

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ALASKA

basic data for thermal springs and wells
as recorded in GEOTHERM

By

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This report is preliminary and
has not been reviewed for conformity
with U.S. Geological Survey
editorial standards and stratigraphic
nomenclature. Any use of
trade names is for descriptive
purposes only and does not imply
endorsement by the USGS.

April, 1983

INTRODUCTION

GEOTHERM, a computerized information system now offline, was used to maintain data on the geology, geochemistry and hydrology of geothermal sites primarily within the United States. The system was proposed at the First Geothermal Implementation Conference in New Zealand in 1974 (Swanson, 1977) and was active until 1983. The primary mission was to provide a broad informational framework for the Geothermal Research Program (Duffield and Guffanti, 1981). GEOTHERM was used to support national geothermal assessments--in 1978 (Muffler, 1979) and 1982 (Reed, 1983). It was however a public system and provided data to both public and private sectors. A detailed discussion on databases in GEOTHERM and a general scheme of how the information system operated can be found in Bliss and Rapport (in press).

This report on Alaska is one of a series intended to preserve the data collected for GEOTHERM and make the data available to the public. States with significant geochemical data for geothermal fluids will be covered in individual reports such as this. A report will also be issued to cover miscellaneous data collected for sites in the central and eastern United States. The data found in this series is also available as a data file on the internationally-available General Electric Mark III service, a timeshare network. Those interested in accessing that system should contact the Energy Resource Center, University of Oklahoma, Norman, Oklahoma 73070. It is anticipated that a portion of the data will also be available on magnetic tape from the National Technical Information Service, U. S. Department of Commerce, Springfield, VA 22161. It will not be available until after the completion of the open-file series.

GEOTHERM INDEXES

Three computer-generated indexes are found in appendices A, B, and C of this report. The indexes give one line summaries of each GEOTHERM record describing the chemistry of geothermal springs and wells in the sample file for Alaska. Each index is sorted by different variables to assist the user in locating geothermal records describing specific sites.

Appendix A (p. 97-100) is sorted by the name of the source. Also given are site type (spring, well, fumarole), latitude, longitude (both use decimal minutes), township, range, section, GEOTHERM record identifier, and temperature (°C). In conducting a search of Appendix A, site names are quite useful for locating springs or wells for which a specific name is commonly used, but sites which do not have specific names are more difficult to locate. It is suggested that site titles which begin with words such as warm, hot, unnamed, pumped, well, or spring be checked. Descriptive text found as part of the site name and the site coordinates should be used to assist in determining location.

Appendix B (p. 101-105) is sorted by township, range, and section. Also given are name of source, GEOTHERM record identifier, and temperature (°C). Records missing items used for sorting will be listed first.

Appendix C (p. 106-111) is first sorted into one-degree blocks by latitude, and longitude, and then by name of source. Adjacent one-degree blocks which are published as a 1:250,000 map are combined under the appropriate map name. Also given are GEOTHERM record identifier, and temperature (°C). Records missing items used for sorting will be listed first. Numbers with blank in the same position as zero will be given first.

GEOTHERM SAMPLE FILE

GEOTHERM sample file contains 179 records for Alaska (Table 1). Records may be present which are duplicates for the same analyses. A record may contain data on location, sample description, analysis type (water, condensate, or gas), collection condition, flow rates, and the chemical and physical properties of the fluid. Stable and radioactive isotopic data are occasionally available. Some records may contain only location and temperature. When sufficient chemical data was available, the charge balance (percentage of difference in anion- and cation-milliequivalents) was computed and added to the record. Many of the numeric fields in the sample file can be directly qualified. The qualifier code precedes the number when appropriate. The codes and their meaning are given in Table 1.

Each thermal spring or well usually is represented by several records. This may document temporal changes in the geothermal fluids. Judgement on what constituted acceptable data was extremely complicated and the primary attempt was to insure that each GEOTHERM record faithfully reproduced the published data. On occasion, glaring inconsistencies or data clearly of poor quality were excluded. Regrettably, no database can be constructed or supported without the introduction of errors. The user, therefore, is advised to check with the published literature whenever possible. Users should carefully and critically evaluate the records they use.

This compilation should contain all of the chemical data for geothermal fluids in Alaska published as of December, 1981. However, no claim is made for completeness, and published sources have probably been missed. About 20% of the records in this list contains information which was unpublished at the time of data entry. A critically evaluated and corrected list of over 2000 records for the United States was extracted from the sample file and issued as a reference document for the national low-temperature geothermal resource assessment (Reed and others, 1983). This, along with a list of geothermal springs by Berry, and others, 1980, may be useful to some users.

GEOTERM BIBLIOGRAPHY

A bibliography is given in Appendix D (p. 112-114). The abbreviated form of the reference (called code) is identified as the record source in the full record list and is used to sort the entries in this appendix. Codes with a leading "*" identify records based on information which was unpublished at the time the record was prepared. Codes with a trailing "*" in the full GEOTHERM record are also described in greater detail in Appendix D and are listed ahead of published sources.

ACKNOWLEDGEMENTS

Contributions and support to GEOTHERM have been made by many in both federal and state agencies. This includes the U.S. Department of Energy (and associated contractors), and U.S. National Oceanic and Atmospheric Administration. Data-entry forms for most sites in Alaska were prepared by the staff of either the University of Alaska or the U.S. Geological Survey.

REFERENCES CITED

- Berry G. W., Grim, P. J., and Ikelman, J. A., 1980, Thermal springs list for the United States: National Oceanic and Atmospheric Administration, Key to Geophysical Records Document No. 12, 59 p.
- Bliss, J. D., and Rapport, Amy, [in press], GEOTHERM: the U.S. Geological Survey geothermal information system: Computers & Geosciences.
- Duffield, W. A., and Guffanti, Marianne, 1981, The geothermal research program of the U.S. Geological Survey: U.S. Geological Survey Open-File Report 81-564, 108 p.
- Muffler, L. J. P., ed., 1979, Assessment of geothermal resources of the United States--1978: U.S. Geological Survey Circular 790, 163 p.
- Reed, M. J., ed., 1983, Assessment of low-temperature geothermal resources of the United States--1982: U.S. Geological Survey Circular 892.
- Reed, M. J., Mariner, R. H., Brook, C. A., and Sorey, M. L., 1983, Selected data for low-temperature (less than 90°C) geothermal systems in the United States; reference data for U.S. Geological Survey Circular 892: U.S. Geological Survey Open-File Report 83-250, 129 p.
- Swanson, J. R., 1977, GEOTHERM data file: Geothermal Resources Council Transactions, v. 1, p. 285.

TABLE 1

State of Alaska: computer-generated listing of records describing geothermal-fluid samples. [A few records may be for cold springs or wells--this was to provide ground-water references for some studies.]

ORGANIZATION: Records are sorted by the name of the spring or well. Two records, GODDARD HOT SPRINGS and SITKA HOT SPRINGS - MAGNESIA SPRING are out of sequence; they are the last two records in this table. Order is the same in Appendix A.

QUALIFICATION CODES: All numeric attributes may be qualified. The codes and their meaning:

L = less than

G = greater than

E = estimated

T = trace (no numeric value reported)

N = not detected (not followed by number)

Q = qualified (other data in qualification field)

R = midpoint of range (actual range in qualification field)

REFERENCE: An expanded citation of the reference is found in Appendix D. The abbreviated form used in this table is called "CODE" in the appendix. Unpublished sources are preceded with "*". Those which begin and end with a "*" are also found in Appendix D.

RECORD 00001

GEUTHERM FILE ID: 0045072

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... ACOCI BIAL NO. 1
 LOCATION
 COUNTRY... UNITED STATES
 STATE... ALASKA
 COUNTY...
 GEOLOGIC PROVINCE...
 MAP REFERENCE... ILLIANA 1:250000, C-1 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1956/06/13
 TEMPERATURE (C)... 92.2
 WELL DEPTH (M)... 2970.
 GRADIENT (C/KM)... 31.
 OTHER SAMPLE INFORMATION... CONSIDERABLE LOW PRESSURE GAS FROM 6000FT TO 9622FT PLUS OIL SHOWS.
 REFERENCE AND IDENTIFICATION
 COMPILED BY... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

COORDINATES

59-44.73 N 153-13.85 W
 *05
 UTM ZONE...
 NORTHING...
 6622884.
 487025.

TOWNSHIP-RANGE

05S 023W 17
 N1/2 OF SE OF SE

RECORD 00002

GEUTHERM FILE ID: 0001454

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... ADAK ISLAND - UNNAMED HOT SPRING (1/2)
 LOCATION
 COUNTRY... UNITED STATES
 STATE... ALASKA
 MAP REFERENCE... ADAK 1:250000
 OTHER LOCALITY INFORMATION... 2 KM NORTH OF ANDREW LAKE, ON EAST SIDE OF ANDREW BAY
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER... 76AMM220
 POINT OF COLLECTION... SPRING ISSUES FROM FRACTURES IN A LOW BENCH ONE METER ABOVE LOW TIDE
 TEMPERATURE (C)... 63.
 WATER ANALYSIS
 PH... 7.4
 ALKALINITY... 420.
 ANALYSIS IN PPM
 AL...
 AR... 87.
 HE...
 CA... 1500.
 CL... 13500.
 CO...
 CR...
 F... 0.49
 FE(TOT)...
 HC03... 420.
 K... 460.
 LI...
 NA...
 NH...
 NO...
 SI02... 218.
 SO4... 120.
 ISOTOPES 10/2001
 70.
 6800.
 504..
 120.
 REFERENCE AND IDENTIFICATION
 COMPILED BY... LIEB, KANDY
 COMPILER AFFILIATION... US GEOLOGICAL SURVEY
 REFERENCE... *MILLER AND SMITH, 1977*

COORDINATES

51-58.55 N 176-37.73 W

TOWNSHIP-RANGE

UNNAMED HOT SPRING (1/2)

RECORD 00003

GEUTHERM FILE ID: 0001453

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... ADAK ISLAND - UNNAMED HOT SPRING (2/2)
 LOCATION
 COUNTRY... UNITED STATES

COORDINATES

51-58.55 N 176-37.73 W

TOWNSHIP-RANGE

UNNAMED HOT SPRING (2/2)

STATE..... ALASKA
 MAP REFERENCE..... ADAK 1:250000
 OTHER LOCALITY INFORMATION: 2 KM NORTH OF ANDREW LAKE, ON EAST SIDE OF ANDREW BAY
 SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 76AMM221
 POINT OF COLLECTION.. SPRING ISSUES THROUGH BEACH COBBLES AT SEA LEVEL
 TEMPERATURE (C)..... 71.

WATER ANALYSIS
 PH..... 7.5
 ALKALINITY..... 430. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 104.7
 ANALYSIS IN PPM

AL.....	CR.....	MG...	110.	SI02.	215.
H..... 79.	F.....	NA...	610.	SI04.	330.
RE.....	FE(TOT).	NB...			
CA..... 1300.	HCO3....				
CL..... 12000.					
CO.....	K.....				

REFERENCE AND IDENTIFICATION
 COMPILED BY..... LIEB, RANDY
 COMPILED BY..... US GEOLOGICAL SURVEY
 COMPILED BY..... *MILLER AND SMITH, 1977*

RECORD 00004
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... AKUTAN STRAIT HOT SPRINGS
 LOCATION

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... UNIMAK 1:250,000
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 8/10/80
 TEMPERATURE (C)..... 42.8
 DISCHARGE..... 15. L/MIN

WATER ANALYSIS
 PH..... 7.47
 SPECIFIC CONDUCTANCE..... 9800.
 CHARGE IMBALANCE (% DIFF)... 2.4
 ANALYSIS IN MG/L

AL.....	CR.....	MG...	46.	SI02.	50.
H..... 5.7	F.....	NA...	1660.	SI04.	222.
RE.....	FE(TOT).	NB...			
CA..... 475.	HCO3....				
CL..... 3440.					
CO.....	K.....				

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R.H.
 COMPILED BY..... U.S. GEOLOGICAL SURVEY
 COMPILED BY..... MOTYKA AND MOORMAN, 1981

RECORD 00005
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... AKUTAN HOT SPRINGS (SPRING A2)
 LOCATION

COUNTRY.....
 STATE.....
 MAP REFERENCE.....
 SAMPLE DESCRIPTION AND CONDITIONS

LAT/LONG... 54-09. N 165-55. W

69S 112W

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... UNIMAK 1:250,000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 8/07/80

TEMPERATURE (C)..... 84.

DISCHARGE..... 118. L/MIN

WATER ANALYSIS

PH..... 6.98

SPECIFIC CONDUCTANCE..... 1775.

CHARGE IMBALANCE (% DIFF).... 1.9

ANALYSIS IN MG/L

AL..... CR..... MG... 2.5

H..... F..... NA... 323.

RE..... FE(TOT)..... NB... 145.

CA..... HCO3..... 172.

CL..... 424.

CO..... K..... 25.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... MOTYKA AND MOORMAN, 1981

RECORD 00006

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... AKUTAN HOT SPRINGS (SPRING D2)

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... UNIMAK 1:250,000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 8/08/80

TEMPERATURE (C)..... 58.8

DISCHARGE..... 20. L/MIN

WATER ANALYSIS

PH..... 6.82

SPECIFIC CONDUCTANCE..... 700.

CHARGE IMBALANCE (% DIFF).... 11.8

ANALYSIS IN MG/L

AL..... CR..... MG... 12.

H..... F..... NA... 128.

RE..... FE(TOT)..... NB... 91.

CA..... HCO3..... 128.

CL..... 136.

CO..... K..... 9.3

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... MOTYKA AND MOORMAN, 1981

RECORD 00007

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... AKUTAN ISLAND - HOT SPRING B

LOCATION

COUNTRY.....

COORDINATES

GEOTHERM FILE ID: 0000207

COUNTRY..... UNITED STATES 695 110W LAT/LONG... 54-09.5 N 165-50.7 W
 STATE..... ALASKA UTM ZONE... +03
 COUNTY..... NORTHING... 6002170.
 GEOLOGIC PROVINCE... 445592.
 MAP REFERENCE..... UNIMAK 1:250000
 OTHER LOCALITY INFORMATION: .5 MILE SOUTH OF HOT SPRINGS BAY; WEST SIDE OF VALLEY.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1948/07/30
 TEMPERATURE (C)..... R3.0
 WATER ANALYSIS
 PH..... 7.0
 TOTAL DISSOLVED SOLIDS... 952.
 ANALYSIS IN PPM
 AG..... CO3..... N MG... 1.4 SB... N
 AL..... CR.....
 AS..... N
 R..... U 5.59 F..... 0.7 NA... 288. S102. 128.
 HE..... FE(TQT)... NB... 504... 39.
 CA..... 9.9 HCO3..... Q 192.
 CL..... 350.
 CO..... K..... 21.
 QUALIFICATION FIELD..... BORON CALCULATED FROM B203; HCO3 BY DIRECT TITRATION.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... SHEARER, G.. RENNER, J.
 COMPILED AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BYERS AND BARTH, 1953

ISOLOPES 10/001

RECORD 00008

GEUTHERM FILE 10: 0045070

GEUTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... AMOCO CATHEDRAL RIVER UNIT NO. 1
 LOCATION
 COUNTRY..... UNITED STATES 515 083W 29 SW OF NE OF SE COORDINATES
 STATE..... ALASKA 55-44.05 N 162-07.30 W
 COUNTY..... UTM ZONE... +03
 GEOLOGIC PROVINCE... NORTHING... 6180032.
 MAP REFERENCE..... 680724.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/06/28
 TEMPERATURE (C)..... 142.8 AT (M)... 4356.
 WELL DEPTH (M)..... 4359.
 GRADIENT (C/KM)..... 32.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILED AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00009

GEUTHERM FILE 10: 0045077

GEUTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... ANTONIO ZAPPA NO. 1, ALASKA CONSOLIDATED OIL CO. INC.
 LOCATION
 COUNTRY..... UNITED STATES 055 023W 18 SE OF NE OF NE COORDINATES
 STATE..... ALASKA 59-44.1 N 153-14.7 W
 COUNTY..... UTM ZONE...
 MAP REFERENCE.....
 OTHER LOCALITY INFORMATION: INISKIN PENINSULA; FILLZ CREEK; 2370 FT SOUTH AND 290 FT WEST OF NE CORNER OF SECTION 18.

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1961/11/07
 TEMPERATURE (C)..... 6 100. AT (M).. 2591.
 WELL DEPTH (M)..... 3423.
 PERTINENT LITHOLOGY..... HIGHLY FRACTURED AND FAULTED SILTSTONES AND VOLCANIC SEDIMENTS.
 OTHER SAMPLE INFORMATION... STRONG FLOWING SALT WATER AT THE 9740 FT DEPTH. WELL PLUGGED AND ABANDONED.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... ALASKO, 1976

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... ARCO DRIFT RIVER ST. OIL WELL
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... KENAI 1:250000, C-6 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1966/11/15
 TEMPERATURE (C)..... 82.2
 WELL DEPTH (M)..... 1644.
 GRADIENT (C/KM)..... 51.
 OTHER SAMPLE INFORMATION... OFFSHORE
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

COORDINATES
 LAT/LONG... 60-33.25 N 157-07.92 W
 UTM ZONE... +05
 NORTHING... 6710871.
 543903.

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... ATLANTIC REF RAINBOW FED. NO. 1
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... KENAI 1:250000, C-1 1:63360
 OTHER LOCALITY INFORMATION: LAT/LONG ARE APPROXIMATE.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1965/12/20
 TEMPERATURE (C)..... 28.3
 WELL DEPTH (M)..... 910.
 GRADIENT (C/KM)..... 34.
 OTHER SAMPLE INFORMATION... TO 914.4M NO WATER, OIL OR GAS FLOWS IN THIS WELL.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

COORDINATES
 LAT/LONG... 60-44. N 150-14. W
 UTM ZONE... +06
 NORTHING... 6922211.
 539571.

RECORD 00012

GEOHEM FILE ID: 0045062

GEOHEM SAMPLE FILE

NAME OF SAMPLE SOURCE... ATLANTIC REF RAINBOW FED. NO.2

LOCATION

COUNTRY..... UNITED STATES 08N 005W 01 NE OF NW
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE.....

MAP REFERENCE..... KENAI 1:250000, D-1 1:63360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1966/01/25

TEMPERATURE (C)..... 26.7

WELL DEPTH (M)..... 851.

GRADIENT (C/KM)..... 34.

OTHER SAMPLE INFORMATION.. NO WATER, OIL, OR GAS FLOWS IN THIS WELL.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACHETH, JOYCE

COMPILER AFFILIATION... UNIVERSITY OF ALASKA

REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00013

GEOHEM FILE ID: 0000253

GEOHEM SAMPLE FILE

NAME OF SAMPLE SOURCE... BAILEY BAY HOT SPRINGS

LOCATION

WADING NUMBER..... 76

COUNTRY..... UNITED STATES 68S 089E 09 SE OF SW OF SW

STATE..... ALASKA

COUNTY.....

GEOLOGIC PROVINCE..

MAP REFERENCE..... KETCHIKAN D-5 1:63360

OTHER LOCALITY INFORMATION: 1.6 MILES WEST OF HEAD OF BAILEY BAY; 1.2 MILES NORTH OF MAUDE LAKE. BY A CREEK THAT
 EMPTIES INTO LAKE SHELOCKUM (MIRROR LAKE). WATER ISSUES FROM AT LEAST 9 SPRINGS ON THE SOUTH SIDE OF "WARM CREEK".
 VENTS ARE 150 FT ABOVE THE STREAM ON STEEP SLOPES.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1915/06/17 WADING, G.A.

SAMPLE NUMBER..... 91

TEMPERATURE (C)..... 85.0

DEPOSITS OR ALTERATION.... SMALL AMOUNTS OF CARBONATE DEPOSITS.

PERTINENT LITHOLOGY..... GRANITIC ROCKS WITH SOME WHITE-MARBLE PHASES IN WHICH MICA IS SCARCE, AND WITH PEGMATITE

VEINS WITH LARGE FLAKES OF BLACK MICA.

OTHER SAMPLE INFORMATION.. SLIGHT TASTE AND ODOR OF H₂S.

WATER ANALYSIS

DATE/ANALYST..... DINSMORE, S.C.

TOTAL DISSOLVED SOLIDS... 413.

ANALYSIS IN PPM

AG.....	CO3.....	53.	MG...	2.1	5102.	142.
AL.....	CR.....		NA...			
H.....	F.....		NA+K.	0 54.		
HA.....	FE+3....		NH...		504..	32.
HE.....	FE(TOT).	1.5	NO3..	T		
CA.....	HC03....	27.				
CL.....						

QUALIFICATION FIELD..... NA + K IS A CALCULATED VALUE (BY THE TESTER).

ISLOPES 10/0001

REFERENCE AND IDENTIFICATION

COMPILED BY..... SHEARER, G., RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WARING, 1917

RECORD 00014

GEOTHERM_SAMPLE_FILE..... GEOTHERM FILE ID: 0000249

NAME OF SAMPLE SOURCE... BARANOF HOT SPRINGS

WARING NUMBER..... 69

LOCATION.....

COUNTRY..... UNITED STATES

STATE..... ALASKA

COUNTY.....

GEOLOGIC PROVINCE.....

MAP REFERENCE.....

OTHER LOCALITY INFORMATION! SITKA A-3 1:63360

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 84

TEMPERATURE (C)..... 51.0

WATER ANALYSIS

PH..... 9.6

CHARGE BALANCE (% DIFF).... 30.0

ANALYSIS IN PPM

AG.....

AL..... 0.37

B..... 0.2

BE.....

CA..... 2.5

CL..... 11.

CO.....

CR.....

F.....

FE(TOT).....

HC03..... 88.4

LI..... 0.06

MG..... 0.14

NA.....

NB.....

SI02..... 70.

S04..... 68.

ISOTOPES 10/0001

REFERENCE AND IDENTIFICATION

COMPILED BY..... SHEARER, G., RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MILLER, 1973

RECORD 00015

GEOTHERM_SAMPLE_FILE..... GEOTHERM FILE ID: 0021496

NAME OF SAMPLE SOURCE... BARANOF HOT SPRINGS - SPRING 7

WARING NUMBER..... 24

LOCATION.....

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... SITKA A-3 1:63360

OTHER LOCALITY INFORMATION! UPPERMOST SPRING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1915/06/22 WARING, G.A.

SAMPLE NUMBER..... 7

TEMPERATURE (C)..... 50.

WATER ANALYSIS

PH.....

CHARGE BALANCE (% DIFF).... 268.

ANALYSIS IN PPM

AG.....

AL.....

B.....

BE.....

CA.....

CL.....

CO.....

CR.....

F.....

FE(TOT)..... 1.8

HC03.....

LI.....

MG.....

NA..... 1.1

NB.....

SI02..... 96.

S04..... 49.

ISOTOPES 10/0001

CA.....	4.6	HC03.....	93.
CL.....	9.d		
CO.....		K.....	0 58.

QUALIFICATION FIELD..... FE FROM FE203 + AL203; K IS CALCULATED.
REFERENCE AND IDENTIFICATION

COMPILED BY.....	LAWSON, WILLIAM A.
COMPILER AFFILIATION...	U.S. GEOLOGICAL SURVEY
REFERENCE.....	WARING, 1917

RECORD 00016

GEOTHERM FILE ID: 0021497

GEOTHERM SAMPLE-FILE

NAME OF SAMPLE SOURCE... BARANOF HOT SPRINGS - SPRING 8

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... SITKA A-3 1163360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1913/08/13 WEIGLE, W.G.

SAMPLE NUMBER..... 8

TEMPERATURE (C)..... 51.7

COORDINATES

LAT/LONG... 57-05.10 N 164-50.34 W

FURBER, F. B.; BUREAU OF CHEMISTRY, U.S. DEPT OF AGRICULTURE.

~~15010PES (0/00)~~

	CO ₂	35.		0.2	
AG.....	CR.....		MG...		71.
AL.....	F.....		NA...	S102.	43.
R.....	FE(TOT).....	0.6	NB...	S04..	
RE.....	HCO ₃	30.	NO3...		
CA.....		2.4			

CO..... K..... 2.3
QUALIFICATION FIELD..... FE IS FROM FE203 + AL2O3.
REFERENCE AND IDENTIFICATION
COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... WARING, 1917

RECORD 00017

GEOTHERM FILE 10: 0000247

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... BARANOF ISLAND - FISH BAY AREA

WATERING NUMBER..... 68

LOCATION

TOWNSHIP=RANGE

52S 064E 24 NE

COUNTRY..... UNITED STATES

STATE..... ALASKA

COUNTY.....

GEOLOGIC PROVINCE...

COORDINATES

LAT/LONG... 57-21.90 N 135-23.20 W

UTM ZONE... 408

NORTHING... 6358056.

476942.

MAP REFERENCE..... SITKA 8-5 1:63360
OTHER LOCALITY INFORMATION: N-NW OF MT ROSENBERG; N-NW OF FISH BAY CREEK ALONG A SMALL TRIBUTARY; 3 MILES EAST OF THE HEAD OF FISH BAY.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1915/06/26 WARING, G.A.
SAMPLE NUMBER..... 83
TEMPERATURE (C)..... 47.0

PERTINENT LITHOLOGY..... FRAGMENTS OF SOIL SHOW SCHIST WITH QUARTZ VEINS. THE SPRINGS ARE IN THE VICINITY OF THE EASTERN BORDER OF AN INTRUSIVE BELT.
OTHER SAMPLE INFORMATION.. SLIGHT TASTE AND ODOR OF H2S.

WATER ANALYSIS

DATE/ANALYST..... DINSMORE, S.C.
TOTAL DISSOLVED SOLIDS... 393.
ANALYSIS IN PPM

AG.....	CO3.....	63.		
AL.....	CR.....		MG...	2.4
R.....	F.....		NA...	
HA.....	FE+3.....		NA+K..	Q 69.
HF.....	FE(TOT)..	0.75	NB...	
CA.....	HCO3.....	43.	NO3... T	
CL.....				

OTHER ANALYTICAL DATA... B407 = 34. PPM.
QUALIFICATION FIELD..... NA + K IS A CALCULATED VALUE (BY THE TESTER).
REFERENCE AND IDENTIFICATION

COMPILED BY..... SHEARER, G., RENNER, J.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... WARING, 1917

RECORD 00018

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... BARNES LAKE(PARADISE) WARM SPRINGS
LOCATION

COUNTRY..... UNITED STATES
STATE..... ALASKA
MAP REFERENCE..... BRADFIELD CANAL C-6 1163,360
SAMPLE DESCRIPTION AND CONDITIONS

COORDINATES
LAT/LONG... 56-40.8 N 131-52.9 W

DATE/COLLECTOR..... 9/25/79
TEMPERATURE (C)..... 26.
DISCHARGE..... 30. L/MIN

WATER ANALYSIS

PH..... 6.95
SPECIFIC CONDUCTANCE..... 455.
ANALYSIS IN MG/L

AL.....	CR.....		MG...	0.44
H.....	F.....	2.3	NA...	
RE.....	FE(TOT)..		NB...	
CA.....				
CL.....				

ISOIOPES 10/001

CO..... 3.5

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MOTYKA AND OTHERS, 1980

RECORD 00019

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... BARNES LAKE(PARADISE) WARM SPRINGS
LOCATION

COUNTRY..... UNITED STATES
STATE..... ALASKA
MAP REFERENCE..... BRADFIELD CANAL C-6 1163,360

COORDINATES
LAT/LONG... 56-40.8 N 131-52.9 W

ISOIOPES 10/001

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 9/25/79
 TEMPERATURE (C)..... 26.
 DISCHARGE..... 30. L/MIN
 WATER ANALYSIS

PH..... 6.95
 SPECIFIC CONDUCTANCE..... 455.

ANALYSIS IN MG/L

AL.....	0.05	CR.....	0.44	SI02.	71.
H.....		F.....	72.	SO4..	110.
HF.....		FE(TOT).			
CA.....	8.9				
CL.....	13.				

ISOTOPES 10/001

CO..... K..... 3.5

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MOTYKA AND OTHERS, 1980

RECORD 00020

GEOTERM SAMPLE FILE

NAME OF SAMPLE SOURCE... BATTLESHIP MTN - UNNAMED SPRING
 LOCATION..... GEOTHERM FILE ID: 0021470

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 085 16 E1/2 OF NE OF NE LAT/LONG... 64-48. N 162-55. W

COORDINATES

STATE..... ALASKA

GEOLOGIC PROVINCE... 02

MAP REFERENCE..... SOLOMON D-2 1163360

OTHER LOCALITY INFORMATION: 20 MILES NORTH OF GOLOVIN NEAR "MT KACHAUK"; EAST SIDE OF EAST FORK "CLIFF CREEK" ON

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/00/00

SAMPLE NUMBER..... 4

TEMPERATURE (C)..... 17.

PERITINENT LITHOLOGY..... SPRING IS IN GRANODIORITE OF "KACHAUK PLUTON" NEAR CONTACT WITH PRECAMBRIAN SCHISTOSE MARBLE.

OTHER SAMPLE INFORMATION.. H2S ODOR. TEMP MEASURED IN 1970.

WATER ANALYSIS

DATE/ANALYST..... WILLEY, L.M. AND PRESSER, T.S.

PH..... 9.2

CHARGE IMBALANCE (% DIFF)... 8.5

ANALYSIS IN PPM

AG.....	CO3.....	LI....	0.2	S....	
AL.....	CR.....	MG....	L 0.1	SH....	
H.....	0.66	NA....	120.	SI02.	56.
HF.....		NB....		SO4..	16.
CA.....	4.8				
CL.....	120.				

ISOTOPES 10/001

DEL O OF WATER..... -106.
 DEL O(18) OF WATER... -13.8

CO..... K..... 1.2

OTHER ANALYTICAL DATA... NH3 LESS THAN ONE MG/L. ISOTOPE DATA FROM J.R. O'NEIL.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00021

GEOTHERM FILE ID: 0021469

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... BATTLESHIP MTN - UNNAMED SPRING

LOCATION... TOWNSHIP-RANGE

COUNTRY... UNITED STATES 16 E1/2 OF NE OF NE LAT/LONG... 64-48. N 162-55. W

STATE... ALASKA

MAP REFERENCE... SOLOMON D-2 1:63360

OTHER LOCALITY INFORMATION: 20 MILES NORTH OF GOLOVIN NEAR "MT KACHAUK" EAST SIDE OF EAST FORK "CLIFF CREEK" ON SMALL BEDROCK TERRACE ABOUT SEVENTY-FIVE FEET ABOUT CREEK.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1970/00/00

SAMPLE NUMBER... 4

TEMPERATURE (C)... 17.

PERTINENT LITHOLOGY... SPRING IS IN GRANODIORITE OF "KACHAUK PLUTON" NEAR CONTACT WITH PRECAMBRIAN SCHISTOSE MARBLE.

OTHER SAMPLE INFORMATION... H2S ODOR

WATER ANALYSIS

DATE/ANALYST... BARNES, R.B.

PH... 8.97

CHARGE IMBALANCE (% DIFF)... 15.6

ANALYSIS IN PPM

AG... 10.

AL... 0.6

H... 0.2

FE... 111.

CA... 14.

CL... 122.

CO... 1.1

OTHER ANALYTICAL DATA... ISOTOPE DATA FROM J.R. O'NEIL.

REFERENCE AND IDENTIFICATION

COMPILED BY... LAWSON, WILLIAM A.

COMPILED AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE... MILLER AND OTHERS, 1973

ISOTOPE DATA

DEL D OF WATER	-106.
DEL D (18) OF WATER	-13.8

S...
SB...
S04... 16.

RECORD 00022

GEOTHERM FILE ID: 0000255

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... BELL ISLAND HOT SPRINGS

LOCATION... TOWNSHIP-RANGE

COUNTRY... UNITED STATES 31 NE OF SW OF NW

STATE... ALASKA

MAP REFERENCE... KETCHIKAN D-5 1:63360

OTHER LOCALITY INFORMATION: 50 MILES NORTH OF KETCHIKAN ON THE WESTERN END OF BELL ISLAND. SPRINGS ISSUE FROM THE NORTH EDGE OF A SMALL CREEK ABOUT 400 YDS FROM AND 15 FT ABOVE HIGH-TIDE LIMIT; IN THE NARROW COVE INTO WHICH THE CREEK EMPTIES.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1915/06/06

SAMPLE NUMBER... 92

TEMPERATURE (C)... 72.0

PERTINENT LITHOLOGY... WATER ISSUES FROM A NARROW FISSURE 15 FT LONG, IN BIOTITE GRANITE CUT BY SMALL PEGMATITE VEINS; SLICKEN-SIDES ARE EVIDENT.

COORDINATES

LAT/LONG...	55-55.95 N 131-34.62 W
UTM ZONE...	+09
NORTHING...	6201422.
	339661.

OTHER SAMPLE INFORMATION.. LOWEST AND HOTTEST BASIN OF 5 BASINS; SLIGHT H2S ODOR; WATER IS CONDUCTED TO A BATHHOUSE.

WATER ANALYSIS

DATE/ANALYST..... DOLE, R.B. AND CHAMBERS, A.A.

TOTAL DISSOLVED SOLIDS... 674.

ANALYSIS IN PPM

ISOIOPES 10/001

AG.....	13.		
AL.....	0 1.2	MG...	1.0
CR.....		NA...	105.
F.....		NA+K.	Q 201.
FE+3.....		NB...	504..
FE(TOT)...			129.
HC...			
HC03.....	37.		
CL.....	188.		

QUALIFICATION FIELD..... AL = AL + FE; NA + K IS A CALCULATED VALUE (BY THE TESTER).

REFERENCE AND IDENTIFICATION

COMPILED BY..... SHEARER, G., RENNER, J.

COMPILED AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... WARING, 1917

RECORD 00023

GEOTHERM FILE ID: 0045028

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... RERNICE LAKE POWER PLANT WELL DISCHARGE LINE

LOCATION..... COORDINATES

COUNTRY..... UNITED STATES

STATE..... ALASKA

COUNTY.....

GEOLOGIC PROVINCE... KENAI 1:250000, C-4 1:63360

MAP REFERENCE.....

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1964/05/11

TEMPERATURE (C)..... 20.5

WELL DEPTH (M)..... 53.

DISCHARGE..... E 189, L/MIN

OTHER SAMPLE INFORMATION... SAMPLES MAY BE AFFECTED BY LOCAL HEAT OR HAVE STEAM ADDED. WELL WAS COLD BEFORE MARCH.

1964 ALASKAN EARTHQUAKE.

WATER ANALYSIS

P..... 8.4

SPECIFIC CONDUCTANCE..... 605.

CHARGE IMBALANCE (% DIFF)... 9.4

ANALYSIS IN MG/L

AG.....

AL.....

CR.....

F.....

FE(TOT)...

HC03.....

CL.....

K.....

CO.....

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE

COMPILED AFFILIATION... UNIVERSITY OF ALASKA

REFERENCE..... *USGS, ANCHORAGE; ORAL COM.-K.A. JOHNSON; HOMER ELECTRIC

RECORD 00024

GEOTHERM FILE ID: 0021457

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... ROWSER CREEK WELL

LOCATION
 COUNTRY..... UNITED STATES 06S 024W 11 NW OF SW OF NW OF NAT/LONG... 50-40.58 N 153-19.62 W
 STATE..... ALASKA
 MAP REFERENCE..... ILLIAMA C-1 1163360
 OTHER LOCALITY INFORMATION: ABANDONED WELL ON BOWSER CREEK.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1973/06/00 U.S. BUREAU OF MINES
 OTHER SAMPLE INFORMATION.. GAS BUBBLING UP THROUGH WATER IN SURFACE CASING.
 GAS ANALYSIS
 DATE/ANALYST..... U.S. BUREAU OF MINES HELIUM OPERATION, AMARILLO, TX.
 ANALYSIS IN VOLUME %
 AR... 0.2
 CH... 79.2
 C2H6... N 20.4
 CO2... 0.1
 H2... N
 HE... 0.01
 OTHER ANALYTICAL DATA... TRACE OF PROPANE.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BLASKO, 1976

RECORD 00025
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... RP WAS ILLA ST. NO. 1 OIL WELL
 LOCATION
 COUNTRY..... UNITED STATES 17N 001W 33 NE OF NE OF SE
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... ANCHORAGE 1:250000, C-7 1163360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1963/02/22
 TEMPERATURE (C)..... 36.7 AT (M).. 1469.
 WELL DEPTH (M)..... 1478.
 GRADIENT (C/KM)..... 40.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00026
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... RP WHITE RIVER NO. 3
 LOCATION
 COUNTRY..... UNITED STATES 21S 019E 29 N1/2 OF NE OF SW
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... BERING GLACIER 1:250000, A-4 1163360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1963/06/30
 TEMPERATURE (C)..... 66.7 AT (M).. 2077.
 COORDINATES
 LAT/LONG... 60-03.95 N 142-12.73 W
 UTM ZONE... 407
 NORTHING... 6659155.
 432522.

