration open for the areas south of the bay."

Hickok said Calista is concerned with the extent of the critical habitat legislation.

The villages of Platinum and Goodnews Bay already are surrounded by refuges, he said, citing Yukon Delta National Wildlife Refuge with 28 million acres and Togiak National Wildlife Refuge with 4.7 million acres.

"We would not like to see this critical habitat legislation limit the economic opportunity for the people in areas onshore, or in areas of less biologic concern offshore."

"Yes, we want to see local control of the bay and we want to see fisheries protected, but we don't want to see excessive regulation and an expanded version of critical habitat area out there," Hickok said.

Platinum: Goodnews Bay mining interests

Continued from page G-1

decide whether to approve Sheardown's offshore prospecting permits, Gallagher said.

He said DNR completed a preliminary "best interest finding" in March 1989 and decided offshore mining could be allowed outside the bay, with certain restrictions.

Gallagher said DNR continues to analyze data, particularly data relating to mercury contamination from dredging. He said a final best interest finding is still months away.

If Sheardown's permits are approved, the company would have 10 years to prospect. Sheardown would automatically receive a lease from the state if a workable mineral deposit were found, he said.

Gallagher said he testified at a hearing on the house bill Tuesday that state agencies believe offshore exploration and mining can be conducted outside Goodnews Bay in a way that would minimize its impact on other resources and comply with all the laws and regulations of the state.

"If House Bill 332 is passed, it would simply prevent even the exploration of this area," Gallagher said.

Gallagher said the only platinum produced in the United States is about 50,000 ounces a year mined in Montana, but in 1987, the most recent figures available, the United States imported 3.8 million ounces.

The largest portion, 1.8 million ounces, came from South Africa, 530,000 ounces from the United Kingdom and

360,000 ounces from the Soviet Union.

When Congress enacted sanctions against South Africa for its apartheid policy, platinum was exempted because of its classification as a critical and strategic mineral.

Bruce Baker, deputy director of the habitat division of the Department of Fish and Game, said his agency provided information and recommendations for the preliminary best interest finding. Baker testified at the House resources committee hearing.

Baker said the communities of Platinum and Goodnews Bay are primarily dependent on fishing, with driftnetting for salmon and setnetting for herring in the bay.

About 67,000 chinook, sockeye, chum and coho salmon were caught commercially in the Goodnews Bay district last year, with a value of more than \$71,000, he said.

"The 1989 herring harvest in the district totaled 618 tons, for which fishermen were paid \$335,000."

"The area supports one of the region's primary herring spawning areas," Baker said. "Smelt and capelin also spawn in Goodnews Bay. Salmon move through the bay and return to spawn in Goodnews, Smalla and Tunulik Rivers."

He said a major blue mussel bed extends along the coast and brown bears range along the shoreline in the summer.

Gray whales, an endangered species, migrate through the near-shore waters off Goodnews Bay and have been seen feeding on spawning herring in the shallow, sub-tidal area off the face of Red

Mountain, he said.

The area is an important feeding area for Steller sea lions, a species he said is in serious decline.

Migratory waterfowl use Goodnews Bay and its eelgrass beds for resting and feeding areas as they fly to and from nesting grounds to the north, Baker said.

Eelgrass is also important for herring habitat, he said, and can be difficult to re-colonize. "If you get a lot of suspended sediment, it can reduce the amount of sunlight that reaches the eelgrass beds and it can die off," Baker said.

The U.S. Bureau of Mines has done work in the Goodnews Bay area since the early 1980s.

Geologists and mining specialists there call it a tremendous potential resource, but say they have no estimates of how much platinum might be offshore.

However, their preliminary observations have led them to believe that platinum is there, particularly in the area outside Goodnews Bay in Kuskokwim Bay and along the coast south to the Salmon River.

Bureau of Mines divers have taken samples of the ocean floor and found platinum indicative of larger quantities at deeper levels, and the same drainage system that has yielded platinum on shore for more than 50 years continues offshore, said Robert McKibbin, a mining engineer with the bureau.

McKibbin said Goodnews Bay and an area just north of Yellowstone National

Park at Stillwater, Mont., are the two top prospective sites in the nation for platinum.

The difference between the two is the mineral within the ore at Goodnews Bay is about 80 percent platinum, while at Stillwater the ore produces three and a half ounces of palladium to every one ounce of platinum, McKibbin said.

"And the major thing that we're dependent on is the platinum, not the palladium," he said.

Robert Hoekzema, supervisory physical scientist at the Bureau of Mines, said the federal government is very interested in platinum from a critical and strategic perspective.

The first step is to find out what is there, he said.

"If it's closed (to exploration), there'll never be that opportunity," Hoekzema said, adding that if platinum is found environmental impact procedures would still have to be followed.

Hoekzema compared the situation outside Goodnews Bay to Norton Sound, where the Bima dredge is used for gold mining off the coast of Nome.

At WestGold's Bima, he said, the volume of water containing mined sediments is discharged under water. Most of the material settles quickly to the bottom, with little getting to the surface, he said.

He said extensive tests on the Bima have shown no long-term environmental impact.

AARP boos tax proposal

By NANCY BENAC
Associated Press

WASHINGTON — The nation's largest senior citizen group on Friday opposed proposals to cut Social Security taxes, saying the system's mounting reserves will be needed to ensure full benefits for future generations.

The American Association of Retired Persons had been courted by both fans and foes of Sen. Daniel Patrick Moynihan's proposal to cut the payroll tax that finances Social Security benefits.

AARP President Louise Crooks said the association was "concerned with the potential loss of \$55 billion or more in annual revenue if the Social Security payroll tax is rolled back."

The policy was adopted by the AARP's six-member executive committee.

Moynihan, a New York Democrat, is concerned that Social Security's growing trust fund reserves are being used to mask the true size of the federal deficit and to pay for other government programs.

His solution is to halt the buildup of the reserves and to return Social Security to a pay-as-you-go system in which taxes would be raised in the next century to finance retirement benefits for the Baby Boomers.

AARP, with 31 million members aged 50 and over, is considered the most powerful organization among advocacy groups for the elderly.

Cattle inventory shows increase

Industry's first yearly rise since 1982

By DIANE DUSTON
Associated Press

WASHINGTON — The Jan. 1 inventory of cattle and calves on the nation's farms and ranches edged up from a year ago to 69.3 million, but was still below the 69.6 million of 1988, the Agriculture Department said Friday.

"This reversed the recent downward trend in cattle inventories and shows the first Jan. 1 yearly increase since 1982," said the National Agricultural Statistics Service.

The 1989 inventory was 69.2 million head, a 28-year low. Officials said the 1990 calf crop is expected to be 43.9 million head, up fractionally from 43.7 million last year and up 1 percent

DON'T LET YOU IN

US and the world mineral positions, 1985 to the year 2000

John D. Morgan

Introduction

The US Bureau of Mines' (USBM) world reserve/consumption ratios (Table 1) indicate that, if the world is relatively peaceful in the next two decades, there should be ample world supplies of minerals to permit rising standards of living for increasing world population. But it must be remembered that most mineral reserve estimates are conservative and that normal mining practice is to develop a ton of ore reserve for every ton mined. It should be noted that "reserve," as used in this paper follows the definition given in US Geological Survey (USGS) Circular 831, 1980; "that part of the reserve base which could be economically extracted or produced at the time of the determination."

In addition to accurately determining the geologic parameters of mineral deposits, a judgment as to whether that deposit is a "reserve" per se involves consideration of many other factors. These factors were recognized nearly a century ago by a well-known mining engineer and later President, Herbert Hoover. In "Principles of Mining," 1909, Hoover wrote:

"Unfortunately for the mining engineer, not only has he to weigh the amount of risk inherent in calculations involved in the mine itself, but also that due to fluctuations in the value of metals. If the ore is shipped to custom works, he has to contemplate also variations in freights and smelting charges... In a free market, the law of supply and demand governs the values of metals as it does that of all other commodities. So far, except for tariff walls and smelting rings, there is a free market in the metals under discussion. The demand for metals varies with the unequal fluctuations of the industrial tides. The sea of commercial activity is subject to heavy storms, and the mine valuer is compelled to serve as weather prophet on this ocean of trouble. High

prices, which are the result of industrial booms, bring about overproduction, and the collapse of these begets a shrinkage of demand, wherein consequently the tide of price turns back."

Current supplies and use

There have been ample supplies of most mineral materials to permit several-fold increases of world production of common major mineral based minerals (steel, aluminum, copper, and cement) over the past three decades.

Motor vehicle production is a major consumer of mineral materials. However, in the last decade, down-sizing to facilitate improved fuel efficiency and reduce harmful emissions has reduced the weight of the average US-made automobile 15%, to 1.5 t (3200 lbs).

