

FIELD REPORT: PLACER MINING ACTIVITIES

Central, Circle Hot Springs
and Livengood Areas of Alaska

July, 1975

Jerry Wilson, Minerals and
Land Use Specialist
U.S. Bureau of Mines



United States Department of the Interior

BUREAU OF MINES

P. O. Box 2259
Anchorage, Alaska 99510

January 7, 1976

Memorandum

To: John J. Mulligan, Chief
Alaska Field Operation Center, Juneau

From: Willard G. Wilson, Minerals & Land Use Specialist
Alaska Field Operation Center, Anchorage Office

Subject: Joint Federal-State Placer Mining Field Trip,
July, 1975.

UNDER PROJECT NO. 3-C: TO MINIMIZE ENVIRONMENTAL IMPACT OF MINING IN ALASKA.

The Minerals and Land Use Specialist participated in two joint field trips and attended nearly seven meetings to learn about problems that are said to be caused by placer mining activities and their waste water discharges. Some cases appear to be inadequate understanding of Arctic engineering. Field trips were made to Circle Hot Springs and Livengood. The purpose of these trips was to gather information and establish a dialogue and working relationship between various Federal and State agencies, and to explain new water quality control regulations to the miner.

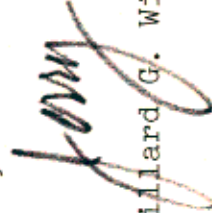
The personnel and agencies who participated in the field trip were:

BOB FADELAR - Alaska Fish and Game
JEFF MOCK - Alaska Department of Environmental
Conservation
BILL LAMEROUX - Environmental Protection Agency
CLYDE MURRAY - Bureau of Land Management
LARRY KNAPMAN - Bureau of Land Management
WILLARD WILSON - Bureau of Mines

The Alaska Miners Association indicated that miners were troubled by news of the recent regulations, and that many of these miners want to meet with the government officials on their own mining claims to discuss their individual problems and show the respective agencies what they are

doing and how they are mining. If their methods are not acceptable, the miners would then ask for technical assistance to meet the proposed regulations. Most placer miners appeared cooperative and somewhat relieved to see government officials. Others were very vocal against government intrusion into mining in all forms.

Within the field report are samples of EPA's draft permit, public notice of water discharge permits and a list of miner operators who have applied for permits. Also included are field notes, maps, photographs, and comments on various mining operations.



Willard G. Wilson

Enclosures

AK-002553-4 Mr. James C. Dunlap
AK-002538-1 Ault Enterprises/Mining Ventures
AK-002537-2 Swift Creek Mining Co.
AK-002547-0 Old Smokey Prospecting and Mining Co.
AK-002545-3 Mr. John D. Rubel

AK-002551-8 Alvin L. Kile
AK-002556-9 W. R. Strickler
AK-002554-2 Leslie Maxwell
AK-002542-9 John D. Hamacher (Monta Creek Mining Co.)
AK-002541-1 E. O. Bracken

AK-002412-1 M & R Mining Company (Deadwood Creek)
AK-002481-3 Alice Hering (Mastodon Fork of Eagle Creek)
AK-002482-1 Alice Hering (Eagle Creek)
AK-002009-5 John R. Burns (Walker Fork)
AK-002012-5 Fred J. Hapeman (45 Pup Creek)

AK-002120-2 G. A. Hanks & Sons (Fortymile River)
AK-002016-8 G. F. Robinson (Jack Wade Creek)
AK-002528-3 Russell Ha-mond (45 Pup Creek)
AK-002007-9 Ruby Mining Company (Long Creek)
AK-002509-7 Clarence Zaiser (Trail Creek)

AK-002544-5 G. A. Hanks & Sons (Lost Chicken Creek)
AK-002543-7 G. A. Hanks & Sons (Napoleon Creek)

AK-002447-3 Achman Mine
AK-002445-7 Gullycat Enterprises
AK-002487-2 Walter Sellens
AK-002449-0 Noranda Exploration, Inc.
AK-002117-2 Dahl Creek Mine

AK-002010-9 Linda Creek Gold Mine
AK-002006-1 Lucky Seven Mining Company
AK-002017-6 Andrew W. Miscovich
AK-002534-8 Leetus L. George
AK-002111-3 Ernest N. Wolff & Daniel K. Coben

AK-002497-0 Barbeau/Mercer/Hermon, Valdez Creek
AK-002441-4 Yentna Gold Co., Upper Bird Creek
AK-002486-4 George W. Zimmer, Quartz Creek
AK-002530-5 Kenneth D. Stahl, Quartz Creek
AK-002524-1 Merlin L. Rasmussen, Quartz Creek
AK-002514-3 Milo E. Flothe & Michael F. Pickett, Quartz Cree
AK-002533-0 Fairman Madison Mining Co., Quartz Cree
AK-002549-6 Dutch Creek Mining Co., Quartz Creek
AK-002550-0 William R. & Blanche Krager, Upper Cache Creek

AK-002499-6	Lee Brothers Dredging Co., Inc.
AK-002118-1	UV Industries, Inc.
AK-002453-8	UV Industries, Inc.
AK-002515-1	Tundra Exploration Joint Venture
AK-002498-8	Cripple River Mining & Exploration
AK-002496-1	Erickson Placers, Inc.
AK-002476-8	Grothe & Pearson
AK-002510-1	Nome Creek Mining Co.
AK-002466-0	Peter M. Vadis & Martin Evans
AK-002471-6	Leonard Zaiser
AK-002501-1	Cache Creek Mine
AK-002512-7	B. S. Mining Company
AK-002468-6	Frank H. Knapp
AK-002500-3	Pat's Folly #1 & 3
AK-002519-4	Peters Creek Mines
AK-002469-4	Hubert Sager
AK-002495-3	Valdez Creek Mining & Supply Company
AK-002536-4	Mrak Placer Mine
AK-002525-9	Valdez Creek Mining Company
AK-002532-1	Hope Mining Company
AK-002011-7	Eva Creek Mine
AK-002427-9	Kenneth J. Vetter
AK-002019-2	Oscar Tweiten
AK-002023-1	Parker Mining Company
AK-002337-0	Olive Creek Mines (Amy Creek Operation)
AK-002015-0	Olive Creek Mines (Lillian Creek Operation)
AK-002014-1	Olive Creek Mines (Olive Creek Operation)
AK-002429-5	Klondike Placer Gold Corporation
AK-002109-1	Heflinger Mining & Equipment Company
AK-002110-5	Weisner Trading Company
AK-002107-5	William Meldrum
AK-002108-3	Gold and Minerals Inc.
AK-000142-2	Goodnews Mining Co.
AK-002518-6	Otter Dredging Company
AK-002020-6	Canyon Creek Mine
AK-002529-1	Lawrence R. Curry
AK-002513-5	Roderick E. Dunn
AK-002535-6	Paul A. Mitchell
AK-002173-3	Taylor Mountain Mines
AK-002511-9	Wilbert E. Burrow

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Permit No. AK-002010-9
Application No. AK-002010-9

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq; the "Act"),

Linda Creek Gold Mine

is authorized to discharge from a facility located near
Wiseman, Alaska

to receiving waters named

Linda Creek

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof.