WELL DEPTH (M)..... 2129.
 GRADIENT (C/KM)..... 32.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... BRADFIELD HOT SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... BRADFIELD CANAL A-4 1:63,360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 10/2/79
 TEMPERATURE (C)..... 57.
 DISCHARGE..... 14. L/MIN
 WATER ANALYSIS

PH..... 8.15
 SPECIFIC CONDUCTANCE..... 885.
 CHARGE IMBALANCE (% DIFF)... 10.1
 ANALYSIS IN MG/L
 AL..... CR..... 0.04
 B..... F..... 2.5
 FE..... NA..... 118.
 CA..... HC03..... 42.
 CL..... K..... 5.7
 CO.....
 ISOTOPES (O/DOL)
 MG... 0.04
 SI02... 87.
 S04... 235.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R.H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MOTYKA AND OTHERS, 1980

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CHENA HOT SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE... 02
 MAP REFERENCE..... CIRCLE A-5 1:63360
 OTHER LOCALITY INFORMATION 62 MILES NE OF FAIRBANKS UP THE CHENA RIVER 12.2 MILES E-SE OF "CHENA DOME".
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 30
 TEMPERATURE (C)..... 57.0
 DISCHARGE..... 840. L/MIN
 PERTINENT LITHOLOGY..... SPRINGS ARE IN QUARTZ MONZANITE OF DARBY PLUTON LESS THAN 400M FROM CONTACT WITH DEVONIAN LIMESTONE.
 WATER ANALYSIS
 DATE/ANALYST..... WILLEY AND PRESSER
 PH..... 9.1

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CHENA HOT SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE... 02
 MAP REFERENCE..... CIRCLE A-5 1:63360
 OTHER LOCALITY INFORMATION 62 MILES NE OF FAIRBANKS UP THE CHENA RIVER 12.2 MILES E-SE OF "CHENA DOME".
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 30
 TEMPERATURE (C)..... 57.0
 DISCHARGE..... 840. L/MIN
 PERTINENT LITHOLOGY..... SPRINGS ARE IN QUARTZ MONZANITE OF DARBY PLUTON LESS THAN 400M FROM CONTACT WITH DEVONIAN LIMESTONE.
 WATER ANALYSIS
 DATE/ANALYST..... WILLEY AND PRESSER
 PH..... 9.1

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CHENA HOT SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE... 02
 MAP REFERENCE..... CIRCLE A-5 1:63360
 OTHER LOCALITY INFORMATION 62 MILES NE OF FAIRBANKS UP THE CHENA RIVER 12.2 MILES E-SE OF "CHENA DOME".
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 30
 TEMPERATURE (C)..... 57.0
 DISCHARGE..... 840. L/MIN
 PERTINENT LITHOLOGY..... SPRINGS ARE IN QUARTZ MONZANITE OF DARBY PLUTON LESS THAN 400M FROM CONTACT WITH DEVONIAN LIMESTONE.
 WATER ANALYSIS
 DATE/ANALYST..... WILLEY AND PRESSER
 PH..... 9.1

CHARGE IMBALANCE (% DIFF)... 4.0

ANALYSIS IN MG/L

AG.....	CO3.....	8.	LI....	0.3	S.....
AL.....	CR.....	0.028	MG....	0.13	SB....
B.....	F.....	0.16	NA....	110.	SI02..
RE.....	FE(TOT)...	18.6	NB....		504..
RI.....	GA.....		NH4..	2.86	
CA.....	HC03.....	114.7			
CL.....		28.9			
CO.....	K.....	3.3			

OTHER ANALYTICAL DATA... NH3 = 2.7 MG/L.

QUALIFICATION FIELD..... NH4 CALCULATED FROM NH3.

REFERENCE AND IDENTIFICATION

COMPILED BY..... SHEARER, G., RENNER, J.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... MILLER, 1973

RECORD 00029

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0021503

NAME OF SAMPLE SOURCE... CHENA HOT SPRINGS - BATHOUSE SPRING

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... CIRCLE A-5 1:63360

OTHER LOCALITY INFORMATION: 62 MILES NE OF FAIRBANKS, UP THE CHENA RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1915/08/05

TEMPERATURE (C)..... 65.

WATER ANALYSIS

DOLE, R.B. AND CHAMBERS, A.A.

DATE/ANALYST.....

TOTAL DISSOLVED SOLIDS... 388.

ANALYSIS IN PPM

ISOTOPES (0/00)

AG.....	CO3.....	N	MG....	1.2	SI02..	77.
AL.....	CR.....		NA....			
B.....	F.....		NA+K..	94.		
RE.....	FE+3.....		NB....		504..	78.
CA.....	FE(TOT)...	1.2				
CL.....	HC03.....	118.				

QUALIFICATION FIELD..... FE(TOT) IS FE203 + AL2O3; NA + K IS A CALCULATED VALUE (BY THE TESTER).

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... WARING, 1917

RECORD 00030

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0021504

NAME OF SAMPLE SOURCE... CHENA HOT SPRINGS - SPRING A

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... CIRCLE A-5 1:63360

OTHER LOCALITY INFORMATION: JUST NORTH OF FILE NO. 0021503.

SAMPLE DESCRIPTION AND CONDITIONS

COORDINATES

LAT/LONG... 65-03.18 N 146-03.42 W

DATE/COLLECTOR..... 1912/00/00 LEBLANC, P.J.B.
 TEMPERATURE (C)..... 51.1
 WATER ANALYSIS
 DATE/ANALYST.....
 TOTAL DISSOLVED SOLIDS... 634.
 ANALYSIS IN PPM
 AG..... CO3..... N LI... T
 H..... F..... NA... 6. S102. 72.
 BA..... FE+3..... NA+K. 208.
 HE..... FE(TOT)... NB... S04... 67.
 CA..... 2.9 HCO3..... 494.
 CL..... 38.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WARING, 1917

RECORD 00031
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CHIEF SHAKES HOT SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... PETERSBURG C-1, 1:63,360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 6/19/15
 TEMPERATURE (C)..... 52.
 DISCHARGE..... 441. L/MIN
 WATER ANALYSIS
 CHARGE IMBALANCE (% DIFF)... 5.7
 ANALYSIS IN MG/L
 AG..... CO3..... 18.
 AL..... CR..... MG... 0.4
 R..... F..... NA... 87.
 HE..... FE(TOT)... NB... S102. 108.
 CA..... 13. HCO3..... 43. S04... 142.
 CL..... 6.5
 CO..... K..... 9.3
 COORDINATES
 LAT/LONG... 56-43.0 N 132-00.3 W

RECORD 00032
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CHIEF SHAKES HOT SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... PETERSBURG C-1, 1:63,360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 7/7/76
 TEMPERATURE (C)..... 50.5
 DISCHARGE..... 238. L/MIN
 COORDINATES
 LAT/LONG... 56-43.0 N 132-00.3 W

WATER ANALYSIS

USGS, DENVER LAB

DATE/ANALYST.....
 PH..... 7.1
 SPECIFIC CONDUCTANCE..... 390.
 CHARGE IMBALANCE (% DIFF).... 4.6
 ANALYSIS IN MG/L

AL.....
 R..... 0.03
 BE.....
 CA..... 15.
 CL..... 6.3
 CO.....
 CR.....
 F.....
 FE(TOT).....
 HCO3..... 45.
 K..... 3.0
 MG.... 0.1
 NA.... 73.
 NB....
 SI02.. 70.
 S04... 140.

ISOIOPES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MOTYKA AND OTHERS, 1980

RECORD 00033

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... CHIEF SHAKES HOT SPRINGS

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... PETERSBURG C-1, 1163,360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 9/18/79

TEMPERATURE (C)..... 45.

DISCHARGE..... 135. L/MIN

WATER ANALYSIS

PH..... 8.05
 SPECIFIC CONDUCTANCE..... 415.
 CHARGE IMBALANCE (% DIFF).... 5.6
 ANALYSIS IN MG/L

AL.....
 H.....
 HE.....
 CA..... 14.
 CL..... 4.6
 CO.....
 CR.....
 F.....
 FE(TOT).....
 HCO3..... 50.
 K..... 2.9
 MG.... 0.2
 NA.... 82.
 NB....
 SI02.. 63.
 S04... 149.

ISOIOPES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MOTYKA AND OTHERS, 1980

RECORD 00034

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... CHIEF SHAKES HOT SPRINGS

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... PETERSBURG C-1, 1163,360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 9/18/79

TEMPERATURE (C)..... 50.4

COORDINATES

LAT/LONG... 56-43.0 N 132-00.3 W

GEOTHERM FILE ID: 0001905

DISCHARGE..... 320. L/MIN
WATER ANALYSIS

P4..... 7.90
SPECTIFIC CONDUCTANCE..... 427.
CHARGE IMBALANCE (% DIFF)... 14.8
ANALYSIS IN MG/L

AL.....
H.....
HE.....
CA..... 14.
CL..... 4.9
CO.....
K..... 3.0

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MOTYKA AND OTHERS, 1980

ISOLINES (0/001)

MG.... 0.098
NA.... 85.
NB....
SI02. 70.
SO4.. 137.

RECORD 00035

GEOTHERM FILE ID: 0000237

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... CIRCLE HOT SPRINGS
WATERING NUMBER..... 19

LOCATION

COUNTRY..... UNITED STATES
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE..
MAP REFERENCE.....

IONSHIP=RANGE

08N 015E 34

NE OF NW

COORDINATES

LAT/LONG... 65-28.98 N 144-38.17 W
UTM ZONE... 406
NORTHING... 7264162.
608796.

OTHER LOCALITY INFORMATION: SW OF CIRCLE AT THE BASE OF THE MINS THAT FORM THE SOUTHERN BORDER OF THE WIDE FLAT VALLEY OF THE YUKON RIVER, NORTH SIDE OF "THE MASTODON DOME".

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 31
TEMPERATURE (C)..... 57.

DISCHARGE..... 494. L/MIN

WATER ANALYSIS

P4..... 7.6
CHARGE IMBALANCE (% DIFF)... 9.9
ANALYSIS IN MG/L

AG.....
AL..... 0.012
H..... 1.1
HE.....
HI.....
CA..... 20.8
CL..... 249.
CO.....
K..... 9.8

LI.... 0.34
MG.... 0.3
NA.... 230.
NB....
NH4.. 0 0.11

SI02. 95.
SO4.. 96.

ISOLINES (0/001)

OTHER ANALYTICAL DATA... NH3 = 0.1 MG/L.
QUALIFICATION FIELD... NH4 CALCULATED FROM NH3.
REFERENCE AND IDENTIFICATION

COMPILED BY..... RENNER, J., SHEARER, G.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MILLER, 1973

RECORD 00036

GEOTHERM FILE ID: 0021445

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... CIRCLE HOT SPRINGS - NORTHERNMOST SPRING
 LOCATION
 COUNTRY... UNITED STATES
 STATE... ALASKA
 MAP REFERENCE... CIRCLE B-2 1163360
 OTHER LOCALITY INFORMATION: SW OF CIRCLE AT THE BASE OF THE MTS THAT FORM THE SOUTHERN BORDER OF THE FLAT VALLEY
 OF THE YUKON RIVER ON THE NORTH SIDE OF THE "MASTODON DOME".
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1915/07/12 WARING, G.A.
 SAMPLE NUMBER... 1
 DEPOSITS OR ALTERATION... THIN COATS OF LIME CARBONATE FOUND ON PEBBLES ALONG THE RUNOFF STREAMS; SMALL AMOUNTS OF
 SULPHUR AN ALUM DEPOSITS.
 OTHER SAMPLE INFORMATION.. CO2 GIVEN OFF. WATER RAPIDLY CORRODES IRON VESSELS.
 WATER ANALYSIS
 DATE/ANALYST... DINSMORE, S.C.
 TOTAL DISSOLVED SOLIDS... 816.
 CHARGE IMBALANCE (% DIFF)... 5.2
 ANALYSIS IN PPM
 AG... CO3... N
 AL... 3.7 CR... 2.1 MG... 248.
 H... F... NA... 82.
 HE... FE(TOT)... 1.3 NB... 98.
 CA... 29. HC03... 173. NO3... N
 CL... 252. CO... K... 8.6

ISOLOPES 10/001

SI02. 82.
 S04.. 98.

REFERENCE AND IDENTIFICATION
 COMPILED BY... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE... WARING, 1917

RECORD 00037

GEOTHERM FILE ID: 0021472

NAME OF SAMPLE SOURCE... CLEAR CREEK AREA
 LOCATION
 COUNTRY... UNITED STATES
 STATE... ALASKA
 MAP REFERENCE... SOLOMON D-1 1163360
 OTHER LOCALITY INFORMATION: 16 MILES NORTH OF ELIM.
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER... 6
 TEMPERATURE (C)... 67.
 PERTINENT LITHOLOGY... SPRINGS ARE IN QUARTZ MONZONITE OF "DARBY PLUTON" NEAR (LESS THAN 400M) FROM CONTACT WITH
 DEVONIAN LIMESTONE.
 WATER ANALYSIS
 DATE/ANALYST... BARNES, R.B.
 P-1... 9.43
 CHARGE IMBALANCE (% DIFF)... 12.8
 ANALYSIS IN MG/L
 AG... CO3... 34.
 AL... CR... 0.06
 H... 0.2 F... 54.
 HE... FE(TOT)...
 CA... 5.6 HC03... 34.
 CL... 4.9
 CO... K... 1.4

ISOLOPES 10/001

S04.. 25.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00038

GEOTHERM SAMPLE FILE..... GEOTHERM FILE ID: 0000219

LOCATION..... COORDINATES

COUNTRY..... UNITED STATES 64-51.00 N 162-18.00 W
 STATE..... ALASKA 07S 018W 27 SW
 COUNTY..... Seward Peninsula
 GEOLOGIC PROVINCE..... SOLOMON D-1 1163360
 MAP REFERENCE.....
 OTHER LOCALITY INFORMATION: 26 KM NORTH OF ELIM; SOUTH OF EAST FLOWING TRIBUTARY

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 6
 TEMPERATURE (C)..... 67.
 DISCHARGE..... R 90. L/MIN
 PERTINENT LITHOLOGY..... SPRINGS ARE IN QUARTZ MONZONITE OF "DARBY PLUTON", LESS THAN 400 METERS FROM CONTACT WITH
 DEVONIAN LIMESTONE; PLUTON AND LIMESTONE CONTACT IS INFERRED TO BE A MAJOR FAULT (MILLER AND OTHERS, 1972)
 TRENDING N18E.

WATER ANALYSIS

DATE/ANALYST..... 1974/00/00
 PH..... 9.43
 CHARGE IMBALANCE (% DIFF)... 74.8
 ANALYSIS IN MG/L

AG..... CO3..... LI..... S.....
 AL..... CR..... MG..... SB.....
 H..... 0.2 F..... NA.....
 HE..... FE(TOT)... NB.....
 CA..... 5.6 HCO3..... 34.
 CL..... 4.9

ISOPORES 10/001
 DEL D OF WATER..... -119.
 DEL O(18) OF WATER... -15.6

REFERENCE AND IDENTIFICATION

COMPILED BY..... SHEARER, G., RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00039

GEOTHERM SAMPLE FILE..... GEOTHERM FILE ID: 0001919

LOCATION..... COORDINATES

COUNTRY..... UNITED STATES 55-13.3 N 162-24.7 W
 STATE..... ALASKA 57S 087W
 MAP REFERENCE..... COLD BAY 1:250,000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 7/6/80
 TEMPERATURE (C)..... 53.6
 DISCHARGE..... 100. L/MIN

WATER ANALYSIS

PH..... 6.70
 SPECIFIC CONDUCTANCE..... 4650.
 CHARGE IMBALANCE (% DIFF)... 3.3

ANALYSIS IN MG/L

AL..... 25. CR..... 5.7 MG... 125.
 B..... 0.67 NA... 751. S04... 14.
 RE..... FE(TOT)... 248. NB...
 CA..... 162. HCO3.....
 CL..... 1370. K..... 16.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MOTYKA AND MOORMAN, 1981

RECORD 00040

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0045067

NAME OF SAMPLE SOURCE... COLORADO OIL AND GAS COREHOLE NO. 1

LOCATION TOWNSHIP=RANGE

COUNTRY..... UNITED STATES 27S 03SE 20 SE OF SW OF NE OF COORDINATES
 STATE..... ALASKA 59-33.95 N 139-31.43 W
 COUNTY.....
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... YAKUTAT 1:250000, C-5 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1961/06/02
 TEMPERATURE (C)..... 33.3 AT (M).. 981.
 WELL DEPTH (M)..... 985.
 GRADIENT (C/KM)..... 32.
 OTHER SAMPLE INFORMATION.. USED AS A WATER WELL.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00041

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0021494

NAME OF SAMPLE SOURCE... COPPER CENTER - HUDDLESTON WELL

LOCATION TOWNSHIP=RANGE

COORDINATES

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... VALDEZ 1:250000
 OTHER LOCALITY INFORMATION: NEAR COPPER CENTER.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1959/09/24 HUDDLESTON, N. (OWNER)
 SAMPLE NUMBER..... 17

MAP ANALYSIS

QUALITY OF WATER BRANCH, U.S.G.S., PALMER, ALASKA

DATE/ANALYST.....
 PI..... 7.4
 TOTAL DISSOLVED SOLIDS... 846.
 CHARGE IMBALANCE (% DIFF)... 1.1

ANALYSIS IN PPM

AG..... CO3..... N
 AL..... CR..... 27. MG... 46.
 B..... F..... 196. NA... 15.
 RE..... FE(TOT)...
 CA..... 77. HCO3..... 407.

ISOTOPES (0/00)

ISOTOPES (0/00)

CL..... 280.
 CO..... K..... 5.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GRANTZ AND OTHERS, 1962

RECORD 00042
 GEOTHERM FILE ID: 0021495

COORDINATES

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... COPPER CENTER - UNNAMED SPRING
 LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 OTHER LOCALITY INFORMATION: 2.5 MILES NE OF COPPER CENTER.
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1960/07/13 GRANTZ, A.
 SAMPLE NUMBER..... 18

WATER ANALYSIS

DATE/ANALYST..... WHITEHEAD, H.C.

PH..... 6.8
 TOTAL DISSOLVED SOLIDS... 23356.
 CHARGE IMBALANCE (% DIFF)... 0.1

ANALYSIS IN PPM

AG..... CO3..... N
 AL..... CR.....
 R..... F.....
 RE..... FE(TOT).....
 CA..... HCO3..... 65.
 CL..... 3940.
 CO..... 14500.
 K..... 33.

ISOTOPES 10/001

GAS ANALYSIS

ANALYSIS IN VOLUME %

AR..... 0.1
 CH4..... 44.6
 C2H6..... N
 CO2..... 0.1
 H2..... N
 HE..... T

ISOTOPES 100/01

OTHER ANALYTICAL DATA... GAS/SAMPLE COLLECTED 1960/08/07; PROPANE = 0.01 %, TRACE OF CYCLOPENTANE, TRACE OF HEPTANES +.
 REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GRANTZ AND OTHERS, 1962

RECORD 00043

GEOTHERM FILE ID: 0021464

COORDINATES

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... COPPER RIVER BASIN - UNNAMED SEEP
 LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... GULKANA A-3 1:63360
 OTHER LOCALITY INFORMATION: E-NE OF GULKANA AIRFIELD.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1955/26/05 NICHOLS, D.R.

WATER ANALYSIS
 DATE/ANALYST.....
 SPECIFIC CONDUCTANCE..... 16400.
 TOTAL DISSOLVED SOLIDS... 8990.
 ANALYSIS IN PPM
 AG.....
 AL.....
 HA.....
 HE.....
 CA..... 2080.
 CL..... 5680.
 CO3..... N
 CR.....
 FE.....
 FE(TOT).....
 HC03..... 226.
 MG..... 392.
 NA+K..... 670.
 NB.....
 S04..... 60.
 ISOLOPES (0/001)
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... NICHOLS AND YEHLER 1961; GRANTZ AND OTHERS, 1962

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... COPPER RIVER BASIN - UNNAMED WELL
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 OTHER LOCALITY INFORMATION: NEAR GULKANA AIRFIELD.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1954/12/28 ALASKA DISTRICT, CORPS OF ENGINEERS, U.S. ARMY
 SAMPLE NUMBER..... 12
 WELL DEPTH (M)..... 107.8
 RECORD 00044
 GEOTHERM FILE ID: 0021463

COORDINATES
 LAT/LONG... 62-09. N 145-27. W

WATER ANALYSIS
 DATE/ANALYST.....
 PH..... 7.4
 TOTAL DISSOLVED SOLIDS... 10200.
 ANALYSIS IN PPM
 AG.....
 AL.....
 H.....
 HE.....
 CA..... 1900.
 CL..... 6470.
 CO.....
 K..... 44.
 MG..... 520.
 NA..... 1150.
 NB.....
 S02..... 19.
 S04..... N
 ISOLOPES (0/001)
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... NICHOLS AND YEHLER 1961; GRANTZ AND OTHERS, 1962

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CRAIG HOT SPRINGS (DALTON HOT SPRINGS)
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 MAP REFERENCE..... U3
 OTHER LOCALITY INFORMATION: INACCURATE LOCATION, BUT NEAR TOWN OF CRAIG.
 RECORD 00045
 GEOTHERM FILE ID: 0045032

COORDINATES
 LAT/LONG... 55-20.04 N 133-38.46 W
 UTM ZONE... 48
 NORTHING... 6134372.
 586482.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1924/08/18
TEMPERATURE (C)..... 43.5

OTHER SAMPLE INFORMATION.. PEOPLE OF CRAIG PLANNED TO USE THE SPRINGS FOR A BATH.

WATER ANALYSIS

ANALYSIS IN MG/L

ISOIDES 10/001

AG.....	16.			
AL.....		MG....	1.5	
CR.....		NA....	30.	
F.....		SI02..	57.	
FE(TOT)...	0.02	SO4...	20.	
CA.....	3.9			
HC03.....	24.			
CL.....	8.4			

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... *WARING, G.A., USGS

RECORD 00046

GEOTHERM FILE ID: 0021475

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... DIVISION 8M HOT SPRINGS

WARNING NUMBER..... 3

LOCATION

COUNTRY..... UNITED STATES
STATE..... ALASKA
GEOLOGIC PROVINCE.. 02

MAP REFERENCE..... SHUNGNAK 14250000

OTHER LOCALITY INFORMATION: 38 MILES SOUTH OF KOBUK ON NORTH SIDE OF PURCELL MTS; LARGE OPEN MEADOW 200 YDS BY 1000 YDS AT THE SELAWIK RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 11

TEMPERATURE (C)..... 0 55.

PERTINENT LITHOLOGY..... SPRINGS ARE IN LOWER CRETACEOUS ANDESITE NEAR PROMINENT N70W TRENDING LINEAMENT AND ABOUT 1.5 MILES NORTH OF QUARTZ MONZONITE OF "WHEELER CREEK PLUTON".

QUALIFICATION FIELD..... TEMP ESTIMATED AT 50-60 DEGREES C.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00047

GEOTHERM FILE ID: 0021476

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... DULBI HOT SPRINGS

LOCATION

COUNTRY..... UNITED STATES
STATE..... ALASKA

MAP REFERENCE..... MELOZITNA B-5 1:63360

OTHER LOCALITY INFORMATION: 19.5 MILES N61W OF MELOZI SPRINGS, IN A SMALL CLEARING ALONG WEST SIDE OF SOUTH-FLOWING TRIBUTARY TO DULBI RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 16

TEMPERATURE (C)..... 0 55.

PERTINENT LITHOLOGY..... SPRINGS OCCUR IN HORNFELSIC GRAYWACKE AND MUDSTONE OF CRETACEOUS AGE.

QUALIFICATION FIELD..... TEMP ESTIMATED AT 50-60 DEGREES C. NO CHEM ANALYSIS AVAILABLE.

REFERENCE AND IDENTIFICATION

COORDINATES

LAT/LONG... 65-16.02 N 155-16.80 W

COORDINATES

LAT/LONG... 66-22.02 N 156-46.02 W

TOWNSHIP-RANGE

TOWNSHIP-RANGE

COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MILLER AND OTHERS, 1973

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... EAST COLD BAY - UNNAMED HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... COLD BAY 1:250000
 OTHER LOCALITY INFORMATION! 9L MILE EAST OF COLD BAY! 6.9 MILES W-NW OF MT DUTTON.
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 64
 TEMPERATURE (C)..... 54.0
 WATER ANALYSIS
 P.H..... 7.5
 ANALYSIS IN MG/L

ISOLOPES 10/001

LI... 1.5
 MG... 7.0
 NA... 780.
 S102. 68.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... RENNER, J. SHEARER, G.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MILLER, 1973

RECORD 00049

 GEOTHERM FILE ID: 0045045

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... ECHOOKA R. WEST SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... SAGAYANIKTOK B-2 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1973/05/10
 TEMPERATURE (C)..... 7.0
 DISCHARGE..... R 37376. L/MIN
 OTHER SAMPLE INFORMATION.. BELOW 20 DEGREES C. CUT-OFF, BUT YEAR-ROUND FLOW FROM PERMAFROST INDICATES CONSIDERABLE
 GEOTHERMAL ENERGY.

ISOLOPES

SE OF NW OF NE LAT/LONG... 69-15.58 N 147-22.83 W

WATER ANALYSIS

P.H..... 7.9
 SPECIFIC CONDUCTANCE..... 257.
 ALKALINITY..... 107.
 TOTAL DISSOLVED SOLIDS... 143.
 CHARGE IMBALANCE (* DIFF)... 1.3
 ANALYSIS IN MG/L
 AG.....
 AL.....

AS CAC03

ISOLOPES 10/001

MG... 9.8

AS..... CS..... MN... N
 H..... F..... NA... 1.3
 HE..... FE(TOT) 0.3 S102. 5.8
 CA..... 36. HCO3..... 0.05 S04.. 24.
 CO..... 131. H2S.....
 CL..... 1.3
 CO..... K..... 0.2
 QUALIFICATION FIELD..... NO3 = NO3 + NO4.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... CHILDERS AND OTHERS, 1977

RECORD 00050

GEOTHERM FILE ID: 0001918

COORDINATES
 LAT/LONG... 54-56.1 N 162-54.6 W

TOWNSHIP-RANGE
 60S 090W

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... EGG ISLAND

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... FALSE PASS D-3, 1163,360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 8/21/80

TEMPERATURE (C)..... 50.6

DISCHARGE..... L/MIN

WATER ANALYSIS

P1..... 7.66

SPECIFIC CONDUCTANCE..... 12300.

CHARGE IMBALANCE (% DIFF)... 3.0

ANALYSIS IN MG/L

AL..... CR..... MG... 6.2

R..... F..... NA... 2030.

HE..... FE(TOT) 0.37 S102. 47.

CA..... HCO3..... 67. S04.. 27.

CL..... 4505.

CO..... K..... 18.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... MOTYKA AND MOORMAN, 1981

RECORD 00051

GEOTHERM FILE ID: 0045152

COORDINATES
 LAT/LONG... 69-35.35 N 142-18.00 W

TOWNSHIP-RANGE

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... EKALUAKAT R. SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... DEMARCATION POINT C-3 1163360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/04/22

TEMPERATURE (C)..... 6.4

DISCHARGE..... 8664. L/MIN

OTHER SAMPLE INFORMATION... BELOW 20 DEGREES C. CUT-OFF, BUT YEAR-ROUND FLOW FROM PERMAFROST INDICATES CONSIDERABLE

GEOTHERMAL ENERGY.

WATER ANALYSIS

PH..... 7.9
 SPECIFIC CONDUCTANCE..... 350.
 ANALYSIS IN MG/L
 AL.....
 CR..... 4.5
 F..... 0.4
 NA..... 0.6
 FE(TOT).....
 CA..... 165.
 HCO3.....
 CA+MG..... 69.
 H2S.....
 CD.....
 CL..... 3.6
 PO4... N
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... CHILDERS AND OTHERS, 1977

----- RECORD 00052 -----
 GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... FALSE PASS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... FALSE PASS 1: 250*000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 7/2/80
 TEMPERATURE (C)..... 62.2 L/MIN
 DISCHARGE..... 225.
 COORDINATES
 LAT/LONG... 54-55.8 N 163-14.4 W
 GEOTHERM FILE ID: 0001916

PH..... 8.44
 SPECIFIC CONDUCTANCE..... 375.
 CHARGE IMBALANCE (% DIFF)... 1.7
 ANALYSIS IN MG/L
 AL.....
 CR..... 0.01
 F..... 0.3
 NA..... 51.
 FE(TOT).....
 CA..... 20.
 HCO3..... 45.
 CL..... 53.
 K..... 2.6
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R.H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MOTYKA AND MOORMAN, 1981

----- RECORD 00053 -----
 GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... FARMS RED SHIRT LAKE NO. 1 OIL WELL
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... TYONEK 1:250000, C-1 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1968/12/13
 TEMPERATURE (C)..... 74.7
 COORDINATES
 LAT/LONG... 61-38.53 N 150-05.72 W
 UTM ZONE... 40S
 NOTHING... 6837549.
 653890.
 GEOTHERM FILE ID: 0045046

WELL DEPTH (M)..... 632.
 GRADIENT (C/KM)..... 123.
 PERTINENT LITHOLOGY..... DRILLED TO JURASSIC GRANITE.
 OTHER SAMPLE INFORMATION.. NO RECORD OF ANY FLUIDS.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACHETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

----- RECORD 00054 -----
 GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... FLOOD CREEK SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... PHILLIP SMITH MTNS D-2 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/04/20
 TEMPERATURE (C)..... 7.2
 DISCHARGE..... R 91740.6L/MIN
 OTHER SAMPLE INFORMATION.. ANOTHER SAMPLE FROM SPRING NO. 45038

WATER ANALYSIS
 PH.....
 SPECIFIC CONDUCTANCE..... 8.0
 ANALYSIS IN MG/L
 H.....
 FE..... 0.4
 NA... 0.3
 SI02. 5.3
 FE(TOT).. NB... S04.. 11.
 HCO3..... 131.
 CA+MG. 52.
 CL..... 0.9
 CO.....
 K..... 0.5
 P04... 0.01
 NITRATE + NITRITE = 0.05 MG/L.

----- ISOTOPES (0/001) -----
 OTHER ANALYTICAL DATA...
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACHETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... CHILDERS AND OTHERS, 1977

----- RECORD 00055 -----
 GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... FLOOD CREEK SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... PHILLIP SMITH MTNS D-2 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1973/05/10
 TEMPERATURE (C)..... R.5
 DISCHARGE..... R 141008.0L/MIN
 OTHER SAMPLE INFORMATION.. BELOW 20 DEGREES C. CUT-OFF, BUT YEAR-ROUND FLOW FROM PERMAFROST INDICATES CONSIDERABLE
 GEOTHERMAL ENERGY

WATER ANALYSIS
 PH.....
 SPECIFIC CONDUCTANCE..... 8.2
 ANALYSIS IN MG/L
 H.....
 FE.....
 NA...
 SI02. 5.3
 FE(TOT).. NB... S04.. 11.
 HCO3.....
 CA+MG.
 CL.....
 CO.....
 K.....
 P04...
 NITRATE + NITRITE = 0.05 MG/L.

----- ISOTOPES (0/001) -----
 OTHER ANALYTICAL DATA...
 REFERENCE AND IDENTIFICATION
 COMPILED BY.....
 COMPILER AFFILIATION...
 REFERENCE.....

ALKALINITY..... 112. AS CAC03
 TOTAL DISSOLVED SOLIDS... 137.
 CHARGE IMBALANCE (% DIFF)... 1.6
 ANALYSIS IN MG/L
 AG..... N
 AL..... 8.8
 AS..... N
 H..... 0.6
 HE..... 0.030
 CA..... 38.
 CL..... 1.3
 CO.....
 K..... 0.1
 OTHER ANALYTICAL DATA... NITRATE + NITRITE = 0.05 MG/L; P = NONE.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... CHILDERS AND OTHERS, 1977

RECORD 00056
 GEOTHERM FILE ID: 0021492

COORDINATES

GEOTHERM_SAMPLE-FILE
 NAME OF SAMPLE SOURCE... GAKONA - UNNAMED SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 OTHER LOCALITY INFORMATION: IN RIVER BLUFF NEAR GAKONA.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1958/09/23 FERRIANS, O.J.JR
 SAMPLE NUMBER..... 14
 WATER ANALYSIS
 DATE/ANALYST.....
 PH..... 7.8
 TOTAL DISSOLVED SOLIDS... 761.
 CHARGE IMBALANCE (% DIFF)... 1.3
 ANALYSIS IN PPM
 AL.....
 R.....
 HE.....
 CA..... 91.
 CL..... 90.
 CO.....
 K..... 8.4
 CR.....
 F.....
 FE(TOT)...
 HC03..... 458.
 MG..... 50.
 NA..... 100.
 NB.....
 SI02... 32.
 S04... 161.

QUALITY OF WATER BRANCH, U.S.G.S., PALMER, ALASKA

ISOIOPES 10/001

REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GRANTZ AND OTHERS, 1962

RECORD 00057
 GEOTHERM FILE ID: 0045016

COORDINATES

GEOTHERM_SAMPLE-FILE
 NAME OF SAMPLE SOURCE... GAS ROCKS HOT SPRING NEAR KANATAK, NO. AKRG 40135
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE... 01

LAT/LONG... 57-51.90 N 156-29.94 W
 UTM ZONE... 104
 NORTHING... 6416250.
 EASTING... 648392.

MAP REFERENCE..... UGASHIK 1:250000, D-2 1:63360
OTHER LOCALITY INFORMATION: ON GAS ROCKS PENINSULA
SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1977/08/25 MCCOY, GEORGE USGS
SAMPLE NUMBER..... C0135GM77

TEMPERATURE (C)..... 52.8 L/MIN
DISCHARGE..... E 57.

OTHER SAMPLE INFORMATION.. ONE OF SEVERAL SPRINGS ON THE GAS ROCKS PENINSULA. SHOULD BE PUBLISHED IN 1977 ANNUAL REPORT.

WATER ANALYSIS

PH..... 5.9
SPECIFIC CONDUCTANCE..... 65850.

ANALYSIS IN MG/L

AG.....	CO3.....	LI....	44..	S.....	
AL.....	CR.....	MG....	460.	SB....	-37.9
AS.....	CS.....				+0.42
H.....	F.....	NA....	17700.	SI02..	
HE.....	FE(TOT).	NH....		S04... 120.	
HI.....	GA.....	NH4... 17.			140.
HP.....					
CA.....	HCO3.....				
CD.....	H2S.....				
CL.....	I.....				
CO.....	K.....	RB....	2.1		

GAS ANALYSIS

ANALYSIS IN VOLUME %

AR... L 0.02	HG....
CH4... 0.04	
C2H6 L 0.05	N2.... 0.54
CO2... 98.40	O2.... 0.02
H2... L 0.01	
HE... L 0.02	

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... BARNES AND MCCOY, 1979

RECORD 00058

GEUTHERM FILE ID: 0000201

GEUTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... GEYSER BIGHT - THERMAL SPRING G1

WARNING NUMBER..... 41

IONSHIP-RANGE

COUNTRY..... UNITED STATES
STATE..... ALASKA

COUNTY.....
GEOLOGIC PROVINCE..

MAP REFERENCE..... UMNAK 1:250000

OTHER LOCALITY INFORMATION: 3.5 MILES SE OF GEYSER BIGHT; SOUTH OF INANUDAK BAY.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1946/08/17

TEMPERATURE (C)..... 100.0 L/MIN
DISCHARGE..... R 258.

WATER ANALYSIS

PH..... 7.5
TOTAL DISSOLVED SOLIDS... 1741.

COORDINATES

LAT/LONG... 53-13.38 N 168-28.62 W
UTM ZONE... 402
NORTHING... 5899152.
669151.

ANALYSIS IN PPM

ISOTOPES 10/001

AG.....	CO3.....	Q 33.	LI....	3.	SR....	N
AL.....	CR.....		MG....	0.1		
AS.....	Q 0.005		NA....	441.	SI02.	303.
R.....	Q 24.09	1.9	NH....		S04..	160.
FE.....	49.40	L 0.5	NH4...	L 0.1		
HI.....			NO3..	N		
CA.....	15.					
CL.....	569.					
CO.....		33.				