Also in the US, there are 92 million dwelling units, or on average,

fewer than three persons per dwelling unit. Construction is another major consumer of materials in the industrialized developed countries. It will also be a major consumer of materials worldwide as less developed nations seek to improve their infrastructures by adding roads, bridges, railroads, airfields, ports, and housing.

Fortunately, a large number of traditional common materials, many of mineral origin and also many of agricultural origin, are readily available for construction. Traditional construction materials such as steel, aluminum, copper, and cement, are being replaced in many applications by engineered plastic and ceramic

John D. Morgan, distinguished member SME, is chief staff officer, US Bureau of Mines, US Department of Interior, 2401 E St. NW, Washington, DC 20241.



Table 1 — US and World Reserve/Cumulative Demand to 2000 Ratios.
(All data rounded to 2 significant figures)

	Reserves as of 1963 and cumulative demand 1963-2000.				
	US Reserve US Cumulative Demand	World Reserve World Cumulative Demand			
			Indium	7 million tr oz 14 million tr oz	34 million tr oz 40 million tr oz
			Iodine	550 million lb 150 million lb	5.9 billion lb 660 million lb
Antimony	93,000 st 440,000 st	4 million st 1 million st	Iron Ore (contained Fe)	3.7 billion st 900 million st	72 billion st 9.9 billion st
Arsenic	50 kt 310 kt	1 million Mt 590 kt	Kyanite	adequate 2.1 million st	adequate 11 million st
Asbestos	4 Mt 5.8 Mt	110 Mt 110 Mt	Lead	21 Mt 12 Mt	95 Mt 61 Mt
Barite	11 million st 60 million st	160 million st 150 million st	Lithium	400,000 st 64,000 st	2.1 million st 180,000 st
Bauxite (contained Al)	8 Mt 100 Mt	4.4 Gt 400 Mt	Magnesite (contained Mg)	10 million st 14 million st	2.8 billion st 110 million st
Beryllium	28,000 st 6900 st	420,000 st 12,000 st	Manganese	0 14 million st	1 billion st 170 million st
Bismuth	20 million lb 43 million lb	200 million lb 170 million lb	Mercury	140,000 ft 700,000 ft	4 million ft 3.7 million ft
Boron (B ₂ O ₃)	120 million st 7.8 million st	360 million st 22 million st	Mica (sheet)	0 20 million lb	adequate 190 million lb
Bromine	25 billion lb 5.9 billion lb	adequate 15 billion lb	Molybdenum	6 billion lb 1.1 billion lb	12 billion lb 3.6 billion lb
Cadmium	90 kt 75 kt	560kt 350 kt	Nickel	300,000 st 3.8 million st	58 million st 18 million st
Cesium	0 300 st	110,000 st 520 st	Peat	700 million st 27 million st	adequate 8.5 billion st
Chromium	0 7.9 million st	360 million st 74 million st	Perlite	50 million st 11 million st	700 million st 35 million st
Cobalt	0 390 million lb	8 billion lb 1.2 billion lb	Phosphate	1.4 billion Gt 700 Mt	14 Gt 3.2 Gt
Columbium	0 200 million lb	9 billion lb 870 million lb	Platinum Group Metals	1 million tr oz 34 million tr oz	1 billion tr oz 130 million tr oz
Copper	57 Mt 31 Mt	340Mt 170 Mt	Potash (K ₂ O equivalent)	85 Mt 110 Mt	9.1 Gt 590 Mt
Corundum	0 17,000 st	7 million st 540,000 st	Pumice	adequate 13 million st	adequate 260 million st
Diamonds, industrial stones	0 60 million ct	600 million ct 460 million ct	Rare Earths (REO) and Yttrium (Y ₂ O ₃)	4.9 Mt 460 kt	45 Mt 810 kt
Diatomite	250 million st 10 million st	800 million st 29 million st	Rhenium	2 million lb 190,000 lb	6.4 million lb 340,000 lb
Feldspar	adequate 13 million st	adequate 72 million st	Rubidium	0 49,000 lb	4.4 million lb 91,000 lb
Fluorspar	36 million st 12 million st	850 million st 110 million st	Salt	adequate 633 million st	adequate 4.2 billion st
Gallium	2 million kg 290 kg	110 million kg 740,000 kg	Sand and Gravel	adequate 14 billion st	adequate adequate
Garnet	5 million st 550,000 st	8.1 million st 860,000 st	Scandium	230 t 770 kg	770 t 1.4 t
Germanium	450 kg 990 kg	adequate 2.8 million kg	Selenium	12 kt 10 kt	80 kt 28 kt
Gold	80 million tr oz 52 million tr oz	1.3 billion tr oz 870 million tr oz	Silicon alloys	adequate 10 million st	adequate 61 million st
Graphite crystalline flake	0 400,000 st	15 million st 7.8 million st	Silver	920 million tr oz 1.9 billion tr oz	7.9 billion tr oz 5.4 billion tr oz
Gypsum	800 million st 480 million st	2.8 billion st 1.9 billion st	Soda Ash	28 billion st 130 million st	28 billion st 720 million st
Helium	80,000 st 1400 st	460,000 st 2700 st	Stone	adequate 18 billion st	adequate adequate
Helium	240 billion cu ft 28 billion cu ft	240 billion cu ft 41 billion cu ft	Strontium	0 450,000 st	7.5 million st 1.2 million st

Sulfur	160 Mt 250 Mt	1.3 Qt 1.3 Qt	Titanium	8.1 million st 11 million st	180 million st 42 million st
Talc	150 million st 28 million st	350 million st 210 million st	Tungsten	150 kt 250 kt	2.8 Mt 870 Mt
Tantalum	0 27 million lb	60 million lb 45 million lb	Vanadium	100,000 st 130,000 st	4.8 million st 870,000 st
Tellurium	3.7 kt 2.5 kt	22 kt 4.5 kt	Vermiculite	25 million st 6.5 million st	50 million st 11 million st
Thallium	70,000 lb 48,000 lb	830,000 lb 450,000 lb	Zinc	22 Mt 19 Mt	170 Mt 130 Mt
Thorium	220 kt 770 t	1.1 Mt 6.5 kt	Zirconium	4 million st 1.3 million	25 million st 5.2 million st
Tin	20 kt 700 kt	3.1 Mt 3.8 Mt			

materials. In the past three decades, annual US production of plastics has risen from about 900 kt (1 million st) in 1950 to more than 20 Mt (22 million st) at the present time.

The volume of plastics produced annually in the US is now more than double the volume of the traditional metals. Plastics are currently almost wholly based on the mineral fuels — petroleum and natural gas. But only a relatively small percentage of petrochemicals goes directly to their manufacturer. Carbon, hydrogen, oxygen, nitrogen, and chlorine are the building blocks for plastics. And there are virtually unlimited supplies of these materials in organic substances and in the waters and the atmosphere of the planet earth.

Today, there already is wide use of common ceramics. Extensive use of carefully engineered ceramic materials looms as a real possibility in such demanding applications as motor vehicle and aircraft engines. Silicon, a major ingredient of ceramics, is the second most abundant element in the earth's crust.

As the speed of aircraft increased over the years, wood, bamboo, and silk were replaced by aluminum. Aluminum, in turn, was replaced by stainless steel. And today, supersonic radar-detection-defying aircraft are being built of carbon fibers. Carbon, too, is an abundant element in the rocks and agricultural materials of this planet.

Forecast to 2000

A broad overview of the mineral position of a relatively peaceful world to the year 2000 indicates an overall adequacy of mineral materials supplies. However, industrialized nations must assure them-

selves of adequate and continuing supplies of materials at reasonable prices. This is necessary, not only to maintain employment levels and productivity in peacetime, but also to provide a defense industrial base adequate to deter the threat of war or if that proves impossible, to survive one.

US preparedness

US preparation for emergencies embraces a broad spectrum ranging from natural disasters, such as earthquakes, volcanoes, tsunamis, fires, floods, avalanches, and unprecedented snowfalls, through terrorists' actions, boycotts, embargoes, minor wars, major conventional wars, chemical/biological warfare, limited nuclear wars, and nuclear holocausts. Major conventional wars would impose the greatest strains on materials supplies.

Pursuant to Executive Orders 10480 and 11490 under the Defense Production Act as amplified by Federal Register 49FR 30437 and Executive Order 12155 under the Stock Piling Act, the Interior Department is responsible for emergency readiness plans and programs for all nonfuel minerals. Interior is generally responsible for mines, concentrating plants, smelters, and refineries, and for the ores, concentrates, and other materials treated in such facilities.

The Department of Commerce is responsible for facilities and materials that are further along in the chain of processing and use. Commerce maintains the "Defense Priorities and Allocations System" to channel essential materials to defense and related production. Steel, copper, aluminum, and nickel have long been designated as "controlled materials," and they are the basis for the pri-

orities and allocations through which the Commerce Department channels materials to defense rated orders.