This permit shall become effective on

This permit and the authorization to discharge shall expire
at midnight, March 31, 1979.

Signed this day of

Regional Administrator

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PART I

A. EFFLUENT LIMITATIONS

1. Commencing the beginning of the Spring 1975 mining season, the permittee will take whatever reasonable steps are appropriate to reduce the amount of organic and non-organic solids reaching navigable waters (navigable waters are defined as the waters of the United States). This includes leaving all mined areas in a condition which shall not cause additional degradation to the receiving waters over those resulting from normal natural causes of erosion and/or runoff.
2. Permittee shall provide safe passage of fish around or through the active mining area in streams which support or have supported an indigenous fish population. This includes the operation of safe intake structures and protection from high solids in the discharge.
3. Beginning on July 1, 1976 and lasting through the expiration date, the permittee must as a minimum meet one of the following conditions:
 - a. Provide settling pond(s) which are designed to contain the maximum volume of process water used during any one day's operation. Permittee shall design single and/or multiple ponds with channeling, diversions, etc., to enable routing of all uncontaminated waters around such treatment systems and also to prevent the washout of settling ponds resulting from normal high water runoff. Choice of this alternative requires no monitoring.
 - b. Provide treatment of process wastes such that the following effluent limitations be achieved. The daily maximum discharge of settleable solids from the mining operation shall be 1 ml/l or less. This shall be measured by subtracting the value of settleable solids obtained above the intake structure from the value of settleable solids obtained from the effluent stream. The permittee shall monitor his influent and effluent on a monthly basis with grab samples.
4. All activities in developing and operating treatment systems and diversions shall be done in a manner so as to minimize any water quality problems in the receiving water.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:
 - a. By February 1, 1976, the permittee shall submit to the Environmental Protection Agency and the Alaska Department of Environmental Conservation the following:
 1. The method chosen to meet condition Part I A.3.
 2. A diagram of the mining area identifying the source of water, sluicing area, nearest stream or river, and general drainage. Also identify water usage and locations, if any, of existing settling ponds.
 3. The method of operation such as type of equipment or methods used to strip and mine the mining area.
 4. The locations and amounts of overburden planned to be removed during the coming season and method of removal.
 5. Estimated quantity of water to be used daily; average and maximum amounts.
 6. Describe the condition of the receiving water both above and below the mining operation. Include pertinent information such as the existence of mining activities upstream which may be affecting the quality of the receiving water, glacial conditions, condition of stream bed, presence of fish, etc. Picture aids are encouraged for the above purposes.
 7. A list of any chemicals or additives which may be added to the discharge in any manner.
 - b. By July 1, 1976 achieve conditions of Part I A.3.
 - c. By March 31, 1977 and annually thereafter, the permittee shall submit an operating plan providing layouts, methods, etc., that will be used to comply with conditions of Part I A. Such information as area to be stripped, area to be mined, diversions of streams, locations of existing and future settling ponds and point of final discharge should be included. The permittee shall identify technique he will use to prevent the discharge of solids (overburden, gravel, silts, etc.) from reaching the navigable waters. The Regional Administrator may, upon review of said plan, require additional explanation of any or all of the items not adequately covered by the plan. This may take the form of requiring limited monitoring for turbidity, settleable solids, suspended solids, and/or any other parameter of special concern to the Regional Administrator towards protection of the receiving water.

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C. MONITORING AND REPORTING

If the permittee elects to comply with the 1 ml/l settleable solids limit in condition Part I.A.3.b., the following shall apply:

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Monitoring

Monitoring settleable solids shall occur once per month and shall consist of two samples; one in the effluent stream at the point of discharge and the other in the receiving water above the intake structure.

3. Reporting

Monitoring results obtained during the previous season's operation shall be submitted at the conclusion of each mining season or no later than November 1 of each year.

All reports required in this permit shall be submitted to the Environmental Protection Agency, Alaska Operations Office, and the Alaska Department of Environmental Conservation at the following addresses:

Alaska Operations Office
Environmental Protection Agency
605 W. 4th Avenue, Room G-66
Anchorage, Alaska 99501

Department of Environmental Conservation
State of Alaska
Pouch 0
Juneau, Alaska 99801

U.S. Environmental Protection Agency
Region X
1200 Sixth Avenue
Seattle, Washington 98101

Attn: Water Compliance Evaluation Section M/S 521

4. Definitions

The "Daily Maximum" discharge means the largest sample collected during any one day.

5. Test Procedures

Test Procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(g) of the Act, under which such procedures may be required.

6. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling;
- b. The dates the analyses were performed;
- c. The person(s) who performed the analysis;
- d. The analytical techniques or methods used; and
- e. The results of all required analysis.

7. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report. Such increased frequency shall also be indicated.

8. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the Alaska Department of Environmental Conservation.

DRAFT**A. MANAGEMENT REQUIREMENTS****1. Change in Discharge**

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any daily limitations specified in this permit, the permittee shall provide the Regional Administrator and the State with the following information, in writing, within fifteen (15) days of becoming aware of such condition:

- a. A description of the discharge and reason for noncompliance; and
- b. The period of noncompliance, including dates and times; or if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge or other alternate steps taken to limit the discharge of pollutants.

3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

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PART II
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Permit No. AK-002010-9

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

Any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. The permittee shall notify the Regional Administrator and the State of each such diversion or bypass by submitting in writing an explanation within fifteen (15) days of the reported bypass.

6. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

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Permit No. AK-002010-9

B. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the Commissioner of the Alaska Department of Environmental Conservation, the Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Regional Administrator and the Alaska Department of Environmental Conservation.

3. Availability of Reports

Except for data determined to be confidential under Section 308 of the Act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Alaska Department of Environmental Conservation and the Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making a false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act.

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4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

5. Toxic Pollutants

Notwithstanding Part II, B-4 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307 (a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.

6. Civil and Criminal Liability

Except as provided in permit conditions on "Bypassing" (Part II, A-5), Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond his control, such as accidents, equipment breakdowns, or labor disputes.

7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the Act.

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Permit No. AK-002010-9

8. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State Law or regulation under authority preserved by section 510 of the Act.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

United States Environmental Protection Agency
Region X
1200 Sixth Avenue
Seattle, Washington 98101
(206) 442-1213

NOTICE OF PROPOSED ISSUANCE OF NATIONAL POLLUTANT
DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS
TO DISCHARGE TO WATERS OF THE UNITED STATES

and

NOTICE OF STATE CERTIFICATION

Public Notice No.: AK-002447-3; AK-002445-7; AK-002487-2;
AK-002449-0; AK-002117-2; AK-002010-9;
AK-002006-1; AK-002017-6; AK-002534-8;
AK-002111-3

Public Notice Issuance Date: May 15, 1975

Public Notice Expiration Date: June 16, 1975

1. Applicants

The following have applied for National Pollutant Discharge Elimination System (NPDES) permits to discharge pollutants to navigable waters pursuant to the provisions of the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500, October 18, 1972), hereinafter referred to as FWPCA.

