SB

164

COMMITTEE REPORT

SENATE

2/6/81

FURTHER: Finance

Date: _____

Mr. President:

The Committee on RESOURCES has had SB 164

making a special appropriation to the Dept. of Natural Resources for completio of the analysis of certain geochemical samples

under consideration and (a majority of the committee) (the committee) reports it back with the following recommendations:

[X] do pass [ ] do not pass

[ ] do pass with attached amendments(s)

[ ] replace with CS for _____ [ ] same title [ ] new title

and recommends _____

[X] AND attaches a "Letter of Intent" [ ] New Fiscal Note

[ ] reports it back without recommendation

[ ] referred to the _____ Committee

MEMBERS SIGNING DO PASS

V. Fischer

MEMBERS HAVING OTHER RECOMMENDATIONS:

Phillip Schlumberger

CHAIRMAN

S 60 (Rev. 12/78)

February 13, 1981

Mr. Gene Rutledge
Research Director
Pacific Polar Rims
6930 Oakwood Drive
Anchorage, Alaska 99507

Dear Gene:

I have just had a chance to glance at the notes you made on your "Biographical Sketch," and thought I'd comment on a couple of them.

Yes, I was at Oak Ridge in 1943, but not at Y-12--I was with Stone and Webster.

From 1946 to 1948 I was attending the University of Tennessee, and graduated in 1949.

What a small world we live in--Hope to see you before too long.

Sincerely,

Bettye Fahrenkamp
Alaska State Senator

BF/ra

Alaska State Legislature SB164

BETTYE FAHRENKAMP, CHAIRMAN
VIC FISCHER, VICE CHAIRMAN
BRAD BRADLEY
DICK ELIASON
DON GILMAN
BOB MULCAHY
ARLISS STURGULEWSKI

POUCH V
STATE CAPITOL
JUNEAU, ALASKA 99811
(907) 465-3834
(907) 465-3835

Senate

Committee on Resources

January 30, 1981
11:00 a.m.

Beltz Room
211 Capitol

MEMBERS PRESENT	MEMBERS ABSENT
SENATOR FAHRENKAMP	SENATOR FISCHER
SENATOR MULCAHY	SENATOR BRADLEY
SENATOR ELIASON	
SENATOR GILMAN	
SENATOR STURGULEWSKI	

The Committee was briefed on the need to complete the analysis of geochemical samples by Dr. Gene Rutledge, Energy Scientist and. Dr. Thomas A. Weaver, Group Leader, Los Alamos Scientific Laboratory.

Dr. Gene Rutledge indicated that the Department of Energy plans to phase out the Hydrogeochemical and Stream Sediment Reconnaisance program. 18,000 water and sediment samples at about 9,000 separate locations have been taken in Alaska on some lands where it is now impossible to obtain such samples because of the recent land withdrawals. The samples were scheduled to be analyzed for 44 different elements. There is enough money to analyze a few more samples. It is only one-half of the amount needed. He urged the Committee to support an appropriation of $800,000 as matching funds to finish analyzing the samples.

Dr. Thomas A. Weaver showed the Committee slides of the Laboratory facilities and the types of work they produce. He indicated that the geochemical data from Alaska they are working on can compliment the work being conducted by the Department of Natural Resources Division of Geological and Geophysical Surveys. If the samples are shipped to archives, they will most probably be lost forever for scientific purposes.

The motion was made by Senator Mulcahy to have the Committee sponsor a bill appropriating the funds. With no objections the motion passed.

Alaska State Legislature

Senate

Official Business

RESOURCES COMMITTEE

MEMORANDUM

Pouch V
State Capitol
Juneau, Alaska 99811

TO: Senate Resources Committee members

FROM: Jim Palmer
Senate Resources Committee Staff

DATE: February 2, 1981

RE: LASL proposal to Committee

Last Thursday, January 29, an informal meeting was held in the Senate Resources Committee to hear a presentation from Dr. Weaver from the Los Alamos Scientific Laboratory (LASL) on the laboratory's proposal for analysis of geochemical samples from the State of Alaska.

Dr. Weaver gave the committee members present a presentation of what geochemical work has taken place in Alaska over the last few years and what is the current status of the research. Briefly, the project needs a matching $800,000 from the State in order to complete its work.

Since a quorum of the committee was present, a motion was passed instructing the committee staff to prepare legislation authorizing and appropriating this money to the project. This motion in no way indicated the support or non-support for this legislation but did indicate the desire of the committee members to take a serious look at this proposal.

This legislation and other preliminary research is currently underway.

Attached is additional information on this subject for your use.

JAN 29 1981

January 23, 1981

Senator Bettye Fahrenkamp
Chairman, Senate Committee on Natural Resources
Pouch V
Juneau, Alaska 99801

Dear Senator Fahrenkamp:

Per the requests of Jennifer Johnston of your office in Fairbanks and Dr. Gene Rutledge in Anchorage, I am forwarding the following information for your use.

The Los Alamos National Laboratory has submitted a proposal to Ross Schaff's office in Anchorage requesting State of Alaska funding to complete the analysis of samples collected in Alaska under the US Department of Energy's National Uranium Resource Evaluation (NURE) program. The hydrogeochemical reconnaissance portion of NURE is being phased out of the program during FY 81 due to Federal budget cuts. As a result, major quantities of the Alaskan samples (many of them from National Park lands) will probably not be analyzed and reported in a manner consistent with past NURE data because of the reduced funding this year. These samples and the resulting analyses are extremely valuable to the State as they provide information relating to natural resources (the sediment samples are analyzed for more than 40 elements of economic and geologic importance), environmental studies, and policy decisions relating to both.

→ Committee members have copy

Enclosed are 1) a copy of the proposal submitted to Ross Schaff, 2) an updated status map for the hydrogeochemical reconnaissance portion of NURE in Alaska (showing also the areas that we plan to analyze with the limited DOE funding available), and 3) a copy of our recent report on the Dixon Entrance quadrangle, AK. } available in Resource committee

The funding we are requesting from Alaska ($800,000) will guarantee the state as deliverables:

1) Complete anlysis of all NURE sediment samples taken in Alaska

2) Hard copies of all field and analytical data for these samples (such as given in Appendix I of the Dixon Entrance report enclosed)

3) Hard copies of the 1:250,000-scale sample location maps for all areas sampled (e.g., Plate II in the Dixon Entrance report)

While we cannot provide with the $800,000 requested complete reports such as the Dixon Entrance report, at least the data will be available in Alaska for the State's use.

I look forward to being able to discuss this proposal with you and your committee on either 29 or 30 January 1981.

Sincerely,

Thomas A. Weaver

Thomas A. Weaver
Group Leader, G-4
Resource Characterization

TAW:jab

xc: Gene Rutledge, Anchorage, AK, w/ enc.

2-9-81

GENE RUTLEDGE
RESEARCH DIRECTOR

Pacific Polar Rims

6930 OAKWOOD DRIVE
ANCHORAGE, ALASKA 99507
(907) 349-4979

February 3, 1981

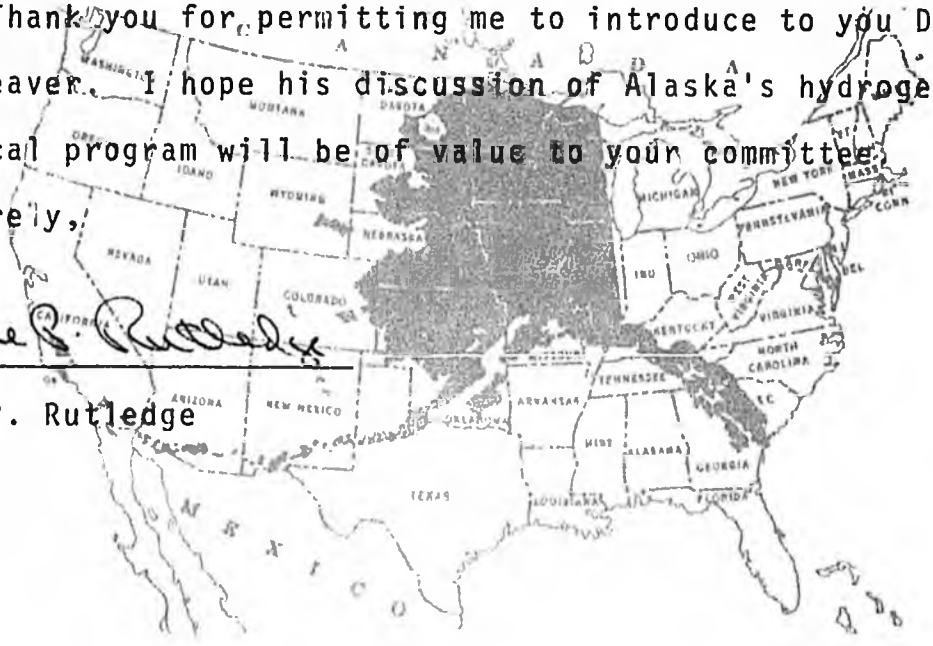
Senator Bette Fahrenkamp, Chairman
Senate Natural Resources Committee
Alaska State Senate
Juneau, Alaska

Dear Senator Fahrenkamp:

Thank you for permitting me to introduce to you Dr. Tom Weaver. I hope his discussion of Alaska's hydrogeochemical program will be of value to your committee.