OTHER ANALYTICAL DATA... AS04 = 0.1 PPM; SB03 = NONE; B203 = 159. PPM.
 QUALIFICATION FIELD... AS CALCULATED FROM AS04; BORON CALCULATED FROM B203; CO3 BY DIRECT TITRATION.
 REFERENCE AND IDENTIFICATION

COMPILED BY..... RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... RYERS AND BRANNOCK, 1949

RECORD 00059

GEOTHERM_SAMPLE-FILE

GEOTHERM FILE ID: 0021452

NAME OF SAMPLE SOURCE... GEYSER RIGHT - THERMAL SPRING H1

WING NUMBER..... 41

LOCATION

TOWNSHIP-RANGE

COORDINATES

LAT/LONG... 53-12.78 N 168-27.78 W

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... UTM 11250000

OTHER LOCALITY INFORMATION: 4.5 MILES SE OF GEYSER RIGHT.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1946/08/17

SAMPLE NUMBER..... 4

TEMPERATURE (C)..... 101.

WATER ANALYSIS

PH..... 6.9

TOTAL DISSOLVED SOLIDS... 1365.

ANALYSIS IN PPM

AG.....	CO3.....	Q 10.	LI....	2.	SR....	N
AL.....	CR.....		MG....	0.2		
AS.....	Q 3.83		NA....	350.	SI02.	150.
R.....	Q 24.78	1.2	NH....		S04..	130.
FE.....	48.76	Q 0.1	NH4...	Q 0.1		
HI.....			NO3..	N		
CA.....	40.					
CL.....	482.					
CO.....		18.				

OTHER ANALYTICAL DATA... AS04 = 7.1 PPM; B203 = 157. PPM.

QUALIFICATION FIELD... AL, FE, AND NH4 VALUES ARE DETECTION LIMITS. THESE MIGHT NOT BE PRESENT; BORON CALCULATED FROM B203, AND AS CALCULATED FROM AS04. CO3 AND HCO3 BY DIRECT TITRATION. ALKALINITY DUE TO SILICATE AND BORATE INCLUDED.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... RYERS AND BRANNOCK, 1949

RECORD 00060

GEOTHERM_SAMPLE-FILE

GEOTHERM FILE ID: 0021473

NAME OF SAMPLE SOURCE... GRANITE MOUNTAIN (SWEEPSTAKES)

WARRING NUMBER..... A

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

GEOLOGIC PROVINCE.. 02

MAP REFERENCE..... CANDLE B-5 1:63360

OTHER LOCALITY INFORMATION: 65 KM SE OF CANDLE ON SOUTH SIDE OF GRANITE MTN. SPRING IS ON WEST SIDE OF "SPRING

"CREEK" ABOUT 15M ABOVE VALLEY FLOOR.

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 7

TEMPERATURE (C)..... 49.

PERTINENT LITHOLOGY..... SPRINGS ARE IN SMALL SATELLITIC STOCK OF MAFIC NEPHELINE SYENITE ABOUT 1.5 KM SOUTH OF

"GRANITE MIN PLUTON". COUNTRY ROCK IS LOWER CRETACEOUS ANDESITE.

WATER ANALYSIS

DATE/ANALYST..... RAPP, J.B.

PH..... 9.55

CHARGE IMBALANCE (% DIFF).... 12.3

ANALYSIS IN MG/L

AL..... 0.2 CR..... 0.05

R..... 0.22 F..... NA.....

RE..... FE(TOT) L 0.01 NB.....

CA..... 1.8 HC03..... 90.

CL..... 6.4

CO..... K..... 1.9

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00061

GEOTHERM SAMPLE-EJLE

NAME OF SAMPLE SOURCE... GRANITE MOUNTAIN - SWEEPSTAKES HOT SPRINGS

WARRING NUMBER..... A

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

GEOLOGIC PROVINCE.. YUKON - KUYUKUK

MAP REFERENCE..... CANDLE B-5 1:63360

OTHER LOCALITY INFORMATION: 65 KM SE OF CANDLE 4.3 MILES S-SW OF GRANITE MTN. SPRING IS ON THE WEST SIDE OF SPRING

"CREEK" ABOUT 15M ABOVE VALLEY BOTTOM.

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 7

TEMPERATURE (C)..... 49.0

PERTINENT LITHOLOGY..... SPRINGS ARE IN SMALL SATELLITIC STOCK OF MAFIC NEPHELINE SYENITE, ABOUT 1.5KM SOUTH OF

"GRANITE MIN PLUTON". COUNTRY ROCK IS ANDESITE.

WATER ANALYSIS

DATE/ANALYST..... WILLEY, L.M. AND PRESSER, T.S.

PH..... 10.1

CHARGE IMBALANCE (% DIFF).... 14.7

ANALYSIS IN PPM

AL..... 0.094 CO3.....

R..... 0.13 CR.....

F..... 8.2

LI... 0.04 S.....

MG... 0.04 SH...

NA... 51. SI02. 70.

ISOTOPES (10/00)

DEL D OF WATER..... -116.

DEL O(18) OF WATER... -15.7

GEOTHERM FILE ID: 0000221

TOWNSHIP-RANGE

01S 013W 25

NW OF SW

COORDINATES

LAT/LONG... 65-22.2 N 161-15.4 W

UTM ZONE... 104

NORTHING... 7250996.

395367.

S04... 62.

NB...

FE(TOT)..
CA..... 2.0
CL..... 9.3
HCO3..... 45.7

K..... 1.3

REFERENCE AND IDENTIFICATION

COMPILED BY..... RENNER, J.. SHEARER, G.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00062

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... GREAT BASINS UGASHIK NO. 1
 LOCATION

COUNTRY..... UNITED STATES SW OF SE
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE..

MAP REFERENCE..... UGASHIK 1:250000, 8-6 1:63360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1966/08/22
 TEMPERATURE (C)..... 92.2
 WELL DEPTH (M)..... 2888.

GRADIENT (C/KM)..... 31.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

COORDINATES

LAT/LONG... 57-25.57 N 157-44.27 W
 UTM ZONE... +04
 NORTHING... 6365318.
 575796.

GEOTHERM FILE ID: 0045073

RECORD 00063

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... GREAT SITKIN ISLAND - FUMAROLE 1
 LOCATION

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... ADAK 1:250000

OTHER LOCALITY INFORMATION: 3.5 MILES S-SE OF "GREAT SITKIN VOLCANO", ON A LOW ROUNDED KNOLL 260 FT WEST OF "BIG

FOX CREEK" JUST ABOVE A HOLLOW SHELL WITH BUBBLING WATER.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1946/09/00
 SAMPLE NUMBER..... 1
 TEMPERATURE (C)..... 95.

PERTINENT LITHOLOGY..... DOMINANT ROCK IS A BRECCIA OF PORPHYRYITIC VOLCANICS.

OTHER SAMPLE INFORMATION.. THE AREA IS PEPPERED WITH SMALL THERMAL SPRINGS, MUD POTS, AND TINY FUMARULES.

GAS ANALYSIS

DATE/ANALYST.....

ANALYSIS IN VOLUME %

AR... 0.8

C2H6..

CO2.. 12.1

OTHER ANALYTICAL DATA... S02 = 0.1.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... RYERS AND BRANNUCK, 1949

COORDINATES

LAT/LONG... 52-02.6 N 176-06.5 W

GEOTHERM FILE ID: 0021453

ISOIOPES 100/01

RECORD 00064

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... GREAT SITKIN ISLAND - FUMAROLE 2
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... ADAK 1:250000
 OTHER LOCALITY INFORMATION: 150 FT SOUTH OF FUMAROLE 1, 6-8 FT ABOVE BOTTOM OF GULLY.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1946/09/00
 SAMPLE NUMBER..... 2
 TEMPERATURE (C)..... 100.
 GAS ANALYSIS
 DATE/ANALYST.....
 ANALYSIS IN VOLUME %
 AR... 0.9
 C₂H₆.....
 CO₂... 0.02
 OTHER ANALYTICAL DATA... TENTHS UNCERTAIN.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BYERS AND BRANNOCK, 1949

COORDINATES
 LAT/LONG... 52-02.6 N 176-06.5 W

ISOIOPES 100/01

RECORD 00065

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... GREAT SITKIN ISLAND - FUMAROLE 3
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... ADAK 1:250000
 OTHER LOCALITY INFORMATION: 190 FT NE OF FUMAROLE 1, BOTTOM OF GULLY NEXT TO "BIG FOX CREEK", NW OF THE BEND.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1946/09/00
 SAMPLE NUMBER..... 3
 TEMPERATURE (C)..... 100.
 GAS ANALYSIS
 DATE/ANALYST.....
 ANALYSIS IN VOLUME %
 AR... 0.9
 C₂H₆.....
 CO₂... 8.5
 OTHER ANALYTICAL DATA... H = 0.2%.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BYERS AND BRANNOCK, 1949

COORDINATES
 LAT/LONG... 52-02.6 N 176-06.5 W

ISOIOPES 100/01

RECORD 00066

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... GREAT SITKIN ISLAND - FUMAROLE 4
 LOCATION
 COUNTRY.....

COORDINATES

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... ADAP 1:250000
 OTHER LOCALITY INFORMATION: 50 FT SE OF FUMAROLE 3; BOTTOM OF GULLY NEXT TO "BIG FOX CREEK", AT THE BEND.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1946/09/00
 SAMPLE NUMBER..... 4
 TEMPERATURE (C)..... 100.
 GRS ANALYSIS
 DATE/ANALYST.....
 ANALYSIS IN VOLUME %
 AR... 0.2
 C2H6... 81.5
 CO2... 16.7
 OTHER ANALYTICAL DATA... SO2 = 0.8.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BYERS AND BRANNOCK, 1949

ISOIOPES (00/01)

NATIONAL BUREAU OF STANDARDS

RECORD 00067
 GEOTHERM FILE ID: 0045075

COORDINATES
 LAT/LONG... 56-58.02 N 158-41.12 W
 UTM ZONE... 104
 NORTHING... 6313544.
 519133.

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... GULF PORT HEIDEN UNIT NO. 1
 TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 37S 05W 20 SE OF NE
 STATE..... ALASKA

COUNTRY..... CHIGNIK 1:250000, D-3 1:63360
 MAP REFERENCE.....
 OTHER LOCALITY INFORMATION: BOTTOM 272 FT NORTH AND 1034 FT WEST OF SURFACE. BOTTOM OFFSHORE
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1972/09/10
 TEMPERATURE (C)..... 138.9
 WELL DEPTH (M)..... 4578.
 GRADIENT (C/KM)..... 31.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00068
 GEOTHERM FILE ID: 0045074

COORDINATES
 LAT/LONG... 56-12.87 N 160-10.33 W
 UTM ZONE... 104
 NORTHING... 6230358.
 427299.

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... GULF SANDY RIVER FEDERAL NO. 1
 TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 46S 07W 10 SW OF NE
 STATE..... ALASKA

COUNTRY..... CHIGNIK 1:250000, A-7 1:63360
 MAP REFERENCE.....
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1963/11/28
 TEMPERATURE (C)..... 131.1
 WELL DEPTH (M)..... 3989.
 GRADIENT (C/KM)..... 31.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00069

GEUTHERM FILE ID: 0021489

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... GULKANA - B. DYKES WELL
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 OTHER LOCALITY INFORMATION: NEAR MILE 117 ON RICHARDSON HIGHWAY; SOUTH OF GULKANA AIRPORT.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1951/08/06 DYKES, B.
 WELL DEPTH (M)..... 98.
 WATER ANALYSIS
 DATE/ANALYST..... LARSEN, B.C.
 TOTAL DISSOLVED SOLIDS... 3830.
 ANALYSIS IN PPM

ISOTOPES (0/00)

AG.....
 AL.....
 B.....
 BA.....
 BE.....
 CA..... 693.
 CL..... 2300.
 CO3..... N
 CR.....
 F.....
 FE+3.....
 FE(TOT).....
 HC03..... 201.
 MG... 204.
 NA... 47.
 NA+K... 429.
 NB... 15.
 S04... 15.

COORDINATES

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GRANTZ AND OTHERS, 1962

RECORD 00070

GEUTHERM FILE ID: 0021490

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... GULKANA AIRFIELD WELL
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... GULKANA A-3 1163360
 OTHER LOCALITY INFORMATION: AT GULKANA AIRFIELD.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1945/00/00 ERICKSON, A.E., CIVIL AERONAUTICS ADMIN.
 SAMPLE NUMBER..... 12
 OTHER SAMPLE INFORMATION.. LAT/LONG ARE APPROXIMATE.
 WATER ANALYSIS
 DATE/ANALYST.....
 PH.....
 TOTAL DISSOLVED SOLIDS... 23900.
 ANALYSIS IN PPM

ISOTOPES (0/00)

AG.....
 AL.....
 B.....
 BE.....
 CA..... 4/80.
 CO3..... N
 CR.....
 F.....
 FE(TOT).....
 HC03..... 84.
 MG... 984.
 NA... 2630.
 NB...
 S04... 504... L 5.

COORDINATES

LAT/LONG... 62-09. N 145-28. W

CL..... 15400. K..... 82.
CO.....

REFERENCE AND IDENTIFICATION
COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... GRANTZ AND OTHERS, 1962

RECORD 00071
GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... HALBOUTY FRITZ CREEK OIL WELL
LOCATION

COUNTRY..... UNITED STATES 065 012W 04 NE OF SE OF NW
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE..
MAP REFERENCE..... SELDOVIA 1:250000, C-4 1:63360
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1963/03/02
TEMPERATURE (C)..... 50.0
WELL DEPTH (M)..... 1157.
GRADIENT (C/KM)..... 42.
OTHER SAMPLE INFORMATION.. BRACKISH WATER(?) ABOVE 3580FT.

COORDINATES

LAT/LONG... 59-41.37 N 151-19.87 W
UTM ZONE... +05
NORTHING... 6617806.
593952.

REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00072
GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... HALBOUTY KING OIL
LOCATION

COUNTRY..... UNITED STATES 07N 009W 06 NE OF SE
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE..
MAP REFERENCE..... KENAI 1:250000, C-3 1:63360
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1959/05/04
TEMPERATURE (C)..... 62.2
WELL DEPTH (M)..... 3456.
GRADIENT (C/KM)..... 32.
OTHER SAMPLE INFORMATION..

COORDINATES

LAT/LONG... 60-43.57 N 150-54.78 W
UTM ZONE... +05
NORTHING... 6733891.
613839.

REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00073
GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... HAWK RIVER
LOCATION

COUNTRY..... UNITED STATES
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE..
MAP REFERENCE.....
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR.....
TEMPERATURE (C).....
WELL DEPTH (M).....
GRADIENT (C/KM).....
OTHER SAMPLE INFORMATION..

COORDINATES

LAT/LONG... 66-13.98 N 157-34.98 W

MAP REFERENCE..... SHUNGNAK 1:250000

OTHER LOCALITY INFORMATION: 50 MILES S-SW OF KUBUK; SOUTH SIDE OF PURCELL MTNS ON EAST BANK OF HAWK RIVER AT THE SOUTH END OF A CLEARING 25M BY 60M IN TALL TIMBER.

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 8

TEMPERATURE (C)..... 0 50.

PERTINENT LITHOLOGY..... CONCEALED

OTHER SAMPLE INFORMATION... SPRING FLOWS INTO HAWK RIVER. NO CHEMICAL ANALYSIS AVAILABLE.

QUALIFICATION FIELD

TEMPERATURE ESTIMATED AT +50 DEGREES C.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00074

GEOTHERM FILE ID: 0045000

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... HORNER HOT SPRINGS

WATING NUMBER..... 9

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

COUNTY.....

GEOLOGIC PROVINCE.. 02

MAP REFERENCE..... RUBY D-4 1:63360

OTHER LOCALITY INFORMATION: 5 MILES BELOW KOKRINES; 25 MILES NE OF RUBY ON THE NORTH SIDE OF THE YUKON RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1915/08/10 WATING, G.A.

SAMPLE NUMBER..... 15

TEMPERATURE (C)..... 47.0 AT (M) E 95.

DISCHARGE..... 95. L/MIN

PERTINENT LITHOLOGY..... SPRINGS ARE IN FRACTURED GRANITE OF A SMALL PLUTON. COUNTRY ROCK IS SCHIST.

OTHER SAMPLE INFORMATION... SPRINGS ISSUE FROM A GRANITIC CLIFF 40 FT ABOVE A SMALL CREEK THAT EMPTIES INTO THE YUKON RIVER 3/4 MILE FROM THE SPRINGS. HAS SLIGHT TASTE AND ODOR OF H2S.

WATER ANALYSIS

DATE/ANALYST..... DINSMORE, S.C.

TOTAL DISSOLVED SOLIDS... 292.

ANALYSIS IN MG/L

AG....	0.2	CO3.....	32.	MG....	3.
AL....		CR.....		NA....	58.
R....		F.....		NA+K..	58.
HA....		FE+3...		NB....	45.
RE....		FE(TOT)..	2.7	NO3...	T
CA....	10.	HC03.....	22.		
CD....		H2S.....	T		
CL....	39.				

OTHER ANALYTICAL DATA... 8407 = NONE.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE

COMPILER AFFILIATION... UNIVERSITY OF ALASKA

REFERENCE..... WATING, 1917

RECORD 00075

GEOTHERM FILE ID: 0045031

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... HOT SPRING ON NORTH ARM OF PERIL STRAIT

WARING NUMBER..... 66
 LOCATION.....
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE... 03
 MAP REFERENCE..... SITKA D-6 1163360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1915/06/29 WARING, G.A.
 TEMPERATURE (C)..... 38.3
 WATER ANALYSIS
 DATE/ANALYST.....
 TOTAL DISSOLVED SOLIDS... 786.
 CHARGE IMBALANCE (% DIFF)... 5.5
 ANALYSIS IN PPM
 AG..... CO3..... N
 AL..... 5.3 CR.....
 H..... T F.....
 RE..... FE(TOT)... 1.4
 CA..... 37. HCO3..... 35.
 CL..... 133.
 CO..... K..... 3.8
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... WARING, 1917; MILLER, 1973

RECORD 00076

GEOTHERM FILE ID: 0045154

NAME OF SAMPLE SOURCE... HOT SPRING ON ROOTOK ISLAND
 LOCATION.....
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... UNIMAK 11250000
 OTHER LOCALITY INFORMATION: S.E. OF AKUTAN ISLAND. ROOTAK ISLAND IS UNINHABITED, HAS NO HARBOR. LAND SELECTED BY AKUTAN INDIAN ASSOCIATION.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... WARING, 1965

RECORD 00077

GEOTHERM FILE ID: 0021451

NAME OF SAMPLE SOURCE... HOT SPRINGS COVE - THERMAL SPRING E5
 WARING NUMBER..... 43
 LOCATION.....
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... UNIMAK 11250000
 OTHER LOCALITY INFORMATION: 4500 FT SOUTH OF HOT SPRINGS COVE; 25 FT WEST OF "HOT SPRINGS CREEK".
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1946/08/16
 SAMPLE NUMBER..... 2
 TEMPERATURE (C)..... 68.

WATER ANALYSIS

PH..... 6.
TOTAL DISSOLVED SOLIDS... 1664.
ANALYSIS IN PPM

AG.....	CO3..... N	LI....	2.	SB....	N
AL..... Q 0.5	CR.....	MG....	1.1		
AS..... Q 1.67					
H..... Q 9.24	F..... 0.5	NA....	427.	SI02.	65.
RE..... 19.89	FE(TOT). Q 0.1	NB....		S04..	73.
RI.....	GA.....	NH4... Q 0.1			
CA..... 116.	HCO3.... Q 65.	NO3.. N			
CL..... 782.					
CO.....	K..... 24.				

OTHER ANALYTICAL DATA... AS04 = 3.1 PPM; B203 = 64. PPM.
QUALIFICATION FIELD..... AL, FE, AND NH4 VALUES ARE DETECTION LIMITS, THESE MIGHT NOT BE PRESENT; AS CALCULATED FROM
AS04; BORON CALCULATED FROM B203; HCO3 BY DIRECT TITRATION; ALKALINITY DUE TO SILICATE AND BORATE INCLUDED.
REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BYERS AND BRANNOCK, 1949

ISOTOPES 10/001

RECORD 00078

GEOTERM-SAMPLE-FILE

NAME OF SAMPLE SOURCE... HOT SPRINGS COVE - THERMAL SPRING E1
WARNING NUMBER..... 43

TOWNSHIP-RANGE

COORDINATES
LAT/LONG... 53-14.52 N 168-21.40 W

COUNTRY..... UNITED STATES
STATE..... ALASKA

MAP REFERENCE..... UMNK 1125000
OTHER LOCALITY INFORMATION: 4220 FT SOUTH OF HOT SPRINGS COVE; 178 FT WEST OF "HOT SPRINGS CREEK".

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1947/06/21
SAMPLE NUMBER..... 1B

TEMPERATURE (C)..... 87.

WATER ANALYSIS

PH..... 6.4
TOTAL DISSOLVED SOLIDS... 2208.
ANALYSIS IN PPM

AG.....	CO3..... N	LI....	2.	SB....	N
AL..... Q 0.5	CR.....	MG....	3.3		
AS..... Q 1.51					
H..... Q 13.66	F..... 0.9	NA....	573.	SI02.	99.
RE..... 28.59	FE(TOT). Q 0.1	NB....		S04..	86.
RI.....	GA.....	NH4... Q 0.1			
CA..... 153.	HCO3.... Q 69.	NO3.. N			
CL..... 1104.					
CO.....	K..... 27.				

ISOTOPES 10/001

QUALIFICATION FIELD..... AL, FE, AND NH4- DETECTION LIMITS; THESE MIGHT NOT BE PRESENT; AS CALCULATED FROM AS04; BORON
CALCULATED FROM B203; HCO3 BY DIRECT TITRATION; ALKALINITY DUE TO SILICATE AND BORATE INCLUDED.
REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BYERS AND BRANNOCK, 1949

RECORD 00079

GEOTHERM FILE ID: 0000203

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... HOT SPRINGS COVE - THERMAL SPRING E1
 WARRING NUMBER... 43

TOWNSHIP=RANGE

COUNTRY... UNITED STATES
 STATE... ALASKA
 COUNTY...
 GEOLOGIC PROVINCE...

COORDINATES

LAT/LONG... 53-14.5 N 168-21.4 W
 UTM ZONE... 402
 NORTHING... 5901288.
 676871.

MAP REFERENCE... UMNAK 1:250000

OTHER LOCALITY INFORMATION: 4000 FT SOUTH OF HOT SPRINGS COVE; SOUTH OF INANUDAK BAY; UMNAK ISLAND.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1946/08/16
 SAMPLE NUMBER... 1A

TEMPERATURE (C)... 49.0 L/MIN

DISCHARGE... 54. L/MIN

WATER ANALYSIS

PH... 6.4
 TOTAL DISSOLVED SOLIDS... 2329.

ANALYSIS IN PPM

AG...		CO3... N		LI...		MG...		NA...		NH4...		SI...		SO4...		SR...		TH...	
AL...	L 0.5	CR...	0.21	3.	1.2	603.	504.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	
AS...	0 14-29	FE...	27.3	603.	504.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	
BI...	163.	HC03...	0 67.	603.	504.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	
CL...	112b.	K...	33.	603.	504.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	

OTHER ANALYTICAL DATA... AS04 = 4.1 PPM; SB03 = 1.3 PPM; H203 = 92. PPM.

QUALIFICATION FIELD... AS CALCULATED FROM AS04; BORON CALCULATED FROM B203; SB CALCULATED FROM SB03; H203 BY DIRECT

IDENTIFICATION

COMPILED BY... SHEARER, G., RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE... BYERS AND BRANNOCK, 1949

RECORD 00080

GEOTHERM FILE ID: 0045049

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... HUMBLE SHELL BEAR CREEK NO. 1 OIL WELL

TOWNSHIP=RANGE

COUNTRY... UNITED STATES
 STATE... ALASKA
 COUNTY...
 GEOLOGIC PROVINCE...

COORDINATES

LAT/LONG... 57-37.70 N 155-51.58 W
 UTM ZONE... 405
 NORTHING... 6390721.
 329243.

MAP REFERENCE... KARLUK 1:250000, C-6 1:63360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1959/02/26

TEMPERATURE (C)... 210.0

WELL DEPTH (M)... 4384.

GRADIENT (C/KM)... 47.

PARENT LITHOLOGY... DRILLED THROUGH SHALLOW WATER SHALES, SILTSTONES, AND WATER-LAIN VOLCANICS OF UPPER TRIASSIC THROUGH UPPER JURASSIC AGE.

OTHER SAMPLE INFORMATION.. IRREGULAR TEMPERATURE CHANGES WITH DEPTH.
 REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00081

GEOTHERM_SAMPLE_FILE..... HUTLINANA HOT SPRING
 NAME OF SAMPLE SOURCE.....
 WARING NUMBER..... 15
 LOCATION

GEOTHERM FILE ID: 0021479

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. YUKON - TANANA
 MAP REFERENCE..... LIVNGOOD A-6 1:63360
 OTHER LOCALITY INFORMATION: 20 MILES WEST OF FAIRBANKS; WEST SIDE OF "HUTLINANA CREEK".

COORDINATES

TOWNSHIP-RANGE 05N 012W 34 NE OF SW OF NW OF 54T/LONG... 65-12.96 N 149-59.58 W

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1915/08/06 WARING, G.A.
 SAMPLE NUMBER..... 4
 TEMPERATURE (C)..... 45.6
 DISCHARGE..... R 189. L/MIN

PERTINENT LITHOLOGY..... SPRING IS AT BASE OF SHEARED QUARTZITE CLIFF.

OTHER SAMPLE INFORMATION.. SPRING ISSUES FROM A FISSURE AT BASE OF A CLIFF. CLEAR POOL 6 FT ACROSS AND ONE FOOT DEEP, WITH CONSTANT BUBBLING.

WATER ANALYSIS

DOLE, R.B. AND CHAMBERS, A.A.

DATE/ANALYST.....

TOTAL DISSOLVED SOLIDS... 634.

ISOTOPES (00/001)

ANALYSIS IN PPM
 AG..... CO3..... N
 AL..... CR..... 6.
 H..... F..... NA... SI02. 44.
 HA..... FE+3..... NA+K. 208.
 HE..... FE(TOT). 0.09 504.. 67.
 CA..... 22. HCO3..... 494.
 CL..... 38.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WARING, 1917

RECORD 00082

GEOTHERM_SAMPLE_FILE..... HUTLINANA HOT SPRING
 NAME OF SAMPLE SOURCE.....
 WARING NUMBER..... 15
 LOCATION

GEOTHERM FILE ID: 0021480

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... LIVNGOOD A-6 1:63360
 OTHER LOCALITY INFORMATION: ABOUT 70 MILES WEST OF FAIRBANKS; WEST EDGE OF "HUTLINANA CREEK".

COORDINATES

TOWNSHIP-RANGE 05N 012W 34 NE OF SW OF NW OF 54T/LONG... 65-12.96 N 149-59.58 W

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1971/00/00
 SAMPLE NUMBER..... 20
 TEMPERATURE (C)..... 43.

DISCHARGE..... R 190. L/MIN

PERTINENT LITHOLOGY..... SPRING IS AT BASE OF SHEARED QUARTZITE CLIFF (JURASSIC AGE ?) ABOUT 3 MILES EAST OF A GRANITIC PLUTON.

OTHER SAMPLE INFORMATION.. FAINT H2S ODOR.

WATER ANALYSIS

WILEY, L.M. AND PRESSER, T.S.

P.1.....7.66

CHARGE IMBALANCE (% DIFF) ... 6.9

ANALYSIS IN PPM

AG.....	CO3.....	LI....	S.....
AL.....	CR.....	MG....	SB....
H.....	F.....	NA....	SI02..
RE.....	FE(TOT)...	NB....	S04....
HI.....	GA.....	NH4....	
			0.16
			6.6
			180.
			40.
			55.

ISUIQPES (0/00)	
VEL D OF WATER.....	-144.9
VEL O(18) OF WATER...	-19.2

CO.... K..... 7.9
OTHER ANALYTICAL DATA... NH₃ = 0.4 PPM. ISOTOPE DATA FROM J.R. O'NEIL.
~~REFERENCE AND IDENTIFICATION~~

COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00083

GEUTHERM FILE ID: 0045036

GÉUTHEIM-SÄMPLE-FILE

NAME OF SAMPLE SOURCE... IWANUDAK BAY - UNNAMED SPRING

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... ALASKA

COUNTY.....

GEOLOGIC PROVINCE..

MAP REFERENCE.....
UMNAK 1:250000

~~SAMPLE DESCRIPTION AND CONDITIONS~~

DATE/COLLECTOR..... 1976/07/15

TEMPERATURE (C)..... 92.5

DISCHARGE..... 57. L/MIN

...OTHER SAMPLE INFORMATION.. ACCORDING TO C.E. SLOAN (USGS WATER RESOURCES DIVISION.

WATER ANALYSIS

7.1 p₁₄.....

SPECIFIC CONDUCTANCE... 4085.

ANALYSIS IN MG/L

AG.....	C03.....	LI...	2.6	
AL.....	CR.....	MG...	1.5	
AS.....				
H.....	F.....	NA...	650.	SI02.
HE.....	FE(TOT).	NH...		S04..
				110.
				88.

ISO TOPES (0/00)

COORDINATES
LAT/LONG... 53-15.00 N 168-21.75 W
UTM ZONE... 402
NORTHING... 590311.
675968.

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CO..... K..... 36.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBEIM, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... U.S. GEOLOGICAL SURVEY

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ZN... 0.030

RECORD 00084

GEOTHERM FILE ID: 0045043

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... IVISHAK HILLSIDE SPRING
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
MAP REFERENCE..... SAGAVANIRKTOK A-2 1163360
OTHER LOCALITY INFORMATION: AT:SW CORNER OF SECTION 6, T05S, R019E; AND SE CORNER OF SECTION 1, T05S, R018E.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1973/05/11
TEMPERATURE (C)..... 7.5
DISCHARGE..... R 329586.6/MIN
OTHER SAMPLE INFORMATION.. BELOW 20 DEGREES C. CUT-OFF, BUT YEAR-ROUND FLOW FROM PERMAFROST INDICATES CONSIDERABLE
GEO THERMAL ENERGY.

COORDINATES
LAT/LONG... 69-01.83 N 147-43.00 W

WATER ANALYSIS

P4..... 8.0
SPECIFIC CONDUCTANCE..... 238.
ALKALINITY..... 112.
TOTAL DISSOLVED SOLIDS..... 133.
CHARGE IMBALANCE (% DIFF).... 0.0
ANALYSIS IN MG/L
AG..... CO3..... N
AL..... CR..... 9.1
AS..... CS..... 0.01
H..... F..... 0.4
HE..... FE(TOT)..... 0.6
CA..... 36. MC03..... 137.
CL..... 0.6
CO..... K..... 0.1

ISOTOPES (U/001)

MG... 9.1
MN... 0.01
NA... 0.4
NB... 5.8
S02... 13.
S04...

OTHER ANALYTICAL DATA... NITRATE + NITRITE = 0.04 MG/L; P = NONE.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... CHILDERS AND OTHERS, 1977

RECORD 00085

GEOTHERM FILE ID: 0045044

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... IVISHAK HILLSIDE SPRING
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
MAP REFERENCE..... SAGAVANIRKTOK A-2 1163360
OTHER LOCALITY INFORMATION: AT:SW CORNER OF SECTION 6, T35S, R019E; AND SE CORNER OF SECTION 1, T05S, R018E.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/04/20
TEMPERATURE (C)..... N
DISCHARGE..... 125715.L/MIN
OTHER SAMPLE INFORMATION.. ANOTHER SAMPLE FROM SPRING NO. 0045043.
GEO THERMAL ENERGY.

COORDINATES
LAT/LONG... 69-01.83 N 147-43.00 W

WATER ANALYSIS

P4..... 7.5
SPECIFIC CONDUCTANCE..... 252.
ANALYSIS IN PPM
H..... F..... 0.04
NA... 0.4
SIJ2... 4.9
ISOTOPES (U/001)

S04.. 8.9

NB...

FE(TOT).. 128.
HC03....RE.....
CA.....
CA-MG.. 4/.
CL..... 0.3

CO..... K..... 0.4

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... CHILDERS AND OTHERS, 1977

RECORD 00086

GEOTHERM FILE 10: 0000229

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... KANUTI - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES
STATE..... ALASKA

COUNTY..... KOKRINE - MODZANA HIGHLANDS

GEOLOGIC PROVINCE... BETTLES B-2 1:63360

MAP REFERENCE.....

OTHER LOCALITY INFORMATION: 5 MILES SW OF CARIBOU MTN; EAST SIDE OF KANUTI RIVER IN A LARGE OPEN GRASSY AREA 100 YDS IN DIAMETER.

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 26

TEMPERATURE (C)..... 66.0

PERTINENT LITHOLOGY..... BEDROCK CONCEALED; AREA IS UNDERLAIN BY MAFIC VOLCANIC ROCKS; WITHIN 1/4 MILE OF CONTACT WITH THE GRANITIC ROCKS OF "HOT SPRINGS PLUTON".

OTHER SAMPLE INFORMATION.. STRONG H2S ODOR.

WATER ANALYSIS

P+..... 8.0
CHARGE IMBALANCE (% DIFF).... 23.9

ANALYSIS IN PPM

AG.....
AL.....
H..... 1.3
RE.....
CA..... 2.7
CL..... 28.CO3.....
CR.....
F.....
FE(TOT)..
HC03.... 169.LI... 0.3
MG... 111.S....
SB...
S04... 21.ISOLOPES (10/001)
DEL U OF WATER..... -146.
DEL O(18) OF WATER... -18.

CO..... K..... 3.7

REFERENCE AND IDENTIFICATION

COMPILED BY..... SHEARER, G., RENNER, J.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00087

GEOTHERM FILE 10: 0045027

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... KENAI HIGH SCHOOL WELL

LOCATION

COUNTRY..... UNITED STATES
STATE..... ALASKA

COUNTY.....

GEOLOGIC PROVINCE... U2

MAP REFERENCE..... KENAI 1:250000, C-4 1:63360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1967/09/26

COORDINATES

LAT/LONG... 60-33.72 N 151-12.67 W
UTM ZONE... 405
NORTHING... 6715131.
598075.

TEMPERATURE (C)..... 20.0
WELL DEPTH (M)..... 61.
WATER ANALYSIS
PH..... 8.0
SPECIFIC CONDUCTANCE..... 475.
CHARGE IMBALANCE (% DIFF).... 8.0
ANALYSIS IN MG/L
AG..... CO3..... N
AL..... CR..... MG... 0.7
H..... F..... NA... 108.
HE..... FE(TOT)... NB... 32.
CA..... C.5 HC03.... 308. S04... 2.0
CL..... 5.6 NO3... 2.2
CO..... K..... 4.7
REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBETH, JOYCE
COMPILED AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... *USGS, ANCHORAGE

RECORD 00088
GEUTHERM FILE ID: 0045900

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... KENAI HIGH SCHOOL WELL
LOCATION
COUNTRY..... UNITED STATES 05N 011W 05 NW
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE...
MAP REFERENCE..... KENAI 1:250000, C-4 1:63360
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1966/09/02
POINT OF COLLECTION.. SAMPLE TAKEN IN TEACHER'S LOUNGE.
TEMPERATURE (C)..... 24.0
WELL DEPTH (M)..... 61.
OTHER SAMPLE INFORMATION.. SAMPLE TAKEN IN TEACHER'S LOUNGE. SEE REC. 45027
WATER ANALYSIS
PH..... 8.1
SPECIFIC CONDUCTANCE..... 488.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBETH, JOYCE
COMPILED AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... *UNIVERSITY OF ALASKA

COORDINATES
LAT/LONG... 60-33.72 N 151-12.67 W
UTM ZONE... 405
NORTHING... 6715131.
598075.

RECORD 00089
GEUTHERM FILE ID: 0021482

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... KILO HUT SPRINGS
LOCATION
COUNTRY..... UNITED STATES 11N 018W 02 SW OF SE OF NE
STATE..... ALASKA
GEOLOGIC PROVINCE... 02
MAP REFERENCE..... TANANA D-3 1:63360
OTHER LOCALITY INFORMATION: 110 MILES NW OF FAIRBANKS ON KANUTI KILULITNA RIVER.
SAMPLE DESCRIPTION AND CONDITIONS
SAMPLE NUMBER..... 23
TEMPERATURE (C)..... 46.