Applicants are:

- 1) Achman Mine
Central, Alaska
Application No.: AK-002447-3
Receiving Water: Harrison Creek
- 2) Gullycat Enterprises
Central, Alaska
Application No.: AK-002445-7
Receiving Water: Harrison Creek

- 3) Walter Sellens
Central, Alaska
Application No.: AK-002487-2
Receiving Water: Harrison Creek
- 4) Noranda Exploration, Inc.
Chandalar, Alaska area
Application No.: AK-002449-0
Receiving Water: Tobin Creek, Big Creek,
Little Squaw Creek and Big Squaw Creek
- 5) Dahl Creek Mine
Eagle, Alaska
Application No.: AK-002117-2
Receiving Water: American Creek
- 6) Linda Creek Gold Mine
Wiseman, Alaska
Application No.: AK-002010-9
Receiving Water: Linda Creek
- 7) Lucky Seven Mining Company
Fairbanks, Alaska
Application No.: AK-002006-1
Receiving Water: Fish Creek
- 8) Andrew W. Miscovich
Coldfoot, Alaska
Application No.: AK-002017-6
Receiving Water: Koyukuk River
- 9) Leetus L. George
Healy, Alaska
Application No.: AK-002534-8
Receiving Water: Portage Creek
- 10) Ernest N. Wolff and Daniel K. Coben
Coal Creek, Alaska
Application No.: AK-002111-3
Receiving Water: Coal Creek

The above applicants have applied for a discharge from their placer mining operation (S.I.C. 1041). Treatment of process water varies from no treatment to 100% prior to discharge. Receiving waters are classified as Class C, D, E and G according to the State's federally approved water quality standards. Fact sheets are not available.

2. Tentative Determinations

The Regional Office of the Environmental Protection Agency (EPA) has tentatively determined to issue a discharge permit to the above listed applicants subject to certain effluent limitations which may require the installation of treatment facilities, schedules of compliance, and other conditions necessary to carry out the provisions of the FWPCA. These proposed limitations, schedules, and conditions are tentative.

3. Public Comment

Persons wishing to comment on the tentative determinations contained in these proposed permits or wishing to request that a hearing be held may do so within 30 days of the date of this public notice. All written comments received within this 30-day period will be considered in the formulation of final determinations regarding these applications. All responses should include the name, address, and telephone number of the writer and a concise statement to inform the Regional Administrator of the exact basis of any comment and the relevant facts upon which it is based. Any person may request a hearing on the draft permit. An informal public hearing to discuss the permit terms and conditions shall be held if the Regional Administrator considers the public response significant.

4. Final Determinations and Adjudicatory Hearing

At least 30 days following the issuance of this notice, the Regional Administrator will make final determinations with respect to these permits. The tentative determinations contained in the draft permit will become the final determinations if no substantial changes are made in them. If the tentative determinations are changed substantially, a public notice of determinations will be issued indicating what changes have been made.

An adjudicatory hearing may be requested within ten (10) days of the receipt of the final determinations. Such request will be granted only if it meets all the requirements of 40 C.F.R. 125.36(b)(2). A copy of 40 C.F.R. 125.36(b) is attached.

5. Fact Sheets

Fact sheets have been prepared which describe the existing discharge and the tentative effluent limitations and other conditions related to the issuance of a permit to those applicants shown above who are currently discharging more than 500,000 gallons of waste water per day.

For other applicants, draft permits and applications are available. Copies of fact sheets, draft permits, and other information may be requested by writing to the EPA at the above address to the attention of W/S 521, or by calling (206) 442-1213. This material also is available from the EPA Alaska Operations Office, Room 666, Federal Building, Anchorage, Alaska 99501. Forms and related documents are on file and may be inspected and copies made in Room 11D, 1200 Sixth Avenue, Seattle, Washington 98101, at any time between 8:30 am and 4:00 pm, Monday through Friday. A copying machine is available in the Seattle office of the EPA for public use at a charge of 20 cents per copy sheet.

6. State Certification

This Notice will also serve as public notice of the intent of the State of Alaska Department of Environmental Conservation to consider certifying that the subject discharges will comply with the applicable provisions of sections 301, 302, 306, and 307 of the FWPCA. Persons who wish to comment on the proposed certification should submit those comments in writing to the Commissioner, Department of Environmental Conservation, Pouch O, Juneau, Alaska 99801, within 30 days of this date of publication.

This Notice does not constitute agreement, either explicit or tacit, by the Alaska Department of Environmental Conservation with the tentative determinations of EPA on the subject entity or entities. The NPDES permit will not be issued until the certification requirements of section 401 have been met.

7. Issuance of Permit

The permit will become effective and be deemed issued 30 days after the final determinations are made, unless a request for adjudicatory hearing is submitted within 10 days of receipt of the final determinations. If the request is granted, any contested permit provisions (or uncontroverted provisions inseparable from contested provisions) will be ineffective until a resolution of the issues raised by the request. The permittee, however, will be subject to any uncontroverted permit provisions.

Please bring this information to the attention of persons whom you know would be interested in this matter.

Field Notes
Wilson, US BLM

29 July 1975
Mining Activity

Cleary Summit

At bottom at old lode mine, some placer activity on side

Tributary - right side going toward circle

One person ?
yards moved

Gold Dust Creek - Bill Bowelling (not home)

Scattered equipment, large sluices

Placer operation

Drilling rig, also new log structure

Del Ackles further upstream

Bob Fadelar - AF&G

Clyde Murray and Larry Knapman - BLM

Bill Lamerouex - EPA

Jeff Mock - DEC

^o Fork
Mastodon Creek

(a) Alice Herring, Earl Bestline

(b) Bob Strandberg (Ike)

11350 5th NE

Seattle, Washington 98125

Two people 2yd/day

4" suction, keen dredge

Pat Babcock - Fish & Game

Suggest that respective agencies set up a coordinating and inspection team for mine visitation and assisting miners with problems in filling out forms and technical assistance.

Deadwood Creek

✓ Clint Rathburn and son; 7 years on same claims 2 persons

12 claims

Stripping with D-2TU-8 TD-24

Bench mining/sluice

? Mr. Cortney - up stream ? NOT PLOTTED - NO INFO

Control of water by gravel berms for filtering

✓ Deadwood Creek - Jackobson

Creek bottom placer using giant and cat

Problem: ponding for silting and merky water

3 people

✓ Jim Morgan - Placer operation (Morgan + Cortney) ? see Murray notes

Pond - 1 mile from sluice to holding ponds 2 people

✓ Note: Joe Vogler in ~~Ketchikan~~ KETCHIKAN Creek

KETCHIKAN

Field Notes.
Wilson, BOM

Field Notes
Wilson, USBM

✓ Jack Gardner (boss) - Alaska Gold
Bottom Dollar Creek and Harrison Creek
3 cats, link belt backhoe
Elmer Erickson NO INFO
SEVCO

approx 17 people

approx 23 people

✓ Larry Hite - Sluicibox

2 people -

Bottom Dollar is an intermittent stream
Harrison Creek is dirty year round. Will the miner be held responsible for
clean up? Said a miner.

(Note): After miners shutdown for the day, the water clears up. From a
personal observation by walking parts of the creek, July 75.