Sincerely,

Gene P. Rutledge



BIOGRAPHICAL SKETCH OF GENE P. RUTLEDGE

Address: 6930 Oakwood Drive, Anchorage, Alaska 99507 – Telephone: (907) 349-4979

Wife: Louise Children: Eddy, Preston, Leigh, Erin Hobbies: Skiing, Hunting, Fishing, Baseball

EDUCATION AND UNIVERSITY ACTIVITIES

Year	University or College	Degree	Subject
1942-46	Wofford College, Spartanburg, S.C. (Jr. year at Clemson University)	B.S.	Science with Chemistry Major
1946-48	University of Tennessee, Knoxville	M.S.	Physical and Inorganic Chemistry. Thesis: Thermal Expansion of Organic Liquids
1948-60	(Following work hours) Univ. of Tenn., Ohio Univ., Goodyear, Bettis & Pitt.	None	Miscellaneous: Chemistry, Physics, Geology Nuclear Engineering, Business Admin.
1965-66	University of Idaho	--	Thesis advisor for UI-W student
1971	Wofford College	Sc.D.	Honorary Doctor of Science
1977-now	Alaska Pacific University and University of Alaska	..	Praxdemician, Professor, Instructor and lecturer on Alaska's Energy Resources

PROFESSIONAL ORGANIZATIONS

American Institute of Chemical Engineers
American Nuclear Society
American Chemical Society
Society of Sigma Xi

Listed: American Men of Science
International Who's Who in Atoms
Who's Who in America
World's Who's Who in Commerce and Industry

PUBLICATIONS

Journal of American Chem. Soc. 75, 5762 (1953)
Review Scientific Instr.24, No.6 431-432, June (1953)
Journal of Physical Chem. 57, 541, (1953)
Journal of Physical Chem. 58, 543 (1954)
Journal of Heating, Piping & Air Cond., Feb. (1956)
Nuclear Science & Engring., Vol.4, P.530 (1958)
Journal of Physical Chem. 63, 166(1959)
Industrial & Engring. Chem. Vol.51, P.203 (1959)
Trans. of the ANS, Vol. 3, No. 1, June (1961)
Bettis Technical Review, May (1962)
AIChE Nuclear Symposium, Dec. (1962)
Nuclear Applications, Vol. 2, (Dec. (1966)
(Book) Editor, Nuclear Engineering, Dec. (1965)
Annual Report - Idaho Nuclear Energy Commission (INE) 1968-1976
Transactions: (Documentation of Information Meeting)
Thorium - Salmon, September 18, 1968
Thermal Effluent - Boise, July, 1970
Isotopic Snow Gauge - Sun Valley, Oct.28, 1970
Agronuclear - Twin Falls, Oct. 27-28, 1971
Uranium Enrichment (WINB) (1973)
Analysis of the Economics of Coal versus Nuclear For a Power Plant Near Boise, Idaho (1976)
D. Boon 1776, War Has Two Sides (1976) Drama
Alaska's Energy Resources; Phase 1, Vol. i & ii; Phase 2, Vol.I, II, & III. (Project Leader & Coauthor)

EXPERIENCE

Year	Type Work	Employer/Location	Job Description
1948-56	Research and Development (Chemist); Design Coordination and Project Engineering (Engineer); Supervisor, Engineering Dept.	Union Carbide, Oak Ridge, Tenn., and Goodyear, Portsmouth, Ohio – Both under AEC contract.	*Research in fluorine and uranium chemistry, isotope separation, and design of laboratory facilities (Carbide). Process, project and applied engineering associated with gaseous diffusion cascade, uranium accountability, and plant start-up (Goodyear)*
1956-67	Various staff and management positions in metallurgy, physics, math, and nuclear engineering.	Westhinghouse, Bettis at Pittsburg, NRF at Idaho Falls, Idaho.	*Research, Development, Design, Analysis, Testing of Pressurized Water Nuclear Reactors for Power and Submarine Propulsion. Westinghouse commendation for role in (secret) proof-of principle test.*
1967-76	Idaho Nuclear Energy Commission, Office of Nuclear Energy Development (Executive Director) Board of Directors, Western Interstate Nuclear Compact, 1969-1976.	State of Idaho Registered energy lobbyist. Hosted over 200 television programs on energy.	*Advance nuclear possibilities by stimulating interest of industry, agriculture, education, advise the Governor, sponsor studies, collect and disseminate information, administer contracts, geothermal, solar, wind, hydrogen research, augment federal base with a healthy private enterprise component.*
1976-now	Energy scientist, Office of the Governor and DEPD, and consultant.	State of Alaska and Pacific Polar Rims, Anchorage, AK.	*Compiled Alaska's energy resources, operations, and issues (see attachment).*

ALASKA EXPERIENCE – Gene P. Rutledge

DATE POSITION TITLE	JOB DESCRIPTION
1968 – 1976: Board member, Western Interstate Nuclear Compact	Charter member, Board of Directors of Federal/State Western Energy Compact representing State of Idaho. Counterpart was Lt. Gov., namely, Bob Ward, then Red Boucher and then Lowell Thomas, Jr. Made several energy related trips to Alaska from Idaho. Moved to Alaska in July, 1976. Represented State of Alaska at one meeting in Denver in 1976.
1976 – Dec. 1978 Project leader, Alaska Regional Energy Resource Planning Project, Office of the Governor and later Division of Energy and Power Development	The project involved the following energy resources: oil and gas (onshore and offshore), coal, hydro, uranium, geothermal, wind, tides, wood, solar, oil shale, peat, waste heat; the following operations: exploration/discovery, development/recovery, storage, transportation/transmission, processing/generation, end use, decommission/reclamation; the following issues: economic, social, environmental, governmental, conservation and technology. Co-authored huge multi-volume report "Alaska's Energy Resources" which is in strong demand and is used as a textbook by two universities. Inspected coal research and development facilities at Wilsonville, Alabama; Healy, Alaska; Grand Forks, North Dakota; Laramie, Wyoming; Ft. Lewis, Washington, and Fairbanks, Alaska. Inspected oil and gas facilities at Prudhoe Bay, North Pole (refinery), Cook Inlet (Spark Platform and Ocean Ranger Drilling Rig), Kenai (LNG plant Refinery and Petrochemical plant), and Swanson River Field, air inspection near Ketchikan of Bokan Mt. (uranium), hydro sites, Quartz Hill (molybdenum), Thorne Bay (wood) and Kassan (lignite); Agriculture and energy trip to Delta and Fairbanks. Technology assignment to forest products industry in Ketchikan and member of Governor's Interior Alaska Energy Team. Energy presentation to DOE officials and Alaska's congressional delegation (staff) in Washington, D.C.
Dec. 1978 – now Research Director and Owner, Pacific Polar Rims	PPRims addresses energy resources, operations and issues with attention to energy economics, technology and education and special attention to energy public relations. Clients have included Resource Development Council for Alaska, Inc. (conducted an Executive Summary of Natural Gas Reserves in Cook Inlet and met with over 200 key industrial leaders throughout Alaska and the West Coast on a person-to-person basis for program support), Alaska Oil and Gas Association (conducted Public Input Analysis of State of Alaska Coastal Management Program by District) and numerous energy educational organizations. Small contracts with two south 48 engineering firms.

During this time period I met the LASL Scientist from New Mexico —

"Glacier Energy" premiers

Rutledge

Something new has been added to the AJC starting with this issue: "Glacier Energy."

The column is not a new alternate energy source, but articles involving Alaskans and designed to be humorous. The articles will appear about once a month and will usually be energy-oriented, leaving the reader with some worthwhile information.

The Glacier Energy articles are based on the personal experiences of author Gene Rutledge, a well-known Alaskan energy scientist, lecturer and author.

Rutledge has lived in Anchorage since 1976 but as the state of Idaho's representative to the Federal/State Western Energy Compact (formerly nuclear), he has had a close association with Alaskans through his Alaska counterpart, the lieutenant governor in office since 1968.

GLACIER ENERGY

Nome's Aphrodisiac Secret

-by Gene Rutledge

A number of years ago Bill Ogle, Janice Reeve Ogle and I traveled to Nome, Pilgrim Hot Springs and Elim in an effort to explore the possibilities of using the geothermal energy in that part of Alaska.

The past, present and future geothermal activities in these areas are another story, however, during our visit, C.J. Philips invited us to inspect the local reindeer processing facilities, which we did.

In the ensuing conversation, C.J. noted there was a market for reindeer antlers in Japan for their reputed aphrodisiac properties. Apparently a small amount of ground-up reindeer antlers are sometimes served in tea.

I tended to discount such exciting benefits but nonetheless I did wonder whether or not there might be some truth to this belief. I felt that, if indeed such properties existed, it was probably due to some trace element and/or the manner in which some elements are organically contained or perhaps chelated within an organic molecule.