COORDINATES
LAT/LONG... 65-48.60 N 151-14.22 W

PERTINENT LITHOLOGY..... SPRINGS ISSUE FROM PLUTON OF PORPHYRITIC QUARTZ MONZONITE OF TENTATIVE CRETACEOUS AGE, ON OR VERY CLOSE TO CONTACT WITH SCHIST AND HORNFELS OF PALEOZOIC AND PRECAMBRIAN (?) AGE.
OTHER SAMPLE INFORMATION.. SEVERAL HOT SPRINGS IN AN OPEN GRASSY AREA OF ABOUT 1000 SQ FT. NO CHEMICAL ANALYSIS AVAILABLE.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MILLER AND OTHERS, 1973

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... KONGAKUT RIVER - UNNAMED SPRING
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
TOWNSHIP-RANGE
04N 042E U9 SW OF NE OF SE
COORDINATES
LAT/LONG... 69-42.36 N 141-49.38 W
RECORD 00090
GEOTHERM FILE ID: 0021506

MAP REFERENCE..... DEMARCATION POINT C-2 1163360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/04/27

TEMPERATURE (C)..... 0.5

DISCHARGE..... R 150183.L/MIN

WATER ANALYSIS

PH..... 6.7

SPECIFIC CONDUCTANCE..... 210.

CHARGE IMBALANCE (% DIFF)... 58.2

ANALYSIS IN MG/L

H.....

FE.....

CA..... 50.

CO.....

CL..... 1.

CO.....

OTHER ANALYTICAL DATA... ORGANIC CARBON = 34. MG/L.

QUALIFICATION FIELD..... NO3 = NO3 + NO4.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... CHILDERS AND OTHERS, 1977

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

GEOTHERM_SAMPLE_FILE

NAME OF SAMPLE SOURCE... KWINIUK - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

TOWNSHIP-RANGE

MAP REFERENCE..... SOLOMON C-1 1163360

OTHER LOCALITY INFORMATION: 9 MILES NORTH OF ELIM 100 YDS NORTH OF THE "KWINIUK RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/00/00

SAMPLE NUMBER..... 5

TEMPERATURE (C)..... 0.45.

PERTINENT LITHOLOGY..... SPRING IS IN " DABBY PLUTON" ABOUT 2 MILES FROM COUNTRY ROCK AND ON OR NEAR PROMINENT

LINEMENTS IN THE PLUTON CONTACTS.

WATER ANALYSIS

DATE/ANALYST..... WILLEY, L.M.
 PH..... 7.3
 ANALYSIS IN PPM
 AL..... CR..... 0.1
 H..... F..... 500.
 HR..... 5.8
 CA..... 10.2
 CL.....
 CO.....
 K..... 9.
 QUALIFICATION FIELD..... TEMPERATURE ESTIMATED AT 40-50 DEGREES C.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MILLER AND OTHERS, 1973

ISOIOPES 10/001

SI02. 45.

RECORD 00092

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... LAVA CREEK AREA
 LOCATION

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE.....

OTHER LOCALITY INFORMATION: BENDELEBEN A-2 1163360
 SIDE OF LAVA CREEK ABOUT 80 KM NORTH OF GOLOVIN ON SOUTH SIDE OF BENDELEBEN MTNS. ONE PRINCIPAL SPRING ON EAST

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1972/00/00
 SAMPLE NUMBER..... 3
 TEMPERATURE (C)..... 650.
 PERTINENT LITHOLOGY..... SPRING ALMOST ON CONTACT BETWEEN LATE CRETACEOUS QUARTZ MONZONITE OF "BENDELEBEN PLUTON"

AND PRECAMBRIAN MIGMATITE.
 OTHER SAMPLE INFORMATION.. LAT/LONG DO NOT MATCH B83 DESCRIPTION.
 WATER ANALYSIS

DATE/ANALYST..... WILLEY, L.M.
 PH..... 9.1
 ANALYSIS IN MG/L

AL..... CR.....
 H..... 0.8
 HR..... 1.
 CA..... 2.
 CL..... 8.
 CO.....
 K..... 1.4

REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MILLER AND OTHERS, 1973

ISOIOPES 10/001

MG... L 0.025
 NA... 75.
 SI02. 70.

RECORD 00093

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... LAVA CREEK AREA
 LOCATION

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....

COORDINATES

LAT/LONG... 65-13. N 162-54. W
 UTM ZONE... 403
 NORTHING... 7234046.

GEOLOGIC PROVINCE.. SEWARD PENINSULA
 MAP REFERENCE..... BENDELEBEN A-2 1:63360
 OTHER LOCALITY INFORMATION: 50 MILES NORTH OF GOLOVIN ON SOUTH SIDE OF BENDELEBEN MTNS. ONE PRINCIPAL SPRING ON
 EAST SIDE OF LAVA CREEK ABOUT 30M ABOVE VALLEY FLOOR.
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 3
 TEMPERATURE (C)..... E 50.
 PERTINENT LITHOLOGY..... SPRING ALMOST ON CONTACT BETWEEN LATE CRETACEOUS QUARTZ MONZONITE OF "THE BENDELEBEN
 PLUTON", AND A MIGMATITE ZONE OF PRECAMBRIAN AGE; BIOTITE SAMPLE FROM "THE BENDELEBEN PLUTON" HAS YIELDED K/AR AGE
 OF 79.8 ± 0.8 MY (MILLER AND OTHERS, 1972); PARTS OF FLOOR OF LAVA CREEK ARE UNDERLAIN BY QUATERNARY BASALT.
 OTHER SAMPLE INFORMATION.. LAT/LONG DO NOT MATCH 883 DESCRIPTION.

MAP ANALYSIS
 DATE/ANALYST..... 1974/00/00 WILLEY, L.M. AND PRESSER, T.S.

ANALYSIS IN MG/L		9.1		ISOTOPES (0/00)	
AL.....	CR.....	MG...	L 0.025		
H..... 0.8	F..... 9.	NA...	75.	SI02.	70.
HI.....	GA.....	NH4...	0 1.06		
HR..... 1.					
CA..... 2.	HC03....	100.			
CL..... H.					
CO.....	K.....	1.4			

OTHER ANALYTICAL DATA... NH3 LESS THAN ONE MG/L.
 QUALIFICATION FIELD..... NH4 CALCULATED FROM NH3.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MILLER AND OTHERS, 1973

----- RECORD 00094 -----
 GEOTHERM FILE ID: 0000227

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... LITTLE MELOZITNA HOT SPRINGS
 WARRING NUMBER..... 11

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY..... KOKRINE - HODZANA HIGHLANDS

COORDINATES
 LAT/LONG... 65-27.6 N 153-18.6 W
 UTM ZONE... 405
 NORTHING... 7260311.
 485328.

MAP REFERENCE..... MELOZITNA B-1 1:63360
 OTHER LOCALITY INFORMATION: 64 KM WEST OF TANANAI ON A SMALL FLAT ON THE EAST BANK OF HOT SPRINGS CREEK; 2.5 MILES
 UP FROM THE "LITTLE MELOZITNA RIVER".

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 18
 PERTINENT LITHOLOGY..... SPRINGS ARE IN A SMALL GRANITIC PLUTON INTRUDED INTO SCHIST.

OTHER SAMPLE INFORMATION.. H2S ODOR.

WATER ANALYSIS
 TOTAL DISSOLVED SOLIDS... 350.

ISOTOPES (0/00)

H..... F..... NA... SI02. 80.
 OTHER ANALYTICAL DATA... ANALYSIS AND LITHOLOGY ARE FROM WARRING, 1917.

REFERENCE AND IDENTIFICATION

COMPILED BY..... RENNER, J.; SHEARER, G.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WARRING, 1917

RECORD 00095

GEOTHERM FILE ID: 0021481

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... LITTLE MINOOK CREEK - HOT SPRING
MAPING NUMBER..... 16

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
STATE..... ALASKA
GEOLOGIC PROVINCE... YUKON - TANANA
OTHER LOCALITY INFORMATION: NEAR DIVIDE BETWEEN LITTLE MINOOK CREEK AND A TRIBUTARY OF HESS (HOOSIER) CREEK; NW OF WOLVERINE MIN.

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 22
TEMPERATURE (C)..... ?
PERTINENT LITHOLOGY..... GENERAL AREA IS UNDERLAIN BY PALEOZOIC CONGLOMERATE AND SHALE AND / OR JURASSIC (OR CRETACEOUS) MUDSTONE.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00096

GEOTHERM FILE ID: 0045023

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... LOWER KLAWSI - DRUM GROUP (SHRUB)

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
STATE..... ALASKA
GEOLOGIC PROVINCE... 02
MAP REFERENCE..... GULKANA A-3 1163360
OTHER LOCALITY INFORMATION: N-NE OF VABM KLAWSI (3017); BY VABM SHRUB (2943).

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1956/11/08
TEMPERATURE (C)..... 27.7
AMBIENT TEMP (C)..... 5.6
DISCHARGE..... 30. L/MIN
OTHER SAMPLE INFORMATION... OTHER HOT SPRINGS IN THE AREA; WATER QUALITY BAD; NO SURFACE DRAINAGE.

WATER ANALYSIS

ANALYSIS IN PPM		ISOTOPIES (00/001)	
AG.....	CO3..... N	MG....	502.
AL.....	CR.....	NA....	9390.
BR.....	F.....	SI02.	65.
CA.....	FE(TOT).....	SO4... N	
CL.....	GA.....	NH4... 11.	
CO.....	HC03.....	NO3... 5.5	
CU.....	K.....		275.

GAS ANALYSIS

DATE/ANALYST.....
ANALYST.....
AR... T

U.S. BUREAU OF MINES, AMARILLO, TX.

H2S... N 0.6
N2... T
O2... T

CH4... N
C2H6...
CO2...
H2... N
HE... T

REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... NICHOLS AND YEHLE, 1961

GEOTHERM-SAMPLE-FILE
NAME OF SAMPLE SOURCE... LOWER KLAWSI - DRUM GROUP-WEST SPRING (MINERAL)
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE... 02
MAP REFERENCE..... GULKANA 1:250000, A-3 1:63360
OTHER LOCALITY INFORMATION: 5.5 MILES N76E OF CONFLUENCE OF TAZLINA AND COPPER RIVERS. ELEV = 1872 FT. SAME AREA AS
GEOTHERM FILE NO. 0045023.
SAMPLE-DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1960/07/13 GRANTZ, A.
SAMPLE NUMBER..... 5
TEMPERATURE (C)..... R 21.
DISCHARGE..... R 28. L/MIN
OTHER SAMPLE INFORMATION.. GROUP OF SPRINGS WITH MUDCONES.

NAME OF SAMPLE SOURCE... LOWER KLAWSI - DRUM GROUP-WEST SPRING (MINERAL)
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE... 02
MAP REFERENCE..... GULKANA 1:250000, A-3 1:63360
OTHER LOCALITY INFORMATION: 5.5 MILES N76E OF CONFLUENCE OF TAZLINA AND COPPER RIVERS. ELEV = 1872 FT. SAME AREA AS
GEOTHERM FILE NO. 0045023.
SAMPLE-DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1960/07/13 GRANTZ, A.
SAMPLE NUMBER..... 5
TEMPERATURE (C)..... R 21.
DISCHARGE..... R 28. L/MIN
OTHER SAMPLE INFORMATION.. GROUP OF SPRINGS WITH MUDCONES.

NAME OF SAMPLE SOURCE... LOWER KLAWSI - DRUM GROUP-WEST SPRING (MINERAL)
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE... 02
MAP REFERENCE..... GULKANA 1:250000, A-3 1:63360
OTHER LOCALITY INFORMATION: 5.5 MILES N76E OF CONFLUENCE OF TAZLINA AND COPPER RIVERS. ELEV = 1872 FT. SAME AREA AS
GEOTHERM FILE NO. 0045023.
SAMPLE-DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1960/07/13 GRANTZ, A.
SAMPLE NUMBER..... 5
TEMPERATURE (C)..... R 21.
DISCHARGE..... R 28. L/MIN
OTHER SAMPLE INFORMATION.. GROUP OF SPRINGS WITH MUDCONES.

NAME OF SAMPLE SOURCE... LOWER KLAWSI - DRUM GROUP-WEST SPRING (MINERAL)
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE... 02
MAP REFERENCE..... GULKANA 1:250000, A-3 1:63360
OTHER LOCALITY INFORMATION: 5.5 MILES N76E OF CONFLUENCE OF TAZLINA AND COPPER RIVERS. ELEV = 1872 FT. SAME AREA AS
GEOTHERM FILE NO. 0045023.
SAMPLE-DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1960/07/13 GRANTZ, A.
SAMPLE NUMBER..... 5
TEMPERATURE (C)..... R 21.
DISCHARGE..... R 28. L/MIN
OTHER SAMPLE INFORMATION.. GROUP OF SPRINGS WITH MUDCONES.

NAME OF SAMPLE SOURCE... LOWER KLAWSI - DRUM GROUP-WEST SPRING (MINERAL)
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE... 02
MAP REFERENCE..... GULKANA 1:250000, A-3 1:63360
OTHER LOCALITY INFORMATION: 5.5 MILES N76E OF CONFLUENCE OF TAZLINA AND COPPER RIVERS. ELEV = 1872 FT. SAME AREA AS
GEOTHERM FILE NO. 0045023.
SAMPLE-DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1960/07/13 GRANTZ, A.
SAMPLE NUMBER..... 5
TEMPERATURE (C)..... R 21.
DISCHARGE..... R 28. L/MIN
OTHER SAMPLE INFORMATION.. GROUP OF SPRINGS WITH MUDCONES.

NAME OF SAMPLE SOURCE... LOWER KLAWSI - DRUM GROUP-WEST SPRING (MINERAL)
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE... 02
MAP REFERENCE..... GULKANA 1:250000, A-3 1:63360
OTHER LOCALITY INFORMATION: 5.5 MILES N76E OF CONFLUENCE OF TAZLINA AND COPPER RIVERS. ELEV = 1872 FT. SAME AREA AS
GEOTHERM FILE NO. 0045023.
SAMPLE-DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1960/07/13 GRANTZ, A.
SAMPLE NUMBER..... 5
TEMPERATURE (C)..... R 21.
DISCHARGE..... R 28. L/MIN
OTHER SAMPLE INFORMATION.. GROUP OF SPRINGS WITH MUDCONES.

NAME OF SAMPLE SOURCE... LOWER KLAWSI - DRUM GROUP-WEST SPRING (MINERAL)
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE... 02
MAP REFERENCE..... GULKANA 1:250000, A-3 1:63360
OTHER LOCALITY INFORMATION: 5.5 MILES N76E OF CONFLUENCE OF TAZLINA AND COPPER RIVERS. ELEV = 1872 FT. SAME AREA AS
GEOTHERM FILE NO. 0045023.
SAMPLE-DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1960/07/13 GRANTZ, A.
SAMPLE NUMBER..... 5
TEMPERATURE (C)..... R 21.
DISCHARGE..... R 28. L/MIN
OTHER SAMPLE INFORMATION.. GROUP OF SPRINGS WITH MUDCONES.

COUNTRY..... UNITED STATES 03N 001E 09 SE OF NE LAT/LONG... 62-03.48 N 145-13.32 W
 STATE..... ALASKA B&M: COPPER RIVER
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... GULKANA A-3 1163360
 OTHER LOCALITY INFORMATION: COPPER RIVER BASIN 5.5 MILES S76E OF CONFLUENCE OF "TAZLINA" AND "COPPER" RIVERS.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1956/09/07 GRANTZ, A.
 SAMPLE NUMBER..... N-R.9
 TEMPERATURE (C)..... 27.
 DISCHARGE..... R 13. L/MIN
 DEPOSITS OR ALTERATION... DARK SCUM OVER THE MAIN CENTERS OF ACTIVITY. CLAY (MONTMORILLONITE ?) CONTAINING SMALL
 ANGULAR GRAINS OF CLEAR QUARTZ, WHITE QUARTZ, BLuish-GRAY CHALCEDONY, AND NOODULES OF LIMONITE.
 OTHER SAMPLE INFORMATION.. GAS SAMPLE COLLECTED 1958/06/18. ACTIVE SPRING IN CRATER 1/5 FT IN DIAMETER, WITH GAS
 BUBBLES AT NUMEROUS POINTS.

WATER ANALYSIS
 DATE/ANALYST..... WHITEHEAD, H.C.
 P1..... 7.7
 SPECIFIC CONDUCTANCE..... 39500.
 TOTAL DISSOLVED SOLIDS... 28000.
 CHARGE IMBALANCE (% DIFF)... 1.2
 ANALYSIS IN PPM
 AG..... CO3..... N
 AL..... CR..... 130.
 R..... F..... NA.... 10400. SI02. 132.
 HE..... FE(Tot). 0.03 NB.... 666.
 CA..... 119. HCO3..... 7290.
 CL..... 12500. K..... 433.

ISOLOPES 100701
 GAS ANALYSIS
 DATE/ANALYST..... 1958/06/17 U.S. BUREAU OF MINES, AMARILLO, TX.
 ANALYSIS IN MOLE %
 AR... 0.2
 CH4... T
 C2H6... N
 CO2... 96.4
 H2... N
 HE... T
 H2S... N 3.4
 N2... 0.6
 O2... 0.6

ISOLOPES 100701
 OTHER ANALYTICAL DATA... GAS SAMPLE CONTAMINATED WITH AIR. VALUES CALCULATED ON AN AIR FREE BASIS.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... NICHOLS AND YEHLE, 1961

RECORD 00099
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... LOWER RAY RIVER HOT SPRINGS
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... TANANA D-2 1163360
 OTHER LOCALITY INFORMATION: IN GRAVEL BAR ON NORTH SIDE OF "RAY RIVER".
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 25
 TEMPERATURE (C)..... 66.
 COORDINATES
 LAT/LONG... 65-59. N 150-35. W
 GEOTHERM FILE ID: 0021484

PERTINENT LITHOLOGY..... BEDROCK CONCEALED.
OTHER SAMPLE INFORMATION... H2S ODOR.

WATER ANALYSIS

DATE/ANALYST..... BARNES, R.B.

PH..... 9.04
CHARGE IMBALANCE (% DIFF)... 32.7
ANALYSIS IN PPM

AG.....	CO3.....	21.	LI.....	S.....
AL.....	CR.....		MG.....	SB.....
H.....	F.....	1.6	NA.....	95.
HE.....	FE(TOT).....		NB.....	
CA.....	HC03.....	93.		504..
CL.....		25.		23.
CO.....	K.....	2.		

OTHER ANALYTICAL DATA... ISOTOPE DATA FROM J.R. O'NEIL.
REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MILLER AND OTHERS, 1973

ISOTOPES 10/001
DEL D OF WATER..... -157.
DEL O(18) OF WATER... -19.2

RECORD 00100

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... LUPINE SPRING

LOCATION

COUNTRY..... UNITED STATES
STATE..... ALASKA
MAP REFERENCE..... PHILLIP SMITH MTS D-3 1163360

OTHER LOCALITY INFORMATION: BETWEEN THE LUPINE AND SAVIUKVIAYAK RIVERS.
SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1973/05/09

TEMPERATURE (C)..... 2.5

DISCHARGE..... R 2548.4 L/MIN

PERTINENT LITHOLOGY..... SPRING IS ON A NW TRENDING LINEAMENT WITH SEVERAL OTHER SPRINGS.

OTHER SAMPLE INFORMATION... BELOW 20 DEGREE C. CUT-OFF, BUT YEAR-ROUND FLOW FROM PERMA FROST INDICATES CONSIDERABLE
GEOTHERMAL ENERGY.

WATER ANALYSIS

PH..... 7.8
SPECIFIC CONDUCTANCE..... 298.
ALKALINITY.....
TOTAL DISSOLVED SOLIDS... 166.
CHARGE IMBALANCE (% DIFF)... 1.5
ANALYSIS IN MG/L

AG.....	CO3.....	N	MG.....	7.7
AL.....	CR.....		MN.....	N
AS.....	CS.....		NA.....	0.4
H.....	F.....	0.3	NB.....	5102.
RE.....	FE(TOT).....	0.030		504..
CA.....	HC03.....	177.	NO3...	0 0.13
CL.....		2.8		
CO.....	K.....	0.1		

QUALIFICATION FIELD..... NO3 = NITRATE • NITRITE.
REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... CHILDERS AND OTHERS, 1977

GEOTHERM FILE ID: 0045019

COORDINATES

LAT/LONG... 68-51.75 N 148-12.33 W

ISOTOPES 10/001

GEOTERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... MANLEY HOT SPRINGS (BAKER HOT SPRINGS)
WARNING NUMBER..... 14
LOCATION

RECORD 00101
GEOTERM FILE ID: 0021478

COUNTRY..... UNITED STATES
STATE..... ALASKA
GEOLOGIC PROVINCE... 02
MAP REFERENCE..... TANANA A-2 1163360
OTHER LOCALITY INFORMATION: NEXT TO THE TANANA RIVER IN "KARSHNER CREEK" VALLEY; NORTH EDGE OF AREA.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1973/00/00
SAMPLE NUMBER..... 19
TEMPERATURE (C)..... 59.
PERTINENT LITHOLOGY..... BEDROCK AT SPRINGS IS CONCEALED; BLACK HORNFELS OUTCROPS 800M UP "KARSHNER CREEK" FROM
THE HOT SPRINGS. LARGE BLOCKS OF BIOTITE GRANITE ARE PRESENT.
WATER ANALYSIS

WILLEY, L.M. AND PRESSER, T.S.

DATE/ANALYST.....
P.I..... 7.7
CHARGE IMBALANCE (% DIFF)... 11.3
ANALYSIS IN MG/L

AG..... CO3.....
AL..... 0.016 CR.....
H..... 1.3 F..... 8.5
BE..... FE(TOT)..... 65.
CA..... 4. HC03..... 54.
CL..... 134.

ISOTOPES 10/0001
DEL D OF WATER..... -142.
DEL O(18) OF WATER.... -18.1

CO..... K..... 4.5
OTHER ANALYTICAL DATA... NH3 = 4.9 MG/L. ISOTOPE DATA FROM J.R. O'NEIL.
REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MILLER AND OTHERS, 1973

GEOTERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... MANLEY HOT SPRINGS (BAKER HOT SPRINGS)
WARNING NUMBER..... 14
LOCATION

RECORD 00102
GEOTERM FILE ID: 0000231

COUNTRY..... UNITED STATES
STATE..... ALASKA
GEOLOGIC PROVINCE.. 02
MAP REFERENCE..... TANANA A-2 1163360
OTHER LOCALITY INFORMATION: NEXT TO TANANA RIVER; BY KARSHNER CREEK AT NORTH EDGE OF AREA.
SAMPLE DESCRIPTION AND CONDITIONS
SAMPLE NUMBER..... 19
TEMPERATURE (C)..... 56.0
DISCHARGE..... 560. L/MIN
PERTINENT LITHOLOGY..... BEDROCK IS CONCEALED.

WATER ANALYSIS
DATE/ANALYST.....
P.I..... 7.7
WILLEY, L.M. AND PRESSER, T.S.

CHARGE IMBALANCE (% DIFF)... 6.7

ANALYSIS IN PPM

AG.....
AL..... 0.016
H..... 1.3
HE.....
RI.....
CA..... 4.0
CL..... 134.
CO.....

LI..... 0.28
MG..... 1.
NA..... 130.
NB.....
NH4... 0 5.19

S.....
SB.....
SI02... 65.
S04... 54.

ISOTOPES (0/00)
DEL D OF WATER..... -142.
DEL O (18) OF WATER... -18.1

OTHER ANALYTICAL DATA... NH3 = 4.9 PPM; ISOTOPE DATA FROM J.R. O'NEIL.
QUALIFICATION FIELD..... NH4 CALCULATED FROM NH3.

REFERENCE AND IDENTIFICATION
COMPILED BY..... RENNER, J.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00103

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... MANLEY HOT SPRINGS (BAKER HOT SPRINGS)

WARNING NUMBER..... 14

LOCATION

COUNTRY..... UNITED STATES
STATE..... ALASKA
GEOLOGIC PROVINCE.. YUKON - TANANA UPLAND
MAP REFERENCE..... TANANA A-2 1163360

OTHER LOCALITY INFORMATION: NEXT TO TANANA RIVER IN "KARSHNER CREEK" VALLEY; NORTH EDGE OF AREA.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1917/00/00

SAMPLE NUMBER..... 19
TEMPERATURE (C)..... 52.
PERTINENT LITHOLOGY..... CONCEALED.

WATER ANALYSIS

WARNING, G.A.

DATE/ANALYST.....
CHARGE IMBALANCE (% DIFF)... 3.5

ANALYSIS IN PPM

AG.....
AL..... 0 0.8
H.....
HE.....
CA..... 9.1
CL..... 120.
CO.....

MG..... 0.9
NA..... 121.
NB.....

SI02... 59.
S04... 48.

ISOTOPES (0/00)

QUALIFICATION FIELD..... AL = AL + FE.
REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... WARING, 1917; MILLER AND OTHERS, 1973

RECORD 00104

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... MELOZI HOT SPRINGS (MELOZITNA HOT SPRING)

WARNING NUMBER..... 10

LOCATION

TOWNSHIP=RANGE

COORDINATES

GEOTHERM FILE ID: 0000225

COUNTRY..... UNITED STATES 04S 020E 23 SW OF SE OF NE LAT/LONG... 65-07.8 N 154-41.5 W
 STATE..... ALASKA UTM ZONE... 405
 COUNTY..... GEORGIC PROVINCE... 02 NORTHING... 7224154.
 MAP REFERENCE..... MELOZITNA A-4 1163360 421801.
 OTHER LOCALITY INFORMATION: ON HOT SPRINGS CREEK 48 KM NE OF RUBY; 10 MILES FROM THE MELOZITNA RIVER UP HOT SPRINGS CREEK.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1915/08/12 WARING, G.A.
 SAMPLE NUMBER..... 17

TEMPERATURE (C)..... 56. L/MIN

DISCHARGE..... 494. SMALL AMOUNTS OF NATIVE SULFUR AND LIME CARBONATE.
 DEPOSITS OR ALTERATION..... SPRING IS IN "QUARTZ MONZONITE PLUTON", ABOUT 3.2KM FROM CONTACT WITH HORNFELSIC MAFIC

PERTINENT LITHOLOGY..... AND ABOUT 2.5KM FROM PELITIC SCHIST.
 AND ULTRAMAFIC ROCKS, ONE MAIN FLOWING HOT SPRING; H2S ODOR.

OTHER SAMPLE INFORMATION.. ONE MAIN FLOWING HOT SPRING; H2S ODOR.

WATER ANALYSIS

DATE/ANALYST..... DINSMORE, S.C.
 TOTAL DISSOLVED SOLIDS... 442.

ISOPTOPES 10/001

AG.....	CO3.....	31.	MG...	2.8	SI02.	78.
AL.....	CR.....		NA...			
B.....	F.....		NA+K.	Q 107.	S04..	61.
RA.....	FE+3.....	0.75	NB...			
HE.....	FE(TOT)...	32.	NO3..	T		
CA.....	HC03.....					

CL..... 92.
 OTHER ANALYTICAL DATA... B407 = TRACE; ANALYSIS FROM WARING, 1917.
 QUALIFICATION FIELD..... NA + K IS A CALCULATED VALUE (BY THE TESTER).

REFERENCE AND IDENTIFICATION

COMPILED BY..... RENNER, J., SHEARER, G.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WARING, 1917

RECORD 00105

GEUTHERM FILE ID: 0001921

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... MOTHER GOOSE
 LOCATION..... TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 35S 048W

COORDINATES
 LAT/LONG... 57-10.8 N 157-01.1 W

STATE..... ALASKA
 MAP REFERENCE..... UGASHIK A4 1163,360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 8/13/80
 TEMPERATURE (C)..... 66.
 DISCHARGE..... 2567. L/MIN

WATER ANALYSIS

P1..... 6.35
 SPECIFIC CONDUCTANCE... 3000.
 CHARGE IMBALANCE (% DIFF)... 7.3

ISOPTOPES 10/001

AL.....	CR.....	MG...	131.	SI02.	245.
B.....	F.....	NA...	198.	S04..	491.
HE.....	FE(TOT)...	NB...			
CA.....	HC03.....				
CL.....					

CO..... K..... 47.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R.H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MOTYKA AND MOORMAN, 1981

RECORD 00106
 GEOTHERM FILE ID: 0021505

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... NEW EDDYSTONE ROCK - PIPE SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... KETCHIKAN 1:250000
 OTHER LOCALITY INFORMATION: BEHM CANAL; E-NE OF KETCHIKAN.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTION..... 1915/06/16 WARING, G.A.
 SAMPLE NUMBER..... 109
 TEMPERATURE (C)..... 10.
 DISCHARGE..... R 15.1 L/MIN
 DEPOSITS OR ALTERATION..... IRON DEPOSITS.
 OTHER SAMPLE INFORMATION.. SLIGHT TASTE OF H2S. PIPE IS BELOW HIGH-TIDE LEVEL.

COORDINATES
 LAT/LONG... 55-30. N 130-58. W

WATER ANALYSIS
 DATE/ANALYST..... DINSMORE, S.C.
 TOTAL DISSOLVED SOLIDS... 1362.
 ANALYSIS IN PPM

ISOTOPES (0/001)

AG.....	CO3..... N	MG....	117.	SI02.	75.
AL..... 3.7	CR.....	NA....	110.	SO4...	N
H..... N	F.....	NB....			
HE.....	FE(TOT).. 1.3	NO3..	N		
CA..... 273.	HC03.... 1439.				
CL..... 132.					

CO..... K..... 9.6
 OTHER ANALYTICAL DATA... WATER IS SUPERSATURATED WITH CO2.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WARING, 1917

RECORD 00107
 GEOTHERM FILE ID: 0045153

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... NYLEN HOT SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... SITKA C-4 1:63360
 OTHER LOCALITY INFORMATION: S.E. 1/4 SEC. 08 AND N.E. 1/4 SEC. 17 IN TONGASS NATIONAL FOREST. SPRINGS 2000 FT.
 FROM W. BANK AND CAN BE FOUND BY MOSSES AND STREAMS.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTION..... 1978/ /
 TEMPERATURE (C)..... 49.
 DISCHARGE..... 30. L/MIN
 OTHER SAMPLE INFORMATION.. NINE SPRINGS HAVE BEEN LOCATED, EIGHT SMALL. ONE FLOWING 8 GAL./MIN OVER THIRTY FOOT CLIFF INTO CREEK.

COORDINATES
 LAT/LONG... 57-38.64 N 135-19.98 W

WATER ANALYSIS

PH..... 8.7
 SPECIFIC CONDUCTANCE..... 523.8
 ANALYSIS IN PPM

ISOLOPES 10/001

AL..... CR..... 0.5
 AS..... N
 RF..... FE(TOT). N
 HI..... GA.....
 CA..... 9u. SR... 0.908
 CAMG. HG.....
 CD..... H2S.....
 CO..... K.....
 ZN... 0.18

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *HARMON, C.. U. S. FOREST SERVICE GEOLOGIST, ALASKA

RECORD 00108

GEUTHERM FILE 10: 0021446

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... OKMOK CALDERA - CONE A (FUMAROLE A1)
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... UMNAK 1:250000

COORDINATES

LAT/LONG... 53-24.3 N 168-10.6 W

OTHER LOCALITY INFORMATION: NORTHEASTERN UMNAK ISLAND; JUST OUTSIDE CONE A; SW CORNER OF THE CALDERA.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1946/09/26

TEMPERATURE (C)..... 96.5

OTHER SAMPLE INFORMATION.. BY GAS SAMPLING TRAIN.

GAS ANALYSIS

ANALYSIS IN VOLUME %

N2... 0.85.

ISOLOPES 100/01

CO2... 7.

OTHER ANALYTICAL DATA... SO2 = 8.1 MCL = 0; HF = 0; VAPOR PRESSURE OF H2O = 670MM; BAROMETRIC PRESSURE = 703MM; VOLUME

% H2O VAPOR = 95..

QUALIFICATION FIELD..... N2 = N2 + O2 + AR.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... BYERS AND BRANNOCK, 1949

RECORD 00109

GEUTHERM FILE 10: 0021447

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... OKMOK CALDERA - CONE A (FUMAROLE A2)
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... UMNAK 1:250000

COORDINATES

LAT/LONG... 53-24.3 N 168-10.6 W

OTHER LOCALITY INFORMATION: NE UMNAK ISLAND; SW CORNER OF THE CALDERA; JUST OUTSIDE OF CONE A.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1946/09/26

TEMPERATURE (C)..... 97.

OTHER SAMPLE INFORMATION.. BY GAS SAMPLING TRAIN.

GAS ANALYSIS

ANALYSIS IN VOLUME %

C2H6... 43. N2... 35.

OTHER ANALYTICAL DATA... SO2 = 22% HCL = 0% HF = 0% VAPOR PRESSURE OF H2O = 670MM; BAROMETRIC PRESSURE = 703MM;

VOLUME % H2O VAPOR = 96.5.

QUALIFICATION FIELD... N2 = N2 + O2 + AR.

REFERENCE AND IDENTIFICATION

COMPILED BY... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE... BYERS AND BRANNOCK, 1949

ISOIOPES 100/01

RECORD 00110

GEOOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... OKMOK CALDERA - CONE A (FUMAROLE A2)

LOCATION

TOWNSHIP-RANGE

COUNTRY... UNITED STATES

STATE... ALASKA

MAP REFERENCE... UMNAK 1:250000

OTHER LOCALITY INFORMATION: NE UMNAK ISLAND; SW CORNER OF THE CALDERA; JUST OUTSIDE OF CUNE A.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTION... 1946/09/26

TEMPERATURE (C)... 98.

OTHER SAMPLE INFORMATION... BY GAS SAMPLING TUBE; ANALYSIS BY MASS SPECTROMETER.

GAS ANALYSIS

ANALYSIS IN VOLUME %

AR... 0.8

C2H6...

CO2... 15.5

OTHER ANALYTICAL DATA... SO2 = 9.3% HCL = 0% HF = 0.

REFERENCE AND IDENTIFICATION

COMPILED BY... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE... BYERS AND BRANNOCK, 1949

ISOIOPES 100/01

RECORD 00111

GEOOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... OKMOK CALDERA - CONE A (FUMAROLE A8)

LOCATION

TOWNSHIP-RANGE

COUNTRY... UNITED STATES

STATE... ALASKA

MAP REFERENCE... UMNAK 1:250000

OTHER LOCALITY INFORMATION: 50 FT SE OF FUMAROLE A2.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTION... 1947/06/28

OTHER SAMPLE INFORMATION... FAIRLY NEW FUMAROLE. SAMPLE TAKEN BY GAS-SAMPLING TUBE.

GAS ANALYSIS

ANALYSIS IN VOLUME %

AR... 0.96

C2H6...

CO2... 0.58

OTHER ANALYTICAL DATA... SO2 = 0.33% HCL = 0% HF = 0.

REFERENCE AND IDENTIFICATION

COMPILED BY... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

ISOIOPES 100/01

GEOOTHERM FILE ID: 0021449

COORDINATES

LAT/LONG... 53-24.3 N 168-10.6 W

REFERENCE..... RYERS AND BRANNOCK, 1949

RECORD 00112
GEOTHERM FILE ID: 0000209GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... OKMOK CALDERA - HOT SPRING (UNNAMED)LOCATION
COUNTRY..... UNITED STATES

STATE..... ALASKA

COUNTY.....

GEOLOGIC PROVINCE...

MAP REFERENCE.....

OTHER LOCALITY INFORMATION: WEST SPRING AREA.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1946/09/07

TEMPERATURE (C)..... 22.0

OTHER SAMPLE INFORMATION.. WARM SPRINGLET OF WEST SPRING.

WATER ANALYSIS

TOTAL DISSOLVED SOLIDS... 303.

ANALYSIS IN PPM

AG.....

AL.....

H..... 0 1.4

F..... 0.1

FE(TOT).....

CA..... 18.

CL..... 39.

CO.....

K..... 5.6

OTHER ANALYTICAL DATA... AS04 LESS THAN 0.1 PPM IF PRESENT; FE LESS THAN 0.1 PPM IF PRESENT; B203 = 9. PPM; SAMPLE

DELAYED SEVERAL MONTHS IN SHIPPING, SOME SOLUTION MAY HAVE OCCURRED.