30 July 1975

Portage Creek - Placer operation
Sluice/giant

No one was home. probably 2 man operation

Two old dredges

(Note): Some dirt moving activity seen in distance. Crazy Mt. near Little
Albert and East Albert Creek seen from Circle Road above Millers.

Hawkins gets a lot of tin, 50% cons. Bolder Creek.

Mammoth Creek

✓ Fred Wilkson: One man placer operation, stripping, pushing gravel through
a sluicibox, has settling ponds, new idea in sluice design.

1 man

Cliff Alexander, Mammoth Creek

Placer/sluice - bench mining. Settling pond, not very big

Not working, OK individual

Shutdown for lunch

2 man

Upper Harrison Creek, one mile

Bench, Blue Bird Association

✓ Bob Littlefield. Building silt trap, hydraulic, not too nice

2 man

✓ Speaker - hydraulic with giant and sluice, also stripping with giant. *2 man*
No settling pond, likes to quote 'the constitution.

Bob Brown has bought into Speakers, is somewhat hesitant but will comply, maybe.

✓ Sellens claims are above Speakers, and is starting up stripping and mucking
operation - won't start sluicing until next season *2 man*

Harrison Creek

✓ Achman (from Minnesota)

Placer operations, has all permits and is actively mining this season *2 man*

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Field Notes
Wilson, BOY

eld. dies
Wilson, USBM

Hawkins is off on Boulder Creek. Has a problem with tin in his concentrates. Cut road through tundra from Mammoth Creek Road over near Summit. Road cut is about 4 to 6 feet deep for about two (2) miles. A very poor job of Arctic engineering. 200 to 300 yards to the right side of his road cut is a rock out crop that could have been used for his cat trail. ~~unknown~~ 2 MAR

31 July 1975

Homestake mine is claiming near Hudson claims in the Livengood area.

Glen Franklin
P O Box 2794
Fairbanks, Alaska

Livengood.

KHONDIE GOLD CORP. 6 MAN
GERAGHTY / MONTGOMERY - 4 MAN
CARL PARKER - 1 MAN

-3-

Field Notes
Wilson BCM

Field Notes
Murray, BLM

✓ Deadwood Creek

Clint Rathburn
14 claims (placer)
- working bench gravels
- attempt at settling pond
- open cut operation using cat
dog

✓ Cliff Jacobson

- working stream and bench gravels
- open cut operation
- attempt at settling pond
- also has claims on 16 pup

✓ M&R Mining Co.

Morgan and Raymond
- working stream gravel
- open cut operation
- De version stream
- granite bedrock

Harrison Creek

✓ Littlefield Old Dues and
- just setting up
- Hydraulic giant
- kick out of Oregon

✓ Speaker and Brown

- Hydraulic giant
- no settling pond

✓ Seillens

- just setting up
- cat down

✓ Boulder Creek

Arctic Mining Inc.

Bill Hawkins
Jim Horton
1940 Otter St.
Anchorage, AK 99504
Phone: 333-1273

These are the guys with the environmental damage (access road)

Nome Creek

Forest Hopkins
Dave Hopkins
Jim Van Deen

We missed these miners they have a good clean operation
- open cut with cat
- diversion stream
- settling pond
- has EPA permit and fish and game permit
- 3 no

Harrison Creek

✓ Alaska Gold Inc., at confluence of Bottom Dollar
- 57 placer claims-bought from Ed McGriff
- getting set up this summer
- has two shakers-front end loader, cats, etc.

✓ Larry Hite

- Bottom Dollar Creek
- 4 claims here and same down on Birch Creek
- circulates water

✓ Portage Creek

- unknown operator
- pipe system using giant
- no settling pond

Murray, BLM

Field Notes
Murray, BLM

Miller Creek
Fred Wilkinson

- open cut & sluice
- front-end loader
- no settling pond

Mammoth Creek
Cliff Alexander

- working Bench gravels
- open cut operation
- low water
- attempt at settling pond

Murray, BLM.

Gold Dust Creek

- ✓ (1) Bill Bowelling
✓ (2) Del Ackles

Mastadon Creek

- ✓ (3) Alice Herring/Earl Beistline
✓ (4) Bob (Ike) Strandberg

Deadwood Creek

- ✓ (5) Clint Rathburn and son
✓ (6) Jacobson or Jakeobson
✓ (7) Jim Morgan/Mr. Courtney

Bottom Dollar Creek

- ✓ (8) Jack Gardner/Elmer Erickson: Alaska Gold
✓ (9) Larry Hite

✓ Harrison Creek

- (10) SEVCO: A Nevada Company

Portage Creek

- (11) Placer Operation: Operator unknown

Mamouth Creek

- ✓ (12) Fred Wildon
✓ (13) Cliff Alexander

✓ Bolder Creek

- (14) Hawkins

Upper Harrison Creek

✓ (15) Achman
✓ (16) Bob Littlefield
✓ (17) Speaker/Brown
✓ (18) Sellers

Livengood Creek

(19) Glen Franklin
(20) Montgomery
(21) Hudson



(b) Bob Strandberg (Ike)

Jeff Mock - DEC



(a) Alice Herring, *Alaskan*
(b) Bob Strandberg (Ike)
11350 5th NE
Seattle, Washington 98125

4" suction, keen dredge



65°32'N, 144°38'W

Deadwood Creek

Clint Rathburn Out of State
14 claims (placer)
- working bench gravels
- attempt at settling pond
- open cut operation using cat
dozer

Silt laden water
coming from
up-stream
mining claim



This was a very clean operation
the water discharge was fairly clear.
His settling ponds worked.

(Note: much of the dirty water may have been
due to a heavy rain storm a day or two before
we arrived.)

STRIPPED
AREA 50x100
4dc. 14 ft
OVER BURDEN
6 ft of Pay dirt
gravel approx
.10-.15 yrd
in gold.





65°32'N, 144°38'W

Deadwood Creek

Cliff Jacobson *Alaskan*
-working stream and bench gravels
-open cut operation
-attempt at settling pond
-also has claims on ~~16~~ *up* ~~prop~~ *stream.*





65°32'N, 144°38'W

Deadwood Creek

M&R Mining Co.

- Morgan and Raymond
- working stream gravel
- open cut operation
- De version stream
- granite bedrock

Alaska

DEAD WOOD CREEK APPEARS
TO RUN ABOUT 10-20 ¢ PER YARD
AS PER MINERS.

Settling ponds
weren't too
effective, maybe
due to heavy
rains.



65°30', 144°33'W

Portage Creek

- unknown operator
- pipe system using giant
- no settling pond



Portage Creek - Placer operation
Sluice/giant
Two old dredges

NO ONE WAS HOME.



65°23'N, 144°49'W

Larry Hite ALASKAN

- Bottom Dollar Creek
- 4 claims here and some down on Birch Creek
- circulates ~~water~~ water.

this operation operated on an intermittent stream, they reused their water. Also this mining operation was somewhat financed by an Alyeska Pipeline spin off, these people worked on the pipeline during freezeup.

A clean operation



a lot of money
being spent.



65°20'N, 144°45'W

Harrison Creek

- Alaska Gold Inc., at confluence of Bottom Dollar *out of state* -
- 57 placer claims-bought from Ed McGriff
- getting set up this summer
- has two shakers-front end loader, cats, etc.