The Department of the Interior has chartered the Emergency Minerals Administration (EMA) to carry out actual operations in the event of a major emergency. The EMA is based on the USBM, with support as needed from the (USGS), Minerals Management Service, Office of Surface Mining (OSM), and other Interior units.

The research work of the USGS is essential to extending our knowledge of mineral resources worldwide. Additionally, the mining and metallurgical research of the USBM extends our ability to use lower grade deposits and enhances improved performance of materials, conservation in their use, and recycling.

USBM's role

USBM continuously monitors domestic production, imports, exports, stocks, and consumption of all major nonfuel minerals. Detailed reports are received monthly, quarterly, or annually from domestic mines, smelters, refineries, recyclers, and major users. Monthly import and export data are obtained from the US Customs Service by way of the Bureau of the Census and the Department of Commerce.

USBM experts continuously monitor developments in foreign supply areas. Every month USBM publishes for the guidance of government and industry its "Mineral Industry Surveys," that give current detailed statistics.

A detailed review of US and world production for more than 100 commodities is provided in the annual "Mineral Commodity Summaries." Also, special mineral commodity profiles that give details of world production, tech-

nology, reserves, resources, and outlook to the year 2000 are published every five years in "Mineral Facts and Problems." Individual studies are published more often, as appropriate.

As a result of its continual monitoring of mineral supply and demand and its own technological competence, USBM has the framework needed to discharge priorities, allocations, and supply expansion responsibilities under the legislation cited earlier. The Bureau would also act as the claimant agency for the mineral sector of the economy to assure needed fuel, power, transportation, personnel, supplies, and equipment.

To facilitate coordinated government action in the event of an emergency, USBM in 1975 organized nearly 100 interagency mineral commodity committees. These committees include experts from USBM, USGS, and one or more areas of State, Commerce, Defense, CIA, GAS, Energy, Treasury, US trade representative, Council of Economic Advisors, International Trade Commission,

During a supply disruption, the first action to be taken would be to monitor exports and, if necessary, control them.

Commodity Futures Trading Commission, Federal Emergency Management Agency (FEMA), and for certain commodities, Agriculture and Transportation. These committees would be promptly called on in the event of any emergency.

During a supply disruption, the first action to be taken would be to monitor exports and, if necessary, to control them. A worsening supply situation would require imposition of a system of priority under Title I of the Defense Production Act, whereby rated orders would have to be filled first. If priorities proved to be inadequate, they would be followed by a

system of allocations, also authorized under Title I. USBM and Department of Commerce would implement priorities and allocations in their respective areas of responsibility.

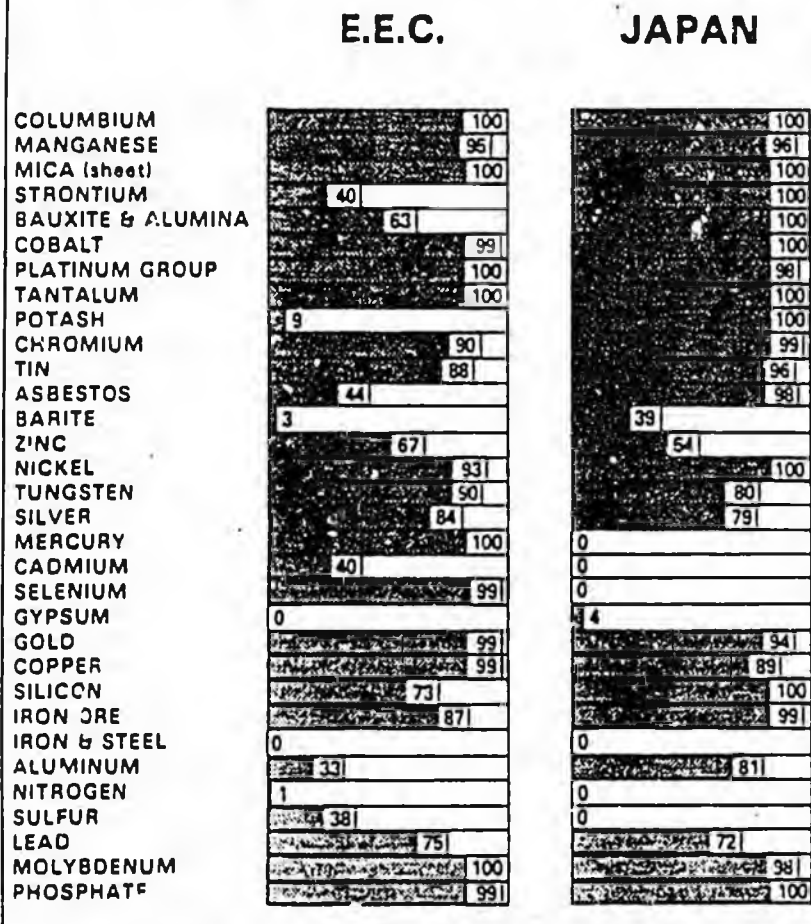
At some point in a serious shortage situation, recourse to the strategic stockpile might be required. The Stock Piling Act provides for release "on the order of the President, at any time the President determines the release of such materials is required for purposes of the national defense; and in time of war declared by the Congress or during a national emergency, on the order of any officer or employee of the United States designated by the President to have authority to issue disposal orders . . . if . . . required for purposes of the national defense."

To release stockpiled materials, FEMA, in consultation with other agencies including USBM, would prepare a justification and recommendation for the President's signature. On receipt of the President's authorization, the Office of Stockpile Disposal of GSA would release the material to specified recipients.

Export controls, priorities and allocations, and stockpile releases, however, are only temporary measures of limited effectiveness. Any long lasting supply disruption would call for supply expansion programs under Title III of the Defense Production Act. These would cover not only domestic deposits but also deposits in reliable foreign sources. USBM would develop mineral supply expansion programs in consultation with industry, including active participation of persons with specialized knowledge of the worldwide mineral deposits.

In the meantime, the Bureau is continuing to develop its computerized inventory of mineral deposits known as the Minerals Availability System (MAS). For example, in the case of chromium, a material considered highly strategic since World War I, the MAS inventory of domestic chromium properties includes more than 700 past producers, 150 developed deposits, 350 explored prospects, 250 raw prospects, and 750 other domestic chromium occurrences. The MAS also catalogs many other deposits located throughout the world. In addition to cataloging such deposits, USBM develops current cost estimates for producing from major mineral locations, based on modern mining, concentrating, smelting, and refining processes. ■

1984 NET IMPORT RELIANCE SELECTED NONFUEL MINERAL MATERIALS



MAR 4 1982

ALASKA RESOURCES LIBRARY
U.S. Department of the Interior

Information Circular 8869

Critical and Strategic Minerals in Alaska

Cobalt, the Platinum-Group Metals,
and Chromite

By James C. Barker, Jan C. Still,
Thomas C. Mowatt, and John J. Mulligan



UNITED STATES DEPARTMENT OF THE INTERIOR

James G. Watt, Secretary

BUREAU OF MINES

Robert C. Horton, Director

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

This publication has been cataloged as follows:

Critical and strategic minerals in Alaska. Cobalt, the platinum-group metals, and chromite.

(Bureau of Mines information circular ; 8869)

Supt. of Docs. no.: I 28.27:8869.

1. Mines and mineral resources--Alaska. 2. Nonferrous metals--Alaska. 3. Strategic materials--Alaska. I. Barker, James C. II. Series: Information circular (United States. Bureau of Mines) ; 8869.

TN24.A4C74 553'.09798 81-607103 AACR2

CONTENTS

	<i>Page</i>		<i>Page</i>
Abstract	1	Description of deposits	3
Introduction	2	Types of deposits	3
Acknowledgments	2	Cobalt	3
History and production	2	Platinum-group metals	3
Cobalt	2	Chromite	6
Platinum and platinum-group metals	2	Bureau of Mines investigations	6
Chromite	3	References	8

ILLUSTRATIONS

1. Cobalt, platinum-group metals, and chromite locations in Alaska	Pocket
2. Takanis Peak, Yakobi Island, southeastern Alaska	5
3. Massive chromite lenses in podiform deposits of the Kanuti River region	6

TABLES

1. Estimated production of platinum-group metals	2
2. Chromite production	3
3. Types of known and potential deposits of cobalt, the platinum-group metals, and chromite	4
4. Selected Bureau of Mines reports on cobalt, the platinum-group metals, and chromite	7
5. Minerals Availability System evaluations of deposits of cobalt, the platinum-group metals, and chromite	7

CRITICAL AND STRATEGIC MINERALS IN ALASKA

Cobalt, the Platinum-Group Metals, and Chromite

By James C. Barker,¹ Jan C. Still,² Thomas C. Mowatt,³ and John J. Mulligan⁴

ABSTRACT

A uniquely mineralized area extends from northwestern Canada through Alaska into eastern Siberia. Some of the metals found there are relatively rare in the conterminous United States. Among these are cobalt, the platinum-group metals, and chromite. Geologic evidence suggests that cobalt and the platinum-group metals may be present in deposits that could constitute nationally important reserves. Chromite in potentially minable deposits is known, but it may be relatively less abundant. Limited reserves of these metals have been delineated, but most of the favorable terranes and reported occurrences throughout the vast expanse of Alaska remain unexplored.