QUALIFICATION FIELD... BORON CALCULATED FROM B203; HCO3 BY DIRECT TITRATION.

REFERENCE AND IDENTIFICATION

COMPILED BY..... RYERS AND BRANNOCK, 1949

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... RYERS AND BRANNOCK, 1949

COORDINATES

LAT/LONG... 53-28.7 N 168-04.7 W

UTM ZONE... 402

NORTHING... 5929738.

EASTING... 692423.

ISOLOPES (0/00)

59.

69.

RECORD 00113
GEOTHERM FILE ID: 0045037GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... OKPILAK HOT SPRINGLOCATION
COUNTRY..... UNITED STATES

STATE..... ALASKA

COUNTY.....

GEOLOGIC PROVINCE...

MAP REFERENCE.....

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/08/27

TEMPERATURE (C)..... 48.5

OTHER SAMPLE INFORMATION.. WARM SPRINGLET OF WEST SPRING.

WATER ANALYSIS

TOTAL DISSOLVED SOLIDS... 650.

ANALYSIS IN MG/L

AG.....

AL.....

H..... 14.

F.....

FE(TOT).....

CA..... 9.8

CL..... 31.

COORDINATES

LAT/LONG... 69-19.80 N 144-02.64 W

UTM ZONE... 406

NORTHING... 7693847.

EASTING... 616393.

ISOLOPES (0/00)

200.

200.

CO..... K..... 4.5
 QUALIFICATION FIELD..... C.E. SLOAN CONFIRMED TEMPERATURE.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... U.S. GEOLOGICAL SURVEY, 1977

RECORD 00114
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PAN AM BACHATNA CREEK
 LOCATION
 COUNTRY..... UNITED STATES 21 SW OF SW
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... KENAI 1:250000, D-5 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1969/02/04
 TEMPERATURE (C)..... 60.0 AT (M).... 1872.
 WELL DEPTH (M)..... 1926.
 GRADIENT (C/KM)..... 32.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

COORDINATES
 LAT/LONG... 60-46.42 N 152-05.00 W
 UTM ZONE... +05
 NORTHING... 6737722.
 549932.

RECORD 00115
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PAN AM DAVID RIVER NO. 1 AND 1A
 LOCATION
 COUNTRY..... UNITED STATES 12 NE OF SW
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... PORT MOLLER 1:250000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1969/08/01
 TEMPERATURE (C)..... 151.1
 WELL DEPTH (M)..... 4197.
 GRADIENT (C/KM)..... 32.
 OTHER SAMPLE INFORMATION... FLOWING WATER AND GAS IN LOWER PART OF WELL.
 QUALIFICATION FIELD..... SEPARATOR PRESSURE 2.1 TO 3.9 KG/CM**2.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

COORDINATES
 LAT/LONG... 55-51.80 N 161-34.17 W
 UTM ZONE... +04
 NORTHING... 6193640.
 339195.

1ST SEPARATION PRESSURE (KG/CM2)... R 3.0

RECORD 00116
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PAN AM STEDATNA CREEK ST. OIL WELL
 LOCATION
 COUNTRY..... UNITED STATES 30 SE OF SW
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE...
 MAP REFERENCE.....
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR.....
 TEMPERATURE (C).....
 WELL DEPTH (M).....
 GRADIENT (C/KM).....
 OTHER SAMPLE INFORMATION...
 QUALIFICATION FIELD.....
 REFERENCE AND IDENTIFICATION
 COMPILED BY.....
 COMPILER AFFILIATION...
 REFERENCE.....

COORDINATES
 LAT/LONG... 61-05.5 N 151-29. W
 UTM ZONE... +05

RECORD 00118
GEOTHERM FILE ID: 0021465

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... PILGRIM HOT SPRING (KRUGAMEPA)
WATER NUMBER..... 6
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
MAP REFERENCE..... BENEDEBEN A-6 1:63360
OTHER LOCALITY INFORMATION: 65 KM NORTH OF NOME; .8 KM SOUTH OF PILGRIM RIVER.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1915/09/02 WARING, G.A.
SAMPLE NUMBER..... 1
TEMPERATURE (C)..... 69.
DEPOSITS OR ALTERATION..... DEPOSITS: SMALL AMOUNTS OF NaCl, CaCO₃, AND ALUM.
PERTINENT LITHOLOGY..... BEDROCK CONCEALED.
OTHER SAMPLE INFORMATION.. H₂S ODOR. SPRING HAS SALTY TASTE.
WATER ANALYSIS

DATE/ANALYST..... DINSMORE, S.C.
CHARGE IMBALANCE (% DIFF)... 0.2
ANALYSIS IN PPM
AL..... 4.1
R.....
FE.....
CA..... 545.
CL..... 3450.
CO.....
K..... 61.
CR.....
F.....
FE(TOT)... 0.7
HC03..... 21.
MG..... 7.4
NA..... 1587.
NB.....
SI02..... 87.
SO4..... 25.

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION
COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MILLER AND OTHERS, 1973; WARING, 1917

RECORD 00119
GEOTHERM FILE ID: 0045155

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... POCAHONTAS HOT SPRING
WATER NUMBER.....
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
MAP REFERENCE..... MELOZITNA 1:250000
OTHER LOCALITY INFORMATION: ON POCAHONTAS CREEK
SAMPLE DESCRIPTION AND CONDITIONS
PERTINENT LITHOLOGY..... NEAR CONTACT BETWEEN K. GRAYWACKE AND MUONSTONE AND INDIAN MOUNTAIN GRANODIORITE PLUTON.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MACHRETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... *SELKREGG, 1976; YUKON REGIONAL PROFILES.

COORDINATES
LAT/LONG... 65-58.22 N 154-01.00 W

RECORD 00120
GEOTHERM FILE ID: 0001920

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... PORT MOLLER HOT SPRINGS
WATER NUMBER.....
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
MAP REFERENCE.....
OTHER LOCALITY INFORMATION: ON POCAHONTAS CREEK
SAMPLE DESCRIPTION AND CONDITIONS
PERTINENT LITHOLOGY..... NEAR CONTACT BETWEEN K. GRAYWACKE AND MUONSTONE AND INDIAN MOUNTAIN GRANODIORITE PLUTON.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MACHRETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... *SELKREGG, 1976; YUKON REGIONAL PROFILES.

COORDINATES
LAT/LONG... 55-51.7 N 160-29.5 W

MAP REFERENCE..... PORT MOLLER D-2, 1:63,360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 8/18/80

TEMPERATURE (C)..... 71.

DISCHARGE..... 252. L/MIN

WATER ANALYSIS

PH..... 8.24

SPECIFIC CONDUCTANCE..... 5300.

CHARGE IMBALANCE (% DIFF).... 2.3

ANALYSIS IN MG/L

AL.....	CR.....	MG....	0.16
4.....	F.....	NA....	792.
45.....	FE(TOT)...	NB....	
CA.....	HC03.....		
228.	71.		
CL.....			
1615.			
CO.....	K.....		
	12.		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... MOTYKA AND MOORMAN, 1981

ISOTOPES (D/001)

SI02. 63.
S04.. 17.

RECORD 00121

GEOHEM-SAMPLE-FILE

NAME OF SAMPLE SOURCE... PORT MOLLER HOT SPRINGS

WATING NUMBER..... 54

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

GEOLOGIC PROVINCE.. 01

MAP REFERENCE..... PORT MOLLER D-2 1:63360

OTHER LOCALITY INFORMATION: SW SIDE OF BAY, A FEW FEET ABOVE HIGH-TIDE LEVEL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1908/00/00

TEMPERATURE (C)..... 73.9

DEPOSITS OR ALTERATION... NONE

OTHER SAMPLE INFORMATION.. SPRING WATER IS "SCALDING" HOT. ONE MAIN POOL WITH SEVERAL MINOR POOLS. THE SPRINGS

"HUBBLE VORACIOUSLY". THE WATER HAS A SLICK ALKALINE TASTE WITH NO ODOR.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... WARING, 1917

GEOHEM FILE ID: 0021502

COORDINATES

50S 073W 12 NE OF NE OF SE OF 5MT/LONG... 55-51.78 N 160-29.58 W

RECORD 00122

GEOHEM-SAMPLE-FILE

NAME OF SAMPLE SOURCE... PURE CANOE BAY NO. 1

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

GEOLOGIC PROVINCE..

MAP REFERENCE..... PORT MOLLER 1:250000, C-4 1:63360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1961/10/24

TEMPERATURE (C)..... 71.1

GEOHEM FILE ID: 0045065

COORDINATES

55-31.2 N 161-05.7 W

UTM ZONE... 104

NORTHING... 6096463.

372052.

WELL DEPTH (M)..... 2025.
 GRADIENT (C/KM)..... 33.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... RAY RIVER HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... TANANA D-2 1163360
 OTHER LOCALITY INFORMATION: 105 MILES NW OF FAIRBANKS; NORTH SIDE OF RAY RIVER AT BASE OF HILL IN "FOOL PLAIN".
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 24
 TEMPERATURE (C)..... 45.
 PERTINENT LITHOLOGY..... BEDROCK CONCEALED.
 OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.
 WATER ANALYSIS
 DATE/ANALYST..... BARNES, R.B.

 NAME OF SAMPLE SOURCE... RAY RIVER HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... TANANA D-2 1163360
 OTHER LOCALITY INFORMATION: 105 MILES NW OF FAIRBANKS; NORTH SIDE OF RAY RIVER AT BASE OF HILL IN "FOOL PLAIN".
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 24
 TEMPERATURE (C)..... 45.
 PERTINENT LITHOLOGY..... BEDROCK CONCEALED.
 OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.
 WATER ANALYSIS
 DATE/ANALYST..... BARNES, R.B.

 NAME OF SAMPLE SOURCE... RAY RIVER HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... TANANA D-2 1163360
 OTHER LOCALITY INFORMATION: 105 MILES NW OF FAIRBANKS; NORTH SIDE OF RAY RIVER AT BASE OF HILL IN "FOOL PLAIN".
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 24
 TEMPERATURE (C)..... 45.
 PERTINENT LITHOLOGY..... BEDROCK CONCEALED.
 OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.
 WATER ANALYSIS
 DATE/ANALYST..... BARNES, R.B.

 NAME OF SAMPLE SOURCE... RAY RIVER HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... TANANA D-2 1163360
 OTHER LOCALITY INFORMATION: 105 MILES NW OF FAIRBANKS; NORTH SIDE OF RAY RIVER AT BASE OF HILL IN "FOOL PLAIN".
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 24
 TEMPERATURE (C)..... 45.
 PERTINENT LITHOLOGY..... BEDROCK CONCEALED.
 OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.
 WATER ANALYSIS
 DATE/ANALYST..... BARNES, R.B.

 NAME OF SAMPLE SOURCE... RAY RIVER HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... TANANA D-2 1163360
 OTHER LOCALITY INFORMATION: 105 MILES NW OF FAIRBANKS; NORTH SIDE OF RAY RIVER AT BASE OF HILL IN "FOOL PLAIN".
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 24
 TEMPERATURE (C)..... 45.
 PERTINENT LITHOLOGY..... BEDROCK CONCEALED.
 OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.
 WATER ANALYSIS
 DATE/ANALYST..... BARNES, R.B.

 NAME OF SAMPLE SOURCE... RAY RIVER HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... TANANA D-2 1163360
 OTHER LOCALITY INFORMATION: 105 MILES NW OF FAIRBANKS; NORTH SIDE OF RAY RIVER AT BASE OF HILL IN "FOOL PLAIN".
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 24
 TEMPERATURE (C)..... 45.
 PERTINENT LITHOLOGY..... BEDROCK CONCEALED.
 OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.
 WATER ANALYSIS
 DATE/ANALYST..... BARNES, R.B.

 NAME OF SAMPLE SOURCE... RAY RIVER HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... TANANA D-2 1163360
 OTHER LOCALITY INFORMATION: 105 MILES NW OF FAIRBANKS; NORTH SIDE OF RAY RIVER AT BASE OF HILL IN "FOOL PLAIN".
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 24
 TEMPERATURE (C)..... 45.
 PERTINENT LITHOLOGY..... BEDROCK CONCEALED.
 OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.
 WATER ANALYSIS
 DATE/ANALYST..... BARNES, R.B.

 NAME OF SAMPLE SOURCE... RAY RIVER HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... TANANA D-2 1163360
 OTHER LOCALITY INFORMATION: 105 MILES NW OF FAIRBANKS; NORTH SIDE OF RAY RIVER AT BASE OF HILL IN "FOOL PLAIN".
 SAMPLE DESCRIPTION AND CONDITIONS
 SAMPLE NUMBER..... 24
 TEMPERATURE (C)..... 45.
 PERTINENT LITHOLOGY..... BEDROCK CONCEALED.
 OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.
 WATER ANALYSIS
 DATE/ANALYST..... BARNES, R.B.

DISCHARGE..... 0 1444. L/MIN

DEPOSITS OR ALTERATION..... LAVENDER AND CREAM COLORED ALGAE COAT THE ROCKS AND THE BOTTOM OF THE POOL; THE HEADWATER
STREAM CONTAINS AN UNIDENTIFIED SUSPENDED "PRECIPITATE" AND APPEARS BLACK.

OTHER SAMPLE INFORMATION... GAS BUBBLES PRESENT WITH STRONG H2S ODOOR.

WATER ANALYSIS

PH.....	7.0			
SPECIFIC CONDUCTANCE.....	1000.			
ANALYSIS IN MG/L				
H.....	1.1	NA...	130.	SI02. 29.
FE(TOT).....		NB...		S04.. 90.
CA.....	93.			
CO.....		P04..	0.09	
CL.....	150.			
CO.....				

ISOTOPES 10/001

QUALIFICATION FIELD..... FLOW CONVERTED FROM CUBIC FEET / SECOND.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE

COMPILER AFFILIATION... UNIVERSITY OF ALASKA

REFERENCE..... CHILDERS AND OTHERS, 1977

RECORD 00125

GEOTHERM FILE 10: 0045022

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... RED HILL SPRING

LOCATION

COUNTRY..... UNITED STATES 03N 025E 08 SE OF NE

STATE..... ALASKA

COUNTY..... 02

GEOLOGIC PROVINCE..

MAP REFERENCE..... MT. MICHELSON 1:250000, C-4 1:63360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/12

TEMPERATURE (C)..... 29.

OTHER SAMPLE INFORMATION.. STRONG ODOOR OF H2S

WATER ANALYSIS

PH.....	8.2			
SPECIFIC CONDUCTANCE.....	950.			
TOTAL DISSOLVED SOLIDS.....	569.			
CHARGE IMBALANCE (% DIFF)...	2.0			
ANALYSIS IN MG/L				
AG.....		CO3..... N		
AL.....		CR.....	21.	
H.....	1.0	NA...	120.	SI02. 27.
FE(TOT).....		NB...		S04.. 50.
CA.....	55.			
CO.....		HCO3.....	322.	
CL.....	130.	H2S.....		
CO.....			P04..	0.03

ISOTOPES 10/001

QUALIFICATION FIELD..... P04 = P04 + NITRATE + NITRITE.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE

COMPILER AFFILIATION... UNIVERSITY OF ALASKA

REFERENCE..... CHILDERS AND OTHERS, 1977

RECORD 00126

GEOTHERM FILE 10: 0021491

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... RICHARDSON HIGHWAY - UNNAMED WELL

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

GEOLOGIC PROVINCE.. 02

MAP REFERENCE..... GULKANA B-3 1:63360

OTHER LOCALITY INFORMATION: NEAR MILE 149, NORTH OF GULKANA.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1960/08/01 FERRIANS, O.J.-JR

SAMPLE NUMBER..... 13

WELL DEPTH (M)..... 14.6

OTHER SAMPLE INFORMATION.. LAT/LONG ARE APPROXIMATE.

WATER ANALYSIS

DATE/ANALYST..... QUALITY OF WATER BRANCH, U.S.G.S., PALMER, ALASKA

PH..... 7.3

TOTAL DISSOLVED SOLIDS... 1530.

CHARGE IMBALANCE (% DIFF)... 1.0

ANALYSIS IN PPM

AL..... CR.....

H..... F.....

RE..... FE(TOT)...

CA..... 167. HCO3..... 337.

CL..... 800.

CO..... K..... 11.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... GRANTZ AND OTHERS, 1962

RECORD 00127

GEOTERM SAMPLE FILE

NAME OF SAMPLE SOURCE... RICHARDSON HIGHWAY - UNNAMED WELL

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... GULKANA A-3 1:63360

OTHER LOCALITY INFORMATION: NEAR MILE 112.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1956/06/14 WALLING, F.B.

SAMPLE NUMBER..... 16

WELL DEPTH (M)..... 4.6

WATER ANALYSIS

DATE/ANALYST..... QUALITY OF WATER BRANCH, U.S.G.S., PALMER, ALASKA

TOTAL DISSOLVED SOLIDS... 8990.

CHARGE IMBALANCE (% DIFF)... 129.7

ANALYSIS IN PPM

AG..... CO3..... N

AL..... CR.....

H..... F.....

RE..... FE(TOT)...

CA..... 69. HCO3..... 1280.

CL..... 5680.

CO..... K..... 14.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.

COORDINATES

LAT/LONG... 62-25. N 145-27. W

ISOLOPES (0/001)MG... 111.
NA... 233.
NB... 36.
S04... 3.COORDINATESISOLOPES (0/001)MG... 87.
NA... 643.
NB... 43.
S04... 60.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... GRANTZ AND OTHERS, 1962

GEOTHERM_SAMPLE_FILE RECORD 00128
NAME OF SAMPLE SOURCE... RICHFIELD WIDE BAY NO. 1 OIL WELL
GEOTHERM FILE ID: 0045059

LOCATION
COUNTRY..... UNITED STATES SE OF NW OF NW
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE..
MAP REFERENCE..... UGASHIK 1:250000, B-2 1:63360
OTHER LOCALITY INFORMATION: OFFSHORE.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1963/10/13
TEMPERATURE (C)..... 139.4
WELL DEPTH (M)..... 3830.
GRADIENT (C/KM)..... 35.

PERTINENT LITHOLOGY..... METAMORPHICS AND PROBABLY TUFF OR VOLCANICS.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

GEOTHERM_SAMPLE_FILE RECORD 00129
NAME OF SAMPLE SOURCE... SADLERUCHIT SPRING
GEOTHERM FILE ID: 0045150

LOCATION
COUNTRY..... UNITED STATES SE
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE.. 02
MAP REFERENCE..... MT MICHELSON C-3 1:63360
OTHER LOCALITY INFORMATION: EXTREME EAST END OF SADLERUCHIT MTS; ELEV=1000 FT.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/08/07
TEMPERATURE (C)..... 13.0
DISCHARGE..... 6337. L/MIN

OTHER SAMPLE INFORMATION.. ANOTHER SAMPLE FROM SPRING NO. 45149
WATER ANALYSIS
PH..... 7.3
SPECIFIC CONDUCTANCE..... 400.
ALKALINITY..... 115. AS CAC03
TOTAL DISSOLVED SOLIDS... 223.
CHARGE IMBALANCE (% DIFF)... 9.7

ANALYSIS IN MG/L
AG..... CO3..... N
AL..... CR..... 18.
H..... F..... 0.6 MG... 18.
RE..... FE(TOT)... 0.030 NA... 7.8 SI02. 10.
CA..... 47. HCO3..... NO3... 504.. 66.
CL..... 3.5
CO..... K..... 1.0
OTHER ANALYTICAL DATA... P = 0.01.
QUALIFICATION FIELD..... NO3 = NITRATE + NITRITE.

ISOTOPES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... CHILDERS AND OTHERS, 1977

----- RECORD 00130 -----
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... SADLEROCHIT SPRING
 LOCATION TOWNSHIP-RANGE 04N 031E 36 SE

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... MT MICHELSON C-3 1:63360

COORDINATES

LAT/LONG... 69-39.38 N 144-23.62 W

OTHER LOCALITY INFORMATION: EXTREME EAST END OF SADLEROCHIT MTS; ELEV=1000 FT.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/11/16

TEMPERATURE (C)..... 4.0

DISCHARGE..... 65745. L/MIN

OTHER SAMPLE INFORMATION.. TEMP MEASURED ABOUT ONE MILE DOWNSTREAM FROM SPRING.

WATER ANALYSIS

PH..... 7.3

SPECIFIC CONDUCTANCE..... 360.

ANALYSIS IN MG/L

H..... F..... NA... 6.9 SI02. 9.5

HE..... FE(TOT)... NB... S04... 61.

CA..... HC03.... 126. NO3... 0 0.1

CL..... 3.6

CO..... K..... 0.5

OTHER ANALYTICAL DATA... P = 0.01 PPM.

QUALIFICATION FIELD... NO3 = NITRATE + NITRITE.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... CHILDERS AND OTHERS, 1977

ISOTOPES (U/001

----- RECORD 00131 -----
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... SADLEROCHIT SPRING
 LOCATION TOWNSHIP-RANGE 04N 031E 36 SE

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... MT MICHELSON C-3 1:63360

COORDINATES

LAT/LONG... 69-39.38 N 144-23.62 W

OTHER LOCALITY INFORMATION: EXTREME EAST END OF SADLEROCHIT MTS; ELEV=1000 FT.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/04/27

TEMPERATURE (C)..... 13.0

DISCHARGE..... 59460. L/MIN

OTHER SAMPLE INFORMATION.. SPRING ISSUES FROM A PRIMARY ORIFICE AND ONE SECONDARY ORIFICE FROM TALUS DERIVED FROM

THE SADLEROCHIT SANDSTONE.

WATER ANALYSIS

PH..... 7.9

SPECIFIC CONDUCTANCE..... 410.

ANALYSIS IN MG/L

H..... F..... NA... 8.2 SI02. 10.

HE..... FE(TOT)... NB... S04... 71.

ISOTOPES (U/001

CA.... 156. N03.. 0 0.05
 CA-MG. 78.
 CL.... 4.0
 CO.... 1.1
 QUALIFICATION FIELD..... N03 = NITRATE + NITRITE.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... CHILDERS AND OTHERS, 1977

RECORD 00132
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... SAVIUKVIAYAK R. WEST SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... PHILLIP SMITH MTNS D-3 1:63360
 OTHER LOCALITY INFORMATION NE OF "LUPINE SPRING".
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1973/05/05
 TEMPERATURE (C)..... 5.
 DISCHARGE..... R 151202.8/L/MIN
 PERTINENT LITHOLOGY..... ON A NE TRENDING LINEAMENT WITH "LUPINE SPRING" AND SEVERAL OTHER SPRINGS.
 OTHER SAMPLE INFORMATION.. BELOW 20 DEGREE C. CUT-OFF, BUT YEAR-ROUND FLOW FROM PERMAFROST INDICATES CONSIDERABLE
 GEOTHERMAL ENERGY.

COORDINATES
 LAT/LONG... 68-54.17 N 148-05.17 W

WATER ANALYSIS

P4..... 7.8
 SPECIFIC CONDUCTANCE..... 259.
 ALKALINITY..... 127.
 TOTAL DISSOLVED SOLIDS... 141.
 CHARGE IMBALANCE (% DIFF)... 0.8
 ANALYSIS IN MG/L

ISOTOPIES 10/001

AG.... N
 AL....
 H.... 0.5
 RE.... 0.060
 CA.... 40.
 CL.... 0.7
 CO....
 K.... 0.1
 MG... 9.2
 NA... 0.7
 NB...
 SI02. 4.8
 S04... 8.5

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... CHILDERS AND OTHERS, 1977

RECORD 00133
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... SAVIUKVIAYAK TRIBUTARY SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... PHILLIP SMITH MTNS D-2 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 3.5
 DISCHARGE..... R 91740.6L/MIN

COORDINATES
 LAT/LONG... 68-56.33 N 147-58.75 W

OTHER SAMPLE INFORMATION.. BELOW 20 DEGREE C. CUT-OFF, BUT YEAR-ROUND FLOW FROM PERMAFROST INDICATES CONSIDERABLE GEOTHERMAL ENERGY.

WATER ANALYSIS

PH..... 7.9
SPECIFIC CONDUCTANCE..... 239.
ALKALINITY..... 112. AS CAC03
TOTAL DISSOLVED SOLIDS..... 132.
CHARGE IMBALANCE (% DIFF).... 1.0
ANALYSIS IN MG/L

AG.....
AL.....
AS.....
H.....
HE.....
CA..... 39.
CD.....
CL..... 0.5
CO.....
K..... 0.1
OTHER ANALYTICAL DATA... NITRATE + NITRITE = 0.05 MG/L.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... CHILDERS AND OTHERS, 1977

ISOTOPES (0/00)

SI02.. 4.6
S04.. 12.

RECORD 00134

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SAVIUKVIAYAK TRIBUTARY SPRING
LOCATION

COUNTRY..... UNITED STATES
STATE..... ALASKA
MAP REFERENCE..... PHILLIP SMITH MTNS D-2 1163360
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/04/20
TEMPERATURE (C)..... 6.5
AMBIENT TEMP (C)..... 6.5
DISCHARGE..... R 76450.5L/MIN

SE OF SE OF NW

68-56.33 N 147-58.75 W

COORDINATES

GEOTHERM FILE ID: 0045034

OTHER SAMPLE INFORMATION.. ANOTHER SAMPLE FROM SPRING NO. 45033

WATER ANALYSIS

PH..... 8.2
SPECIFIC CONDUCTANCE..... 247.
ANALYSIS IN MG/L

AG.....
AL.....
AS.....
H.....
HE.....
CA+MG. 52.
CD.....
CL..... 0.9
CO.....
K..... 0.5
OTHER ANALYTICAL DATA... NITRATE + NITRITE = 0.11 MG/L.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... CHILDERS AND OTHERS, 1977

ISOTOPES (0/00)

SI02.. 4.8
S04.. 9.1

RECORD 00135
 GEOTHERM FILE ID: 0000215

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... SERPENTINE SPRINGS (ARCTIC)
 WARPING NUMBER..... 4
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY..... SEWARD PENINSULA
 GEOLOGIC PROVINCE.....
 MAP REFERENCE..... BENDELEBEN D-6 1163360
 OTHER LOCALITY INFORMATION: 150 KM NORTH OF NOME ON HOT SPRINGS CREEK.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1972/00/00
 SAMPLE NUMBER..... 2
 TEMPERATURE (C)..... 60.
 DISCHARGE..... 2. L/MIN
 PERTINENT LITHOLOGY..... SPRINGS OCCUR IN "SERPENTINE HOT SPRINGS PLUTON", ABOUT 1.6KM FROM A FAULTED CONTACT.
 PLUTON IS COMPOSED OF BIOTITE GRANITE OF CRETACEOUS OR TERTIARY AGE! COUNTRY ROCK IS PRECAMBRIAN METASILLITE AND
 RELATED ROCKS (SALISBURY AND OTHERS, 1969).
 WATER ANALYSIS
 DATE/ANALYST..... WILLEY, L.M. AND PRESSER, T.S.
 PH..... 7.91
 CHARGE IMBALANCE (% DIFF).... 20.1
 ANALYSIS IN MG/L
 AG..... CO3..... 1.3
 AL..... 0.083
 B..... 3.4
 BE..... 4.9
 HR..... 47.
 CA..... 1480.
 CL.....
 CO..... K..... 40.
 LI..... 4.7
 MG..... 0.48
 NA..... 730.
 NB.....
 FE(TOT). L 0.01
 S..... S.....
 SB.....
 SI02..... 100.
 S04..... 29.
 ISOTOPES (0/00)
 DEL U OF WATER..... -123.
 DEL O(18) OF WATER... -15.2

COORDINATES
 LAT/LONG... 65-51.4 N 164-41.3 W
 UTM ZONE... 403
 NORTHING... 7303033.
 513696.

RECORD 00136
 GEOTHERM FILE ID: 0021467

GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... SERPENTINE SPRINGS (ARCTIC)
 WARPING NUMBER..... 4
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY..... SEWARD PENINSULA
 GEOLOGIC PROVINCE.....
 MAP REFERENCE..... BENDELEBEN D-6 1163360
 OTHER LOCALITY INFORMATION: 150 KM NORTH OF NOME ON HOT SPRINGS CREEK.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1972/00/00
 SAMPLE NUMBER..... 2A
 TEMPERATURE (C)..... 71.
 PERTINENT LITHOLOGY..... SPRINGS OCCUR IN "SERPENTINE HOT SPRINGS PLUTON" ABOUT 1.6 KM FROM FAULTED CONTACT,
 PLUTON IS COMPOSED OF BIOTITE GRANITE. COUNTRY ROCK IS PRECAMBRIAN METASILLITE AND RELATED ROCKS.
 WATER ANALYSIS
 DATE/ANALYST..... WILLEY, L.M. AND PRESSER, T.S.
 PH..... 7.91
 CHARGE IMBALANCE (% DIFF).... 20.1
 ANALYSIS IN MG/L
 AG..... CO3..... 1.3
 AL..... 0.083
 B..... 3.4
 BE..... 4.9
 HR..... 47.
 CA..... 1480.
 CL.....
 CO..... K..... 40.
 LI..... 4.7
 MG..... 0.48
 NA..... 730.
 NB.....
 FE(TOT). L 0.01
 S..... S.....
 SB.....
 SI02..... 100.
 S04..... 29.
 ISOTOPES (0/00)
 DEL U OF WATER..... -123.
 DEL O(18) OF WATER... -15.2

COORDINATES
 LAT/LONG... 65-51.48 N 164-42.60 W

DATE/ANALYST..... RAPP, J.B.

PH..... 7.94
CHARGE IMBALANCE (% DIFF).... 4.0
ANALYSIS IN PPM

AG..... CO3..... 0.7
AL..... 0.06 CR..... MG.... 0.34
R..... 2.8 F..... NA.... 800.
HE..... 6. FE(TOT) L 0.01 NB....
BR..... 4.8 HCO3..... 56.8
CA..... 78.
CL..... 1420.

CO..... K..... 41.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00137

GEOTHERM FILE ID: 0021466

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SERPENTINE SPRINGS (ARTIC)
WARNING NUMBER..... 4

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 05N 029W 02 SE OF SW OF SE LAI/LONG... 65-51.48 N 164-42.60 W

STATE..... ALASKA

MAP REFERENCE..... BENDELEBEN D-6 1163360

OTHER LOCALITY INFORMATION: 150 KM NORTH OF NOME ON HOT SPRINGS CREEK.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00

SAMPLE NUMBER..... 2

TEMPERATURE (C)..... 60.

PERTINENT LITHOLOGY.....

PLUTON IS COMPOSED OF BIOTITE GRANITE; COUNTRY ROCK IS PRECAMBRIAN METASILTITE AND RELATED ROCKS.

WATER ANALYSIS

PRESSER, T.S. AND WILLEY, L.M.

PH..... 7.91
CHARGE IMBALANCE (% DIFF).... 19.9
ANALYSIS IN MG/L

AG..... CO3.....
AL..... 0.083 CR..... LI.... 4.7
R..... 3.4 F..... MG.... 0.48
HE..... 6.4 FE(TOT) NA.... 730.
CA..... 47. HCO3..... NB....
CL..... 1480.

CO..... K..... 40.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MILLER AND OTHERS, 1973

RECORD 00138

GEUTHERM FILE ID: 0000205

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SHAKES SPRINGS (CHIEF SHAKES)
WARNING NUMBER..... 73

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 59S 085E
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE.....
MAP REFERENCE.....
OTHER LOCALITY INFORMATION: 20 MILES NE OF WRANGELL ON THE NORTH EDGE OF THE STIKINE RIVER VALLEY.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1915/06/19 WARING, G.A.
TEMPERATURE (C)..... 52.0
DISCHARGE..... R 378. L/MIN
OTHER SAMPLE INFORMATION.. SPRINGS ISSUE FROM BASE OF A GRANITE CLIFF.
WATER ANALYSIS
DATE/ANALYST..... DOLE, R.B. AND CHAMBERS, A.A.
TOTAL DISSOLVED SOLIDS... 409.
CHARGE IMBALANCE (% DIFF)... 5.6
ANALYSIS IN PPM
AG..... 18.
AL.....
R.....
FE(TOT)... 1.2
CA..... 13.
CL..... 6.5
CO.....
K..... 9.2
FE = FE + AL(FE203 + AL2O3).REFERENCE AND IDENTIFICATION
COMPILED BY..... RENNER, J.
COMPILED AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... WARING, 1917

ISOTOPES (0/00)

CO3..... 18.
CR.....
F.....
FE(TOT)... 1.2
CA..... 13.
CL..... 6.5
CO.....
K..... 9.2
FE = FE + AL(FE203 + AL2O3).REFERENCE AND IDENTIFICATION
COMPILED BY..... RENNER, J.
COMPILED AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... WARING, 1917

RECORD 00139

GEOTHERM FILE ID: 0045054

COORDINATES
LAT/LONG... 60-44. N 152-00. W
UTM ZONE... +05
NORTHING... 6733296.
554539.

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... SHELL JOHNSON SLOUGH OIL WELL
LOCATION
COUNTRY..... UNITED STATES 08N 016W 36 S/2 OF SE
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE.....
MAP REFERENCE..... KENAI 1:250000, C-6 1:63360
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1969/02/15
TEMPERATURE (C)..... 75.0 AT (M).. 1918.
WELL DEPTH (M)..... 1919.
GRADIENT (C/KM)..... 40.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBETH, JOYCE
COMPILED AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00140

GEOTHERM FILE ID: 0045064

COORDINATES
LAT/LONG... 60-48.52 N 151-54.87 W
UTM ZONE... +05

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... SHELL KUSTATAN RIVER
LOCATION
COUNTRY..... UNITED STATES 08N 015W 04 NE OF SW OF SE
STATE..... ALASKA

NORTHING... 6741760.
559063.

COUNTY.....
GEOLOGIC PROVINCE..
MAP REFERENCE..... KENAI 1:250000, D-6 1:63360
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1969/01/11
TEMPERATURE (C)..... 38.9
WELL DEPTH (M)..... 1207.
GRADIENT (C/KM)..... 33.
REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00141
GEOTHERM FILE ID: 0045053

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... SHELL MIDDLE RIVER ST. OIL WELL
LOCATION
COUNTRY..... UNITED STATES 10N 013W 05 NE OF SW
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE..
MAP REFERENCE..... KENAI 1:250000, D-5 1:63360
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1967/03/05
TEMPERATURE (C)..... 64.4
WELL DEPTH (M)..... 1611.
GRADIENT (C/KM)..... 41.
OTHER SAMPLE INFORMATION.. BOTTOM AT 416.5 FT.S., 487.1 FT. W. OF SURFACE.
REFERENCE AND IDENTification
COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

COORDINATES
LAT/LONG... 60-59. N 151-37. W
UTM ZONE... 40S
NORTHING... 6761517.
574857.

RECORD 00142

GEOTHERM FILE ID: 0045148

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... SHUBLIK SPRING
LOCATION
COUNTRY..... UNITED STATES 01N 024E 03 SE OF NE
STATE..... ALASKA
MAP REFERENCE..... MT MICHELSON B-4 1:63360
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/04/28
SAMPLE NUMBER..... 7
TEMPERATURE (C)..... 5.5
DISCHARGE..... 40772. L/MIN
OTHER SAMPLE INFORMATION.. ANOTHER SAMPLE FROM SPRING NO. 45147
WATER ANALYSIS

COORDINATES
LAT/LONG... 69-28.33 N 146-11.30 W

PH..... 7.9
SPECIFIC CONDUCTANCE..... 270.
ANALYSIS IN MG/L
CA..... 124.
REFERENCE AND IDENTification
COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA

ISOTOPES 10/2007

REFERENCE..... CHILDERS AND OTHERS, 1977

RECORD 00143

GEOTHERM FILE ID: 0045147

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SHUBLIK SPRING

LOCATION

COORDINATES
LAT/LONG... 69-28.33 N 146-11.83 W

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... MT MICHELSON R-4 1163360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1973/05/10

SAMPLE NUMBER..... 7

TEMPERATURE (C)..... 5.5

DISCHARGE..... 40772. L/MIN

OTHER SAMPLE INFORMATION.. BELOW 20 DEGREES C. CUT-OFF, BUT YEAR-ROUND FLOW FROM PERMAFROST INDICATES CONSIDERABLE

GEOTHERMAL ENERGY.

WATER ANALYSIS

PH..... 8.0
 SPECIFIC CONDUCTANCE..... 275.
 ALKALINITY..... 104.
 TOTAL DISSOLVED SOLIDS..... 157.
 CHARGE IMBALANCE (% DIFF).... 1.4

ANALYSIS IN MG/L

AG..... CO3..... N

AL..... CR..... 11.