I had no way to determine a complex organic structure but I did have an association with industry and university folks who have a fantastic capability of measuring trace elements by the sophisticated neutron activation technique.

I had been heavily involved in measuring the amount of mercury in pheasants several years earlier and I knew where the nuclear reactors with their special scientific talent existed. I suggested to C.J. that we take a small sample and have it activated in an effort to determine the parts per billion of all trace elements in the antlers. This we did.

The results were not too exciting, or so I thought at the time. Only one element was detected but there was no doubt that this element was in measurable quantities. I sent the results to C.J.

I didn't think too much more about our discovery until a few weeks ago when I read in a newspaper about the important medical sex properties of the very same element! Putting two and two together, I believe the Japanese are on to something.

For those who want to know the name of the element, just drop me a line in care of the AJC or sign up for one of my energy courses at the University.

GLACIER ENERGY

National Energy Policy

by Gene Rutledge

CARTER LACKS FAITH

Throughout Alaska students in the energy field are very interested in our national energy policy. As a feeble attempt at humor I sometimes tell them a funny I stole from Gov. Hammond in Fairbanks several years ago when he addressed an annual meeting of the electrical utility managers in the state.

The liberty of modifying the story for my talks here and there has been taken, especially the characters. With Alaska's land and energy issues weighing heavily upon Gov. Hammond this past week end when he took the president fishing, a repeat seems timely.

It appears that President Carter was strolling down La Boulevard in Mexico with President Jose not too long ago following their discussion of the price Mexico wanted for its natural gas.

The two dignitaries noted a couple of nuns transfering fluid from a bed-pan into what was bowiously an out-of-gas vehicle. Earlier, it seems, the nuns had run out of gasoline and the only container in their auto was a bed-pan, but with a filling station only a block away they decided its use would satisfy their emergency need.

As President Carter looks in astonishment and disbelief at the successful effort of the nuns, he finally turns slowly to President Jose and, looking him straight in the eye, says "I never thought I'd see the day when I'd have to admit the Catholics have more faith than the Baptists."

As a born again Baptist, I can understand that; however, I'm way ahead of President Carter with over 20 years of good solid backsliding under my belt and he hasn't even started yet–or has he? In Alaska there may be some people who think the Antiquities Proclamation was his first sinful backsliding step.

Carter and I do have a few things in comon besides the Baptist connection. We both are has-been nuclear engineer slaves under Adm. Rickover, the so-called father of our nuclear navy. Also a phone call from my Aunt in Atlanta revealed her son was recently appointed by the Carter administration as an assistant cabinet secretary ... certainly is nice to have kinfolk on a payroll, even if it is a government trough.

A visit to Cousin Hobgood in his office quarters a few weeks ago revealed those in high places in Washington have office space somewhat superior to the seventh floor of the MacKay Building in Anchorage.

As for the Fairbanks meeting, my talk was entitled "What or Who shall We Burn Next." We all know what we are going to burn in the future: wood, uranium, the kitchen sink and coal, but who are we going to burn? The who is you so my distinguished audience is told. With the escalating fuel and capital costs, you don't stand a chance.

So what is our national energy policy? A smart alec in the back of the room in my energy class in Juneau, probably a Republican, remarked–have faith and burn energy utility managers.

GLACIER ENERGY

Uranium Enrichment Policy

by Gene Rutledge

Editor's note: Rutledge was a research chemist with Union Carbide at the enrichment plant in Oak Ridge, Tenn. Later he was project engineer and then member of the management team for start-up of the Waverly, Ohio, plant. He has published numerous scientific papers on isotope separation, many of which are still classified secret.

By GENE P. RUTLEDG

Ralph Nader's nuclear energy talks in Alaska some time ago brought back memories of a special encounter with Gov. Bill Egan in Juneau years ago.

I had suggested to Lt. Gov. Red Boucher (at that time we were both members of the Western Interstate Nuclear Board) that Alaska consider funding a preliminary study of the feasibility of a nuclear enrichment plant at Prudhoe Bay fueled by natural gas in order to eliminate the need for a natural gas pipeline.

A uranium enrichment plant can be considered as an "energy packaging and storage facility." The three plants currently in operation in the U.S. are gaseous diffusion (effusion would be technically correct) types.

To oversimplify, these plants 'filter' uranium gas (uranium hexaflouride, which looks like dry ice) so that the 'goodies' come out at the top (uranium 235 hexaflouride) and the 'tails' come out of the bottom of the plant.

Now, it takes the energy in 8,000 barrels of oil to fuel the plant pumps (compressors) to get 1 barrel of the desired enrichment of uranium 235 isotope which is equal in energy to 200,000 barrels of oil.

So much energy is tied up in the uranium that transportation costs are almost zero per energy unit. Oil and gas pipelines cannot make this statement.

On this particular visit, Red took me into the governor's office and we explained to him that 48 million cubic feet of gas will produce 1 barrel of enriched uranium hexaflouride. That is equivalent in energy to 1,240 million cubic feet of gas.

In other words, it is possible to 'package' the natural gas as enriched uranium hexaflouride and fly the stuff out if one wanted. Since the enrichment step is before the nuclear power step, radioactivity is not a significant problem.

The governor was very polite. In fact, he pinned a walrus button on me. As we prepared to leave, he said something to Red. I'm not exactly sure what he said, but I've often wondered if it wasn't something like, "get this fella outta here fast, before he does some real damage."

Technical feasibility of a project is one thing, economic feasibility is another, and I've learned that political feasibility is something else again.

As a footnote, President Carter approved this multi-billion dollar enrichment plant, but chose to gamble on a new-fang'ed centrifuge process. The location is scheduled to be a lean-to joining the old billion dollar plant at Waverly, Ohio — that is unless Sen. Baker becomes Vice President Baker and the action is somehow diverted back to Oak Ridge, Tenn.

GLACIER ENERGY

by Gene Rutledge

Mt. St. Helens 1980; Yellowstone 1996

An old Indian medicine man sits atop the continental divide in 1776 at a location that is now the Idaho/Montana border, not too far from Yellowstone National Park.

His friend, Little Dove, claims he has the gift of the Great Spirit to see tomorrow. the medicine man falls into a trance while talking to two travelers and predicts many future happenings in the general area.

The forecasts include "Snake Indians help white brother to reach Great Sea (Lewis & Clark, 1805)," "White warriors change Indian chief (Chief Joseph 1877)," and the "River runs wild (Teton Dam breaks, June 5, 1976)."

Next the Indian predicts the complete destruction of Yellowstone National Park. The park area swells and erupts as a huge volcano leaving a large deposit of ash in Kentucky and along the East Coast.

The exact words of the Indian are: "over 200 summers from now, there will be a rumble, earth will swell, water that moves east will go west-place of burning rocks will rise like big bubble size of many, many meadows. Bubble burst, those in bubble die-smoke reach stars, smell like many dead buffalo; dust will make no see sky all way to where sun rise out of great waters."

Don't get too excited. The above is in a fiction drama entitled "D Boon 1776, War of Two sides," based on a small book "D. Boon 1776, A Western bicentennial Mystery." The mystery was written by an authoress in 1975 who moved from Idaho in late 1976 to Anchorage where she now lives.

No doubt about it, volcanoes can give off lots of energy, much destruction and death, and massive air pollution. Not only is a shame to see all the Mt. St. Helens energy wasted, but one wonders how much government regulations are going to fine the Great Spirit for exceeding national ambient air quality standards.

For particulate matter in a Class II area (most of Alaska is Class II), the federal prevention of significant deterioration increments is 37 micrograms per cubic meter for a 24-hour maximum (not to be exceeded once per year).

It will be interesting to compare the pollution of Mt. St. Helens with some of the nation's coal-electric generating plants.

On the bright side, the air modeling scientists should have a field day comparing the output of their computer models with the real thing for thousands of miles downwind.

As a final note: just who is the Anchorage authoress mentioned earlier? Answer: Louise, my wife of 30 years.

We married in Knoxville in 1950 – her home was once an Indian trading post on Emory Road

STATE OF ALASKA
DEPARTMENT OF COMMERCE &
ECONOMIC DEVELOPMENT
DIVISION OF ECONOMIC ENTERPRISE
OFFICE OF MINERALS DEVELOPMENT

JAY S. HAMMOND, GOVERNOR

675 7TH AVENUE
STATION A
FAIRBANKS, ALASKA 99701
PHONE: (907) 452-7464

March 16, 1981

MAR 20 1981

Senator Fahrenkamp
Pouch V
Juneau, Alaska 99811

Dear Senator Fahrenkamp:

Re: S.B. 164

I am writing in support of S.B. 164 under your sponsorship which would provide funds for completion of analytical work on a large number of geochemical samples (both water and sediments) by Los Alamos Scientific Laboratory (L.A.S.L.).

The samples collected under the Hydrogeochemical and Stream Sediment Reconnaissance Program (H.S.S.R.) constitute the initial component of a very valuable baseline tool which could provide the State with a large inventory of information with respect to resource evaluation and exploration strategy.