As part of the mineral studies mandated under the Alaska National Interest Lands Conservation Act, the Bureau of Mines' Alaska Field Operations Center and the Bureau's research centers at Albany, Oreg., and Reno, Nev., are cooperating in a long-range program to investigate occurrences and delineate reserves of cobalt, the platinum-group metals, and chromite in Alaska. Studies of other critical and strategic minerals will be phased in during succeeding years, as ongoing projects are completed. This first in a series of annual reports summarizes available information about deposits and past production of cobalt, the platinum-group metals, and chromite, and describes current and planned Bureau investigations of these minerals.

¹Supervisory physical scientist, Alaska Field Operations Center, Bureau of Mines, Fairbanks, Alaska.
²Physical scientist, Alaska Field Operations Center, Bureau of Mines, Juneau, Alaska.
³Supervisory geologist, Alaska Field Operations Center, Bureau of Mines, Juneau, Alaska.
⁴Chief, Alaska Field Operations Center, Bureau of Mines, Juneau, Alaska.

INTRODUCTION

One of the world's uniquely mineralized areas extends from northwestern Canada through Alaska and into eastern Siberia. Some minerals that are relatively rare in the conterminous United States occur there. Critical and strategic minerals normally imported from foreign sources have been produced in Alaska during the First and Second World Wars, the Korean and Vietnam conflicts, and other times of unusual shortage or demand. Alaska's contribution to U.S. industry has included tin, tungsten, the platinum-group metals, antimony, mercury, chromite, and minor amounts of asbestos.

As a major part of the mineral studies mandated under the Alaska National Interest Lands Conservation Act,¹ the Bureau of Mines' Alaska Field Operations Center (AFOC) is evaluating economic and subeconomic reserves of criti-

cal and strategic minerals in Alaska. Evaluations will include an estimate of the degree of certainty with which the reserves are known. Initial investigations during 1981 will include field reconnaissance of some potential sources of cobalt, the platinum-group metals, and chromite. Studies of other minerals will be phased in during future years, as currently ongoing projects are completed.

This is the first report on these Bureau of Mines investigations. It summarizes available information about deposits and past production of cobalt, the platinum-group metals, and chromite, which was obtained during investigations of these metals through May 1981. Subsequent reports will be issued annually to cover critical and strategic minerals investigations during the preceding field seasons, and the resultant laboratory and office studies.

ACKNOWLEDGMENTS

This report includes data compiled from referenced sources, data collected by the Bureau of Mines during the numerous mineral land assessments resulting from the Alaska Native Claims Settlement Act² and related legislation, and data resulting from investigations of mineral deposits containing platinum-group metals and chromite, made in cooperation with the Bureau's Albany (Oreg.) and Reno (Nev.) Research Centers.

The basic reference is "Mineral Terranes of Alaska" (1),³ a series of 1:1,000,000-scale maps with explanatory text, prepared under Bureau of Mines contract J0199051 by the University of Alaska Arctic Environmental Information and Data Center, with the cooperation of the U.S. Geological Survey, the State of Alaska Division of Geological and Geophysical Surveys, and representatives of several

mining and mineral consulting firms. Some additional data were acquired from U.S. Geological Survey mineral investigations resource maps (5). The mineral deposit location map (fig. 1, pocket) was adapted from topographic and land status maps of Alaska published by the U.S. Geological Survey. Historic production records were compiled by the Bureau of Mines State mineral specialist for Alaska. Data on reserves are from publications referenced or footnoted.

Platinum samples were preconcentrated at the AFOC and analyzed at the Reno Research Center. Metallurgical testing was done at the Albany Research Center. Petrographic analyses were performed at the AFOC, but quantitative analyses other than for platinum-group metals were usually made in commercial laboratories.

HISTORY AND PRODUCTION

COBALT

No cobalt is known to have been produced in Alaska. The available information on cobalt was compiled almost entirely from data gathered during the exploration of mineral deposits for other metals, mostly in southeastern Alaska. The low prices that prevailed—because cobalt

could be imported from south-central Africa—have until recently resulted in a general lack of interest in Alaskan deposits.

PLATINUM AND PLATINUM-GROUP METALS

Platinum was recognized in the placer gravels at widely scattered places throughout Alaska during the early years of this century. About 96 percent of the reported Alaskan production of platinum-group metals was from the placers of Salmon River and its headwater tributaries about 15 miles south of Goodnews Bay on the west coast of Alaska

¹Public Law 96-487, Dec. 2, 1980, title X, sec. 1010.

²Public Law 92-203, Dec. 18, 1971.

³Italicized numbers in parentheses refer to items in the list of references at the end of this report.

Table 1.—Estimated production of platinum-group metals, ounces

Source	PGM ¹ (crude)	Platinum	Palladium	Iridium	Ruthenium
Placer mines:					
Goodnews Bay: ²					
1927-34	3,000	2,580	30	70	30
1934-75	³ 641,000	551,000	6,000	14,000	6,000
Miscellaneous (1900-41)	3,500	3,000	30	ND	ND
Total, placer mines	647,500	556,580	6,060	14,070	6,030
Lode mine: Salt Chuck (1918-21, 1924-26, 1935-41)	14,271	ND	⁴ 14,271	ND	ND
Grand total	661,771	556,580	20,331	14,070	6,030

ND Not determined.

¹Platinum-group metals.

²Estimated data for Goodnews Bay are derived from references 4 and 12.

³Actual production data (13).

⁴From unpublished Bureau of Mines data; reference 11 suggests that this total may include platinum and other platinum-group metals.

(fig. 1). The known placer reserves of platinum-group metals are also in this area. About 3 percent of the Alaskan production of platinum-group metals was from the Salt Chuck Lode Mine about 10 miles north of the head of Kasaan Bay on Prince of Wales Island, southeastern Alaska. The remaining 1 percent was recovered as a by-product from gold placer mines in many areas, including the Koyuk area, the Ruby-Poorman area, the Tolstoi area, the Snow Gulch area, several headwater tributaries of the Yentna and Kahiltna Rivers, headwater tributaries of the Chistochina River, and Lituya Bay in the Glacier Bay National Park. Production statistics are summarized in table 1.

CHROMITE

Chromite production from 1917 to 1957 is shown in table 2. No production has been recorded since 1957. All

production was from near Seldovia on the Kenai Peninsula. Despite the sporadic production, there has been relatively little exploration for chromite in Alaska.

Table 2.—Chromite production¹

Source	Production, long tons	Grade, pct Cr ₂ O ₃	Ratio, Cr:Fe
Star 4 Claim (Red Mountain)	21,435	48	2.9:1
Chrome Queen Claim (Red Mountain)	6,500	ND	ND
Peel Mine, Claim Point (Seldovia)	2,000	44	ND

ND Not determined.

¹Data are from reference 19.

²Hand-sorted, metallurgical grade.

³Approximate.

DESCRIPTION OF DEPOSITS

TYPES OF DEPOSITS

Table 3 is a listing of the types of deposits of cobalt, platinum-group metals, and chromite that are either known or believed to exist in Alaska. The deposits or areas from which production of platinum or chromite has been reported, and the deposits listed as typical examples under "Selected known deposits or prospects" are identified by name on figure 1. The reported or suspected occurrences that will be the objective of reconnaissance investigations are also shown on the map (by symbol), but most are not identified by name.

COBALT

The cobalt reserves presently known in Alaska are associated with large nickel-copper deposits in southeastern Alaska. On Yakobi Island, the Bohemia Basin deposit (fig. 2) contains cobalt reserves of 14 million pounds together with 85 million pounds of copper and 140 million pounds of nickel.⁸ On the west coast of Chichagof Island at Mirror Harbor, a nickel-copper deposit has inferred reserves of 960,000 tons of ore⁹ containing some cobalt.¹⁰ On Admiralty Island, the Funter Bay deposit contains proven reserves of 0.82 million pounds of cobalt, 4.8 million pounds of copper, and 5.39 million pounds of nickel (8). On Prince of Wales Island, cobalt is known in a variety of deposit types, but no reserves have been calculated. In Glacier Bay National Park, the nickel-copper deposits under Brady Glacier apparently contain cobalt that may be recoverable as a byproduct of copper-nickel mining. The deposit is estimated to contain 100 million tons of ore, containing some cobalt in the proven ore body, and perhaps an equal amount in the inferred extensions (20).