Jack Gardner (boss) - Alaska Gold
Bottom Dollar Creek and Harrison Creek
3 cats, link belt backhoe
Elmer Erickson, Foreman
SEVCO, upstream from here. *out of state*

these are two independent
operations, yet some what related
through paper work.



65°31'N, 145°13'W

Miller Creek
Fred Wilkinson
ALASKAN

-open cut & sluice
-front-end loader



Fred Wilkinson:



Birch CR
below Berry
Camp - not
Miller Cr.
Keill 2007

One man placer operation, stripping, pushing gravel through a sluicebox, has settling ponds, new idea in sluice design.

looks like it will be a clean operation, fred has it down to an art.

Quite an extensive area stripped for sluicing

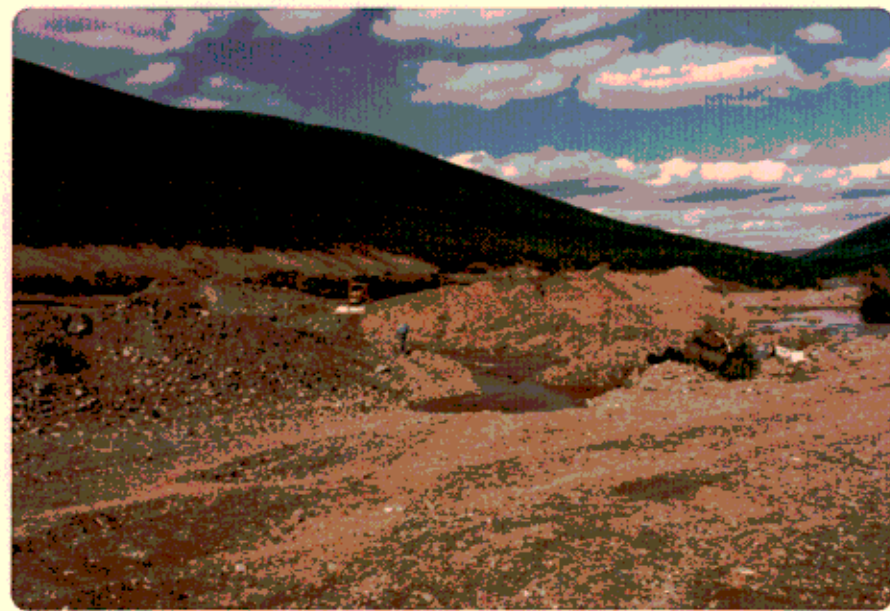




Mammoth Creek
Cliff Alexander Alaskan
-working Bench gravels
-open cut operation
-low water
-attempt at settling pond

65°33'N, 145°09'W

His ponds were washed out in a storm the night before... He seems to have a good operation



65°34'N, 145°53'W

Boulder Creek

Arctic Mining Inc.

Bill Hawkins *alaskan*

Jim Horton

1940 Otter St.

Anchorage, AK 99504

Phone: 333-1273

These are the guys with the environmental damage (access road)

This was a mess, most of the miners in the area were sick about this.



looking southwest

Access road to Boulder Creek
near summit VABM Pend. 3832
Location: Circle (B-3) Quad
N6515-W14500/15X30
Alaska 1:63360 Topo
TN7, R13E Section 18.

200 yds → was a rock exposed ledge that may have been used for a road base

PICTURES TAKEN
180 DEGREES
FROM SAME PLACE



looking northeast



This is a case in point where land managing agencies should have offered road engineering assistance. The cost in environmental damage would be far less in the long run.

Access road to Boulder Creek
near summit VABM Pend. 3832
Location: Circle (B-3) Quad
N6515-W14500/15X30
Alaska 1:63360 Topo
TN7, R13E Section 18.

Hawkins is off on Boulder Creek. Has a problem with tin in his concentrates. Cut road through tundra from Mammoth Creek Road over near Summit. Road cut is about 4 to 6 feet deep for about two (2) miles. A very poor job of Arctic engineering. 200 to 300 yards to the right side of his road cut is a rock out crop that could have been used for his cat trail.



close-up Tundra

Photo by Jeff Mach



Quite an operation



Upper Harrison Creek

Speaker and Brown
out of state
-Hydraulic giant
-no settling pond

65°20'N, 144°45'W

That giant is one hell of a water gun, and one hell of a man.





Harrison Creek

Sellens ALASKAN

-just setting up
-cat down

Sellens claims are above Speakers, and is starting up stripping and mucking operation - won't start sluicing until next season





pie stop



getting gassed

mile 101
Lode Creek
Lodge



in the field, water testing and report writing



gravel roads are slick (govt. people to the rescue of the red hat)

MEMORANDUM


State of Alaska

TO: Ernst W. Mueller
Commissioner
Juneau

DATE: August 13, 1975

FILE NO:

TELEPHONE NO:

FROM: Jeffery L. Mach 
Environmental Field Officer
Northern Regional Office

SUBJECT: KLONDIKE PLACER GOLD
CORPORATIONRECEIVED
AUG 18 1975

ALASKA OPERATIONS

In May 1975 Klondike Placer Gold Corporation, a subsidiary company of Stanford Mines Ltd., of Canada, began to set up operation on the site of the former Livengood Placer mine. The site area encompasses much of the area between Hess Reservoir, on the north east, to past the site of Livengood on the southwest.

Originally, Livengood Placer had constructed the reservoir dam, along with 3400 feet of underground tunnel, and 5 miles of open ditch in order to provide their distant washing and sluicing operation with water, so that they might avoid the summer water shortages that plague placer mining operations in the area.

Klondike had proposed to renovate this water system for use in its operation. They found that the open ditch had been overgrown and was generally in disrepair. The tunnel portion was found to have filled with water and the lower section was found to have frozen in. It was determined that the initial part of the tunnel nearest the lake was still intact and usable. Klondike decided to leave a 600 foot bulkhead to the lake and then start washing a ditch down to the tunnel level so that when the tunnel had unfrozen the bottom half which is concrete or redwood could be used as a ditch down to the point where the old open ditch began.

Klondike has left a 600 foot bulkhead of dirt over the beginning of the tunnel. The remaining 2800 feet of tunnel is being converted into a ditch that is 180 feet across at the top and as much as 80 feet deep in places. This width is approximately the width cleared of vegetation in the photographs. The plan for this season was to wash away approximately 40,000 cubic yards, of the approximately 4000,000 cubic yards that will have to be moved, by pumping out of Hess Reservoir through pipe at 3400 gallons per minute then down the ground over the tunnel site and on to Livengood Creek. About halfway through the season, the wash water at the bottom of the tunnel site was to be diverted into the open ditch to go to the by then functioning sluicing operation instead of going into Livengood Creek. This

sequence of washing the tunnel into the creek and sluicing for half the season each would be repeated in future years until the tunnel was exposed, hopefully in 1977.