AS..... CS..... N

B..... F..... 0.5

HE..... FE(TOT)..... 0.050

CA..... HCO3..... 127.

CO..... H2S.....

CL..... 1.3

CO..... K..... 0.3

QUALIFICATION FIELD..... NO3 = NO3 + NO4.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE

COMPILED AFFILIATION... UNIVERSITY OF ALASKA

REFERENCE..... CHILDERS AND OTHERS, 1977

ISOTOPES 10/001

SI02. 4.8
 S04.. 37.

MG... 11.
 MN... N
 NA... 1.5
 NB... SI02.
 NO3.. S04..
 PO4.. 0 0.03
 N

RECORD 00144

GEOTHERM FILE ID: 0021498

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SITKA HOT SPRINGS - MAIN SPRING

LOCATION

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... ALASKA

MAP REFERENCE..... PORT ALEXANDER D-4 1163360

OTHER LOCALITY INFORMATION: KLUICHEF PENINSULA; 16 MILES SOUTH OF SITKA; NEXT TO "HOT SPRINGS BAY"; ELEVATION = 60

FT. ABOVE HIGH TIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1915/06/25

SAMPLE NUMBER..... 3

TEMPERATURE (C)..... 65.

DISCHARGE..... R 36. L/MIN

PERTINENT LITHOLOGY..... GRANITE CUT BY NARROW DIKES OF DARKER ROCK, RESEMBLING DIABASE, THAT IS CLASSIFIED AS A

SPESSARTITE (GARNET) LAMPROPHYRE.

COORDINATES

LAT/LONG... 56-50. N 135-22. W

OTHER SAMPLE INFORMATION.. WATER TASTES SALTY AND HAS FAINT ODOR AND TASTE OF H2S.

WATER ANALYSIS

DATE/ANALYST..... DINSMORE, S.C.

TOTAL DISSOLVED SOLIDS... 4877.

CHARGE IMBALANCE (% DIFF)... 4.8

ANALYSIS IN PPM

AG.... CO3..... N
AL.... 1.6 CR..... MG.... 7.2
H.... F..... NA.... 1440.
FE.... FE(TOT)... 0.75 S102... 96.
CA.... 378. HCO3.... N03... 88.
CL.... 2745. CO.....

OTHER ANALYTICAL DATA... TRACE OF B407.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... WARING, 1917

ISOTOPES 10/001

RECORD 00145

GEOTHERM FILE ID: 0000223

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... SOUTH - UNNAMED SPRING
LOCATION..... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
STATE..... ALASKA
COUNTY.....

GEOLOGIC PROVINCE.. U2

MAP REFERENCE..... SHUNGNAK 1:250000
OTHER LOCALITY INFORMATION: 84 KM SOUTH OF KOBUK ON SOUTH SIDE OF PURCELL MTS. SPRINGS ARE SCATTERED ON A

WEST-FACING TIMBERED SLOPE 60 TO 120 METERS ABOVE A SOUTH FLOWING TRIBUTARY TO "BILLY HAWK CREEK".

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 9

PERTINENT LITHOLOGY..... SPRING IS IN LATE CRETACEOUS QUARTZ MONZONITE OF "WHEELER CREEK PLUTON", WITHIN 400M OF
CONTACT WITH LOWER CRETACEOUS ANDESITE (MILLER, 1970). SPRINGS ARE ON CONSPICUOUS LINEAMENT TRENDING N80W (PATTON
AND OTHERS, 1968).

OTHER SAMPLE INFORMATION.. ESTIMATED TEMP OF +50C.

WATER ANALYSIS

DATE/ANALYST..... BARNES, R.B.
ANALYSIS IN MG/L

AL.... 0.1 CR..... MG.... 0.01
H.... F..... NA.... 83.
FE.... FE(TOT)... L 0.01 S102... 65.
CA.... 5.9 S04... 122.
CL.... 6. CO.....

OTHER ANALYTICAL DATA... 2.1

REFERENCE AND IDENTIFICATION

COMPILED BY..... RENNERT, J., SHEARER, G.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MILLER AND OTHERS, 1973

ISOTOPES 10/001

RECORD 00146

GEOTHERM FILE ID: 0001917

GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... STAN CHRISTIANSON HOT SPRINGS
LOCATION..... TOWNSHIP-RANGE

COORDINATES

COORDINATES
LAT/LONG... 66-09.00 N 157-07.02 W
UTM ZONE... +04
NORTHING... 7337718.
584969.

COUNTRY..... UNITED STATES 61S 092W

LAT/LONG... 54-54.2 N 163-08.6 W

STATE..... ALASKA

MAP REFERENCE..... FALSE PASS 1:250,000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 7/3/80

TEMPERATURE (C)..... 43.3

DISCHARGE..... 20. L/MIN

WATER ANALYSIS

PH..... 7.39

SPECIFIC CONDUCTANCE..... 5600.

CHARGE IMBALANCE (% DIFF).... 0.2

ANALYSIS IN MG/L

AL..... CR..... MG... 66.

H..... F..... 0.25 NA... 783.

HE..... FE(TOT)..... NB... 41.

CA..... CA..... 102. S04... 359.

CL..... 1570.

CO..... K..... 13.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... MOTYKA AND MOORMAN, 1981

RECORD 00147

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SUMMER BAY (SPRING)

LOCATION

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 73S 117W

STATE..... ALASKA

MAP REFERENCE..... UNALASKA 1:250,000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 7/18/80

TEMPERATURE (C)..... 35.

DISCHARGE..... 64. L/MIN

WATER ANALYSIS

PH..... 6.98

SPECIFIC CONDUCTANCE..... 1810.

CHARGE IMBALANCE (% DIFF).... 5.5

ANALYSIS IN MG/L

AL..... CR..... MG... 1.0

H..... F..... 0.22 NA... 150.

HE..... FE(TOT)..... NB... 18.

CA..... CA..... 73. S04... 245.

CL..... 404.

CO..... K..... 3.0

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... MOTYKA AND MOORMAN, 1981

RECORD 00148

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SUMMER BAY (WELL 1)

LOCATION

TOWNSHIP-RANGE

COORDINATES

GEOTHERM FILE ID: 0001913

COUNTRY..... UNITED STATES 735 117W

STATE..... ALASKA

MAP REFERENCE..... UNALASKA 1:250,000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 9/26/80

TEMPERATURE (C)..... 50.

DISCHARGE..... 180. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 3850.

ANALYSIS IN MG/L

AL..... CR..... MG...

R..... 0.5 F..... 0.44 NA...

RE..... FE(TOT)..... NB...

CA..... 460.

CL..... 923.

CO..... K..... 6.5

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... MOTYKA AND MOORMAN, 1981

RECORD 00149

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SUMMER BAY (WELL 2)

LOCATION

COUNTRY..... UNITED STATES 735 117W

STATE..... ALASKA

MAP REFERENCE..... UNALASKA 1:250,000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 9/27/80

TEMPERATURE (C)..... 44.

DISCHARGE..... 30. L/MIN

WATER ANALYSIS

ANALYSIS IN MG/L

AL..... CR..... 10. MG...

R..... 0.5 F..... 0.4 NA...

RE..... FE(TOT)..... NB...

CA..... 372.

CL..... 741.

CO..... K..... 5.5

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R.H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... MOTYKA AND MOORMAN, 1981

RECORD 00150

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SURPRISE LAKE HOT SPRING AT ANIAKCHAK CRATER

LOCATION

COUNTRY..... UNITED STATES 385 056W 01

STATE..... ALASKA

COUNTY..... 01

GEOLOGIC PROVINCE...

MAP REFERENCE..... CHIGNIK 1:250000, D-1 1:63360

COORDINATES

NMT/LONG... 56-55.68 N 158-07.20 W

UTM ZONE... 404

NORTHING... 6309541.

553592.

GEOTHERM FILE ID: 0045035

OTHER LOCALITY INFORMATION: WITHIN ANIAKCHAK CRATER NEAR PORT HEIDEN.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/07/25

TEMPERATURE (C)..... 23.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 850.

TOTAL DISSOLVED SOLIDS..... 548.

CHARGE IMBALANCE (% DIFF).... 0.6

ANALYSIS IN MG/L

AL.....	3800.	CR.....	MG....	31.	SI02..	87.
HE.....		FE(TOT)...	NA....	99.	SO4...	23.
CA.....	45.	HC03.....	NB....			
CD.....		H2S.....	P04...	0.15		
CL.....	86.					
CO.....		K.....				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE

COMPILER AFFILIATION... UNIVERSITY OF ALASKA

REFERENCE..... U.S. GEOLOGICAL SURVEY, 1977

RECORD 00151

GEOTERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SWANSON RIVER #4

LOCATION

COUNTRY..... UNITED STATES

STATE..... ALASKA

COUNTY.....

GEOLOGIC PROVINCE..

MAP REFERENCE.....

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1959/03/03

TEMPERATURE (C)..... 102.8

WELL DEPTH (M)..... 3834.

OTHER SAMPLE INFORMATION.. OIL-GAS WELL, S-O WESTERN

WATER ANALYSIS

PH..... 6.5

SPECIFIC CONDUCTANCE..... 49400.

TOTAL DISSOLVED SOLIDS..... 36100.

CHARGE IMBALANCE (% DIFF).... 0.7

ANALYSIS IN MG/L

AG.....		CO3.....	LI....	20.	SI02..	55.
AL.....		CR.....	MG....	59.	SO4...	79.
HE.....		FE(TOT)...	NA....	4716.		
CA.....	7820.	HC03.....	NB....			
CD.....		H2S.....	P04...			
CL.....	21400.					
CO.....		K.....				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE

COMPILER AFFILIATION... UNIVERSITY OF ALASKA

REFERENCE..... *USGS, ANCHORAGE

GEOTERM FILE ID: 0045030

COORDINATES

LAT/LONG... 60-46.67 N 150-51.75 W

UTM ZONE... 05

NORTHING... 6739732.

EASTING... 616405.

ISOTOPES (0/00)

ZN... N

RECORD 00152
 GEOTHERM FILE ID: 0000245

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... TENAKEE HOT SPRINGS (FORMERLY MOONIAH HOT SPRINGS)
 WATING NUMBER..... 67

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE... 03

COORDINATES
 LAT/LONG... 57-46.86 N 135-13.02 W
 UTM ZONE... 08
 NORTHING... 6404398.
 487115.

OTHER LOCALITY INFORMATION: AT TENAKEE SPRINGS; SW OF JUNEAU.

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 82
 TEMPERATURE (C)..... 42.5

WATER ANALYSIS

PH..... 9.0
 CHARGE IMBALANCE (% DIFF)... 7.2
 ANALYSIS IN MG/L

AG.....	CO3.....	LI....	0.08
AL..... 0.05	CR.....	MG....	0.76
H..... 4.4	F..... 5.	NA....	190.
HE.....	FE(TOT)...	NB....	
CA..... 28.	HCO3.....		60.
CL..... 95.4			322.

ISOLOPES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... SHEARER, G., RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MILLER, 1973

RECORD 00153
 GEOTHERM FILE ID: 0021501

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... TENAKEE HOT SPRINGS - MINERAL SPRING
 LOCATION

COUNTRY..... UNITED STATES
 STATE..... ALASKA
 MAP REFERENCE..... SITKA D-4 1:63360

COORDINATES
 LAT/LONG... 57-46.86 N 135-13.02 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1915/06/23
 TEMPERATURE (C)..... 13.3

OTHER SAMPLE INFORMATION... BEDROCK IS COVERED BY A GRAVEL THAT IS CEMENTED BY LIME DEPOSITION.
 COOL MINERAL SPRING, WITH DISTINCT TASTE AND ODOR OF H2S.

WATER ANALYSIS

DATE/ANALYST..... DINSMORE, S.C.
 TOTAL DISSOLVED SOLIDS... 592.
 CHARGE IMBALANCE (% DIFF)... 3.6
 ANALYSIS IN PPM

AG.....	CO3.....	28.	
AL.....	CR.....		
H.....	F.....	MG.... 0.6	
HE.....	FE(TOT)...	NA.... 111.	57.
CA..... 11.	HCO3.....	NH....	166.
CL..... 31.		NO3.. N	
CO.....	K.....		

ISOLOPES (0/001)

OTHER ANALYTICAL DATA... B407 PRESENT.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WARING, 1917

RECORD 00154
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... TENAKEE HOT SPRINGS - PRINCIPAL SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA

GEOTHERM FILE ID: 0021500

TOWNSHIP-RANGE

COORDINATES
 LAT/LONG... 57-46.86 N 135-13.02 W

MAP REFERENCE..... SITKA D-4 1:63360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1915/06/23

TEMPERATURE (C)..... 41.1

PERTINENT LITHOLOGY..... SPRINGS ISSUE FROM A FISSURE IN A DARK GNEISS, WHICH IS INTRUDED BY A LIGHT-GRAY GRANITE.
 WATER ANALYSIS

DATE/ANALYST..... DINSMORE, S.C.

TOTAL DISSOLVED SOLIDS... 787.

CHARGE IMBALANCE (% DIFF)... 4.9

ANALYSIS IN PPM

AG....	24.	CO3....	24.	MG...	2.8
AL....	2.4	CR....		NA...	201.
R....		F....		NB...	94.
FE....		FE(TQT)...	1.	S04...	302.
CA....	35.	HC03....	26.		
CL....	99.				
CO....		K....	4.		

ISOTOPES 10/007

OTHER ANALYTICAL DATA... TRACE OF B407.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WARING, 1917

RECORD 00155
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... TENAKEE INLET - UNNAMED HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA

GEOTHERM FILE ID: 0000241

TOWNSHIP-RANGE

COORDINATES
 LAT/LONG... 58-00.30 N 135-55.23 W

UTM ZONE... 48

NORTHING... 6428867.

445816.

MAP REFERENCE..... JUNEAU A-6 1:63360

OTHER LOCALITY INFORMATION: ABOUT 4 MILES ABOVE THE MOUTH OF A LARGE CREEK THAT ENTERS THE HEAD OF TENAKEE INLET.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1915/07/01 WARING, G.A.

SAMPLE NUMBER..... 78

TEMPERATURE (C)..... 81.5

DISCHARGE..... 38. L/MIN

DEPOSITS OR ALTERATION..... SMALL AMOUNTS OF CaCO3 DEPOSITS.

PERTINENT LITHOLOGY..... ROCK EXPOSED IN LOW CLIFFS ON EACH SIDE OF THE CREEK, NEAR THE SPRINGS, IS DIORITIC, MUCH ALTERED ON THE SURFACE, AND IS TRAVERSED BY VEINLETS (WHITE) OF HEULANDITE. WHITE CRYSTALLINE LIMESTONE FRAGMENTS ARE IN EVIDENCE. COUNTRY ROCK AROUND THE DIORITE IS GRANITE.

OTHER SAMPLE INFORMATION.. SPRING FORMS A PUOLINOTICABLE ODOR AND TASTE OF H2S.

WATER ANALYSIS
 DATE/ANALYST.....
 CHARGE IMBALANCE (% DIFF).... 9.1
 ANALYSIS IN PPM
 AG..... 4.6
 CO3..... 7.2
 CR.....
 H.....
 HE.....
 CA..... 21.
 CL..... 33.
 CO.....
 K.....
 MG..... 2.3
 NA.....
 NB.....
 SI02..... 119.
 S04..... 226.
 ISOTOPES (0/00)

OTHER ANALYTICAL DATA... ANALYSIS FROM WARING, 1917.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... SHEARER, G.; RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WARING, 1917

RECORD 00156

GEOTHERM FILE 10: 0000233

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... TOLOVANA HOT SPRING

WARING NUMBER..... 17
 LOCATION

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
 STATE..... ALASKA

COUNTY..... YUKON - TANANA UPLAND
 GEOLOGIC PROVINCE.. LIVENGOD B-4 1163360

MAP REFERENCE.....
 OTHER LOCALITY INFORMATION: ONE OF SEVERAL HOT SPRINGS FOUND ALONG THE WEST SIDE OF A CREEK DRAINING "HOT SPRINGS DOME" (EAST SIDE).

SAMPLE-DESCRIPTION AND CONDITIONS

SAMPLE NUMBER..... 21
 TEMPERATURE (C)..... 56.

PERTINENT LITHOLOGY..... SPRINGS ARE IN MUDSTONE OF JURASSIC, AND OR CRETACEOUS AGE.

WATER ANALYSIS

DATE/ANALYST..... 1962/00/00
 PH..... 7.7
 SPECIFIC CONDUCTANCE..... 2090.
 TOTAL DISSOLVED SOLIDS..... 1180.
 CHARGE IMBALANCE (% DIFF).... 1.3
 ANALYSIS IN PPM

AL.....
 H.....
 HE.....
 CA..... 82.
 CL..... 615.
 CO.....
 CR.....
 F.....
 FE(TOT)..... 0.02
 HC03..... 49.
 K.....
 MG..... 1.2
 NA.....
 NB.....
 NO3..... 0.2
 SI02..... 75.
 S04..... 40.

ISOTOPES (0/00)

OTHER ANALYTICAL DATA... ANALYSIS FROM WARING, 1917. ANDERSON 1970- SAMPLE NO. SP-3.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... ANDERSON, 1970

RECORD 00157

GEOTHERM FILE ID: 0021486

GEOOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... TOLSONA GROUP - MOOSE LAKE-UNNAMED SPRINGLOCATION
COUNTRY... UNITED STATES

STATE... ALASKA

MAP REFERENCE... GULKANA A-4 1163360

OTHER LOCALITY INFORMATION: N-NW EDGE OF MOOSE LAKE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1952/11/09

SAMPLE NUMBER... 7

OTHER SAMPLE INFORMATION.. LAT/LONG ARE APPROXIMATE.

WATER ANALYSIS

DATE/ANALYST.....

TOTAL DISSOLVED SOLIDS... 35000.

ANALYSIS IN PPM

HE.... FE(TOT).

CA.... HCO3.... 16.

CL....

GAS ANALYSIS

ANALYSIS IN VOLUME %

AR... 0.1

CH4... 48.6

C2H6... 0.2

CO2... 0.2

H2... N

HE... 0.1

OTHER ANALYTICAL DATA... GAS ANALYSIS: TRACE OF ISOBUTANE.

REFERENCE AND IDENTIFICATION

COMPILED BY... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE... GRANTZ AND OTHERS, 1962

COORDINATES

LAT/LONG... 62-08. N 146-06. W

ISOLOPES 100/01

ISOLOPES 100/01

H2S... N 50.6

N2... 0.1

O2... 0.1

RECORD 00158

GEOTHERM FILE ID: 0021485

GEOOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... TOLSONA GROUP - NICKEL CREEK-UNNAMED SPRINGLOCATION
COUNTRY... UNITED STATES

STATE... ALASKA

MAP REFERENCE... GULKANA A-4 1163360

OTHER LOCALITY INFORMATION: COPPER RIVER BASIN. 9.1 MILES S42E OF THE "GLENN HIGHWAY" BRIDGE ACROSS "TOLSONA CREEK".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1957/00/00 MAHON, C.B.

SAMPLE NUMBER... 3

GAS ANALYSIS

ANALYSIS IN VOLUME %

AR... 0.1

CH4... 52.4

C2H6... 0.1

CO2... 0.1

H2... 0.1

HE... 0.1

OTHER ANALYTICAL DATA... PROPANE = 0.1 %.

COORDINATES

LAT/LONG... 62-00.18 N 145-46.80 W

ISOLOPES 100/01

N2... 47.

O2... 1

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GRANTZ AND OTHERS, 1962

RECORD 00159

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... TOLSONA GROUP - NICKEL CREEK-UNNAMED SPRING

GEOTHERM FILE ID: 0021460

LOCATION

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 03N 003W 33 NE

STATE..... ALASKA 86M: COPPER RIVER

MAP REFERENCE..... GULKANA A-4 1163360

COORDINATES

LAT/LONG... 62-00.18 N 145-46.80 W

OTHER LOCALITY INFORMATION: COPPER RIVER BASIN. 9.1 MILES S42E OF THE "GLENN HIGHWAY" BRIDGE ACROSS "TOLSONA CREEK".
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1958/06/19 NICHOLS, D.R.

SAMPLE NUMBER..... N-R-628

DISCHARGE..... T L/MIN

OTHER SAMPLE INFORMATION.. SURFACE TEMPERATURE = COLD. SPRING WITH MUDCONE.

WATER ANALYSIS

U.S. GEOLOGICAL SURVEY, PALMER, ALASKA

DATE/ANALYST.....

PH..... 6.8

SPECIFIC CONDUCTANCE..... 24900.

TOTAL DISSOLVED SOLIDS... 14900.

CHARGE IMBALANCE (% DIFF)... 2.0

ANALYSIS IN PPM

AG..... CO3.....

AL..... CR.....

AS..... CS.....

Ba..... F.....

BE..... FE(TOT).....

BR..... 17.

CA..... 2760.

CD..... 9100.

CL.....

CO.....

HC03.....

H25.....

I.....

K.....

P04.....

0.16

2.2

24.

0.1

54.4

N

0.4

T

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

ISOTOPIES 10/001

LI... 8.
 MG... 65.
 MN... 0.97
 NA... 2600.
 NB... 10.
 230.

ISOTOPIES 100/01

H2S... N
 N2... 44.9
 O2... 0.1

DATE/ANALYST..... 1958/08/22 U.S. BUREAU OF MINES, AMARILLO, TX.

ANALYSIS IN MULE %

AR... 0.1

CH4... 54.4

C2H6... N

CO2... 0.4

H2... T

HE... 0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

OTHER ANALYTICAL DATA... GAS ANALYSIS FROM NICHOLS AND YEHLE, 1961.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... NICHOLS AND YEHLE, 1961; GRANTZ AND OTHERS, 1962

RECORD 00160

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... TOLSONA GROUP - TOLSONA NO.1-SOUTHWEST SPRING

GEOTHERM FILE ID: 0021461

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 04N 004W 21 NE OF SE OF SE LAT/LONG... 62-06.50 N 145-57.10 W
 STATE..... ALASKA B&M; COPPER RIVER
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... GULKANA A-4 1:63360
 OTHER LOCALITY INFORMATION: COPPER RIVER BASIN. 3/4 MILE N40E OF THE "GLENN HIGHWAY" BRIDGE ACROSS "TOLSONA CREEK".
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1956/09/21 WEBER, F.R. AND COLLINS, F.R.
 SAMPLE NUMBER..... 1
 TEMPERATURE (C)..... R 10.
 DISCHARGE..... L/MIN

WATER ANALYSIS
 DATE/ANALYST..... GASTON, G.
 P..... 7.1
 SPECIFIC CONDUCTANCE..... 23600.
 TOTAL DISSOLVED SOLIDS... 14600.
 ANALYSIS IN PPM
 AG..... CO3..... N
 AL..... 0.16 LI... 0 0.5
 B..... 35. CR..... 111.
 BA..... 14. F..... 0.3 NA... 4660. S102. 16.
 RE..... FE(TOT). 0.26 NB... 5.6 S04... N
 HI..... GA.....
 BR..... 17. N03... 0.7
 CA..... 787. HCO3.... 143.
 CL..... 8870. I..... 3.7
 CO..... K..... 60. ZN... 0.02

GAS ANALYSIS
 DATE/ANALYST..... U.S. BUREAU OF MINES
 ANALYSIS IN VOLUME %
 AR... 0.1
 CH4... 66.9
 C2H6. N
 CO2... 0.2
 H2... N
 HE... 0.1

OTHER ANALYTICAL DATA... GAS SAMPLE COLLECTED 1957/09/07 BY GRANTZ AND DETTERMAN, U.S. GEOLOGICAL SURVEY.
 QUALIFICATION FIELD.... LI DETERMINED FROM A DUPLICATE SAMPLE BY C.E. ROBERSON.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... NICHOLS AND YEHLE, 1961; GRANTZ AND OTHERS, 1962

GEOTHERM-SAMPLE-FILE
 NAME OF SAMPLE SOURCE... TOLSONA GROUP - TOLSONA NO.2-NORTHWEST SPRING
 LOCATION
 COUNTRY..... UNITED STATES 04N 004W 15 S1/2 OF SW
 STATE..... ALASKA B&M; COPPER RIVER
 GEOLOGIC PROVINCE.. 02
 MAP REFERENCE..... GULKANA A-4 1:63360
 OTHER LOCALITY INFORMATION: COPPER RIVER BASIN. 1.2 MILES N33E OF THE "GLENN HIGHWAY" BRIDGE ACROSS "TOLSONA CREEK".
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1958/07/14 NICHOLS AND YEHLE
 SAMPLE NUMBER..... N-R.111
 TEMPERATURE (C)..... R 15.

RECORD 00161

GEOTHERM FILE ID: 0021462

COORDINATES
 LAT/LONG... 62-07.20 N 145-56.60 W

DISCHARGE..... T L/MIN
OTHER SAMPLE INFORMATION.. 150 FT DIAMETER CRATER. SALINE SPRING ON MUDCONE.

WATER ANALYSIS

DATE/ANALYST..... WHITEHEAD, H.C.

PH..... 6.3
SPECIFIC CONDUCTANCE..... 24794.
TOTAL DISSOLVED SOLIDS..... 15200.
CHARGE IMBALANCE (% DIFF).... 2.4

ANALYSIS IN PPM

AL..... CR..... 94.
AS..... CS..... 0.02
H..... F..... 4000.
HE..... FE(TOT)..... 7.1
CA..... HCO3..... 504..
CL..... 48.
CO..... K..... 26.

ISOTOPES 10/001

GAS ANALYSIS

DATE/ANALYST..... 1958/08/22 U.S. BUREAU OF MINES, AMARILLO, TX.

ANALYSIS IN MOLE %

AR..... 0.1
CH4..... 69.4
C2H6..... N
CO2..... 0.4
H2..... N
HE..... 0.1

ISOTOPES 100/01

OTHER ANALYTICAL DATA... WATER SAMPLE COLLECTED 1960/07/25 BY GRANTZ AND MACKEVETT.

REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... NICHOLS AND YEHLE, 1961

RECORD 00162

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... TOLSONA GROUP - UNNAMED SPRING

LOCATION

COUNTRY..... UNITED STATES
STATE..... ALASKA
MAP REFERENCE..... GULKANA A-4 1163360

OTHER LOCALITY INFORMATION: 2.8 MILES E-NE OF "TOLSONA CREEK" MOUTH; SW OF "PLUMB BOB LAKE".

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1960/08/08 NICHOLS, D.R.

WATER ANALYSIS

DATE/ANALYST..... QUALITY OF WATER BRANCH, U.S.G.S., PALMER, ALASKA

PH..... 7.3
TOTAL DISSOLVED SOLIDS..... 5670.
CHARGE IMBALANCE (% DIFF).... 1.0

ANALYSIS IN PPM

AL..... CR..... 48.
H..... F..... 1170.
HE..... FE(TOT)..... 24.
CA..... HCO3..... 216.
CL..... 909.
CO..... 3400.

ISOTOPES 100/001

GAS ANALYSIS

DATE/ANALYST..... K..... 11.

ANALYSIS IN VOLUME %

ISOTOPES 100/01

GEOTHERM FILE 101 0021487

COORDINATES

LAT/LONG... 62-05.15 N 145-54.50 W

AR... 0.2
CH4... 5H.2
C2H6... N
CO2... 0.9
H2... 0.1
HE... 0.1

H2S... N 40.4
N2... 0.1
O2... 0.1

OTHER ANALYTICAL DATA... GAS ANALYSIS: PROPANE = 0.1 %.

REFERENCE AND IDENTIFICATION

COMPILED BY... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE... GRANTZ AND OTHERS, 1962

RECORD 00163
GEOHEM SAMPLE FILE
NAME OF SAMPLE SOURCE... TOLSONA GROUP - UNNAMED WELL
LOCATION
COUNTRY... UNITED STATES 04N 003W
STATE... ALASKA 86M: COPPER RIVER
MAP REFERENCE... GULKANA A-4 1163360
OTHER LOCALITY INFORMATION: APPROX. 4.5 MILES WEST OF "GLENNALLEN".
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR... 1959/10/25 FERRIANS, O.J.JR
WELL DEPTH (M)... 153.
OTHER SAMPLE INFORMATION.. LAT/LONG ARE APPROXIMATE.
WATER ANALYSIS
DATE/ANALYST.....

COORDINATES
LAT/LONG... 62-07. N 145-43. W

QUALITY OF WATER BRANCH, U.S.G.S., PALMER, ALASKA

PH... 7.8
TOTAL DISSOLVED SOLIDS... 3240.
CHARGE IMBALANCE (% DIFF)... 1.6

ANALYSIS IN PPM

AG... N
AL... 118.
R... 767.
RE...
CA... 290.
CL... 1900.
CO... K... 27.
MG... 118.
NA... 767.
NB...
SI02... 22.
SO4... 20.

ISOLOPES 10/001

REFERENCE AND IDENTIFICATION

COMPILED BY... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE... GRANTZ AND OTHERS, 1962

RECORD 00164
GEOHEM SAMPLE FILE
NAME OF SAMPLE SOURCE... TWIN LAKES (WEST SHAKES) WARM SPRINGS
LOCATION
COUNTRY... UNITED STATES 60S 084E S NW
STATE... ALASKA
MAP REFERENCE... PETERSBURG C-1, 11633360
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR... 9/21/79
TEMPERATURE (C)... 21.
DISCHARGE... 270. L/MIN
WATER ANALYSIS

COORDINATES
LAT/LONG... 56-42.0 N 132-16.8 W

PH..... 6.95
 SPECIFIC CONDUCTANCE..... 150.
 CHARGE IMBALANCE (% DIFF).... 65.1
 ANALYSIS IN MG/L
 AL..... CR..... 0.3
 H..... F..... 0.28
 RE..... FE(TOT).....
 CA..... 5.4 HCO3..... 30.
 CL..... 60.
 CO..... K..... 1.3
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R.H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MOTYKA AND OTHERS, 1980

ISOLOPES 10/001

MG... 0.3
 NA... 26.
 NB... 32.

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNION BACHATNA CREEK U-1
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... KENAI 1:250000, D-6 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1972/01/02
 TEMPERATURE (C)..... 35.0 AT (M).. 939.
 WELL DEPTH (M)..... 940.
 GRADIENT (C/KM)..... 38.
 WATER ANALYSIS
 PH..... 10.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

COORDINATES
 LAT/LONG... 60-46.42 N 152-05.14 W
 UTM ZONE... 405
 NORTHING... 6737722.
 549932.

CENTER OF NE 1/4

TOWNSHIP-RANGE
 08N 016W 21

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNION BACHATNA CREEK U-7 OIL WELL
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... KENAI 1:250000, C-6 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1972/02/10
 TEMPERATURE (C)..... 30.6
 WELL DEPTH (M)..... 809.
 GRADIENT (C/KM)..... 39.
 PERTINENT LITHOLOGY..... JURASSIC ROCKS.
 OTHER SAMPLE INFORMATION.. JURASSIC AT 791.0M RECOVERED SALT WATER, MAX. PRESSURE 60PSI; DEAD AFTER 2 HR FLOW.
 WATER ANALYSIS
 ANALYSIS

COORDINATES
 LAT/LONG... 60-42.85 N 152-05.93 W
 UTM ZONE... 405
 NORTHING... 6731083.
 549179.

W1/2 OF SE OF NW

TOWNSHIP-RANGE
 07N 016W 09

ISOLOPES 10/001

CL..... 2100.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00167
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNION BIG RIVER OIL WELL
 LOCATION
 COUNTRY..... UNITED STATES 51/2 OF NE OF SE
 STATE..... ALASKA 08N 016W 26
 COUNTY.....
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... KENAI 1:250000, D-6 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/09
 TEMPERATURE (C)..... Q 31.7 AT (M)... 826.
 *ELL DEPTH (M)..... 827.
 *GRADIENT (C/KM)..... 39.
 PERTINENT LITHOLOGY..... GRANODIORITE.
 QUALIFICATION FIELD..... MAXIMUM TEMPERATURE RECORDED.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

COORDINATES
 LAT/LONG... 60-45.20 N 152-01.43 W
 UTM ZONE... +05
 NORTHING... 6735504.
 553206.

RECORD 00168
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNION FISH CREEK U. 12-8 OIL WELL
 LOCATION
 COUNTRY..... UNITED STATES 16N 003W 08 NW OF NW OF SW
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... ANCHORAGE 1:250000, B-8 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1961/09/30
 TEMPERATURE (C)..... 66.1
 *ELL DEPTH (M)..... 1954.
 *GRADIENT (C/KM)..... 34.
 OTHER SAMPLE INFORMATION... TD 1956.2M TUFFACEOUS IGNEOUS OR METAMORPHIC ROCK.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

COORDINATES
 LAT/LONG... 61-29.48 N 149-51.93 W
 UTM ZONE... +06
 NORTHING... 6820667.
 347445.

RECORD 00169
 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNION KASLOF U-1 OIL WELL
 LOCATION
 COUNTRY..... UNITED STATES 03N 012W 30 SW OF NE
 STATE..... ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

COORDINATES
 LAT/LONG... 60-16.73 N 151-25.50 W
 UTM ZONE... +05

COUNTY.....
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... KENAI 1:250000, B-4 1:63360
 OTHER LOCALITY INFORMATION: 3405-3435 FT OFFSHORE; WEST OF KASILOF.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1967/10/06
 TEMPERATURE (C)..... 50.6
 WELL DEPTH (M)..... 1676.
 GRADIENT (C/KM)..... 57.
 OTHER SAMPLE INFORMATION.. FORMATION WATER FILLED DRILL STRING, SALINITY 900 PPM, 3405-3435 FT OFFSHORE. TEST NO.1:
 INT=3405-3435 FT, SALINITY=100 F, SALINITY=900 PPM.1 TEST NO. 2: INT=3315-3345 FT, TEMP=97 F, SALINITY=800 PPM, TIME
 TO FILL DRILL PIPE=50 MIN; TEST 2: INT=3215-3230 FT, TEMP=95 F, SALINITY=930 PPM, TIME TO FILL DRILL PIPE=20
 MIN. DRILL PIPE KEPT FILLING WITH SALT WATER. NO PRESSURES OF FLOW REATE GIVEN
 OTHER ANALYTICAL DATA... SALINITY RANGES 800-930 PPM.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00170
 GEOTHERM FILE ID: 0045076

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNION KASILOF U-1 OIL WELL (UNION KASILOF NO.1)
 LOCATION
 COUNTRY..... UNITED STATES 03N 012W 30 SE OF NE
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... KENAI 1:250000, B-4 1:63360
 OTHER LOCALITY INFORMATION: BOTTOM IN SW/4 OF NW/4 OF SECTION 29, OFFSHORE.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1964/06/20
 TEMPERATURE (C)..... 94.4 AT (M)..... 4908.
 WELL DEPTH (M)..... 4914.
 GRADIENT (C/KM)..... 31.
 OTHER SAMPLE INFORMATION.. SAME WELL AS GEOTHERM FILE NO. 0045047.
 REFERENCE AND IDENTification
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION... UNIVERSITY OF ALASKA
 REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

RECORD 00171
 GEOTHERM FILE ID: 0045050

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNION KNIK ARM NO. 1 OIL WELL
 LOCATION
 COUNTRY..... UNITED STATES 16N 004W 02 SW OF NE OF NW OF
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... ANCHORAGE 1:250000, C-8 1:63360
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1960/10/06
 TEMPERATURE (C)..... 40.6
 WELL DEPTH (M)..... 917.
 GRADIENT (C/KM)..... 45.

COORDINATES
 61-30.75 N 149-56.07 W
 UTM ZONE... 406
 NORTHING... 6823186.
 343880.

WATER ANALYSIS
ANALYSIS

HI..... GA.....

NH4... 0.2

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE

COMPILER AFFILIATION... UNIVERSITY OF ALASKA

REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

ISOLOPES 10/001

RECORD 00172

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... UNION KNICK ARM NO. 2 OIL WELL

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... ALASKA

COUNTY.....

GEOLOGIC PROVINCE..

MAP REFERENCE..... ANCHORAGE 1:250000, C-8 1:63360

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1960/10/23

TEMPERATURE (C)..... 40.0

WELL DEPTH (M)..... 981.

GRADIENT (C/KM)..... 42.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MACBETH, JOYCE

COMPILER AFFILIATION... UNIVERSITY OF ALASKA

REFERENCE..... *ALASKA DIVISION OF OIL AND GAS, UNPUBLISHED DATA

COORDINATES

61-30.68 N 149-51.00 W

UTM ZONE... 06

NORTHING... 6822857.

348367.