Cobalt occurs in a wide variety of geologic environments (21). Most well known in Alaska are associations of cobalt with copper and nickel sulfides in ultramafic rocks, such as the deposits mentioned above. Carbonate deposits of copper, lead, or zinc can contain cobalt, as exemplified by the deposits in the Mississippi Valley region. The large copper deposits at Bornite on the south slopes

of the Brooks Range are known to contain associated cobalt, but testing is still in progress. No figures on cobalt reserves have been released by the owners. Other carbonate sulfide deposits in Alaska have not been evaluated for cobalt. The vast carbonate terrane of the Brooks Range and the sequences aligned along the Tintina-Kaltag fault systems are considered to warrant investigation.

The other forms of cobalt deposits described in table 3 also warrant investigation. No reports were found that indicate exploration for them by either the Government or prospectors.

PLATINUM-GROUP METALS

Alaska's measured and indicated reserves of platinum-group metals are 500,000 ounces of platinum and platinum-group metals (13) near Goodnews Bay on the western Alaska coast and less than 1,000 ounces at Salt Chuck on Prince of Wales Island in southeastern Alaska.¹¹ Reported resources of unknown economic tenor include 6.8 million ounces in the Goodnews Bay area, 7.5 million ounces in the Klukwan deposit, and 4.5 million ounces in the Snettisham deposit (3). These resource estimates must be considered very tenuous because mining costs and the percentage of metallurgically recoverable platinum-group metals remain unknown.

Platinum-group metals are known in Glacier Bay National Park. Recent work by Czamaske (7) has indicated that platinum may be recovered as a byproduct from the proven Brady Glacier nickel-copper ore body. Platinum has been reported elsewhere in the park, and very small amounts of platinum-group metals were produced from beach sands near Lituya Bay (12).

Palladium and platinum occasionally have been produced as a byproduct of gold placer operations. With the recent dramatic increase in placer gold mining, it is possible that some platinum-group metals will be produced, although no production has been reported to date.

Platinum and other platinum-group metals are believed to occur throughout Alaska, associated with ultramafic complexes. The most extensive of these are in the western Brooks Range. Present information on grade ranges from limited to nonexistent. There is potential for both lode and placer deposits.

⁸Public release by Inspiration Development Co., March 1978.

⁹Inspiration Consolidated Copper Co. Letter to S. P. Wimpfen, Mar. 15, 1977.

¹⁰Johnson, B. R. (U.S. Geological Survey); A. L. Kimball, and J. Still (U.S. Bureau of Mines). Mineral Resource Potential of the Western Chichagof-Yakobi Islands Wilderness Study Area, Southeastern Alaska. U.S. Geol. Survey Bull. in press; for information, contact A. L. Kimball, Bureau of Mines, Juneau, Alaska.

¹¹Fcx, P. E. Salt Chuck Cu-Au-Pd Deposit. Unpublished examination report, Apr. 22, 1980, 16 pp. For information, contact J. J. Mulligan, Bureau of Mines, Juneau, Alaska.

Table 3.—Types of known and potential deposits of cobalt, the platinum-group metals, and chromite

General geologic setting ^a	Known or probable commodities ^a	Selected known deposits (d) or prospects (p)		Sites recommended for evaluation ^a
		Location	Map ¹	
Mafic-ultramafic igneous rocks.	Ni, Cu, Co, PGM, Cr.	Brady Glacier (d), Bohemia Basin (d), Mirror Harbor (d).	17-19	Fairweather, Crillon-La Perouse, and Astrolabe-De Langle mafic-ultramafic complexes in Glacier Bay National Park.
Do	Ni, Cu, Co, PGM, Cr.	Spirit Mountain (d)	13	The Spirit Mountain deposit in the Chugach Range, the Rainbow Mountain prospects north of Paxson in the Alaska Range, and the Salcha prospects in the Yukon-Tanana Uplands
Do	Ni, Cu, Co, PGM, Cr.	Blashke Island (p), Salt Chuck Mine (d), Duke Island Ultramafic (p) and Yellow Hill (p).	24, 26 28	Salt Chuck Mine, Poor Man Mine, and numerous other mines and prospects in the vicinity. Other prospects in southeastern Alaska at Furber Bay, Yellow Hill, Blashke Island, Duke Island, Snettisnam, Klukwan, Windham Bay, Snipe Bay, and Union Bay.
Do	Cr, PGM (and probably other commodities).	Western Brooks Range (p) ..	1	Western Brooks Range—chromite and PGM were noted in samples obtained by the Bureau of Mines in 1975 and 1976. Additional mapping has been undertaken by the U.S. Geological Survey recently. More detailed investigation is needed.
Do	Cr	Kanuti River area (d), Seldovia-Red Mountain (d), Eklutna-Chugach trend (p).	3, 11-12	The southwestern extension of the Kanuti ultramafic belt and the Eklutna-Chugach trend.
Do	Cr	Red Bluff Bay (p), Mt. Burnett (p).	22, 25	Red Bluff Bay and Hill prospects and vicinity on Baranof Island; Mt. Burnett prospect and vicinity on Cleveland Peninsula, southeastern Alaska.
Stratabound-hydrothermal replacement.	Co associated with Cu, Pb, Zn.	Bornite-Ruby Creek (d) ..	2	Extensions of the Bornite-type mineralization are possible. Other copper-lead-zinc deposits of the western Brooks Range should be investigated for cobalt. Preliminary Bureau of Mines data from the Mt. Schwatka area of central Alaska and the copper occurrence north of Arctic Village in the eastern Brooks Range indicate a cobalt association.
Do	Co associated with Cu, Pb, Zn.	Orange Point (p)	16	Near the Orange Point deposit is similar geologic terrane that may have similar deposits. The Sumdum, Jingle-Jangle, and Sweetheart ridge deposits south of Juneau, the Glacier Basin and Groundhog Basin deposits east of Wrangell, and the massive sulfide deposits of the Alaska Range should also be evaluated for cobalt potential.
Hydrothermal vein type.	Cu, Co, As	None .....	...	There are very limited unpublished Bureau of Mines data on a copper-cobalt-arsenic vein south of Livengood, in the Yukon-Tanana Uplands.
Do	Cu, Zn, Au, Ag, PGM.	...do .....	...	Portage Mountain prospect and vicinity on Kupreanof Island, southeastern Alaska. Vein-type copper-gold deposits in the area near the Salt Chuck mine on Prince of Wales Island may include cobalt and PGM.
Contact metamorphic type.	Cu, Fe, Co	Sultana (p)	27	There are numerous contact-type iron-copper mines and prospects on Prince of Wales Island, including the Jumbo and Green Monster mines that may also contain cobalt and PGM. Contact deposits near Chandalar on the south slopes of the Brooks Range may contain cobalt.
Stratiform, sedimentary—red beds.	Fe, Mn, Cu, Co ..	None .....	...	Very limited unpublished Bureau of Mines data indicate a possibility for cobalt association with the iron-rich red beds of eastern Alaska near Eagle, and of copper-zinc-manganese-cobalt enrichment of shales east of Arctic Village.
Stratiform sedimentary—manganese nodule-bearing marine shales.	Mn, Co, Cu .....	...do .....	...	Manganiferous shales with nodule horizons and occurrences of copper and lead sulfides of the central Arctic National Wildlife Refuge may be favorable for cobalt. The stratigraphy was mapped by the U.S. Geological Survey, but no sample analyses have been reported to date.
Stratiform sedimentary—laterites.	Ni, Co .....	...do .....	...	Cenozoic deep weathering of some interior Alaska mafic-ultramafic complexes (e.g., Christian Complex in the eastern Brooks Range) may be favorable for laterites.

See footnotes at end of table.

Table 3.—Types of known and potential deposits of cobalt, the platinum-group metals, and chromite

General geologic setting ¹	Known or probable commodities ²	Selected known deposits (d) or prospects (p)		Sites recommended for evaluation ³
		Location	Map ⁴	
Stream placers . . .	Au, PGM, Ti, Fe . .	Goodnews Bay (d)	8	Major deposits occur on Salmon River south of Goodnews Bay; additional reserves are likely. There are numerous, generally unverified reports of placer PGM associated with placer gold deposits. Reports of placer platinum north of Paxson near Rainbow Mountain on the south slopes of the Alaska Range may be significant. Placers may be associated with the western Brooks Range ultramafics. In all cases, further work is needed.
Marine placers . . .	Au, PGM, Ti, Fe . .	Beach sands north and south of Lituya Bay (p).	14	The beach sands near Lituya Bay are very extensive, but major concentrations of minable grade have not been reported despite reported production of small amounts of gold and PGM, and sporadic exploration for many years. Occurrences of PGM in the beach sands also have been reported on the western shores of Kodiak Island. South of Goodnews Bay are coastal beach sands, both of present day and ancient formation, reported to contain PGM.

¹This list of geologic settings is not intended to represent a classification of Co, PGM, and Cr deposit types, but to indicate those settings for which present data indicate favorability for occurrence.