The Department of Environmental Conservation became involved on May 26 when Mr. Doug Lowery investigated a complaint that Livengood Creek was running muddy. The Alaska Department of Fish and Game became involved soon thereafter when they received a complaint from the Village of Minto of muddy water that they had traced by aircraft to Livengood Creek, some 80 miles upstream. Mr. John Janssen and Mr. Paul Bateman from NRO-DEC next flew over the area on May 27. John, along with Mr. Bob Fedeler, a fisheries biologist with the Habitat Protection Section, ADF&G, returned to the area on June 30, at which time they asked that the operation be shut down until some settling ponds be put in to help clear up the water in Livengood Creek. Four small dams were constructed, at 4 on the map, of bulldozed permafrost muck and muskeg.

A meeting was called for July 2 at NRO-DEC, which Mr. Glen Franklin, Mr. Gary Scoretz, and Mr. Carl Hefflinger, all of Klondike Placer; Mr. Bob Fedeler, ADF&G; Mr. John Janssen & Mr. Doug Lowery, of NRO-DEC, attended. At that time Livengood Creek was still running muddy and it was determined that more settling ponds were needed.

On July 8-10, Bob Fedeler and I travelled to the Livengood area. Although Livengood Creek was still running muddy, we decided that the creek which is usually ephemeral probably supported no large fish population. However, the creek does flow into the Tolovana River which the proposed pipeline Environmental Assessment Atlas lists as a "highly productive fish stream" and is listed as an anadromous fish stream. We decided that because of its fisheries production that the Tolovana would be our chief concern.

On July 8 we found both Livengood Creek and the Tolovana River to be running in excess of water quality standards despite the addition of two more settling ponds, at point 5 on the map. When we inspected the two newest ponds we found that the water was flowing underneath the dams with little ponding or filtering of the water. This was thought to be due to the coarseness of the tailings used in the dams. We suggested that something might be used to better seal the ponds and increase the retention time to provide better settling. Klondike agreed to try lining the bottom pond with visqueen.

When Bob and I inspected the upper four settling ponds we found them silted to the top. They appeared to have been effective but were full and could not be cleaned out. Water had begun to channel through them and wash out the dams.

At our July 8 meeting with Klondike Placer, Bob and I reviewed our respective agencies' statutes in regard to the situation and where our concerns were. I explained that DEC would like

to see the water in the Tolovana to be running less than 25 JTU and that no visible concentrations of sediments should be built up in the river.

On July 31, Bob Fedeler and I returned to view any progress, but found the water in both Livengood Creek and the Tolovana River running muddier than before. Accompanying us on this visit were Mr. Bill Lamoreaux, EPA; Mr. Jerry Wilson, U.S. Bureau of Mines; and Mr. Larry Knapman, BLM. We found that although the bottom most settling pond had been partially lined with visqueen and both ponds were much fuller, water was still seeping out under the dams without much filtering of the suspended solids.

At this time, however, Glen Franklin told us that they had finished washing and were getting ready to divert water into the open ditch, so no more water would be released into upper Livengood Creek.

In order to document the water quality, Bob and I have carried a Hach Kit with a turbidimeter in it, to get a general idea of turbidities on the spot. We have as well taken and kept 500 ml. samples and photographs of the water at different points on different dates. We have used two locations consistently for checking the water; they have been the bridge over Livengood Creek at Livengood and the Alyeska Pipeline crossing of the Tolovana River, approximately two miles below the confluence with Livengood Creek.

Our samples to date show that to the present time that Klondike Placer has not met water quality standards at the Alyeska Tolovana bridge, despite the six ponds and approximately 10 miles of water course. The turbidimeter readings for the two sites are as follows:

26 May	Livengood Creek	1000+ JTU
27 May	Livengood Creek	1000+ JTU
8 July	Livengood Creek	270 JTU (about)
8 July	Tolovana R. at Pipeline	110 JTU (about)
10 July	Tolovana R. at Elliot Hwy.	1.5JfU
31 July	Livengood Creek	1000+ JTU
31 July	Tolovana R. at Pipeline	400 JTU (about)
31 July	Tolovana R. at Elliot Hwy.	5 JTU (less than)

Other possible sources of sediments in either Livengood Creek or the Tolovana River, such as other mining operations were checked for other siltation problems. Carl Parker on Lillian Creek presently has two settling ponds in, but is forced from a lack of water to sluice less than one hour per day. He is mechanically stripping his future sluice ground. G. & M. Mining on Ruth Creek is using a recycling system with two ponds beneath their sluicing operation and they release little water and the water that is released meets water quality standards by the time it reaches Livengood Creek.