GEOTHERM FILE ID: 0045051

RECORD 00173

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... UPPER KLAWASI - DRUM GROUP-SOUTHEAST SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... ALASKA

GEOLOGIC PROVINCE.. 02

MAP REFERENCE..... GULKANA A-3 1:63360

OTHER LOCALITY INFORMATION: AT APEX OF LARGE MUD CONE AT VABM KLAWASI 3017.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1960/07/13 GRANTZ, A.

SAMPLE NUMBER..... N-8.45

TEMPERATURE (C)..... 32.

DISCHARGE..... R 61. L/MIN

OTHER SAMPLE INFORMATION.. GROUP OF SPRINGS WITH MUDCONES.

WATER ANALYSIS

DATE/ANALYST..... WHITEHEAD, H.C.

PH..... 7.5

TOTAL DISSOLVED SOLIDS... 2580.

CHANGE IMBALANCE (% DIFF)... 2.2

ANALYSIS IN PPM

AG..... CO3..... N

AL..... 0.36

AS..... CR.....

HS..... CS.....

FE..... F.....

HI..... FE(TOT)... 0.18

GA..... NH4... 1.3

SI02... 34.

SO4... 614.

SR... N

GEOTHERM FILE ID: 0021458

COORDINATES

62-04.86 N 145-00.42 W

ISOLOPES 10/001

BR.... 22.
CA.... 63.
CD.... 10800.
CL.... 6.2
CO.... 232.
HCO3.... 8280.
H2S.... N
I.... 6.
K....

GAS ANALYSIS
DATE/ANALYST..... 1958/08/22
ANALYSIS IN VOLUME %

AR.... T 0.1
CH4... N
C2H6... 98.8
CO2... N
H2.... T
HE....

OTHER ANALYTICAL DATA... NO2 = 21.PPM; GAS SAMPLE COLLECTED 1958/06/18 BY NICHOLS AND YEHLE.
REFERENCE AND IDENTIFICATION

COMPILED BY..... LAWSON, WILLIAM A.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... GRANTZ AND OTHERS, 1962

RECORD 00174
GEOTHERM FILE 10: 0045026

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... UPPER KLAWASI - MUD VOLCANO
LOCATION
COUNTRY..... UNITED STATES
STATE..... ALASKA
COUNTY.....
GEOLOGIC PROVINCE...
MAP REFERENCE..... GULKANA 1:250000, A-3 1:63360
OTHER LOCALITY INFORMATION: DRUM GROUP; JUST EAST OF KLAWASI PEAK (ELEV 3017 FT). 12 MILES W-SW OF MOUNT DRUM.
SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1973/07/09
TEMPERATURE (C)..... 18.0
OTHER SAMPLE INFORMATION.. INCLUDED TO SHOW DROP IN TEMPERATURE.
WATER ANALYSIS

PH..... 7.1
SPECIFIC CONDUCTANCE..... 32200.
CHARGE IMBALANCE (% DIFF)... 3.3
ANALYSIS IN PPM
AG.... 360.
AL....
B.... 140.
HE....
CA.... 6.5
CL.... 11000.
CO....
K.... 240.

LI.... 7.9
MG.... 300.
NA.... 10000.
NH....
SI02... 53.
SO4... 740.

ISOIOPES 10/001

REFERENCE AND IDENTIFICATION
COMPILED BY..... MACBETH, JOYCE
COMPILER AFFILIATION... UNIVERSITY OF ALASKA
REFERENCE..... *USGS, ANALYTICAL STATEMENT, ANCHORAGE

RECORD 00175
GEOTHERM FILE 10: 0045025

GEOTHERM_SAMPLE_FILE
NAME OF SAMPLE SOURCE... UPPER KLAWASI - MUD VOLCANO

LOCATION.....
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE.....
 MAP REFERENCE.....
 GULKANA 11250000, A-3 1163360
 OTHER LOCALITY INFORMATION: DRUM GROUP, JUST EAST OF KLAWASI PEAK (ELEV 3017 FT). 12 MILES W-SW OF MOUNT DRUM.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1962/01/31
 TEMPERATURE (C)..... 30.3
 DISCHARGE..... N L/MIN
 OTHER SAMPLE INFORMATION: SHARP INCREASE IN DISCHARGE OF BOTH GAS AND WATER 1941-1954
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION..... UNIVERSITY OF ALASKA
 REFERENCE..... NICHOLS AND YEHLE, 1961

RECORD 00176
 GEOTHERM FILE ID: 0045015

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... W. UKINEK SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY.....
 GEOLOGIC PROVINCE.....
 MAP REFERENCE.....
 UGASHIK D-2 1163360
 OTHER LOCALITY INFORMATION: SPRING IN BOTTOM OF MAAR.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1977/08/24 MCCOY, GEORGE USGS
 TEMPERATURE (C)..... 81.0
 OTHER SAMPLE INFORMATION: SHOULD BE PUBLISHED IN 1977 ANNUAL REPORT AND IN OPEN-FILE REPORT BY I. BARNES. POOL
 FORMED BY SPRING.

COORDINATES
 LAT/LONG... 57-49.86 N 156-30.78 W
 UTM ZONE... 104
 NORTHING... 6412435.
 647681.

WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 17740.

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MACBETH, JOYCE
 COMPILER AFFILIATION..... UNIVERSITY OF ALASKA
 REFERENCE..... *USGS, WATER RESOURCES SPRING SCHEDULE, ANCHORAGE

RECORD 00177
 GEOTHERM FILE ID: 0000243

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... WHITE SULPHUR SPRINGS (FORMERLY MUONIAH WARM SPRINGS)
 WARING NUMBER..... 65
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY..... GREATER SITKA BOROUGH
 GEOLOGIC PROVINCE.....
 MAP REFERENCE.....
 SITKA D-8 1163360
 OTHER LOCALITY INFORMATION: OCEANWARD COAST OF CHICHAGOF ISLAND, ABOUT 70 MILES NW OF SITKA, .6 MILE EAST OF POINT DOUGHERTY, NORTH EDGE OF BERTHA BAY. SPRINGS ARE IN A SMALL ROCK COVE.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1915/06/28 WARING, G.A.
 SAMPLE NUMBER..... 80

COORDINATES
 LAT/LONG... 57-48.35 N 136-20.42 W
 UTM ZONE... 108
 NORTHING... 6407013.
 420749.

TEMPERATURE (C)..... 44.0 L/MIN
DISCHARGE..... 114.
PERTINENT LITHOLOGY..... SPRING ISSUES FROM HARD DARK SCHISTOSE ROCK.
OTHER SAMPLE INFORMATION... SLIGHT TASTE AND ODOR OF H2S.
WATER ANALYSIS

DATE/ANALYST..... DOLE, R.B. AND CHAMBERS, A.A.
TOTAL DISSOLVED SOLIDS... 276.
ANALYSIS IN PPM

AG.....	CO3.....	25.		
AL.....	CR.....		MG...	8.5
H.....	F.....		NA...	
RA.....	FE+3.....		NA+K...	Q 59.
HE.....	FE(TOT)...	3.1	NB...	S04.. 35.
CA.....	HC03.....	18.	NO3..	0.3
CL.....				

QUALIFICATION FIELD..... NA * K IS A CALCULATED VALUE (BY THE TESTER).
REFERENCE AND IDENTIFICATION
COMPILED BY..... RENNER, J.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... WARING, 1917

RECORD 00178
GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE... GODDARD HOT SPRINGS
WARING NUMBER..... 70
LOCATION

COUNTRY.....	UNITED STATES	NE OF NE OF NW	COORDINATES
STATE.....	ALASKA		LAT/LONG... 56-49.95 N 135-22.25 W
COUNTY.....	SITKA BOROUGH		UTM ZONE... +08
GEOLOGIC PROVINCE..			NORTHING... 6298681.
MAP REFERENCE.....	PORT ALEXANDER D-5 1:63360		477626.

OTHER LOCALITY INFORMATION: BARANOF ISLAND; 1.1 MILES W-SW OF MT KLIUCHEF; 0.4 MILE SE OF GODDARD.
SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 67.0 L/MIN
DISCHARGE..... 49.
WATER ANALYSIS

PH.....	7.4		
CHARGE IMBALANCE (% DIFF)...	4.9		
ANALYSIS IN PPM			
AG.....	CO3.....	1.6	
AL.....	CR.....	1.9	
H.....	F.....	1.4	
HE.....	FE(TOT)...		SI02. 120.
CA.....	HC03.....	78.7	S04.. 110.
CL.....			

CO..... K..... 61.
REFERENCE AND IDENTIFICATION
COMPILED BY..... SHEARER, G.; RENNER, J.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... MILLEN, 1973

RECORD 00179
GEOTHERM SAMPLE FILE
NAME OF SAMPLE SOURCE...
WARING NUMBER.....
LOCATION

NAME OF SAMPLE SOURCE... SITKA HOT SPRINGS - MAGNESIA SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... ALASKA
 COUNTY..... SITKA BOROUGH
 MAP REFERENCE..... PORT ALEXANDER D-4 1163360
 OTHER LOCALITY INFORMATION: KLIUCHEF PENINSULA; 16 MILES SOUTH OF SITKA; NEXT TO "HOT SPRINGS BAY"; ELEVATION = 55
 FT ABOVE HIGH TIDE.

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1915/06/25 WARING, G.A.
 TEMPERATURE (C)..... 61.1
 DISCHARGE..... R 8.5 L/MIN
 PERTINENT LITHOLOGY..... GRANITE CUT BY NARROW DIKES OF DARKER ROCK, RESEMBLING DIABASE, THAT IS CLASSIFIED AS A
 SPRESSARTITE (GARNET) LAMPROPHYRE.
 OTHER SAMPLE INFORMATION.. WATER TASTES SALTY AND HAS FAINT TASTE AND ODOR OF H2S.

WATER ANALYSIS
 DATE/ANALYST..... DINSMORE, S.C.

TOTAL DISSOLVED SOLIDS... 5046.
 CHARGE IMBALANCE (% DIFF)... 0.1
 ANALYSIS IN PPM

AG....	2.1	CO3.....	N	MG...	2.6	SI02.	122.
AL....		CR.....		NA...	1365.	S04..	97.
B....		F.....		NB...			
RE....		FE(TOT)..	0.5	N03..	N		
CA....	378.	HC03....	31.				
CL....	2740.						
CO....		K.....	57.				

OTHER ANALYTICAL DATA... TRACE OF B407.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... LAWSON, WILLIAM A.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WARING, 1917

COORDINATES
 LAT/LONG... 56-50. N 135-22. W

ISOIOPES 10/001

APPENDIX A

Index to GEOTHERM'S sample file for the state of Alaska. This computer generated appendix contains some truncated fields. The index is sorted by name of the source. Type - Sample site type, TNS - township, RNG-range, Sect. - section, I.D. - GEOTHERM record identifier, Temp. - temperature (see Table 1 for explanation of alphabetic qualifiers preceding temperature.)

Name of Source	Type	Latitude	Longitude	TNS	RNG	Sect.	I.D.	Temp., °C
ACOCI BIAL NO. 1	WELL	59-44.73 N	153-13.85 W	05S	023W	17	0045072	92.2
ADAK ISLAND - UNNAMED HOT SPRING (1/2)	SPRING	51-58.55 N	176-37.73 W				0001454	63.
ADAK ISLAND - UNNAMED HOT SPRING (2/2)	SPRING	51-58.55 N	176-37.73 W				0001453	71.
AKUTAN STRAIT HOT SPRINGS	SPRING	54-08.4 N	165-38.4 W	70S	111W		0001915	42.8
AKUTAN HOT SPRINGS (SPRING A2)	SPRING	54-09. N	165-55. W	69S	112W		0001922	84.
AKUTAN HOT SPRINGS (SPRING D2)	SPRING	54-09. N	165-55. W	69S	112W		0001923	58.8
AKUTAN ISLAND - HOT SPRING B	SPRING	54-09.5 N	165-50.7 W	69S	110W		0000207	83.0
AMOCO CATHEDRAL RIVER UNIT NO. 1	WELL	55-44.05 N	162-07.30 W	51S	083W	29	0045070	142.
ANTONIO ZAPPA NO. 1, ALASKA CONSOLIDATED OIL CO INC.	WELL	59-44.1 N	153-14.7 W	05S	023W	18	0045077	6 100.
ARCO DRIFT RIVER ST. OIL WELL	WELL	60-33.25 N	157-07.92 W	05N	016W	05	0045048	82.2
ATLANTIC REF RAINBOW FED. NO. 1	WELL	60-44. N	150-14. W	08N	005W	31	0045063	28.3
ATLANTIC REF RAINBOW FED. NO.2	WELL	60-49.2 N	150-04.5 W	08N	005W	01	0045062	26.7
BAILEY BAY HOT SPRINGS	SPRING	55-58.85 N	131-39.67 W	68S	089E	09	0000253	85.0
BARANOF HOT SPRINGS	SPRING	57-05.27 N	134-50.32 W	55S	066E	24	0000249	51.0
BARANOF HOT SPRINGS - SPRING 7	SPRING	57-05.10 N	164-50.34 W	55S	066E	24	0021496	50.
BARANOF HOT SPRINGS - SPRING 8	SPRING	57-05.10 N	164-50.34 W	55S	066E	24	0021497	51.7
BARANOF ISLAND - FISH BAY AREA	SPRING	57-21.90 N	135-23.20 W	52S	064E	24	0000247	47.0
BARNES LAKE(PARADISE) WARM SPRINGS	SPRING	56-40.8 N	131-52.9 W	60S	080E	09	0001943	26.
BARNES LAKE(PARADISE) WARM SPRINGS	SPRING	56-40.8 N	131-52.9 W	60S	080E	09	0000078	26.
BATTLESHIP MTN - UNNAMED SPRING	SPRING	64-48. N	162-55. W	08S		16	0021470	17.
BATTLESHIP MTN - UNNAMED SPRING	SPRING	64-48. N	162-55. W	08S	021W	16	0021469	17.
BELL ISLAND HOT SPRINGS	SPRING	55-55.95 N	131-34.62 W	68S	090E	31	0000255	72.0
BERNICE LAKE POWER PLANT WELL DISCHARGE LINE	WELL	60-41.53 N	151-23.17 W	07N	012W	15	0045028	20.5
BOWSER CREEK WELL	WELL	50-40.58 N	153-19.62 W	06S	024W	11	0021457	
BP WAS ILLA ST. NO. 1 OIL WELL	WELL	61-31.20 N	149-27.13 W	17N	001W	33	0045055	36.7
BP WHITE RIVER NO. 3	WELL	60-03.95 N	142-12.73 W	21S	019E	29	0045068	66.7
BRADFELD HOT SPRINGS	SPRING	56-13.9 N	131-16.2 W	65S	091E		0001911	57.
CHENA HOT SPRINGS	SPRING	65-03.25 N	146-03.33 W	03N	008E	26	0000235	57.0
CHENA HOT SPRINGS - BATHHOUSE SPRING	SPRING	65-03.18 N	146-03.42 W	03N	008E	26	0021503	65.
CHENA HOT SPRINGS - SPRING A	SPRING	65-03.18 N	146-03.42 W	03N	008E	26	0021504	51.1
CHIEF SHAKES HOT SPRINGS	SPRING	56-43.0 N	132-00.3 W	59S	085E	34	0001908	52.
CHIEF SHAKES HOT SPRINGS	SPRING	56-43.0 N	132-00.3 W	59S	085E	34	0001907	50.5
CHIEF SHAKES HOT SPRINGS	SPRING	56-43.0 N	132-00.3 W	59S	085E	34	0001906	45.
CHIEF SHAKES HOT SPRINGS	SPRING	56-43.0 N	132-00.3 W	59S	085E	34	0001905	50.4
CIRCLE HOT SPRINGS	SPRING	65-28.98 N	144-38.17 W	08N	015E	34	0000237	57.
CIRCLE HOT SPRINGS - NORTHERNMOST SPRING	SPRING	65-28.98 N	144-38.22 W	08N	015E	34	0021445	
CLEAR CREEK AREA	SPRING	64-51.00 N	162-18.00 W	07S	018W	27	0021472	67.
CLEAR CREEK AREA	SPRING	64-51.00 N	162-18.00 W	07S	018W	27	0000219	67.
COLD BAY	SPRING	55-13.3 N	162-24.7 W	57S	087W		0001919	53.6
COLORADO OIL AND GAS COREHOLE NO. 1	WELL	59-33.95 N	139-31.43 W	27S	035E	20	0045067	33.3
COPPER CENTER - HUDDLESTON WELL	WELL						0021494	
COPPER CENTER - UNNAMED SPRING	SPRING						0021495	
COPPER RIVER BASIN - UNNAMED SEEP	SPRING						0021464	
COPPER RIVER BASIN - UNNAMED WELL	WELL						0021463	
CRAIG HOT SPRINGS (DALTON HOT SPRINGS)	SPRING	62-09. N	145-27. W	04N	001W			
		55-20.04 N	133-38.46 W	75S	077E	24	0045032	43.5

DIVISION BM HOT SPRINGS	SPRING	66-22.02 N 156-46.02 W	0021475	Q 55.
DULBI HOT SPRINGS	SPRING	65-16.02 N 155-16.80 W	0021476	Q 55.
EAST COLD BAY - UNNAMED HOT SPRING	SPRING	55-13.02 N 162-28.98 W 57S 088W	0000239	54.0
ECHOOKA R. WEST SPRING	SURFACE	69-15.58 N 147-22.83 W 02S 020E	0045045	7.0
EGG ISLAND	SPRING	54-56.1 N 162-54.6 W 60S 090W	0001918	50.6
EKALUAKAT R. SPRING	SURFACE	69-35.35 N 142-18.00 W	0045152	6.4
FALSE PASS	SPRING	54-55.8 N 163-14.4 W 61S 093W	0001916	62.2
FARNS RED SHIRT LAKE NO. 1 OIL WELL	WELL	61-38.53 N 150-05.72 W 18N 005W	0045046	76.7
FLOOD CREEK SPRING	SURFACE	68-58.66 N 147-51.50 W 05S 018E	0045039	7.2
FLOOD CREEK SPRING	SURFACE	68-58.66 N 147-51.50 W 05S 018E	0045038	8.5
GAKONA - UNNAMED SPRING	SPRING	57-51.90 N 156-29.94 W 27S 044W	0021492	
GAS ROCKS HOT SPRING NEAR KANATAK, NO. AKRG 4013S	SPRING	53-13.38 N 168-28.62 W	0045016	52.8
GEYSER BIGHT - THERMAL SPRING G1	SPRING	53-12.78 N 168-27.78 W	0000201	100.
GEYSER BIGHT - THERMAL SPRING H1	SPRING	65-22.02 N 161-15.00 W	0021452	101.
GRANITE MOUNTAIN (SWEETSTAKES)	SPRING	65-22.2 N 161-15.4 W 01S 013W	0021473	49.
GRANITE MOUNTAIN - SWEETSTAKES HOT SPRINGS	SPRING	57-25.57 N 157-44.27 W 32S 052W	0000221	49.0
GREAT BASINS UGASHIK NO. 1	WELL	52-02.6 N 176-06.5 W	0045073	92.2
GREAT SITKIN ISLAND - FUMAROLE 1	FUMAROLE	52-02.6 N 176-06.5 W	0021453	95.
GREAT SITKIN ISLAND - FUMAROLE 2	FUMAROLE	52-02.6 N 176-06.5 W	0021454	100.
GREAT SITKIN ISLAND - FUMAROLE 3	FUMAROLE	52-02.6 N 176-06.5 W	0021455	100.
GREAT SITKIN ISLAND - FUMAROLE 4	FUMAROLE	52-02.6 N 176-06.5 W	0021456	100.
[GODDARD HOT SPRINGS--OUT OF SEQUENCE, SEE LAST TWO RECORDS IN LIST]				
GULF PORT HEIDEN UNIT NO. 1	WELL	56-58.02 N 158-41.12 W 37S 059W	0045075	138.
GULF SANDY RIVER FEDERAL NO. 1	WELL	56-12.87 N 160-10.33 W 46S 070W	0045074	131.
GULKANA - B. DYKES WELL	WELL		0021489	
GULKANA AIRFIELD WELL	WELL	62-09. N 145-28. W 04N 001W	0021490	
HALBOUTY FRITZ CREEK OIL WELL	WELL	59-41.37 N 151-19.87 W 06S 012W	0045052	50.0
HALBOUTY KING OIL	WELL	60-43.57 N 150-54.78 W 07N 009W	0045071	62.2
HAWK RIVER	SPRING	66-13.98 N 157-34.98 W	0021474	Q 50.
HORNER HOT SPRINGS	SPRING	64-55.33 N 154-50.23 W 06S 020E	0045000	47.0
HOT SPRING ON NORTH ARM OF PERIL STRAIT	SPRING	57-46.26 N 135-49.20 W 47S 059E	0045031	38.3
HOT SPRING ON ROOTOK ISLAND	SURFACE	54-03. N 165-30. W 71S 110W	0045154	
HOT SPRINGS COVE - THERMAL SPRING E5	SPRING	53-15.18 N 168-21.48 W	0021451	68.
HOT SPRINGS COVE - THERMAL SPRING E1	SPRING	53-14.52 N 168-21.40 W	0021450	87.
HOT SPRINGS COVE - THERMAL SPRING E1	SPRING	53-14.5 N 168-21.4 W	0000203	89.0
HUMBLE SHELL BEAR CREEK NO. 1 OIL WELL	WELL	57-37.70 N 155-51.58 W 29S 041W	0045049	210.
HUTLINANA HOT SPRING	SPRING	65-12.96 N 149-59.58 W 05N 012W	0021479	45.6
INANUDAK BAY - UNNAMED SPRING	SPRING	65-12.96 N 149-59.58 W 05N 012W	0021480	43.
IVISHAK HILLSIDE SPRING	SPRING	53-15.00 N 168-21.75 W 80S 133W	0045036	92.5
IVISHAK HILLSIDE SPRING	SURFACE	69-01.83 N 147-43.00 W	0045043	7.5
KANUTI - UNNAMED SPRING	SPRING	69-01.83 N 147-43.00 W	0045044	N
KENAI HIGH SCHOOL WELL	SPRING	66-20.52 N 150-51.00 W	0000229	66.0
KENAI HIGH SCHOOL WELL	WELL	60-33.72 N 151-12.67 W 05N 011W	0045027	20.0
KILO HOT SPRINGS	WELL	60-33.72 N 151-12.67 W 05N 011W	0045900	24.0
KONGAKUT RIVER - UNNAMED SPRING	SPRING	65-48.60 N 151-14.22 W 11N 018W	0021482	66.
KWINTUK - UNNAMED SPRING	SPRING	69-42.36 N 141-49.38 W 04N 042E	0021506	0.5
LAVA CREEK AREA	SPRING	64-42. N 162-28. W	0021471	Q 45.
LAVA CREEK AREA	SPRING	65-13. N 162-54. W	0021468	G 50.
LITTLE MELOZITNA HOT SPRINGS	SPRING	65-13. N 162-54. W	0000217	E 50.
LITTLE MINOOK CREEK - HOT SPRING	SPRING	65-27.6 N 153-18.6 W 01N 027E	0000227	
LOWER KLAWASI - DRUM GROUP (SHRUB)	SPRING	66-27.00 N 150-00.00 W	0021481	?
LOWER KLAWASI - DRUM GROUP (MINERAL)	SPRING	62-08.75 N 145-01.55 W 04N 002E	0045023	27.7
LOWER KLAWASI - DRUM GROUP-WEST SPRING (MINERAL)	SPRING	62-03.48 N 145-13.32 W 03N 001E	0045024	R 21.
LOWER KLAWASI - DRUM GROUP-WEST SPRING (MINERAL)	SPRING	62-03.48 N 145-13.32 W 03N 001E	0021459	27.

LOWER RAY RIVER HOT SPRINGS	SPRING	65-59.	N 150-35.	W	07S 016E	12	0021484	66.
LUPINE SPRING	SURFACE	68-51.75	N 148-12.33	W	07S 016E	12	0045019	2.5
MANLEY HOT SPRINGS (BAKER HOT SPRINGS)	SPRING	65-00.36	N 150-37.98	W	02N 015W	17	0021478	59.
MANLEY HOT SPRINGS (BAKER HOT SPRINGS)	SPRING	65-00.35	N 150-37.97	W	02N 015W	17	0000231	56.0
MANLEY HOT SPRINGS (BAKER HOT SPRINGS)	SPRING	65-00.36	N 150-37.98	W	02N 015W	17	0021477	52.
MELOZI HOT SPRINGS (MELOZITNA HOT SPRING)	SPRING	65-07.8	N 154-41.5	W	04S 020E	23	0000225	56.
MOTHER GOOSE	SPRING	57-10.8	N 157-01.1	W	35S 048W		0001921	66.
NEW EDDYSTONE ROCK - PIPE SPRING	SPRING	55-30.	N 130-58.	W	73S 095E		0021505	10.
NYLEN HOT SPRINGS	SURFACE	57-38.64	N 135-19.98	W	49S 063E	08	0045153	49.
OKMOK CALDERA - CONE A (FUMAROLE A1)	FUMAROLE	53-24.3	N 168-10.6	W			0021446	96.5
OKMOK CALDERA - CONE A (FUMAROLE A2)	FUMAROLE	53-24.3	N 168-10.6	W			0021447	97.
OKMOK CALDERA - CONE A (FUMAROLE A2)	FUMAROLE	53-24.3	N 168-10.6	W			0021448	98.
OKMOK CALDERA - CONE A (FUMAROLE A8)	FUMAROLE	53-24.3	N 168-10.6	W			0021449	
OKMOK CALDERA - HOT SPRING (UNNAMED)	SPRING	53-28.7	N 168-04.7	W			0000209	22.0
OKPILAK HOT SPRING	SPRING	69-19.80	N 144-02.64	W	01S 033E	25	0045037	Q 48.5
PAN AM BACHATNA CREEK	WELL	60-46.42	N 152-05.00	W	08N 015W	21	0045069	60.0
PAN AM DAVID RIVER NO. 1 AND 1A	WELL	55-51.80	N 161-34.17	W	50S 080W	12	0045066	151.
PAN AM STEDATNA CREEK ST. OIL WELL	WELL	61-05.5	N 151-29.	W	12N 012W	30	0045060	47.2
PILGRIM HOT SPRING (KRUZGAMEPA)	SPRING	65-05.9	N 164-55.3	W	04S 031W	36	0000213	55.
PILGRIM HOT SPRING (KRUZGAMEPA)	SPRING	65-05.58	N 164-55.32	W	04S 031W	36	0021465	69.
POCAHONTAS HOT SPRING	SURFACE	65-58.22	N 154-01.00	W	07N 023E	33	0045155	
PORT MOLLER HOT SPRINGS	SPRING	55-51.7	N 160-29.5	W	50S 073W	13	0001920	71.
PORT MOLLER HOT SPRINGS	SPRING	55-51.78	N 160-29.58	W	50S 073W	12	0021502	73.9
PURE CANOE BAY NO. 1	WELL	55-31.2	N 161-05.7	W	54S 078W	08	0045065	71.1
RAY RIVER HOT SPRING	SPRING	65-57.78	N 150-55.14	W	13N 016W	10	0021483	45.
RED HILL SPRING	SPRING	69-37.62	N 146-01.62	W	03N 025E	08	0045021	32.8
RED HILL SPRING	SPRING	69-37.62	N 146-01.62	W	03N 025E	08	0045022	29.
RICHARDSON HIGHWAY - UNNAMED WELL	WELL	62-25.	N 145-27.	W			0021491	
RICHARDSON HIGHWAY - UNNAMED WELL	WELL				03N 001W		0021493	
RICHFIELD WIDE BAY NO. 1 OIL WELL	WELL	57-21.80	N 156-23.90	W	33S 044W	05	0045059	139.
SADLEROCCHIT SPRING	SURFACE	69-39.38	N 144-23.62	W	04N 031E	36	0045150	13.0
SADLEROCCHIT SPRING	SURFACE	69-39.38	N 144-23.62	W	04N 031E	36	0045151	4.0
SADLEROCCHIT SPRING	SURFACE	69-39.38	N 144-23.62	W	04N 031E	36	0045149	13.0
SAVIUKVIAYAK R. WEST SPRING	SURFACE	68-54.17	N 148-05.17	W			0045020	5.
SAVIUKVIAYAK TRIBUTARY SPRING	SURFACE	68-56.33	N 147-58.75	W	06S 017E	12	0045033	3.5
SAVIUKVIAYAK TRIBUTARY SPRING	SURFACE	68-56.33	N 147-58.75	W	06S 017E	12	0045034	6.5
SERPENTINE SPRINGS (ARCTIC)	SPRING	65-51.4	N 164-41.3	W	05N 029W	02	0000215	60.
SERPENTINE SPRINGS (ARCTIC)	SPRING	65-51.48	N 164-42.60	W	05N 029W	02	0021467	71.
SERPENTINE SPRINGS (ARCTIC)	SPRING	65-51.48	N 164-42.60	W	05N 029W	02	0021466	60.
SHAKES SPRINGS (CHIEF SHAKES)	SPRING	56-43.02	N 132-02.30	W	59S 085E		0000205	52.0
SHELL JOHNSON SLOUGH OIL WELL	WELL	60-44.	N 152-00.	W	08N 016W	36	0045054	75.0
SHELL KUSTATAN RIVER	WELL	60-48.52	N 151-54.87	W	08N 015W	04	0045064	38.9
SHELL MIDDLE RIVER ST. OIL WELL	WELL	60-59.	N 151-37.	W	10N 013W	05	0045053	64.4
SHUBLIK SPRING	SURFACE	69-28.33	N 146-11.30	W	01N 024E	03	0045148	5.5
SHUBLIK SPRING	SURFACE	69-28.33	N 146-11.83	W	01N 024E	03	0045147	5.5
SHUBLIK SPRING	SPRING	56-50.	N 135-22.	W	58S 064E		0021498	65.
[SEE LAST RECORD IN LIST.]								
SITKA HOT SPRINGS - MAIN SPRING	SPRING	66-09.00	N 157-07.02	W			0000223	
SOUTH - UNNAMED SPRING	SPRING	54-54.2	N 163-08.6	W	61S 092W		0001917	43.3
STAN CHRISTIANSON HOT SPRINGS	SPRING	53-53.1	N 166-26.9	W	73S 117W		0001912	35.
SUMMER BAY (SPRING)	SPRING	53-53.1	N 166-26.9	W	73S 117W		0001913	50.
SUMMER BAY (WELL 1)	SPRING	53-53.1	N 166-26.9	W	73S 117W		0001914	44.
SUMMER BAY (WELL 2)	SPRING	56-55.68	N 158-07.20	W	38S 056W	01	0045035	23.0
SURPRISE LAKE HOT SPRING AT ANIAKCHAK CRATER	SPRING	60-46.67	N 150-51.75	W	08N 009W	16	0045030	102.
SWANSON RIVER #4	WELL							

TENAKEE HOT SPRINGS (FORMERLY HOONIAH HOT SPRINGS)	SPRING	57-46.86 N 135-13.02 W	0000245	42.5
TENAKEE HOT SPRINGS - MINERAL SPRING	SPRING	57-46.86 N 135-13.02 W	0021501	13.3
TENAKEE HOT SPRINGS - PRINCIPAL SPRING	SPRING	57-46.86 N 135-13.02 W	0021500	41.1
TENAKEE INLET - UNNAMED HOT SPRING	SPRING	58-00.30 N 135-55.23 W	0000241	81.5
TOLOVANA HOT SPRING	SPRING	65-16.43 N 148-50.83 W	0000233	56.
TOLSONA GROUP - MOOSE LAKE-UNNAMED SPRING	SPRING	62-08. N 146-06. W	0021486	
TOLSONA GROUP - NICKEL CREEK-UNNAMED SPRING	SPRING	62-00.18 N 145-46.80 W	0021485	
TOLSONA GROUP - NICKEL CREEK-UNNAMED SPRING	SPRING	62-00.18 N 145-46.80 W	0021460	
TOLSONA GROUP - TOLSONA NO.1-SOUTHWEST SPRING	SPRING	62-06.50 N 145-57.10 W	0021461	R 10.
TOLSONA GROUP - TOLSONA NO.2-NORTHWEST SPRING	SPRING	62-07.20 N 145-56.60 W	0021462	R 15.
TOLSONA GROUP - UNNAMED SPRING	SPRING	62-05.15 N 145-54.50 W	0021487	
TOLSONA GROUP - UNNAMED WELL	WELL	62-07. N 145-43. W	0021488	
TWIN LAKES (WEST SHAKES) WARM SPRINGS	SPRING	56-42.0 N 132-16.8 W	0001910	21.
UNION BACHATNA CREEK U-1	WELL	60-46.42 N 152-05.14 W	0045058	35.0
UNION BIG RIVER OIL WELL	WELL	60-42.85 N 152-05.93 W	0045056	30.6
UNION FISH CREEK U. 12-8 OIL WELL	WELL	61-29.48 N 149-51.93 W	0045057	Q 31.7
UNION KASILOF U-1 OIL WELL	WELL	60-16.73 N 151-25.50 W	0045061	66.1
UNION KASILOF U-1 OIL WELL (UNION KASILOF NO.1)	WELL	60-16.73 N 151-25.50 W	0045047	50.6
UNION KNIK ARM NO. 1 OIL WELL	WELL	61-30.75 N 149-56.07 W	0045076	94.4
UNION KNIK ARM NO. 2 OIL WELL	WELL	61-30.68 N 149-51.00 W	0045050	40.6
UPPER KLAWASI - DRUM GROUP-SOUTHEAST SPRING	SPRING	62-04.86 N 145-00.42 W	0045051	40.0
UPPER KLAWASI - MUD VOLCANO	SPRING	62-04.82 N 145-00.00 W	0021458	32.
UPPER KLAWASI - MUD VOLCANO	SPRING	62-04.82 N 145-00.00 W	0045026	18.0
W. UKINEK SPRING	SPRING	57-49.86 N 156-30.78 W	0045025	30.3
WHITE SULPHUR SPRINGS (FORMERLY HOONIAH WARM SPRINGS)	SPRING	57-48.35 N 136-20.42 W	0045015	81.0
GODDARD HOT SPRINGS	SPRING	56-49.95 N 135-22.25 W	0000243	44.0
SITKA HOT SPRINGS - MAGNESIA SPRING	SPRING	56-50. N 135-22. W	0000251	67.0
			0021499	61.1

APPENDIX B

Index to GEOTHERM sample file for the state of Alaska sorted by township (TNS), range (RNG), and section (Sect.) Also given are the name of source, GEOTHERM record identifier, and temperature (Temp. °C). See Table 1 for explanation of alphabetic qualifiers proceeding temperature.