²Arsenic (As), chromite (Cr), cobalt (Co), copper (Cu), gold (Au), iron (Fe), lead (Pb), manganese (Mn), nickel (Ni), platinum-group metals (PGM), silver (Ag), titanium (Ti), zinc (Zn).

³Numbers refer to locations on figure 1.

⁴Deposits and occurrences recommended for evaluation may not be listed on figure 1, but the commodity location is indicated by symbol.



Figure 2.—Takanis Peak, Yakobi Island, southeastern Alaska. The low hill in the foreground is the north end of the Bohemia Basin copper-nickel-cobalt deposit.

CHROMITE

The area near Seldovia, from which chromite has been produced in the past, is at present being explored by industry. Other potential chromite belts in Alaska include the Kanuti River occurrences (fig. 3), the Eklutna-Chugach trend, the occurrences at Red Bluff Bay, Baranof Island, in southeastern Alaska, and the western Brooks Range deposits.

Chromite has also been reported at other Alaskan locations, but present information on these occurrences is inadequate to suggest a level of favorability or even the type of source rocks. Further exploration certainly is warranted in the Goodnews Bay area, the Kuskokwim region, and on Prince of Wales Island in southeastern Alaska.

Published data on metallurgical characteristics are limited to the Seldovia deposits. Preliminary metallurgical testing has just been completed by the Bureau of Mines on the Kanuti chromite deposits, and a report is being prepared that includes field descriptions and the results of metallurgical tests.¹²

Chromite is rather unique in nature in that only two types of deposits are mined—stratiform and podiform—both associated with ultramafic rocks. Stratiform deposits contain most of the world's reserves, but the podiform deposits are generally of higher grade, and have been and continue to be important sources of production (16). In the United States, podiform deposits have been intermittently mined to meet wartime needs. The known chromite deposits in Alaska are of the podiform type. The widespread occurrence of chromite-bearing ultramafic rocks in Alaska and the unusually large size of the ultramafic bodies in the western Brooks Range indicate that there is an opportunity to develop nationally valuable reserves. However, present information suggests that these will not be major occurrences on the world scale.



Figure 3.—Massive chromite lenses in podiform deposits of the Kanuti River region.

BUREAU OF MINES INVESTIGATIONS

Since 1978, the AFOC has made limited studies, including literature review, fieldwork, and cost evaluations, specifically directed toward reserves of cobalt, platinum-group metals, and chromite (14-15). The Albany Research Center (ALRC) has been performing metallurgical analyses of bulk samples, principally directed toward platinum-group elements but including associated metals. Evaluation of nonultramafic cobalt ore samples is planned for next year. A report jointly authored by the AFOC and the ALRC, on chromite (and associated platinum-group elements) in the Kanuti area, is now in preparation.¹³ The Reno Research Center has been and will continue evaluating platinum-bearing samples. It is anticipated that this cooperative approach will be continued and that other research centers with special expertise may also participate.

The results of the Bureau's studies can be found in the reports that are summarized in table 4 and in the Minerals Availability System property evaluations that are listed in table 5.

The investigations of Alaskan critical and strategic metals are planned as a combined evaluation of geologic parameters, deposit grades and dimensions, metallurgical characteristics, and recovery costs. Because of the lack of previous exploration, field investigations frequently begin with a search to determine if the reported deposit or

suspected occurrence actually exists. Future work will include the following:

1. Onsite investigations of deposits and reported or suspected occurrences of cobalt, platinum-group metals, and chromite.
2. Analyses of samples of other mineral deposits that may contain cobalt or platinum-group metals recoverable as byproducts. These metals have not always been analyzed for in the past.
3. For deposits found to contain cobalt, platinum-group metals, or chromite, ascertaining the mode of mineralization and geologic character, and estimating dimensions of the deposits. The implications of associated geologic structures in estimating extensions of the deposit or additional deposits are particularly important in this phase of the investigation.
4. Determination of deposit grade and, if size and grade warrant, determination of metallurgical characteristics from bulk samples. Estimation of recovery costs.
5. Monitoring the results of industry exploration for cobalt, platinum-group metals, and chromite.
6. Possible recommendation of specific deposits for more detailed evaluation by geophysical exploration, drilling, or other methods.

Reconnaissance of some of the known occurrences began in 1981 and will continue into the succeeding years. It is anticipated that more detailed evaluations of specific

¹²Foley, J. Y., M. McDermott, D. C. Dahlin, L. L. Brown, and J. J. Kinney. Podiform Chromite Deposits in Central Alaska. Unpublished BuMines report; for information, contact J. Y. Foley, Bureau of Mines, Fairbanks, Alaska.

¹³Work cited in footnote 12.

Table 4.—Selected Bureau of Mines reports on cobalt, the platinum-group metals, and chromite

Summary of information	References
Statewide review of mineral terranes, mapped at 1:1,000,000 scale	1
Analyses of 2,000 mineral samples collected in 1978	17
Analyses of 2,000 mineral samples collected in 1979	18
Delineation of areas with high potential for nickel-copper, cobalt, platinum-group metals, and chromite in Glacier Bay National Monument	2
Evaluations of the Bohemia Basin and Mirror Harbor nickel, cobalt, and copper deposits	(1)
Baseline information on chromite potential in select areas of the western Brooks Range	9-10
Initial delineation of the trend of chromite deposits in the Kanuti River region	6
Additional investigation of the trend of chromite deposits in the Kanuti River region	(2)

¹Johnson, B. R. (U.S. Geological Survey); A. L. Kimball, and J. Still (U.S. Bureau of Mines). Mineral Resource Potential of the Western Chicago-Yakobi Islands Wilderness Study Area, Southeastern Alaska. U.S. Geol. Survey Bull. in press; for information, contact A. L. Kimball, Bureau of Mines, Juneau, Alaska.

²Foley, J. Y., M. McDermott, D.C. Dahlin, L. L. Brown, and J. J. Kinney. Podiform Chromite Deposits in Central Alaska. Unpublished BuMines report; for information, contact J. Y. Foley, Bureau of Mines, Fairbanks, Alaska.

Table 5.—Minerals Availability System evaluations of deposits of cobalt, the platinum-group metals, and chromite

Commodity	Deposit evaluated	Sequence No.
Cobalt	Yakobi Island	0021140017
	Bohemia Basin)	
	Mirror Harbor	0021140068
	Funter Bay	0021120072
Platinum-group metals.	Salt Chuck Mine..	0021190135
	Salmon River (Goodnews Bay area).	0021230004
Chromite	Red Mountain.....	0021040001
	Claim Point (Seldovia).	0021040002
	Red Bluff Bay.....	0021160001

deposits can begin in 1982. These will include engineering and economic studies to update the Bureau's Minerals Availability System, if the estimated grade and tonnage of a deposit warrant.

In the reconnaissance phase, priority will be given to occurrences reported by the U.S. Geological Survey in quadrangles completed under the Alaska Mineral Resource Assessment Program.¹⁴ Priority for the more detailed investigations will be given to occurrences in areas closed to mineral entry. To avoid duplication of effort, low priority will be given to deposits or areas where industry is currently exploring or likely to explore. However, a subprogram will be initiated to review industrial exploration and analyze gold placer concentrate samples or other selected mineral samples that may be donated by mine operators.

¹⁴A continuing program to map geology and mineral information on 1:250,000-scale quadrangle maps.