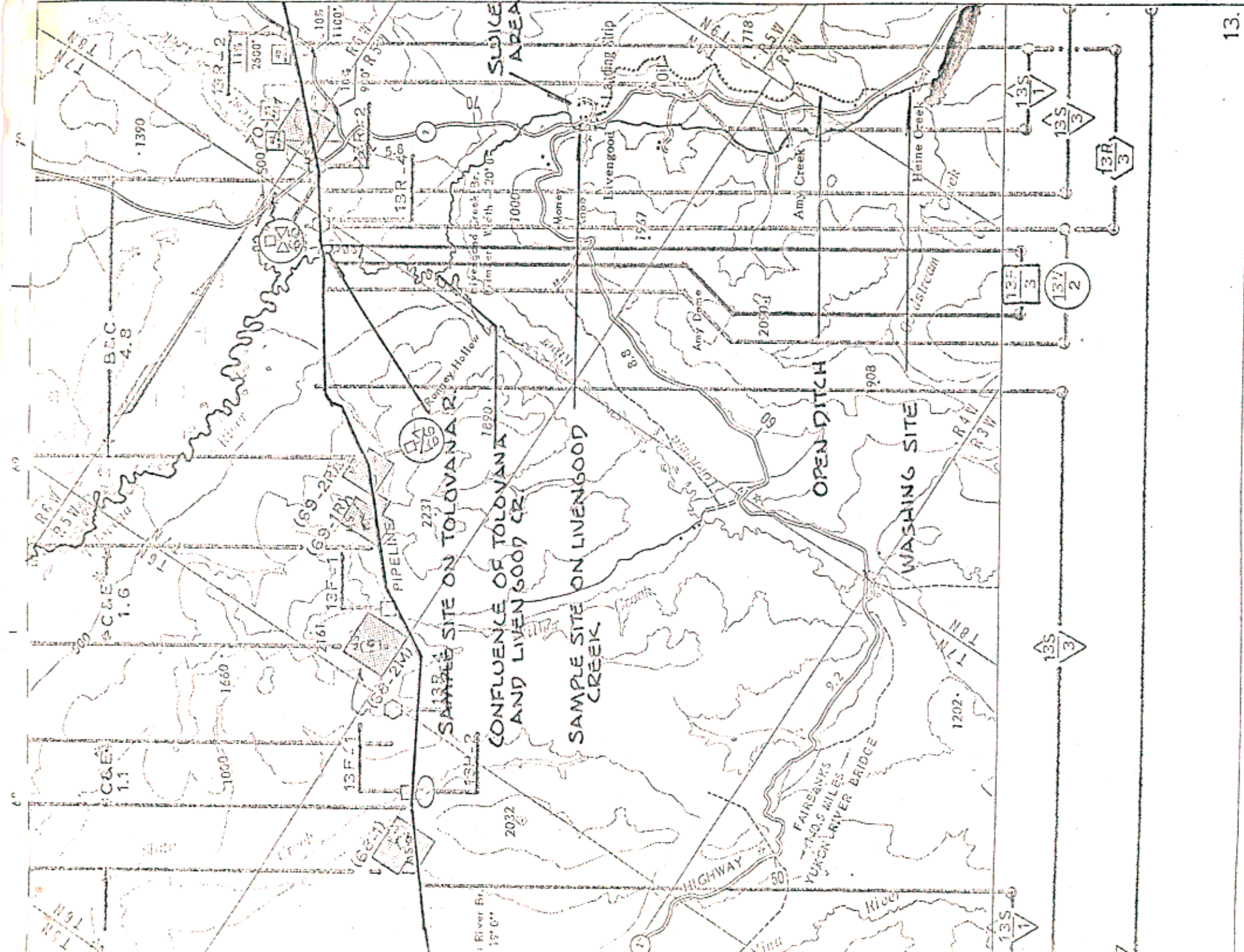
August 13, 1975

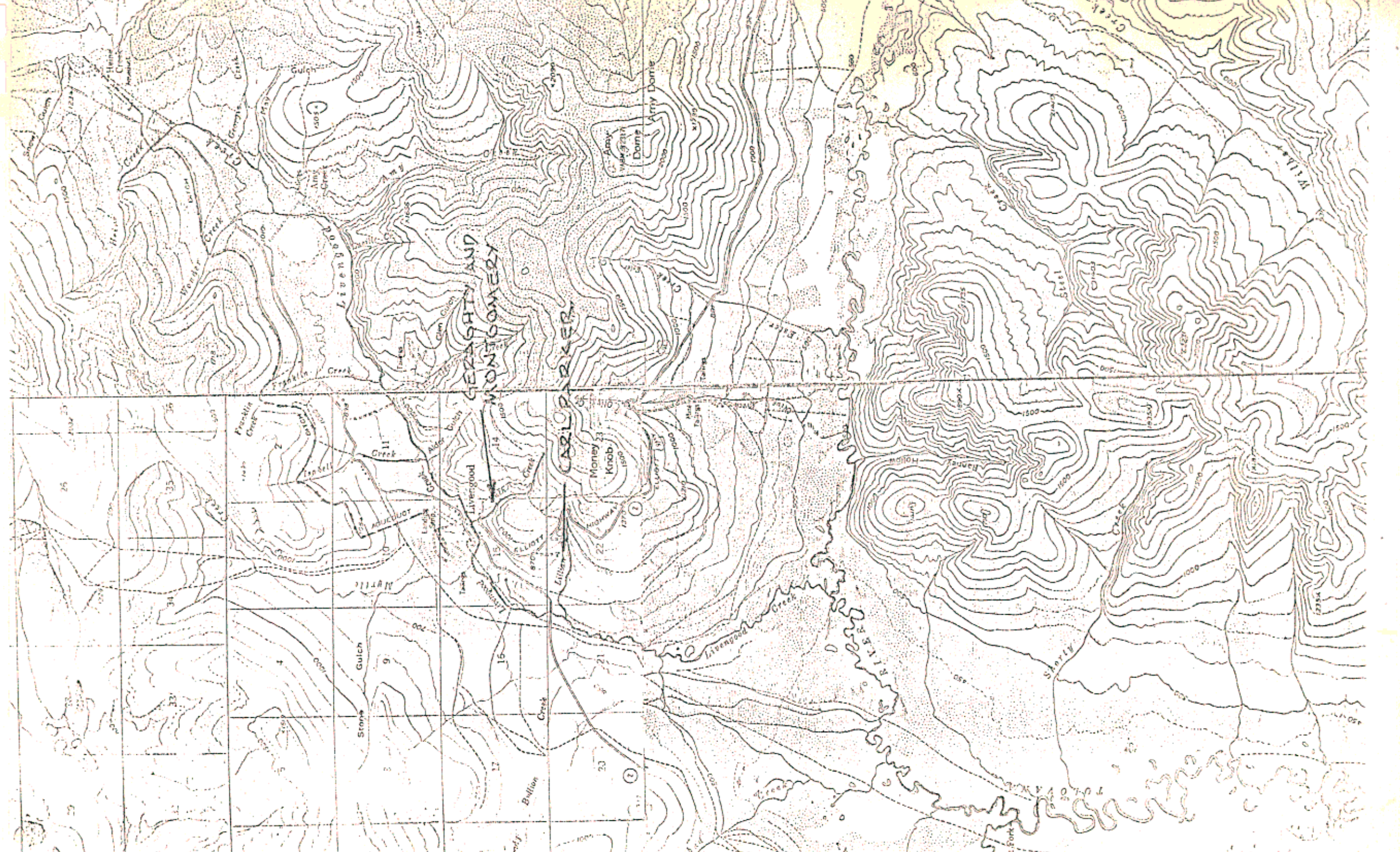
Bob Fedeler and I again visited Klondike Placer on August 7 to observe the sluicing operation in action. However, when the culvert was installed and some water diverted into the ditch, several low spots and patched portions gave way resulting in leaks that have made the ditch unusable this year. Klondike is now installing the pump and aluminum pipe previously at Hess Reservoir for the ditch washing, at Livengood Creek, past Livengood, to pump water from the creek to the sluice box. If more water is needed they are tentatively considering damming Myrtle Creek below the junction of the ditch and the creek, in order to create a pond for additional water.

According to Gary Scoretz when we spoke with him on August 7 Klondike Placer is considering not sluicing at all next summer, in favor of washing the ditch all season. During the week previous to August 7 it had been raining most of the week and we found the water in both Livengood Creek and the Tolovana River high and muddy, despite the fact no mining was going on. Gary Scoretz informed us that the high water had taken out both of the lower settling ponds and had most likely done the same to the upper four.

We did look at the sluice water settling ponds on August 7 and they do look sufficient. Next year Klondike is planning another large settling basin in the area now occupied by the Alyeska Pipe Storage yard, which would be ideally suited as a sluice settling pond and will provide substantially more area. However, I feel that the ditch washing operation and the plans for upcoming years needs to be carefully considered. I would raise questions concerning the feasibility of washing the large amount of yardage they propose, particularly because of the subsequent effects it may have on the Tolovana River. Although the company has been willing to try various treatments of the wash water, we have not seen sufficient improvement in the water quality of the Tolovana River to date. For these reasons, I would recommend that this operation be prevented from taking place in the future.