S.B. 164 will provide funding for the analytical work plus hard copy of the generated data base, location maps and magnetic tapes of the information bank. I would emphasize that this is the first vital step of an ongoing process and the real pay-off in terms of identifiable benefit comes with the subsequent synthesis and massaging of the data by sophisticated procedures. It is my understanding that the Division of Geological and Geophysical Surveys within D.N.R. is keen to develop an in-State capability to work this data following orientation (contractual) by L.A.S.L. personnel. There is however no provision to fund this aspect of the work in either the bill or the proposed Geology and Geophysical Survey budget. I would like to see the ability to utilize this technology within the State and since the programs involved have many ongoing applications, future needs of the State could best be served by having ready access to this powerful tool.

I understand that there is a relatively short time fuse insofar as the analytical work is concerned. In approximately 6-8 weeks the facility set up at Los Alamos may be dismantled and the key technicians allocated to other duties. There is therefore the need to move expeditiously in securing passage of the Bill. I believe that this is an important item of legislation and it has my full support subject to provisions that the analyses once determined will be the subject of ongoing studies.

Sincerely,

John Sims
Director

PROJECT TITLE: Statewide Placer/Geochemical Assessment

AGENCY Natural Resources

STATUTORY BASIS: AS 27.05.080

CATEGORY

COVER PROGRAM Mgmt. of Mineral Resource

BRU Minerals & Energy Management

PROJECT DESCRIPTION:
This project will use computor modeling to establish an improved service to miners, prospectors, and interested numbers of the public by establishing a systematic means of evaluating statewide placer, geochemical, and public assay data. The models service will steadily improve as new information is added to the system.

COMPONENT Mineral Development

SHORT FORM PAGE

SOURCE OF REQUEST:

PROJECT LOCATION:

Field work in various areas of the state. Office work in Fairbanks.

OBJECTIVES/POLICIES:

The objective of this project is to provide an effective means of placing assay results from miner's and prospector's samples in the context of district and regional mineralization and to improve the methods of evaluating the significance of the assays for the prospector.

It is the policy of this project that the prospector's data will be supplemented by the available geologis and geochemical data of ADGGS.

DEPARTMENT PRIORITY:

_____ OF _____

GOVERNOR'S ACTION:

INTEREST GROUPS AFFECTED:
Miners, prospectors, Borough governments.

LEAD DIVISION/PROJECT MANAGER:

Div. of Geological & Geophysical Surveys, Milton Wiltse, Chemist V (479-7147)

LEGISLATION/REGULATIONS REQUIRED:

None

SUMMARY OF PROJECT COST:

CODE	EXPENDITURES BY OBJECT	GGS DIVISION	DIVISION	DIVISION	DIVISION	DIVISION	DIVISION	DIVISION	DIVISION	TOTA
100	PERSONAL SERVICES	12.8								12.8
200	TRAVEL	5.8								5.8
300	CONTRACTUAL SERVICES	68.7								68.7
400	COMMODITIES	7.7								7.7
500	EQUIPMENT	25.0								25.0
600	LANDS, BLDGS., ETC.									
700	GRANTS, CLAIMS, ETC.									
800	MISCELLANEOUS									
	TOTAL	120.0								120.
	I-A TRANS. (non-add)									
FED. RECEIPTS - CODE:										
OF MATCH.										
GEN. FUND		120.0								120.
I-A RCPTS.										
PCN RCPTS.										
OTHER										
OTHER										

CAPITAL

DESCRIPTION OF ASSOCIATED CAPITAL COSTS:

All capitol costs are directed towards peripheral computer devices needed to upgrade current data processing equipment to a level at which it can model geochemical and placer data. These devices are primarily memory storage disks and tape storage units.

COSTS TO OTHER AGENCIES

None

PROJECT DURATION/LIFE CYCLE COST:

1982 Continuation

PERSONAL SERVICES DETAIL

PCN/JOB TITLE	LOCATION	DIVISION	SALARY	BENEFITS	NO. OF MONTHS	POSITION CO
NEW/Publication Spec. II	Fbx	GGS	2837	1568	2	7,242
NEW?Clerk Typist II	Fbx	GGS	1475	1439	3	5,864
						13,106
					Less vacancy	327
						12,779

TRAVEL DETAIL	AMOUNT	DIVISION	PURPOSE
	5.8	GGS	On site prospect investigation, consultation on modeling programs.

CONTRACTUAL DETAIL	AMOUNT	DIVISION	PURPOSE
	68.7	GGS	Acquisition of expertise to execute the computor interfacing systems and modeling programing necessary to meet the objective of this project

COMMODITIES DETAIL	AMOUNT	DIVISION	PURPOSE
	7.7	GGS	To purchase disks, drafting supplies, incedental hook up parts, office supplies.

EQUIPMENT DETAIL	AMOUNT	DIVISION	PURPOSE
	25.0	GGS	Hard disk memory, floating point operator, tape drive peripherals.

RESULTS DELIVERED (Narrative)

This project will provide a modern routine procedure for displaying specific miner's prospector's or other public member's assay data in conjunction with pertinent associated data of district of regional extent, and thus improve DNR's service in helping the interested public evaluate mineralization.

RESULTS DELIVERED (Quantified)

DIVISION	MEASURE
GGS	1) An operational connection of the ADGGS Tektronix 4051 graphics system and a larger capacity computer which will allow computer modeling of miner prospectors, and ADGGS assay and geochemical data. 2) A working program for digitizing sample locations, identity, and geochemic data. 3) An assay and geochemical storage, retrieval, and sort program. 4) Three operational geochemical modeling prorams. 5) Graphics display of the modeled data.

POSSIBLE ADJUSTMENTS

UPWARD INCREMENT

RESULT	COST
Upward increments would allow more sophisticated models to be incorporated earlier in this project.	$100,000

DOWNWARD INCREMENT

RESULT	COST
Downward increments would jeopordize the projects ability to purchase the necessary peripheral components or execute the required computer program development.	Any

SUMMARY OF PRIOR YEAR PROJECT COST: GGS

CODE	EXPENDITURES BY OBJECT	DIVISION	DIVISION	DIVISION	DIVISION	DIVISION	DIVISION	DIVISION	DIVISION	TOTAL
00	PERSONAL SERVICES									
00	TRAVEL									
00	CONTRACTUAL SERVICES									
00	COMMODITIES									
00.	EQUIPMENT									
00	LANDS, BLDGS., ETC.									
00	GRANTS, CLAIMS, ETC.									
00	MISCELLANEOUS									
	TOTAL	0								
	1-A TRANS. (non-add)									
FED. RECEIPTS - CODE:										
OF MATCH.										
GEN. FUND										
1-A RCPTS.										
OTH RCPTS.										
CAPITAL										

CHANGES FROM PRIOR YEAR (INCLUDE CIRCUMSTANCES, COSTS, POSITIONS, RESULTS DELIVERED)

New project

tility charge of $200 a month the company could choose to be

EAGLE RIVER

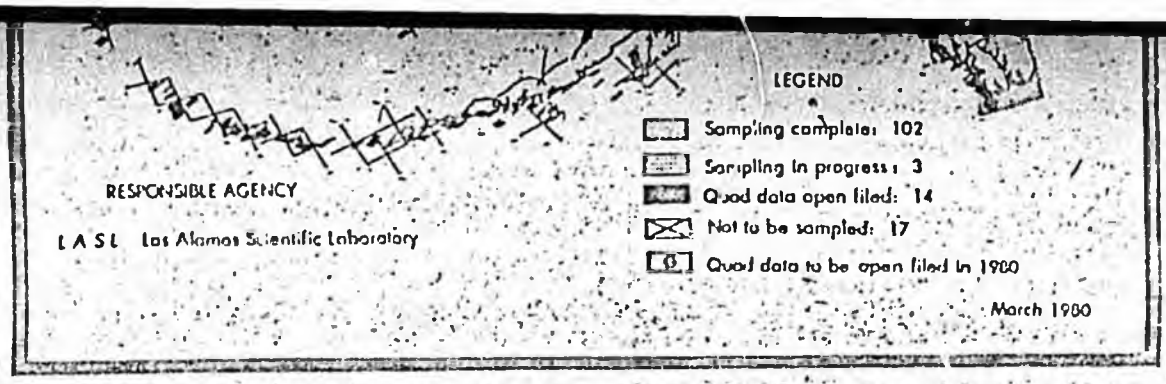
as experienced "phenomenal , says Jackie Russel, director of the Bureau of Census. Despite to planning for census counters, d more residents than expected. ad expected 500, we are finding said.

APAN

l Co. and ARCO Chemical Co. to launch an equally owned joint r production of chemicals from vill supply production know-how. start in the spring of 1982. Test litsubishi, the largest petrochem- , on specially imported raw cal produces more than 300 r petroleum recovery.

ANGELL

Air Service have applied to the Commission for authority to ter air service between Wrangell, itka and Juneau. Camps Inc., the new commuter service would te Airlines,' providing commuter uld continue to operate its air airlines would operate out of ice at Wrangell airport. Barring tion, Camps Inc. spokesmen said this month or early June. A pair r Piper Chieftains are planned for



DOE cancels HSSR, minerals info stopped

By GENE RUTLEDGE
AJC Staff Writer

Another Alaskan resource information tragedy is about to unfold.