REFERENCES

1. Arctic Environmental Information and Data Center, University of Alaska. Mineral Terranes of Alaska: 1978 Series (1:1,000,000-scale map series). 1979, 9 pp., 7 maps, bibliography; BuMines contract J0199051; available from AEIOC, Anchorage, Alaska.
2. Brew, D. A., and others (U.S. Geological Survey); A. L. Kimball and others (U.S. Bureau of Mines). Mineral Resources of the Glacier Bay National Monument Wilderness Study Area, Alaska, 1978. U.S. Geol. Survey Open File Rept. 78-494, 1978, 731 pp.
3. Brobst, D. A., and W. P. Pratt (ed.). United States Mineral Resources. U.S. Geol. Survey Prof. Paper 820, 1973, p. 541.
4. Bundtzen, T. K., G. R. Eakins, and J. T. Dillon. Strategic and Critical Metals in Alaska - An Overview. Alaska Division of Geological and Geophysical Surveys internal report, 1980, p. 38; available for reference at Alaska Division of Geological and Geophysical Surveys, College, Alaska.
5. Cobb, E. H. Chromite, Cobalt, Nickel, and Platinum Occurrences in Alaska. U.S. Geol. Survey Miner. Investigations Resource Maps MR-8, 1960; MR-61, 1975; MR-64, 1975; MR-68, 1975.
6. Clautice, K. H. Mineral Deposits of the Kanuti River Area: A Summary Report. BuMines Open File Rept. 66-78, 1978, 15 pp., available for reference at the Office of the Director, Division of Mineral Land Assessment, Bureau of Mines, Washington, D.C.; Bureau of Mines facilities in Anchorage, Fairbanks, and Juneau, Alaska; and the National Library of Natural Resources, U.S. Department of the Interior, Washington, D.C.
7. Czamanske, G. K., J. Haffty, and S. W. Nabbs. Platinum Group Element Analyses and Response to Beneficiation for Mineralized Mafic Rocks from the Crillon-LaPerouse Layered Gabbro, Alaska. U.S. Geol. Survey unpublished report, 1980, 28 pp.; available from AFOC, Bureau of Mines, Fairbanks and Juneau, Alaska.
8. Holt, S. P. and J. M. Moss. Exploration of a Nickel-Copper-Cobalt Deposit at Funter Bay, Admiralty Island, Alaska. BuMines RI 3950, 1946, 15 pp.
9. Jansons, U., and D. W. Baggs. Mineral Investigations of the Misheguk Mountain and Howard Pass Quadrangles, Alaska. BuMines Open File Rept. 38-80, 1980, 76 pp.; available for reference at the Office of the Director, Division of Mineral Land Assessment, Bureau of Mines, Washington, D.C.; Bureau of Mines facilities in Anchorage, Fairbanks, and Juneau, Alaska; and the National Library of Natural Resources, U.S. Department of the Interior, Washington, D.C.
10. Jansons, U., and M. A. Parke. 1978 Mineral Investigations in the Misheguk Mountain and Howard Pass Quadrangles, Alaska. BuMines Open File Rept. 26-81, 1981, 195 pp.; available for reference at the Office of the Director, Division of Mineral Land Assessment, Bureau of Mines, Washington, D.C.; Bureau of Mines facilities in Anchorage, Fairbanks, and Juneau, Alaska; and the National Library of Natural Resources, U.S. Department of the Interior, Washington, D.C.
11. Mertie, J. B., Jr. Economic Geology of the Platinum Metals. U.S. Geol. Survey Prof. Paper 630, 1969, 120 pp.
12. Mowatt, T. C. Platinum Deposits of the Goodnews Bay District, Alaska. U.S. Geol. Survey Bull. 910-B, 1937, p. 120.
13. Metals Week. Platinum Production Will Resume. V. 52, No. 24, June 15, 1981, p. 3.
14. Mowatt, T. C. Alaskan Mineral Deposit-Types of Potential National Significance: I. Ultramafic-mafic igneous rocks related to chromium-platinum-group elements-nickel-cobalt-copper mineralization. BuMines internal report, 1980, 15 pp.; available for reference at Bureau of Mines facilities in Juneau, Alaska.
15. Mowatt, T. C. Alaskan Mineral Deposit-Types of Potential National Significance: II. Some general considerations regarding cobalt mineralization. BuMines internal report, 1980, 24 pp.; available for reference at Bureau of Mines facilities in Juneau, Alaska.
16. Thayer, T. P. Chromium. Ch. in United States Mineral Resources. U.S. Geol. Survey Prof. Paper 820, 1973, pp. 111-121.
17. U.S. Department of Energy and U.S. Bureau of Mines. Report on Mineral Resource Investigations in Six Areas of Central and Northeastern Alaska. DOE/GJBX OFR 33-80, 1980, 186 pp.
18. Mowatt, T. C. Report of Analyses From Mineral Resource Investigations in Central and Eastern Alaska. DOE/GJBX OFR 178-81, 1981, 148 pp.
19. U.S. Geological Survey and State of Alaska, Department of Natural Resources. Mineral and Water Resources of Alaska. Report prepared at request of Senator Ernest Gruening, Committee on Interior and Insular Affairs, U.S. Senate, 88th Cong., 2d sess., Committee Print, 1964, p. 179.
20. U.S. Senate. Statements by Senator Ted Stevens on Brady Glacier nickel deposit. 94th Cong., 2d sess., Congressional Record, v. 122, No. 12, Feb. 3, 1976, pp. 1112-1113.
21. Vhay, J. S., D. A. Brobst, and A. V. Heyl. Cobalt. Ch. in United States Mineral Resources. U.S. Geol. Survey Prof. Paper 820, 1973, pp. 143-155.

The Honorable Cliff Davidson, Chairman,
House Resources Committee,
Alaska Legislature,
P.O. Box V,
Juneau, Alaska. 99811.
(907) 465-2418 [FAX]

2/11/1990

Chairman Davidson:

INTRODUCTION

I write this letter to you for purposes of explaining my thoughts on HB 332, "An act establishing the Goodnews Bay Critical Habitat Area; and providing for an effective date."

I am a former fisheries biologist who worked with various state and federal agencies in the State of Alaska between 1964 and 1984. One of those positions was as a forage fish biologist for Outer Continental Shelf studies in the Bristol Bay southern Bering Sea area including Goodnews Bay between 1976 and 1979. For one of those years, we were partially funded by the North Pacific Fisheries Council. At that time, like now, I resided in Kodiak and worked for the Alaska Department of Fish and Game.

My activities with the project terminated because my PCN was transferred to Anchorage, and I voluntarily moved to another general fund project with the ADF&G to remain resident in Kodiak. Subsequent to my fisheries career, I changed professions and I'm now a College Instructor at Kodiak College.

During my studies of forage fish, I co-directed activities on the ground; these were basically limited to AWL studies completed by field crews and myself. The aerial survey portion of the study was conducted by myself, and during the year of NPFC funding, other state biologists.

Please be advised that I'm making the testimony on short notice, and since I'm temporarily on creative leave in the State of Washington, I'm separated from all of my annual and quarterly reports and charts; hence, I'm forced to work by memory.

PERSONAL OBSERVATIONS

During my activities I flew aerial surveys into Goodnews Bay between six to ten occasions. In 1978 I had a field crew posted at Security Cove, which is comfortably within the migratory range of all the forage fish I shall discuss.

During two surveys in Goodnews Bay I observed spawning herring, and on two occasions I observed stranded male capelin (spawned out) on the outside of the spit where the store is located. On the first occasion that I observed herring in Goodnews Bay, I estimated the school to be approximately 15-20 tons; on the second occasion, I observed herring actively spawning, and the school(s) were larger than my first sighting by a factor of two or three. Sighting capelin schools on the outside of Goodnews Bay was a frequent experience, as was large schools of herring and/or forage fish between Security Cove and Namvak Bay.

The common resident forage fish of this area that were sampled consists of five species: 1) Pacific herring, 2) capelin, 3) boreal smelt, 4) eulachon, 5) sand lance. There are other forage fish species present, but I cannot state if they are resident in large numbers.

From my own observations, I conclude that the dominant

species of forage fish inside Goodnews Bay and immediately outside it are herring and capelin. Though I suspect that boreal smelt and sand lance are vital, I cannot state that with any certainty.

I have witnessed marine mammals and birds feeding on forage fish resources inside Goodnews Bay and between Cape Nevenham and Goodnews Bay on hundreds of occasions, (e.g. gulls, kittiwakes, murre, cormorants, grey whales, and various pinnipeds and cetaceans which I could not identify.) Additionally, numerous marine crustaceans feed upon forage fish carcasses, (e.g. isopods [marine sow bugs], amphipods [sand fleas], copepods [fish lice], decapods [crabs & shrimp], etc.).

COMMENTARY

I believe it is poor policy to legislate resource and habitat management on a regional level; also, I think it is poor policy to alter state statutes for each user group conflict that occurs. Clearly, domestic platinum resources are rare and the industrial need for platinum is established. Mr. Smith's testimony indicates that all the platinum production in the Goodnews Bay area since 1935 has roughly equaled a single year's production of that metal from the U.S.S.R. and the United Kingdom, not including the Republic of South Africa which greatly exceeds all the former. I wonder if these figures adequately support the significance of this area as a platinum producer?

Forage fish are a clear and established contributor to the food chain in the Bristol Bay area, as well as north of Cape Nevenham. They are primary forage for many species of finfish, including several species of salmon which are critical commercial species in this area. My surveys between 1976 and 1979 clearly indicate that Alaska Natives utilized herring and capelin resources for subsistence purposes. Other studies, both before and after my activities, have established this. Pacific herring is an important commercial species in its own right, and capelin's commercial importance is now in the developmental stage.

Early in this century estuaries became recognized by many biologists and oceanographers as irreplaceable contributors to the primary productivity of continental shelf areas. The steady decline of total estuarine acreage and/or their pollution in the United States and abroad has become a high-profile environmental problem for all policy makers in coastal governments.

Goodnews Bay is one of the many valuable estuaries that contribute to the Bristol Bay area. In fact, it is the sheer number of these estuaries that powers the ecological mechanisms supplying the large amounts of feed needed to support the massive population of juvenile sockeye salmon that have become such an irreplaceable contributor to our state's economy. The loss or compromise of one of these estuaries, I feel, is something your committee should approach with the utmost caution.