cc: J. Reinwand
S. Grundy, ADFG
B. Lamoreaux, EPA ✓

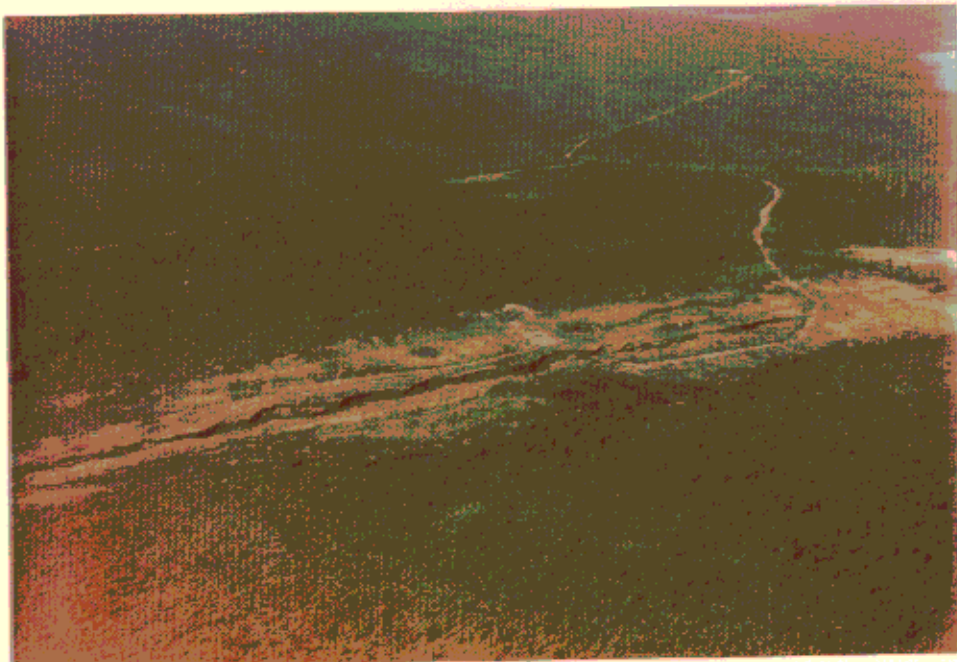




Livengood Creek

65° 31' 30" N, 148° 32' 45" W
Map 105

Photo by
Clyde Murry
@h m fairbanks



2800 feet of open ditch

Another mistake in engineering. do it the cheapest way. Use water to wash out a ditch.

This was the largest placer operation we looked at.

Klondike Placer-Gold Corporation Canadian
former Livengood Placer Mine



In order for the frozen ground to thaw the area is usually stripped of vegetation and top soil, the season before mining



Sluiceway and sluiceway plate

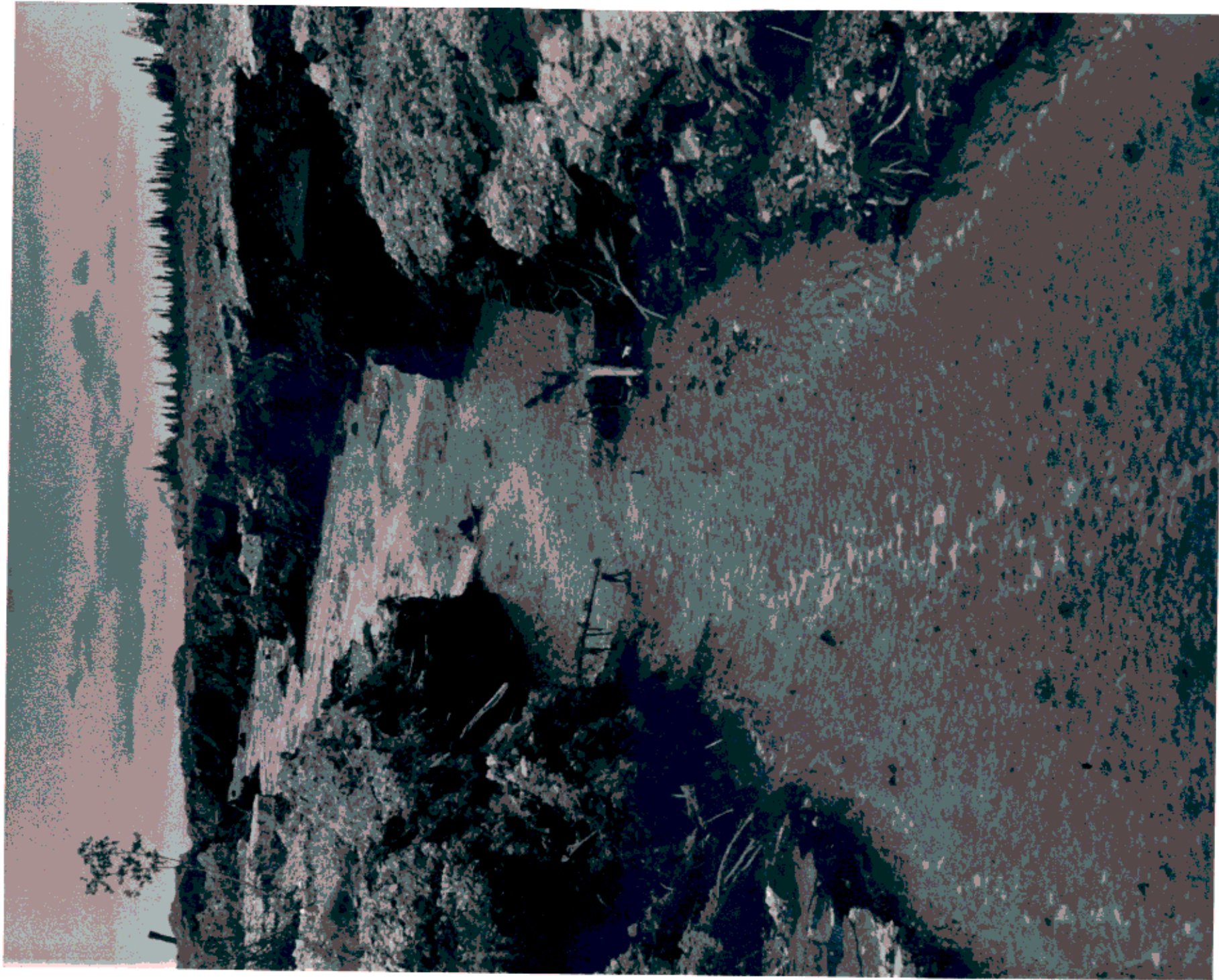


Photo by: Bob Fadelar
Alaska fish & Game.

The Ditch

Livengood

head

2800 feet of open ditch

Livengood Creek

Klondike Placer-Gold

Corporation



middle



tail

Alyeska Pipeline Storage Yard
Livengood, Alaska



future large settling basin



Livengood Creek

Klondike Placer-Gold
Corporation

the silt was flowing out through the gravel dykes.



muck



settling basin

Livengood Creek

Klondike Placer-Gold Corporation

water sampling



up stream

Livengood Creek at Livengood

muddy water

Photo taken on bridge



down stream



water sampling

Tolovana River at Pipeline

*the river was silted for 60-80 Air miles,
sitting up many of the prime spawning beds at
least for one season.*

muddy water

Bill Lamoreaux, EPA using imhoff cone to
measure the amount of sediment carried in the
Tolovana River at the pipeline 2 miles down
stream from the confluence with Livengood Creek





an exposed ladder frozen in a shaft of an old gravel drift-mine



sluice, sluiceplace and wings

a clean operation.

Ruth Creek

Livengood Area

65° 31' 30" N, 148° 32' 45" W
Map 105

G & M Mining



sluicing operations



upper settling pond



lower settling pond

this operation was turning out fairly clean water back into the stream. Also the water is recirculated or reused