The Department of Energy (DOE) plans to phase out the Hydrogeochemical and Stream Sediment Reconnaissance (HSSR) program.

Dr. Robert Sharp of Los Alamos Scientific Laboratory (LASL) supervised the collection of about 18,000 water and sediment samples at about 9,000 separate locations in Alaska on lands where it is now impossible to take such samples because of recent land withdrawals by top federal officials.

The samples were scheduled to be analyzed for 44 different elements including uranium, copper, silver, gold, chromium, cobalt, manganese and titanium.

Now LASL, because of inadequate funding, may be forced to analyze only about 3,000 of the samples.

The above is only the tip of the iceberg. LASL has in hand about 130,000 samples from about 70,000 locations all over Alaska, but only 18,000 samples are to be analyzed. To cover all of the state, another 16,000 locations need to be sampled as originally planned.

Alaska isn't the only state that has been benefitting from DOE's Hydrogeochemical and Stream Sediment Reconnaissance program, which is the collection and analysis of small samples of surface waters, ground waters and stream sediments from the entire U.S.

This national effort involves a total of more than 1 million samples, each of which will be analyzed for their concentration of uranium and other elements. However, only 30 per cent of the nation's million samples now are scheduled to be analyzed.

By the end of 1981, DOE will have spent about $50 million on the HSSR national program. To continue it would take three years and $5 million per year. But compared with an annual DOE budget of more than $11 billion, the $5 million is indeed very modest.

A significant recommendation of the recent Alaska Regional Energy Resource Planning Project report, which was funded by DOE and administered by the state, states:

"A major increase in energy resource exploration (surface and subsurface) should be initiated immediately. Without adequate knowledge of the magnitude, quality and location of Alaska's energy resources, these issues (i.e. land) and other critical energy-related development questions cannot be properly addressed by governmental and private decision makers."

One defense procurement authority recently said "since we import 90 per cent of six or seven strategic materials vital to modern propulsion systems, we are concerned about availability."

Program Background

In 1973, the Resource Division of the U.S. Atomic Energy Commission (now DOE) initiated a 10-year program to assess ore accurately the nation's uranium resources and make available to industry information for use in the development of uranium resources.

This program, entitled the National Uranium Resource Evaluation (NURE), has three primary parts:

- an airborne geophysical survey of the entire country;
- research studies of geologic environments and natural mechanisms that favor uranium concentrations; and,
- a nationwide hydrogeochemical survey of surface and ground waters and water-deposited sediments.

In 1975, LASL, the Oak Ridge Gaseous Diffusion Plant, and the Savannah River Lab were asked to conduct the hydrogeochemical portion of NURE in their respective parts of the U.S.

DOE uses information from HSSR in conjunction with airborne geophysical data and geological data to identify and

Continued on Page 8

STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE COMMISSIONER

POUCH M
JUNEAU, ALASKA 99811
PHONE:

April 12, 1981

The Honorable Bettye Fahrenkamp
Chairman
Senate Resources Committee
Pouch V
Juneau, Alaska 99811

Dear Senator Fahrenkamp:

Some weeks ago, representatives of Los Alamos laboratory contacted you regarding the existence of minerals samples collected under the NURE program. Said representatives stated that the samples covered a large portion of Alaska and would add substantially to our minerals data base if obtained by the State. However, they pointed out that the samples were scheduled for transmittal to the Federal archives because the NURE program had been defunded, and that approximately $800,000 would be required to acquire them. They recommended that the State, through an appropriation generated by your committee, act to take possession of this data before it disappeared into a Federal repository.

Since that time, a number of meetings have taken place with you and your staff, our Department, and members of the mining industry for purposes of determining the relative worth of this data. After the most recent meeting in Fairbanks, it was the conclusion of all participants (including those of the Department of Natural Resources) that this would indeed be a valuable acquisition and would act to foster the development of mining in Alaska. It is the purpose of this letter to formally transmit this conclusion to the Committee.

In acting on the subject bill, we recommend that two statements of intent be attached by the committee. First, we ask that the acquisition of the data be handled through a contract entered into and administered by the Department of Natural Resources through the Division of Geological and Geophysical Surveys with Los Alamos. We would draft the contract to insure that the products delivered by Los Alamos lived up to the promises and representations made by them. Moreover, we would exercise some selectivity in the data acquired (excluding, for example, those areas where we already have detailed data, Federal lands closed permanently to mining, and any Federal lands which will be inventoried by USGS under section 1010 of the d2 legislation) to maximize quality and cost effectiveness.

10-J9LH

Second, at the Fairbanks meeting, DGGS pointed out that acquisition of additional data is presently less problematic than our inability to undertake computer analysis of data so that useful conclusions can be drawn. Consequently, we recommend that the intent accompanying the appropriation authorize DNR to undertake a data processing effort for minerals data analysis consistent with the overall purpose of the acquisition of NURE samples. A project budget form for a Placer/Geochemical Assessment Project is attached to this letter as an expression of our proposal for this effort.

The Department appreciates your solicitation of our advice on this proposed appropriation.

Sincerely,

Jeff Haynes
Deputy Commissioner

Alaska State Legislature

POUCH V
STATE CAPITOL
JUNEAU, ALASKA 99811
(907) 465-3034
(907) 465-3035

Senate

Committee on Resources

April 13, 1981
1:30 p.m.

Beltz Room
Room 211 - Capitol

MEMBERS PRESENT

Senator Fahrenkamp
Senator Fischer
Senator Bradley
Senator Sturgulewski
Senator Mulcahy
Senator Gilman

HEARING:

SB 164 An Act making a special appropriation to the Department of Natural Resources for completion of the analysis of certain geochemical samples.

CSSB 267 An Act making a supplemental appropriation to the Department of Fish and Game for the Tsirku River crib dam and for implementation of the Alaska National Interest Lands Conservation Act.

Phil Holdsworth, Alaska Miners Association, stated that SB 164 provides the funds for the Los Alamos Lab to complete the analysis of the geological samples they collected in Alaska. There is no laboratory in the state as sophisticated as the Los Alamos Laboratory. It is very worthwhile to get the analysis of the samples completed.

Senator Gilman put forth the motion to move SB 164, with the letter of intent, with individual recommendations.

Jim Wickes, Section Chief, Resources and Development, Department of Natural Resources, stated that certain portions of the implementatio process of the Alaska National Interest Lands Conservation Act have specific time deadlines. The supplemental appropriation of $399,300, contained in CSSB 267, is to accomplish: 1) Chugach Study; 2) Bristol Bay Study; 3) North Slope Oil and Gas study; 4) Native allotment review; 5) ANSCA land review; 6) Navigability/ submerged land defense; and, 7) Map production/land status.

Bob Roys, Director, Division of Fisheries Rehabilitation, Enhancement and Development, Department of Fish and Game, stated that the supplemental appropriation contained in CSSB 267 is to repay the Governor's contingency fund, for money spent on the emergency construction of a crib dam on the Tsirku River outside of Haines. The old dike broke last summer and a new dam was built to protect the Chilkat lake.

Senator Mulcahy put forth the motion to move CSSB 267 with individual recommendations.

The Committee was adjourned at 2:05 p.m.

Alaska State Legislature

POUCH V
STATE CAPITOL
JUNEAU, ALASKA 99811
(907) 465-3834
(907) 465-3835

Senate

Committee on Resources

MEMORANDUM

TO: SENATE RESOURCES COMMITTEE MEMBERS

FROM: SENATE RESOURCES COMMITTEE STAFF

RE: BACKGROUND MATERIAL FOR HEARINGS ON SB 164, SB 218, SB 267.

DATE: APRIL 11, 1981

Attached is background material for SB 164 and a proposed committee substitute for SB 267.

SB 218 will not be ready for committee consideration on Monday as it did require legal work which is currently being done by Legislative Affairs.

SB267 is a committee substitute that has been requested by the Governor. As you can see, the original supplemental appropriation of the bill has been dropped and a different appropriation for a different purpose has been inserted. The Dept. of Natural Resources will be testifying on Monday as to the necessity of the appropriation.

LETTER OF INTENT
ATTACHED TO
SENATE RESOURCES COMMITTEE'S
REPORT ON SB 164

It is the intent of the Senate Resources Committee that the acquisition of the data resulting from the analysis of the geochemical samples referred to in the legislation be handled through a contract entered into and administered by the Department of Natural Resources through the Division of Geological and Geophysical Surveys with Los Alamos. The contract should be drafted to insure that the products delivered by Los Alamos live up to the promises and representations made by them. Moreover, the Department of Natural Resources can exercise some selectivity in the data acquired to maximize quality and cost effectiveness.

In addition, the Committee authorizes the Department of Natural Resources to undertake a data processing effort for minerals data analysis consistent with the overall purpose of the acquisition of the NURE samples.