CONCLUSION

I think there should be a state estuarine advisory group mandated; this might avoid some of the problems that have immediately preceded the introduction of this bill. Such a

other coastal areas. Experience with such advisory groups, I feel, is positive.

Is there presently a State estuarine policy statement and/or guidelines in existence? If there is, how does it apply in the present situation? If there is not, one should definitely be developed ASAP.

In view of the evident immediacy of dredge activities in Goodnews Bay, I support the passage of HB 332. I do this despite my stated reservations because of the environmental reasons stated in the discussion section of this testimony. I would advise--if possible--that a sunset provision be inserted in the bill by amendment, especially if workable mechanisms come into existence that will address user group conflicts in respects to environmental concerns.

Thank you for your time, Mr. Chairman. If there are any further questions, I would be happy to be of service.

IRVING M. WARNER



[Permanent]
BOX 3073,
Kodiak, Alaska.
99615

[Temporary]
381 Farnsworth Place,
Sequim, WA. 98382

Bruce Baker
Deputy Director
Habitat Division
Department of Fish and Game

February 5, 1990

267-2342

Heavy Metals -
Goodnews Bay

Kim Sundberg
Habitat Biologist
Region II
Habitat Division
Department of Fish and Game

The following is some information concerning the potential for mercury, cadmium, and arsenic contamination related to possible offshore platinum dredging in the Goodnews Bay area. Concerns about this issue were raised during review of the Division of Mining's preliminary best interests finding for pending Offshore Prospecting Permit applications by Karin Sheardown and associates and more recently during House Resources consideration of HB332 creating the Goodnews Bay Critical Habitat Area.

Dredging

Marine dredging including offshore mining can release trapped minerals and mineral compounds containing mercury, cadmium, and arsenic. These substances can enter the food web and impact marine animals and people who consume marine animals. Mercury, cadmium, and arsenic frequently occur in sediments contaminated by industrial wastes (including agricultural and urban wastes) and may be present in sediments in non-industrialized areas such as the Goodnews Bay region, as naturally occurring minerals. In general, dredging in industrialized areas has proven to be a greater problem with releasing mercury, cadmium, and arsenic to the environment than dredging in non-industrialized areas because the concentrations of these substances are usually higher in waste contaminated sediments and they occur in molecular forms that can more readily enter the food web.

Surficial sediment data for the Goodnews Bay area (Barker and Lamal, 1988) indicate that cinnabar (the mineral form of mercury) is present in some of the marine sediments tested in the Goodnews Bay region. Cinnabar was found at about six sample sites that were correlated with glacial deposits offshore of Flat Cape that may constitute overburden over placer deposits of platinum group metals (PGM). Pyrite, which is a mineral carrier of arsenic was found in some of the samples. The tests did not reveal mineral forms of cadmium at any of the sites although the analysis did not look specifically for this element (Jim Barker, pers.

Bruce Baker

-2-

February 5, 1990

comm.). Presently, there is insufficient data to determine whether mercury, cadmium, or arsenic occur in concentrations or molecular compounds that could cause problems for marine animals and humans if they were disturbed by dredging.

Westgold

Westgold has operated an offshore gold dredge in the Nome area since 1985. Cinnabar is present in significant concentrations in marine sediments in the Nome area and monitoring of mercury and other priority pollutants including cadmium and arsenic has been a requirement of Westgold's EPA/DEC waste discharge permit since the beginning of the project. Monitoring of disturbed sediments, water, king crab, and other benthic invertebrate tissue has been accomplished. Recently, caged blue mussels have been added to the monitoring program because of their ability to serve as bioindicators of pollution. Preliminary data do not indicate a significant increase in either mercury or cadmium in the environment resulting from Westgold's operations (Bob MacLean, pers. comm.). Occasional increases in arsenic have been detected but the source of arsenic has not been isolated.

Biological Concerns With Mercury (taken from Eisler, 1987)

- * Mercury and its compounds have no biological function, and the presence of the metal in the cells of living organisms is undesirable and potentially hazardous.
- * Forms of mercury with relatively low toxicity can be transformed into forms of high toxicity, such as methylmercury, through biological and other processes.
- * Mercury can be bioconcentrated in organisms and biomagnified through food chains.
- * Mercury is a mutagen, teratogen, and a carcinogen, and causes embryocidal, cytochemical, and histopathological effects.
- * Some species of fish and wildlife contain high concentrations of mercury that are not attributable to human activities.
- * Anthropogenic use of mercury should be curtailed, as the difference between tolerable natural background levels of mercury and harmful effects in the environment is exceptionally small.

It should be noted that persons who consume large amounts of seafood, including residents of Western Alaska have been found to contain high levels of mercury relative to persons

Bruce Baker

-3-

February 5, 1990

who eat less seafood and have not been exposed to other forms of mercury contamination. Marine mammals in the Bering Sea such as seals have also been found to contain significant amounts of mercury. These high levels have been attributed to bioaccumulation of naturally occurring mercury in the Bering Sea. The presence of mercury in marine animals and in coastal residents argues for prudent regulation and continued monitoring of activities which could potentially contribute to increased mercury levels in the environment. At present, it appears that more detailed analysis of sediments and indigenous bioindicator organisms such as blue mussels in the Goodnews Bay area could provide meaningful indications of background levels and whether problems are likely to occur as a result of offshore mining. At any rate, monitoring for priority pollutants including the use of bioindicator organisms should be one of the requirements for offshore mining in this area.

Literature cited

Barker, J.C. and K. Lamal. 1988. Placer platinum-group metals offshore of the Goodnews Bay Ultramafic Complex, Southwest Alaska. OFR 53-88. U.S. Department of Interior, Bureau of Mines. 60 pp.

Eisler, R. 1987. Mercury hazards to fish, wildlife, and invertebrates: a synoptic review. Biological Report 85(1.10), Contaminate Hazard Reviews Report No. 10. U.S. Department of Interior, Fish and Wildlife Service. 90 pp.

cc: Lance Trasky
Debby Clausen
John Oscar
Bob MacLean

COPELAND, LANDYE, BENNETT AND WOLF

A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS
ATTORNEYS AT LAW

550 WEST SEVENTH AVENUE, SUITE 350
ANCHORAGE, ALASKA 99501

PHONE: 276-9152

FACSIMILE: 276-9433

OREGON OFFICE

3500 FIRST INTERSTATE TOWER
PORTLAND, OREGON 97201
PHONE: 224-4100

MARK G. COPELAND, P.C.
THOMAS W. LANDYE, P.C.
J. DAVID BENNETT, P.C.
DAVID P. WOLF, INC.
ROBERT B. MCKINIS, P.C.
RICHARD L. BADLER, P.C.
RANDALL I. DUNN, P.C.
JAMES S. CRANE, INC.
ROBERT H. ROME, JR., INC.
MITCHEL R. COHEN, P.C.
DAVID L. SLOUNT
DAVID S. CASE, P.C.
DAVID N. GOULDER
STEPHEN RUSSELL III
MARK J. DAVIS
MARGOT POZNANSKI

ALASKA STATE BAR
ALASKA STATE AND OREGON STATE BARS
WASHINGTON STATE AND OREGON STATE BARS
ALL OTHER OREGON STATE BAR ONLY

January 29, 1990

BY TELEFAX

The Honorable Cliff Davidson, Chairman
House Resources Committee
Alaska Legislature
P.O. Box V
Juneau, AK 99811

Dear Mr. Davidson:

RE: HB 332 (Goodnews Bay and Vicinity Critical Habitat)

I am writing at the request of Representative Lyman Hoffman's office regarding your committee's review of HB 332, a bill to establish "critical habitat" in the vicinity of Goodnews Bay. The bill was introduced last year in response to a proposal from the Department of Natural Resources ("DNR") to dispose of submerged lands in the vicinity of Goodnews Bay for platinum exploration and possible offshore mining. I am the attorney for Kuitsarak, Inc. the ANCSA village corporation for Goodnews Bay, and submitted extensive comments about the proposal last year to DNR on behalf of Kuitsarak, Inc. See my letter of May 8, 1989 to Kerwin Krause.

HB 332 would establish the Goodnews Bay Critical Habitat Area under A.S. 16.20.500 et seq. The area to be designated as "critical habitat" under the bill would include all the submerged lands which are now under consideration for disposal by DNR for offshore platinum exploration and mining. Kuitsarak, Inc. supports HB 332, not because the corporation is opposed to development in the vicinity of Goodnews Bay, but because it supports the current development of Goodnews Bay based on sport, commercial and subsistence uses of renewable fish and wildlife resources. Pursuant to A.S. 16.20.500, HB 332 would:

protect and preserve habitat areas especially crucial to the perpetuation of fish and wildlife, and to restrict all other uses not compatible with that primary purpose.