LETTER OF INTENT ON SB 164

BY THE SENATE RESOURCES COMMITTEE

It is the intent of the Senate Resources Committee that the acquisition of the data resulting from the analysis of the geochemical samples referred to in the legislation be handled through a contract entered into and administered by the Department of Natural Resources through the Division of Geological and Geophysical Surveys with Los Alamos Scientific Laboratory. This contract between the Department of Natural Resources and the Los Alamos Scientific Laboratory should include provisions to insure that the Laboratory will fulfill its promises and representations made to both the Senate Resources Committee and the Department of Natural Resources. Moreover, the Department of Natural Resources can exercise some selectivity in acquiring the data to insure the quality of the geochemical samples and to achieve cost effectiveness in the samples' analysis.

In addition, the Committee authorizes the Department of Natural Resources to undertake a data processing effort for minerals data analysis consistent with the overall purpose of the acquisition of the National Uranium Resource Evaluation (NURE) samples.

50-11 MAR 1 P 1981

144

STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS

P.O. BOX 80007
COLLEGE, ALASKA 99708

(907) 479-7147

March 11, 1981

Senator Bettye Fahrenkamp
Pouch V
Juneau, AK 99811 (Mail Stop 3100)

SB164

Dear Senator Fahrenkamp:

Enclosed is a summary of the quadrangles and samples for which Los Alamos is requesting State funding. As you requested we have looked over the list of 32 quadrangles to determine where the information would be most valuable to the State. Ten of these quadrangles (4992 samples), Barrow, Wainwright, Mead River, Teshekpuk, Utukuk River, Lookout Ridge, Ikpikpuk River, Misheguk Mountain, Howard Pass, and Killik River, lie within the National Petroleum Reserve and data from these quadrangles will have little effect on resource evaluation of State lands. Data from the balance of the quadrangles (14,579 samples) might provide information that can be used to assess the State's mineral resources, although the sampling density in these quadrangles is several times lower than is generally taken by industry (e.g. U.S. Borox) or DGGS. Samples that are not analyzed by Los Alamos can be stored by DGGS and be made available for future analyses by either DGGS or industry.

As we discussed in Juneau the raw data provided by Los Alamos will only be useful if DGGS can process and model the information. A DGGS project that would provide a minimum processing and modeling capability is also enclosed.

Sincerely,

Wyatt G. Gilbert

Wyatt G. Gilbert
Deputy State Geologist

Enclosures

cc: Jeff Haynes
Ross Schaff
Milton Wiltse

10J21LH

March 1, 1981

Dr. Milton Wiltse
Alaskan Department of
Geological and Geophysical Surveys
P. O. Box 80007
College, Alaska 99708

Dear Milt:

The enclosed map shows the status of the analyses of the National Uranium Resource Evaluation geochemical sediment samples from Alaska. The samples from areas colored in blue are being analyzed with DOE funds. These will be open filed as data tapes only through the Oak Ridge Data Center. The areas in yellow are those for which there are insufficent DOE funds to do the analyses. These quadrangles would be analyzed by State of Alaska funds if they become available (Table I lists these quadrangles and the approximate number of sediment samples in each quadrangle). There are a total of 19,571 sediment samples in the yellow areas. The final count upon completion of analysis may be as much as 200 samples above or below that number. All quadrangles have an approximately uniform sampling density of one sample location per 23 square kilometers in areas where lakes predominate and one sample location per 11 square kilometers in areas where streams predominate.

With the $800,000 requested from Alaska, we will guarantee the completion of these sample analyses, using the uniform analytical methodologies employed thus far by Los Alamos. We will also provide to the State Geologist's office a hard copy data listing and a 1:250,000-scale, sample-location overlay for each quadrangle in Alaska that has been sampled under this program no matter who paid for the analyses. As you can see, the sample location overlay is one of the end products of analyses and clean up of data; therefore, we are not able to provide at this time a sample location overlay for the quadrangles in Table I. We also believe that for the $800,000 we will be able to complete multielement analysis of those samples that we have analyzed for uranium only to date (green quadrangles in the Seward Peninsula region).

In order to get this response to you as quickly as possible, I am sending you this bootleg copy of the map and table. I anticipate being in Fairbanks on March 11 or 12 and would be able to handcarry the master sampling maps for your perusal.

I hope this answers the questions concerning what Los Alamos will provide the State for the $800,000 requested. If you have further questions, do not hesitate to call me.

Sincerely,

Tom

Thomas A. Weaver
Group Leader, G-4
Resource Characterization

TAW:jab

Enc. As noted

Table I

SEDIMENT SAMPLES TO BE ANALYZED WITH FUNDS REQUESTED FROM THE STATE OF ALASKA

1° x 3° Quadrangle	Approximate Number of Sediment Samples	Comments
Barrow	90	
Wainwright	209	
Meade River	579	
Teshekpuk	474	
Harrison Bay	239	
Beechey Point	214	
Point Lay	124	
Utukok River	479	
Lookout Ridge	599	
Ikpikpuk River	664	
Umiat	499	
Sagavanviktok	564	
Point Hope	299	
DeLong Mtns.	630	SE corner unsampled
Misheguk Mtn.	629	Southern half unsampled
Howard Pass	629	Southern third unsampled
Killik River	639	Southern third unsampled
Chandler Lake	499	Southern half unsampled
Coleen	630	
Shungnak	756	
Bettles	923	
Black River	631	
Kateel River	756	
Melozitna	668	
Tanana	669	
Circle	1340	
Charley River	1340	
Nulato	700	
Ruby	700	
Kantishna River	499	
Ophir	700	
Iditarod	1200	
TOTAL	19,571	

Volume 4, Number 19
36 Pages
Week of May 12, 1980
Price: $1.00 - U.S.
$1.25 - Canada

Who's Who
in Transportation
Bus & Contract Carriers — Page 9
Common Carriers — Next Week

Alaska Journal of Commerce

& pacific rim reporter

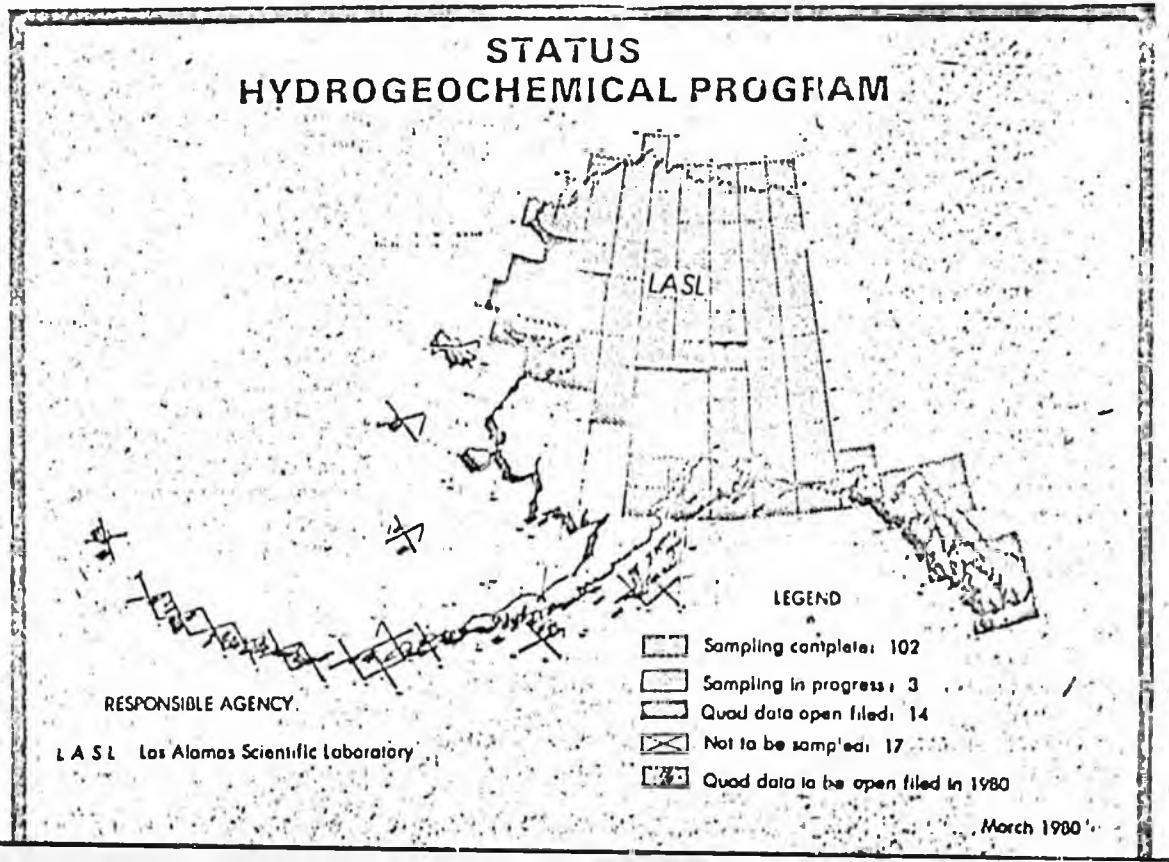
ALASKAN BUSINESS BRIEFS

SELDOVIA

The city of Seldovia is considering its sales tax from 1 to 3 cents on the dollar and raising utility charges in an effort to balance the budget and chip away at a $60,000-$70,000 deficit from 1978 and '79. A special city election on the sales tax will be held May 27 if it wins city council endorsement. The monies would be earmarked for the city's general fund. Under the plan water and sewer charges would go from $12.67 to $18.47 a month; utility hookups-now $5-would jump to $465 for water and $165 for sewer. For fish processors, the standard utility charge of $200 a month would increase to $1,300 or the company could choose to be metered.

CHUGIAK - EAGLE RIVER

Chugiak-Eagle river has experienced "phenomenal growth" in the past decade, says Jackie Russel, director of the Anchorage office of the Bureau of Census. Despite growth projections built into planning for census counters, the enumerators have found more residents than expected.



...analyzed

from most of Alaska.

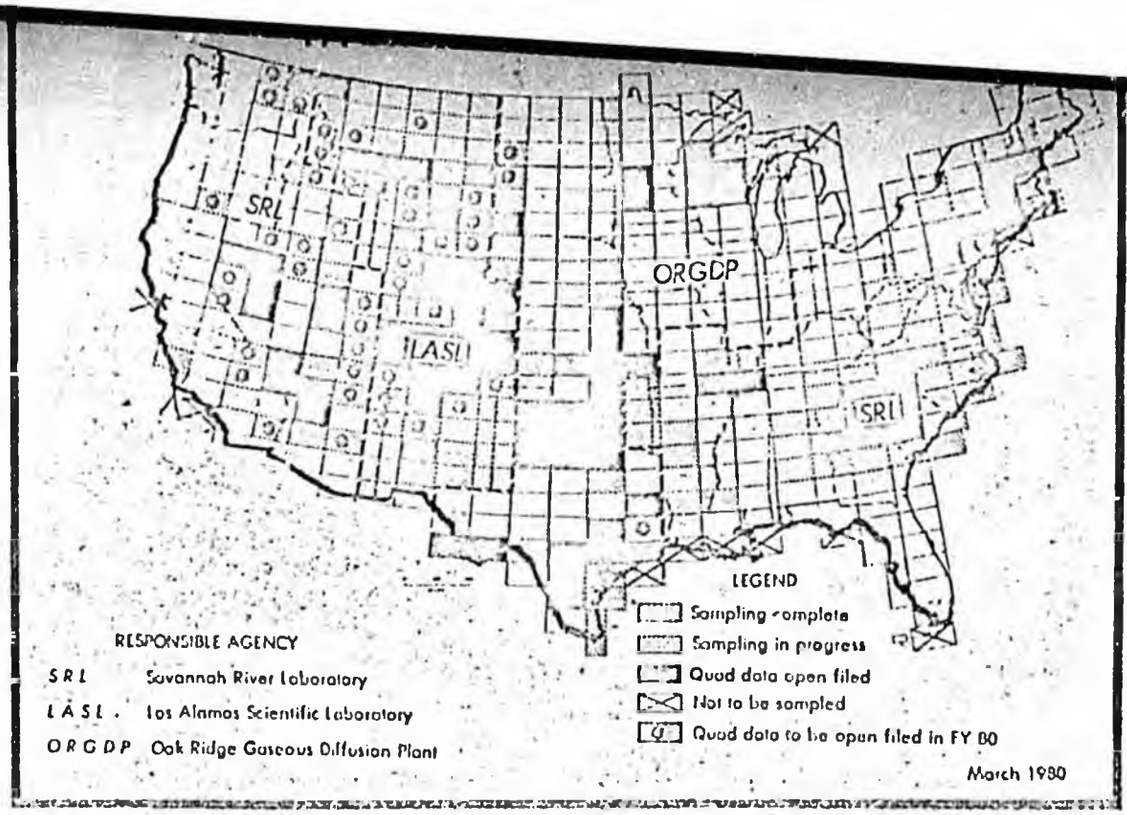
Multi-element HSSR data has been reported for about a year. For these analyses, all three labs developed high-volume, low-cost automated systms that will not be used for other projects in the foreseeable future. The capital investment in these systems approaches $4 million.

Since the samples are on hand and the analytical and report producing systems are operational, continuing the HSSR program would involve little money, about $5 million for each of three years.

Program Problems

A national program of the scope of HSSR is not without problems. The analytical tools to analyze may get more and more sophisticated so the parts per billlion of an element can be identified; however, the analysis is no good if the sediment sample is a "dry lab."

In order to obtain a water and sediment sample in the rugged Rocky Mountain regions of the U.S. and interior of Alaska, the cost is high and the risk to life is real. It is much easier, for example, to take 10 samples at a single location and merely lable the samples for 10 hard-to-get-to locations.



Program should continue

By DR. GENE RUTLEDGE

Secretary of Energy Duncan should see that the HSSR program is continued and promote closer coordination with other interested federal agencies.

LASL, ORGDP and SRL should work with potential users of the data collected including state agencies, state university scientists and, expecially, the resource scientists in industry.

However, DOE must avoid 'too many cooks in the kitchen' to the point that little or nothing is done. DOE should be commended for taking the 'bull by the horns' and getting under way the HSSR program which can be one, but only one, significant link in the chain of needed national resource information.

As for the entire NURE program, it too should be continued as originally planned even though the cost for FY 81 is $65 million, which is much higher than the $5 million for the HSSR but still only a tiny part of the $11 billion DOE budget.

While we must give very important credit to Duncan's staff members for far-sighted rational sampling for uranium and other elements, it is vital that the HSSR program not be brought to an abrupt end and precious and strategic samples not analyzed.

Certainly to collect thousands of samples at great government expense with the literal risk of life (Dr. Sharp survived a plane crash in the Alaska interior) and then not to proceed in a timely manner with their analysis is indeed unwise.

Editor's Note: Dr. Rutledge was the project leader of the Alaska Regional Energy Resource Planning Project from 1976 until late 1978. During that time he met Dr. Sharp and obtained from him considerable information on the National Uranium Resource Evaluation (NURE) program for use in Volume II of "Alaska's Energy Resources."

Upon learning of the planned cancellation of the HSSR program, his concern was so great, he traveled to Los Alamos, N.M., to meet with the scientists involved.

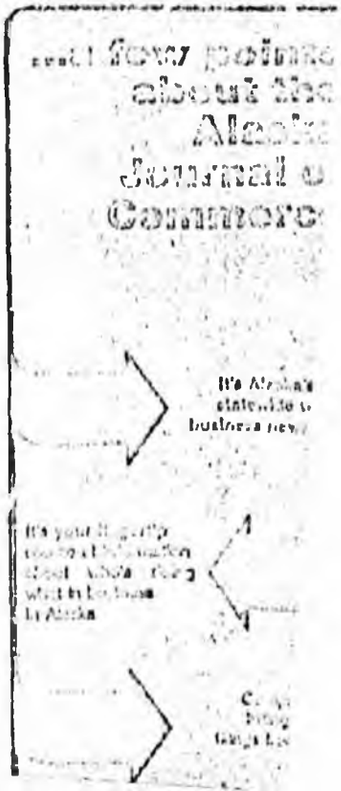
director, Alaska Miners Association, feels the program should be completed but believes private industry could do the analysis work at a more economical cost. LASL estimates a cost of about $50 per location (two sample) for the analysis of 44 elements.

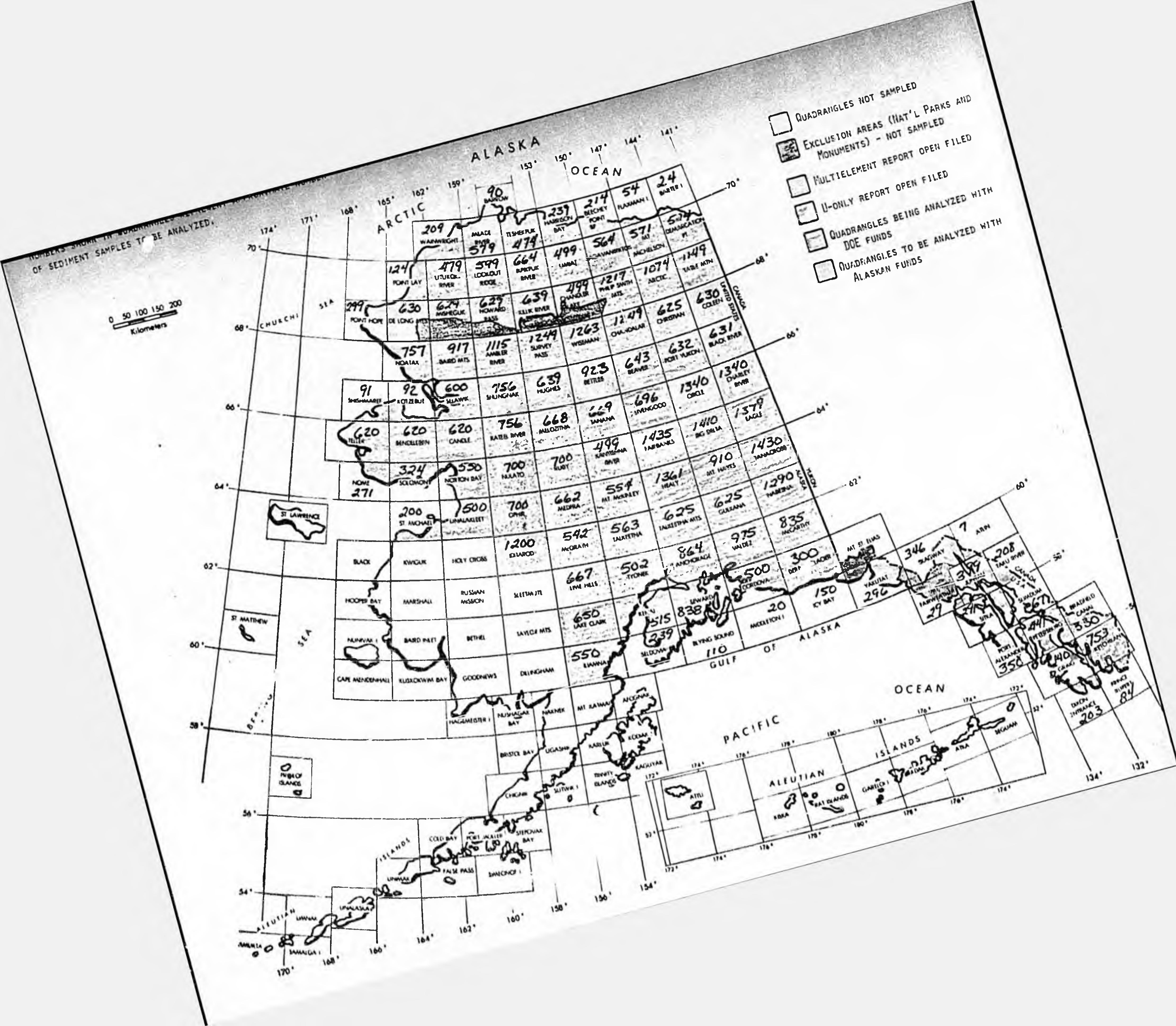
The Payoffs for Completion of NURE

Baseline geochemical data, collected and analyzed by standardized procedures, would be available to the public for the entire conterminous U.S. and Alaska. From these data, a comprehensive, geochemical atlas of the U.S. would be prepared that would illustrate the areal concentrations of [illegible] and trace elements and water quality measurements [illegible] throughout the

SEMICONDUCTORS

Semiconductors accounted for $2.6 billion of the $3.9 billion worth of electronic components exports from the U.S. in '79. Imports of semiconductors amounted to $2.4 billion out of the $3.6 billion total of electronic components imports.





NUMBERS SHOWN IN QUADRANGLES
OF SEDIMENT SAMPLES TO BE ANALYZED.
QUADRANGLES NOT SAMPLED
EXCLUSION AREAS (NAT'L PARKS AND MONUMENTS) - NOT SAMPLED
MULTIELEMENT REPORT OPEN FILED
U-ONLY REPORT OPEN FILED
QUADRANGLES BEING ANALYZED WITH DOE FUNDS
QUADRANGLES TO BE ANALYZED WITH ALASKAN FUNDS
0 50 100 150 200
Kilometers
ALASKA
ARCTIC OCEAN
CHUKCHI SEA
BERING SEA
GULF OF ALASKA
PACIFIC OCEAN
ALEUTIAN ISLANDS
CANADA
UNITED STATES

APPROX. FUTURE ACCESS

STATE - POTENTIAL MINERAL

STATE PREVIOUSLY I.D.'ed MINERAL proposed Tungsten II State disposal

PVT. HOMESTEAD

PVT.

TUNGSTEN SUBDIVISION

BORO SELECTIONS

PVT. ACCESS

PVT ACCESS. → UNFEASIBLE ACCESS

left out of rezone in error

PVT

PUT ACCESS
UNFEASIBLE ACCESS

ACCESS

left out of rezone in error

PUT

PUT.

PROPOSED ACCESS (NOT SUBSTANTIATED)

WOODLAND HEIGHTS

SHIRLA HEIGHTS

TWIN SPRINGS 1ST ADD

SECOND ADDITION

THIRD ADDITION

STEELE CREEK ROAD SUB

FABIAN SUB

KOOTARO SLOPE SUB

MOOSEVILLE ACRES SUB

POLAR HEIGHTS

ANDERS SUBDIVISION

LYNDON AVENUE

CHENA HOT SPRINGS ROAD

STATEWIDE PLACER/GEOCHEM ASSESSMENT PROGRAM

Products For Miners and Mineral Industry:

1. Identify and delineate previously unknown high probability mineralized areas.

2. Delineate more accurately previously indicated areas of mineral potential, or areas of highest potential within presently known mineral districts.

3. Return geologic and geochemical data to the public in a more understandable and qualified format.

4. More rapid dissemination of significant assessment results.

5. Increase the information content of those reports made.

Sustaining Funds (1982 and thereafter)

1. To develop data base management system and master programs.

2. System maintenance and time rental on VAX 11/780.

3. Execute data generation tasks to provide user products.

4. Continued application development, peripheral device updates.

Minimal Funding Level (FY 1982 and thereafter)

$120,000

Optimum Funding Level (FY 1982 and thereafter)

$200,000 FY 1982
120,000 continued funding.

PUBLIC ASSAY LAB EQUIPMENT

Inductively Coupled Argon Plasma	$190,000
X-ray diffraction	46,600
XRF Fusion furnace	15,000
Minor laboratory apparatus & major installation costs	56,000
Bal.	$ 10,000
Projected costs - Freight on ICP	$ 5,500
Final installation	4,500

The ICP-multi-element analyzer is due to be delivered during the first half of April. One chemist will be assigned full time to bring it on line for public assays as soon as possible. Other ADNGS uses will be subordinate to developing the public assay function.

The X-ray diffraction equipment is on hand and should be installed by mid-April. That equipment will be on line immediately when it is assembled.

The XRF fusion furnaces are seeing steady use and their effectiveness will increase if we can get more platinum crucibles. In their present status they are allowing us to make more accurate major oxide analyses with our XRF equipment, and freeing the atomic absorption instrument for assay work.

Many items of minor apparatus were purchased and their impact has been favorable and immediate as the following statistics demonstrate.

Average Number of Public Samples	1/74 - 1/80 =	473/year
Public Samples	1/80 - 12/80 =	788/year
Public Sample Analyses	1/80 - 12/80 =	5755
Department of Natural Resource Samples	1/80 - 12/80 =	859
Department of Natural Resource Analyses	1/80 - 12/80 =	8559

alaska journal of
Commerce
& pacific rim reporter

An independent newspaper published in the interests of Alaska business and industry.

LES GUNDERSEN
Publisher
THURMAN HAMILTON
Advertising Manager
MARYLN SCOTT
Accounting

JIM MARTIN
General Manager

BERT TARRANT
Editor

Contributing Editors
Cr P. Duncan
State Chamber
Frank B. Cox
Gene Rutledge

Published every Monday by Pacific Rim Publishing Co., 715 L Street, Suite 5, Anchorage, Alaska 99501. Telephone: Advertising (907) 278-2841; other departments (907) 278-3723. Subscriptions: $45 one year; $85 two years. Foreign surface and domestic first-class rates on request. Single copy: One dollar. Second class postage paid at Anchorage, Alaska. POSTMASTER: Send address changes to THE ALASKA JOURNAL OF COMMERCE, 715 L St., Suite 5, Anchorage, Alaska 99501.

ISSN 0271-3276

Publication Title
Alaska Jour of Comm & Pac Rim Reporter

Publication Number
USPS 413-510

Minerals

We became very concerned over the status of the federal Department of Energy's hydrogeochemical program last May when we noted thousands of sediment samples were taken at great expense in Alaska to be analyzed for 46 elements.

That analysis included such strategic resources as chromium, cobalt, manganese and titanium. However, the program was being terminated before all the samples could be analyzed.

Recent testimony before the state Senate Resources Committee by Dr. Tom Weaver of Los Alamos Scientific Laboratory revealed the cost to date by the department has been about $5 million. There were 150,000 helicopter landings and take-offs including six crashes--fortunately no deaths--involved in the sample collection process.

Additional testiomony revealed some of our scientists believe the "Brooks Range alone, based on the known resource areas and its geological diversity, probably has more mineral wealth than the Rocky Mountain Chain from the Canadian Border to the Mexican Border."

We can only be pleased that some of the discussion centered on the flurry of hardrock mineral activity on both the Russian and Canadian sides of the Brooks Range.

We understand some the participants recalled our Mineral Outlook '81 issue of last month where an illustration with David Heatwole's article clearly showed the Alaska hardrock mining gap.

We support action that aids Alaska in determining the resources on and under our land and find it difficult to believe that both David Heatwole and Tom Weaver are wrong concerning Alaska's huge mineral potential.

Chairwoman Bette Fahrenkamp of Fairbanks and other members of the Senate Natural Resources Committee took swift and positive action to see that Alaska's samples are analyzed in a timely manner.