<u>TNS</u>	<u>RNG</u>	<u>Sect.</u>	<u>Name of Source</u>	<u>I.D.</u>	<u>Temp. °C</u>
			HOT SPRINGS COVE - THERMAL SPRING E1	0000203	89.0
			GEYSER BIGHT - THERMAL SPRING G1	0000201	100.
			OKMOK CALDERA - HOT SPRING (UNNAMED)	0000209	22.0
			KANUTI - UNNAMED SPRING	0000229	66.0
			LAVA CREEK AREA	0000217	E 50.
			IVISHAK HILLSIDE SPRING	0045044	N
			GULKANA - B. DYKES WELL	0021489	
			LITTLE MINOOK CREEK - HOT SPRING	0021481	?
			DULBI HOT SPRINGS	0021476	Q 55.
			COPPER RIVER BASIN - UNNAMED SEEP	0021464	
			GREAT SITKIN ISLAND - FUMAROLE 4	0021456	100.
			GREAT SITKIN ISLAND - FUMAROLE 3	0021455	100.
			GREAT SITKIN ISLAND - FUMAROLE 2	0021454	100.
			GREAT SITKIN ISLAND - FUMAROLE 1	0021453	95.
			GEYSER BIGHT - THERMAL SPRING H1	0021452	101.
			HOT SPRINGS COVE - THERMAL SPRING E5	0021451	68.
			HOT SPRINGS COVE - THERMAL SPRING E1	0021450	87.
			OKMOK CALDERA - CONE A (FUMAROLE A8)	0021449	
			OKMOK CALDERA - CONE A (FUMAROLE A2)	0021448	98.
			OKMOK CALDERA - CONE A (FUMAROLE A2)	0021447	97.
			OKMOK CALDERA - CONE A (FUMAROLE A1)	0021446	96.5
			HAWK RIVER	0021474	Q 50.
			ADAK ISLAND - UNNAMED HOT SPRING (1/2)	0001454	63.
			ADAK ISLAND - UNNAMED HOT SPRING (2/2)	0001453	71.
			EKALUAKAT R. SPRING	0045152	6.4
			IVISHAK HILLSIDE SPRING	0045043	7.5
			SAVIUKVIAYAK R. WEST SPRING	0045020	5.
			RICHARDSON HIGHWAY - UNNAMED WELL	0021491	
			LOWER RAY RIVER HOT SPRINGS	0021484	66.
			DIVISION BM HOT SPRINGS	0021475	Q 55.
			GRANITE MOUNTAIN (SWEEPSTAKES)	0021473	49.
			KWINIUK - UNNAMED SPRING	0021471	Q 45.
			LAVA CREEK AREA	0021468	G 50.
			TENAKEE HOT SPRINGS (FORMERLY HOONIAH HOT SPRING)	0000245	42.5
			SOUTH - UNNAMED SPRING	0000223	
			TENAKEE HOT SPRINGS - MINERAL SPRING	0021501	13.3
			TENAKEE HOT SPRINGS - PRINCIPAL SPRING	0021500	41.1
			COPPER CENTER - UNNAMED SPRING	0021495	
			COPPER CENTER - HUDDLESTON WELL	0021494	
			GAKONA - UNNAMED SPRING	0021492	
01N	024E	03	SHUBLIK SPRING	0045147	5.5
01N	024E	03	SHUBLIK SPRING	0045148	5.5
01N	027E	29	LITTLE MELOZITNA HOT SPRINGS	0000227	
01S	013W	25	GRANITE MOUNTAIN - SWEEPSTAKES HOT SPRINGS	0000221	49.0
01S	033E	25	OKPILAK HOT SPRING	0045037	Q 48.5

02N 015W	17	MANLEY HOT SPRINGS (BAKER HOT SPRINGS)	0021478	59.
02N 015W	17	MANLEY HOT SPRINGS (BAKER HOT SPRINGS)	0000231	56.0
02N 015W	17	MANLEY HOT SPRINGS (BAKER HOT SPRINGS)	0021477	52.
02S 020E	19	ECHOOKA R. WEST SPRING	0045045	7.0
03N 001E	09	LOWER KLA WASI - DRUM GROUP-WEST SPRING(MINERAL)	0045024	R 21.
03N 001E	09	LOWER KLA WASI - DRUM GROUP-WEST SPRING (MINERAL)	0021459	27.
03N 001W		RICHARDSON HIGHWAY - UNNAMED WELL	0021493	
03N 003W	33	TOLSONA GROUP - NICKEL CREEK-UNNAMED SPRING	0021460	
03N 003W	33	TOLSONA GROUP - NICKEL CREEK-UNNAMED SPRING	0021485	
03N 008E	26	CHENA HOT SPRINGS - SPRING A	0021504	51.1
03N 008E	26	CHENA HOT SPRINGS - BATHOUSE SPRING	0021503	65.
03N 008E	26	CHENA HOT SPRINGS	0000235	57.0
03N 012W	30	UNION KASILOF U-1 OIL WELL	0045047	50.6
03N 012W	30	UNION KASILOF U-1 OIL WELL (UNION KASILOF NO.1)	0045076	94.4
03N 025E	08	RED HILL SPRING	0045021	32.8
03N 025E	08	RED HILL SPRING	0045022	29.
04N 001W		GULKANA AIRFIELD WELL	0021490	
04N 001W		COPPER RIVER BASIN - UNNAMED WELL	0021463	
04N 002E	10	LOWER KLA WASI - DRUM GROUP (SHRUB)	0045023	27.7
04N 002E	35	UPPER KLA WASI - DRUM GROUP-SOUTHEAST SPRING	0021458	32.
04N 002E	35	UPPER KLA WASI - MUD VOLCANO	0045026	18.0
04N 002E	35	UPPER KLA WASI - MUD VOLCANO	0045025	30.3
04N 003W		TOLSONA GROUP - UNNAMED WELL	0021488	
04N 004W	15	TOLSONA GROUP - TOLSONA NO.2-NORTHWEST SPRING	0021462	R 15.
04N 004W	21	TOLSONA GROUP - TOLSONA NO.1-SOUTHWEST SPRING	0021461	R 10.
04N 004W	35	TOLSONA GROUP - UNNAMED SPRING	0021487	
04N 005W		TOLSONA GROUP - MOOSE LAKE-UNNAMED SPRING	0021486	
04N 031E	36	SADLEROCHIT SPRING	0045150	13.0
04N 031E	36	SADLEROCHIT SPRING	0045149	13.0
04N 031E	36	SADLEROCHIT SPRING	0045151	4.0
04N 042E	09	KONGAKUT RIVER - UNNAMED SPRING	0021506	0.5
04S 020E	23	MELOZI HOT SPRINGS (MELOZITNA HOT SPRING)	0000225	56.
04S 031W	36	PILGRIM HOT SPRING (KRUGAMEPA)	0021465	69.
04S 031W	36	PILGRIM HOT SPRING (KRUGAMEPA)	0000213	55.
05N 006W	07	TOLOVANA HOT SPRING	0000233	56.
05N 011W	05	KENAI HIGH SCHOOL WELL	0045027	20.0
05N 011W	05	KENAI HIGH SCHOOL WELL	0045900	24.0
05N 012W	34	HUTLINANA HOT SPRING	0021480	43.
05N 012W	34	HUTLINANA HOT SPRING	0021479	45.6
05N 016W	05	ARCO DRIFT RIVER ST. OIL WELL	0045048	82.2
05N 029W	02	SERPENTINE SPRINGS (ARCTIC)	0000215	60.
05N 029W	02	SERPENTINE SPRINGS (ARTIC)	0021467	71.
05N 029W	02	SERPENTINE SPRINGS (ARTIC)	0021466	60.
05S 018E	28	FLOOD CREEK SPRING	0045039	7.2
05S 018E	28	FLOOD CREEK SPRING	0045038	8.5
05S 023W	17	ACOCI BIAL NO. 1	0045072	92.2
05S 023W	18	ANTONIO ZAPPA NO. 1, ALASKA CONSOLIDATED OIL CO	0045077	G 100.
06S 012W	04	HALBOUTY FRITZ CREEK OIL WELL	0045052	50.0
06S 017E	12	SAVIUKVIAYAK TRIBUTARY SPRING	0045034	6.5
06S 017E	12	SAVIUKVIAYAK TRIBUTARY SPRING	0045033	3.5
06S 020E	33	HORNER HOT SPRINGS	0045000	47.0
06S 024W	11	BOWSER CREEK WELL	0021457	
07N 009W	06	HALBOUTY KING OIL	0045071	62.2
07N 012W	15	BERNICE LAKE POWER PLANT WELL DISCHARGE LINE	0045028	20.5

07N 016W	09	UNION BACHATNA CREEK U-7 OIL WELL	0045056	30.6
07N 023E	33	POCAHONTAS HOT SPRING	0045155	
07S 016E	12	LUPINE SPRING	0045019	2.5
07S 018W	27	CLEAR CREEK AREA	0021472	67.
07S 018W	27	CLEAR CREEK AREA	0000219	67.
08N 005W	01	ATLANTIC REF RAINBOW FED. NO.2	0045062	26.7
08N 005W	31	ATLANTIC REF RAINBOW FED. NO. 1	0045063	28.3
08N 009W	16	SWANSON RIVER #4	0045030	102.
08N 015E	34	CIRCLE HOT SPRINGS - NORTHERNMOST SPRING	0021445	
08N 015E	34	CIRCLE HOT SPRINGS	0000237	57.
08N 015W	04	SHELL KUSTATAN RIVER	0045064	38.9
08N 015W	21	PAN AM BACHATNA CREEK	0045069	60.0
08N 016W	21	UNION BACHATNA CREEK U-1	0045058	35.0
08N 016W	26	UNION BIG RIVER OIL WELL	0045057	Q 31.7
08N 016W	36	SHELL JOHNSON SLOUGH OIL WELL	0045054	75.0
08S	16	BATTLESHIP MTN - UNNAMED SPRING	0021470	17.
08S 021W	16	BATTLESHIP MTN - UNNAMED SPRING	0021469	17.
10N 013W	05	SHELL MIDDLE RIVER ST. OIL WELL	0045053	64.4
11N 018W	02	KILO HOT SPRINGS	0021482	66.
12N 012W	30	PAN AM STEDATNA CREEK ST. OIL WELL	0045060	47.2
13N 016W	10	RAY RIVER HOT SPRING	0021483	45.
16N 003W	05	UNION KNIK ARM NO. 2 OIL WELL	0045051	40.0
16N 003W	08	UNION FISH CREEK U. 12-8 OIL WELL	0045061	66.1
16N 004W	02	UNION KNIK ARM NO. 1 OIL WELL	0045050	40.6
17N 001W	33	BP WAS ILLA ST. NO. 1 OIL WELL	0045055	36.7
18N 005W	24	FARMS RED SHIRT LAKE NO. 1 OIL WELL	0045046	76.7
21S 019E	29	BP WHITE RIVER NO. 3	0045068	66.7
27S 035E	20	COLORADO OIL AND GAS COREHOLE NO. 1	0045067	33.3
27S 044W	09	GAS ROCKS HOT SPRING NEAR KANATAK, NO. AKRG 401	0045016	52.8
27S 044W	20	W. UKINEK SPRING	0045015	81.0
29S 041W	36	HUMBLE SHELL BEAR CREEK NO. 1 OIL WELL	0045049	210.
32S 052W	08	GREAT BASINS UGASHIK NO. 1	0045073	92.2
33S 044W	05	RICHFIELD WIDE BAY NO. 1 OIL WELL	0045059	139.
35S 048W		MOTHER GOOSE	0001921	66.
37S 059W	20	GULF PORT HEIDEN UNIT NO. 1	0045075	138.
38S 056W	01	SURPRISE LAKE HOT SPRING AT ANIAKCHAK CRATER	0045035	23.0
44S 058E	33	TENAKEE INLET - UNNAMED HOT SPRING	0000241	81.5
46S 070W	10	GULF SANDY RIVER FEDERAL NO. 1	0045074	131.
47S 056E	09	WHITE SULPHUR SPRINGS (FORMERLY HOONIAH WARM SP	0000243	44.0
47S 059E	26	HOT SPRING ON NORTH ARM OF PERIL STRAIT	0045031	38.3
49S 063E	08	NYLEN HOT SPRINGS	0045153	49.
50S 073W	12	PORT MOLLER HOT SPRINGS	0021502	73.9
50S 073W	13	PORT MOLLER HOT SPRINGS	0001920	71.
50S 080W	12	PAN AM DAVID RIVER NO. 1 AND 1A	0045066	151.
51S 083W	29	AMOCO CATHEDRAL RIVER UNIT NO. 1	0045070	142.
52S 064E	24	BARANOF ISLAND - FISH BAY AREA	0000247	47.0
54S 078W	08	PURE CANOE BAY NO. 1	0045065	71.1
55S 066E	24	BARANOF HOT SPRINGS - SPRING 7	0021496	50.
55S 066E	24	BARANOF HOT SPRINGS	0000249	51.0
55S 066E	24	BARANOF HOT SPRINGS - SPRING 8	0021497	51.7
57S 087W		COLD BAY	0001919	53.6
57S 088W		EAST COLD BAY - UNNAMED HOT SPRING	0000239	54.0
58S 063E	20	GODDARD HOT SPRINGS	0000251	67.0
58S 064E		SITKA HOT SPRINGS - MAIN SPRING	0021498	65.

58S 064E		SITKA HOT SPRINGS - MAGNESIA SPRING	0021499	61.1
59S 085E		SHAKES SPRINGS (CHIEF SHAKES)	0000205	52.0
59S 085E	34	CHIEF SHAKES HOT SPRINGS	0001908	52.
59S 085E	34	CHIEF SHAKES HOT SPRINGS	0001907	50.5
59S 085E	34	CHIEF SHAKES HOT SPRINGS	0001906	45.
59S 085E	34	CHIEF SHAKES HOT SPRINGS	0001905	50.4
60S 080E	09	BARNES LAKE(PARADISE) WARM SPRINGS	0001943	26.
60S 080E	09	BARNES LAKE(PARADISE) WARM SPRINGS	0000078	26.
60S 084E		TWIN LAKES (WEST SHAKES) WARM SPRINGS	0001910	21.
60S 090W		EGG ISLAND	0001918	50.6
61S 092W		STAN CHRISTIANSON HOT SPRINGS	0001917	43.3
61S 093W		FALSE PASS	0001916	62.2
65S 091E		BRADFIELD HOT SPRINGS	0001911	57.
68S 089E	09	BAILEY BAY HOT SPRINGS	0000253	85.0
68S 090E	31	BELL ISLAND HOT SPRINGS	0000255	72.0
69S 110W		AKUTAN ISLAND - HOT SPRING B	0000207	83.0
69S 112W		AKUTAN HOT SPRINGS (SPRING D2)	0001923	58.8
69S 112W		AKUTAN HOT SPRINGS (SPRING A2)	0001922	84.
70S 111W		AKUN STRAIT HOT SPRINGS	0001915	42.8
71S 110W		HOT SPRING ON ROOTOK ISLAND	0045154	
73S 095E		NEW EDDYSTONE ROCK - PIPE SPRING	0021505	10.
73S 117W		SUMMER BAY (WELL 2)	0001914	44.
73S 117W		SUMMER BAY (WELL 1)	0001913	50.
73S 117W		SUMMER BAY (SPRING)	0001912	35.
75S 077E	24	CRAIG HOT SPRINGS (DALTON HOT SPRINGS)	0045032	43.5
80S 133W		INANUDAK BAY - UNNAMED SPRING	0045036	92.5

APPENDIX C

Index to GEOTHERM sample file for the state of Alaska sorted into one-degree blocks by latitude and longitude. Records are sorted by name of source within each one-degree block. Adjacent one-degree blocks which are published as a 1:250,000 map are combined under the appropriate map name. See Table 1 for explanation of alphabetic qualifiers preceding temperature. I.D. - GEOTHERM record identifier. Temp. - Temperature °C.

<u>Latitude</u>	<u>Longitude</u>	<u>Name of Source</u>	<u>I.D.</u>	<u>Temp.</u>
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COORDINATES NOT GIVEN

		COPPER CENTER - HUDDLESTON WELL	0021494	
		COPPER CENTER - UNNAMED SPRING	0021495	
		COPPER RIVER BASIN - UNNAMED SEEP	0021464	
		GAKONA - UNNAMED SPRING	0021492	
		GREAT SITKIN ISLAND - FUMAROLE 4	0021456	100.
		GULKANA - B. DYKES WELL	0021489	
		RICHARDSON HIGHWAY - UNNAMED WELL	0021493	

ADAK 1:250,000

51-58.55	N 176-37.73	W ADAK ISLAND - UNNAMED HOT SPRING (1/2)	0001454	63.
51-58.55	N 176-37.73	W ADAK ISLAND - UNNAMED HOT SPRING (2/2)	0001453	71.
52-02.6	N 176-06.5	W GREAT SITKIN ISLAND - FUMAROLE 1	0021453	95.
52-02.6	N 176-06.5	W GREAT SITKIN ISLAND - FUMAROLE 2	0021454	100.
52-02.6	N 176-06.5	W GREAT SITKIN ISLAND - FUMAROLE 3	0021455	100.

UNALASKA 1:250,000

53-53.1	N 166-26.9	W SUMMER BAY (SPRING)	0001912	35.
53-53.1	N 166-26.9	W SUMMER BAY (WELL 1)	0001913	50.
53-53.1	N 166-26.9	W SUMMER BAY (WELL 2)	0001914	44.

UMNAK 1:250,000

53-13.38	N 168-28.62	W GEYSER BIGHT - THERMAL SPRING G1	0000201	100.
53-12.78	N 168-27.78	W GEYSER BIGHT - THERMAL SPRING H1	0021452	101.
53-15.18	N 168-21.48	W HOT SPRINGS COVE - THERMAL SPRING E5	0021451	68.
53-14.52	N 168-21.40	W HOT SPRINGS COVE - THERMAL SPRING E1	0021450	87.
53-14.5	N 168-21.4	W HOT SPRINGS COVE - THERMAL SPRING E1	0000203	89.0
53-15.00	N 168-21.75	W INANUDAK BAY - UNNAMED SPRING	0045036	92.5
53-24.3	N 168-10.6	W OKMOK CALDERA - CONE A (FUMAROLE A1)	0021446	96.5
53-24.3	N 168-10.6	W OKMOK CALDERA - CONE A (FUMAROLE A2)	0021447	97.
53-24.3	N 168-10.6	W OKMOK CALDERA - CONE A (FUMAROLE A2)	0021448	98.
53-24.3	N 168-10.6	W OKMOK CALDERA - CONE A (FUMAROLE A8)	0021449	
53-28.7	N 168-04.7	W OKMOK CALDERA - HOT SPRING (UNNAMED)	0000209	22.0

FALSE PASS 1:250,000

54-56.1	N 162-54.6	W EGG ISLAND	0001918	50.6
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54-55.8	N 163-14.4	W FALSE PASS	0001916	62.2
54-54.2	N 163-08.6	W STAN CHRISTIANSON HOT SPRINGS	0001917	43.3

UNIMAK 1:250,000

54-08.4	N 165-38.4	W AKUN STRAIT HOT SPRINGS	0001915	42.8
54-09.	N 165-55.	W AKUTAN HOT SPRINGS (SPRING A2)	0001922	84.
54-09.	N 165-55.	W AKUTAN HOT SPRINGS (SPRING D2)	0001923	58.8
54-09.5	N 165-50.7	W AKUTAN ISLAND - HOT SPRING B	0000207	83.0
54-03.	N 165-30.	W HOT SPRING ON ROOTOK ISLAND	0045154	

KETCHIKAN 1:250,000

55-30.	N 130-58.	W NEW EDDYSTONE ROCK - PIPE SPRING	0021505	10.
55-58.85	N 131-39.67	W BAILEY BAY HOT SPRINGS	0000253	85.0
55-55.95	N 131-34.62	W BELL ISLAND HOT SPRINGS	0000255	72.0

CRAIG 1:250,000

55-20.04	N 133-38.46	W CRAIG HOT SPRINGS (DALTON HOT SPRINGS)	0045032	43.5
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PORT MOLLER 1:250,000

55-51.78	N 160-29.58	W PORT MOLLER HOT SPRINGS	0021502	73.9
55-51.7	N 160-29.5	W PORT MOLLER HOT SPRINGS	0001920	71.
55-51.80	N 161-34.17	W PAN AM DAVID RIVER NO. 1 AND 1A	0045066	151.
55-31.2	N 161-05.7	W PURE CANOE BAY NO. 1	0045065	71.1

COLD BAY 1:250,000

55-44.05	N 162-07.30	W AMOCO CATHEDRAL RIVER UNIT NO. 1	0045070	142.
55-13.3	N 162-24.7	W COLD BAY	0001919	53.6
55-13.02	N 162-28.98	W EAST COLD BAY - UNNAMED HOT SPRING	0000239	54.0

BRADFIELD CANAL 1:250,000

56-40.8	N 131-52.9	W BARNES LAKE(PARADISE) WARM SPRINGS	0001943	26.
56-40.8	N 131-52.9	W BARNES LAKE(PARADISE) WARM SPRINGS	0000078	26.
56-13.9	N 131-16.2	W BRADFIELD HOT SPRINGS	0001911	57.

PETERSBURG 1:250,000

56-43.0	N 132-00.3	W CHIEF SHAKES HOT SPRINGS	0001908	52.
56-43.0	N 132-00.3	W CHIEF SHAKES HOT SPRINGS	0001907	50.5
56-43.0	N 132-00.3	W CHIEF SHAKES HOT SPRINGS	0001906	45.
56-43.0	N 132-00.3	W CHIEF SHAKES HOT SPRINGS	0001905	50.4
56-43.02	N 132-02.30	W SHAKES SPRINGS (CHIEF SHAKES)	0000205	52.0
56-42.0	N 132-16.8	W TWIN LAKES (WEST SHAKES) WARM SPRINGS	0001910	21.

PORT ALEXANDER 1:250,000

56-49.95	N 135-22.25	W GODDARD HOT SPRINGS	0000251	67.0
56-50.	N 135-22.	W SITKA HOT SPRINGS - MAGNESIA SPRING	0021499	61.1
56-50.	N 135-22.	W SITKA HOT SPRINGS - MAIN SPRING	0021498	65.

CHIGNIK 1:250,000

56-58.02 N 158-41.12 W GULF PORT HEIDEN UNIT NO. 1	0045075	138.
56-55.68 N 158-07.20 W SURPRISE LAKE HOT SPRING AT ANIAKCHAK CRATER	0045035	23.0
56-12.87 N 160-10.33 W GULF SANDY RIVER FEDERAL NO. 1	0045074	131.

SITKA 1:250,000

57-05.27 N 134-50.32 W BARANOF HOT SPRINGS	0000249	51.0
57-21.90 N 135-23.20 W BARANOF ISLAND - FISH BAY AREA	0000247	47.0
57-46.26 N 135-49.20 W HOT SPRING ON NORTH ARM OF PERIL STRAIT	0045031	38.3
57-38.64 N 135-19.98 W NYLEN HOT SPRINGS	0045153	49.
57-46.86 N 135-13.02 W TENAKEE HOT SPRINGS (FORMERLY HOONIAH HOT SPRIN	0000245	42.5
57-46.86 N 135-13.02 W TENAKEE HOT SPRINGS - MINERAL SPRING	0021501	13.3
57-46.86 N 135-13.02 W TENAKEE HOT SPRINGS - PRINCIPAL SPRING	0021500	41.1
57-48.35 N 136-20.42 W WHITE SULPHUR SPRINGS (FORMERLY HOONIAH WARM SP	0000243	44.0
57-05.10 N 134-50.34 W BARANOF HOT SPRINGS - SPRING 7	0021496	50.
57-05.10 N 134-50.34 W BARANOF HOT SPRINGS - SPRING 8	0021497	51.7

KARLUK 1:250,000

57-37.70 N 155-51.58 W HUMBLE SHELL BEAR CREEK NO. 1 OIL WELL	0045049	210.
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UGASHIK 1:250,000

57-51.90 N 156-29.94 W GAS ROCKS HOT SPRING NEAR KANATAK, NO. AKRG 401	0045016	52.8
57-21.80 N 156-23.90 W RICHFIELD WIDE BAY NO. 1 OIL WELL	0045059	139.
57-49.86 N 156-30.78 W W. UKINEK SPRING	0045015	81.0
57-25.57 N 157-44.27 W GREAT BASINS UGASHIK NO. 1	0045073	92.2
57-10.8 N 157-01.1 W MOTHER GOOSE	0001921	66.

JUNEAU

58-00.30 N 135-55.23 W TENAKEE INLET - UNNAMED HOT SPRING	0000241	81.5
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YAKUTAT 1:250,000

59-33.95 N 139-31.43 W COLORADO OIL AND GAS COREHOLE NO. 1	0045067	33.3
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SELDOVIA 1:250,000

59-41.37 N 151-19.87 W HALBOUTY FRITZ CREEK OIL WELL	0045052	50.0
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ILIAMNA 1:250,000

59-40.58 N 153-19.62 W BOWSER CREEK WELL	0021457	
59-44.73 N 153-13.85 W ACOCI BIAL NO. 1	0045072	92.2
59-44.1 N 153-14.7 W ANTONIO ZAPPA NO. 1, ALASKA CONSOLIDATED OIL CO	0045077	G 100.

BERING GLACIER 1:250,000

60-03.95 N 142-12.73 W BP WHITE RIVER NO. 3	0045068	66.7
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KENAI 1:250,000

60-44.	N 150-14.	W ATLANTIC REF RAINBOW FED. NO. 1	0045063	28.3
60-49.2	N 150-04.5	W ATLANTIC REF RAINBOW FED. NO.2	0045062	26.7
60-43.57	N 150-54.78	W HALBOUTY KING OIL	0045071	62.2
60-46.67	N 150-51.75	W SWANSON RIVER #4	0045030	102.
60-41.53	N 151-23.17	W BERNICE LAKE POWER PLANT WELL DISCHARGE LINE	0045028	20.5
60-33.72	N 151-12.67	W KENAI HIGH SCHOOL WELL	0045900	24.0
60-33.72	N 151-12.67	W KENAI HIGH SCHOOL WELL	0045027	20.0
60-48.52	N 151-54.87	W SHELL KUSTATAN RIVER	0045064	38.9
60-59.	N 151-37.	W SHELL MIDDLE RIVER ST. OIL WELL	0045053	64.4
60-16.73	N 151-25.50	W UNION KASILOF U-1 OIL WELL	0045047	50.6
60-16.73	N 151-25.5	W UNION KASILOF U-1 OIL WELL (UNION KASILOF NO.1)	0045076	94.4
60-46.42	N 152-05.00	W PAN AM BACHATNA CREEK	0045069	60.0
60-44.	N 152-00.	W SHELL JOHNSON SLOUGH OIL WELL	0045054	75.0
60-46.42	N 152-05.14	W UNION BACHATNA CREEK U-1	0045058	35.0
60-42.85	N 152-05.93	W UNION BACHATNA CREEK U-7 OIL WELL	0045056	30.6
60-45.20	N 152-01.43	W UNION BIG RIVER OIL WELL	0045057	Q 31.7
60-33.25	N 152-07.92	W ARCO DRIFT RIVER ST. OIL WELL	0045048	82.2

ANCHORAGE 1:250,000

61-31.20	N 149-27.13	W BP WAS ILLA ST. NO. 1 OIL WELL	0045055	36.7
61-29.48	N 149-51.93	W UNION FISH CREEK U. 12-8 OIL WELL	0045061	66.1
61-30.75	N 149-56.07	W UNION KNIK ARM NO. 1 OIL WELL	0045050	40.6
61-30.68	N 149-51.00	W UNION KNIK ARM NO. 2 OIL WELL	0045051	40.0

TYONEK 1:250,000

61-38.53	N 150-05.72	W FARMS RED SHIRT LAKE NO. 1 OIL WELL	0045046	76.7
61-05.5	N 151-29.	W PAN AM STEDATNA CREEK ST. OIL WELL	0045060	47.2

GULKANA 1:250,000

62-09.	N 145-27.	W COPPER RIVER BASIN - UNNAMED WELL	0021463	
62-09.	N 145-28.	W GULKANA AIRFIELD WELL	0021490	
62-08.75	N 145-01.55	W LOWER KLA WASI - DRUM GROUP (SHRUB)	0045023	27.7
62-03.48	N 145-13.32	W LOWER KLA WASI - DRUM GROUP-WEST SPRING(MINERAL)	0045024	R 21.
62-03.48	N 145-13.32	W LOWER KLA WASI - DRUM GROUP-WEST SPRING (MINERAL)	0021459	27.
62-25.	N 145-27.	W RICHARDSON HIGHWAY - UNNAMED WELL	0021491	
62-00.18	N 145-46.80	W TOLSONA GROUP - NICKEL CREEK-UNNAMED SPRING	0021460	
62-00.18	N 145-46.80	W TOLSONA GROUP - NICKEL CREEK-UNNAMED SPRING	0021485	
62-06.50	N 145-57.10	W TOLSONA GROUP - TOLSONA NO.1-SOUTHWEST SPRING	0021461	R 10.
62-07.20	N 145-56.60	W TOLSONA GROUP - TOLSONA NO.2-NORTHWEST SPRING	0021462	R 15.
62-05.15	N 145-54.50	W TOLSONA GROUP - UNNAMED SPRING	0021487	
62-07.	N 145-43.	W TOLSONA GROUP - UNNAMED WELL	0021488	
62-04.86	N 145-00.42	W UPPER KLA WASI - DRUM GROUP-SOUTHEAST SPRING	0021458	32.
62-04.82	N 145-00.00	W UPPER KLA WASI - MUD VOLCANO	0045026	18.0
62-04.82	N 145-00.00	W UPPER KLA WASI - MUD VOLCANO	0045025	30.3
62-08.	N 146-06.	W TOLSONA GROUP - MOOSE LAKE-UNNAMED SPRING	0021486	

RUBY 1:250,000

64-55.33	N 154-50.23	W HORNER HOT SPRINGS	0045000	47.0
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SOLOMON 1:250,000

64-48.	N 162-55.	W BATTLESHIP MTN - UNNAMED SPRING	0021469	17.
64-48.	N 162-55.	W BATTLESHIP MTN - UNNAMED SPRING	0021470	17.
64-51.00	N 162-18.00	W CLEAR CREEK AREA	0021472	67.
64-51.00	N 162-18.00	W CLEAR CREEK AREA	0000219	67.
64-42.	N 162-28.	W KWINIUK - UNNAMED SPRING	0021471	Q 45.

CIRCLE 1:250,000

65-28.98	N 144-38.17	W CIRCLE HOT SPRINGS	0000237	57.
65-28.98	N 144-38.22	W CIRCLE HOT SPRINGS - NORTHERNMOST SPRING	0021445	
65-03.25	N 146-03.33	W CHENA HOT SPRINGS	0000235	57.0
65-03.18	N 146-03.42	W CHENA HOT SPRINGS - BATHOUSE SPRING	0021503	65.
65-03.18	N 146-03.42	W CHENA HOT SPRINGS - SPRING A	0021504	51.1

LIVENGOD 1:250,000

65-16.43	N 148-50.83	W TOLOVANA HOT SPRING	0000233	56.
65-12.96	N 149-59.58	W HUTLINANA HOT SPRING	0021480	43.
65-12.96	N 149-59.58	W HUTLINANA HOT SPRING	0021479	45.6

TANANA 1:250,000

65-59.	N 150-35.	W LOWER RAY RIVER HOT SPRINGS	0021484	66.
65-00.36	N 150-37.98	W MANLEY HOT SPRINGS (BAKER HOT SPRINGS)	0021478	59.
65-00.36	N 150-37.98	W MANLEY HOT SPRINGS (BAKER HOT SPRINGS)	0021477	52.
65-00.35	N 150-37.97	W MANLEY HOT SPRINGS (BAKER HOT SPRINGS)	0000231	56.0
65-57.78	N 150-55.14	W RAY RIVER HOT SPRING	0021483	45.
65-48.60	N 151-14.22	W KILO HOT SPRINGS	0021482	66.

MELOZITNA 1:250,000

65-27.6	N 153-18.6	W LITTLE MELOZITNA HOT SPRINGS	0000227	
65-07.8	N 154-41.5	W MELOZI HOT SPRINGS (MELOZITNA HOT SPRING)	0000225	56.
65-58.22	N 154-01.00	W POCAHONTAS HOT SPRING	0045155	
65-16.02	N 155-16.80	W DULBI HOT SPRINGS	0021476	Q 55.

CANDLES 1:250,000

65-22.02	N 161-15.00	W GRANITE MOUNTAIN (SWEEPSTAKES)	0021473	49.
65-22.2	N 161-15.4	W GRANITE MOUNTAIN - SWEEPSTAKES HOT SPRINGS	0000221	49.0

BENDELEBEN 1:250,000

65-13.	N 162-54.	W LAVA CREEK AREA	0000217	E 50.
65-13.	N 162-54.	W LAVA CREEK AREA	0021468	G 50.
65-05.58	N 164-55.32	W PILGRIM HOT SPRING (KRUGAMEPA)	0021465	69.
65-05.9	N 164-55.3	W PILGRIM HOT SPRING (KRUGAMEPA)	0000213	55.
65-51.4	N 164-41.3	W SERPENTINE SPRINGS (ARCTIC)	0000215	60.
65-51.48	N 164-42.60	W SERPENTINE SPRINGS (ARTIC)	0021467	71.
65-51.48	N 164-42.60	W SERPENTINE SPRINGS (ARTIC)	0021466	60.

BETTLES 1:250,000

66-20.52 N 150-51.00 W KANUTI - UNNAMED SPRING	0000229	66.0
66-27.00 N 150-00.00 W LITTLE MINOOK CREEK - HOT SPRING	0021481	?

SHUNGNAK 1:250,000

66-22.02 N 156-46.02 W DIVISION BM HOT SPRINGS	0021475	Q 55.
66-13.98 N 157-34.98 W HAWK RIVER	0021474	Q 50.
66-09.00 N 157-07.02 W SOUTH - UNNAMED SPRING	0000223	

PHILIP SMITH MTS 1:250,000

68-58.66 N 147-51.50 W FLOOD CREEK SPRING	0045039	7.2
68-58.66 N 147-51.50 W FLOOD CREEK SPRING	0045038	8.5
68-56.33 N 147-58.75 W SAVIUKVIAYAK TRIBUTARY SPRING	0045034	6.5
68-56.33 N 147-58.75 W SAVIUKVIAYAK TRIBUTARY SPRING	0045033	3.5
68-51.75 N 148-12.33 W LUPINE SPRING	0045019	2.5
68-54.17 N 148-05.17 W SAVIUKVIAYAK R. WEST SPRING	0045020	5.

DEMARCATON POINT 1:250,000

69-42.36 N 141-49.38 W KONGAKUT RIVER - UNNAMED SPRING	0021506	0.5
69-35.35 N 142-18.00 W EKALUAKAT R. SPRING	0045152	6.4

MT MICHELSON 1:250,000

69-19.80 N 144-02.64 W OKPILAK HOT SPRING	0045037	Q 48.5
69-39.38 N 144-23.62 W SADLERECHIT SPRING	0045151	4.0
69-39.38 N 144-23.62 W SADLERECHIT SPRING	0045149	13.0
69-39.38 N 144-23.62 W SADLERECHIT SPRING	0045150	13.0
69-37.62 N 146-01.62 W RED HILL SPRING	0045022	29.
69-37.62 N 146-01.62 W RED HILL SPRING	0045021	32.8
69-28.33 N 146-11.30 W SHUBLIK SPRING	0045148	5.5
69-28.33 N 146-11.83 W SHUBLIK SPRING	0045147	5.5
69-15.58 N 147-22.83 W ECHOOKA R. WEST SPRING	0045045	7.0
69-01.83 N 147-43.00 W IVISHAK HILLSIDE SPRING	0045043	7.5
69-01.83 N 147-43.00 W IVISHAK HILLSIDE SPRING	0045044	N

APPENDIX D

Sources for the records in the GEOTHERM sample file for Alaska. Each reference is preceded by the abbreviated reference (called CODE) used in the sample file (Table 1). Entries in this computer-generated appendix are sorted by CODE. Those CODES which begin and end with "*" are for references which were unpublished data and have entries in this appendix. Unpublished CODES will precede those for published sources.

CODE = *MILLER AND SMITH, 1977*

MILLER, T. P., AND SMITH, R. L., 1977, GEOLOGICAL TECHNIQUES APPLIED TO THE EVALUATION OF THE GEOTHERMAL POTENTIAL OF ADAK ISLAND, ALASKA, U.S. GEOLOGICAL SURVEY.

CODE = ANDERSON, 1970

ANDERSON, G. S., 1970, HYDROLOGIC RECONNAISSANCE OF THE TANANA BASIN, CENTRAL ALASKA: U. S. GEOLOGICAL SURVEY HYDROLOGIC INVESTIGATIONS ATLAS HA-319, 4 SHEETS.

CODE = BARNES AND MCCOY, 1979

BARNES, I. AND MCCOY, G. A., 1979, POSSIBLE ROLE OF MANTLE-DERIVED CO₂ IN CAUSING TWO "PHREATIC" EXPLOSIONS IN ALASKA: GEOLOGY, VOL. 7, P. 434-435.

CODE = BLASKO, 1976

BLASKO, D. P., 1976, OIL AND GAS EXPLORATION ON THE INISKIN PENINSULA, ALASKA: U. S. GEOLOGICAL SURVEY OPEN-FILE REPORT 76-69, 19 P.

CODE = BYERS AND BARTH, 1953

BYERS, F. M., JR., AND BARTH, T. F. W., 1953, VOLCANIC ACTIVITY ON AKUN AND AKUTAN ISLANDS: PACIFIC SCIENCE CONGRESS, SEVENTH, AUCKLAND AND CHRISTCHURCH, NEW ZEALAND, PROCEEDINGS VOLUME 2, GEOLOGY, P. 382-397.

CODE = BYERS AND BRANNOCK, 1949

BYERS, F. M., JR., AND BRANNOCK, W. W., 1949, VOLCANIC ACTIVITY ON UMNAK AND GREAT SITKIN ISLANDS, 1946-1948: AMERICAN GEOPHYSICAL UNION TRANSACTIONS, VOLUME 30, NO. 5, P. 719-734.

CODE = CHILDERS AND OTHERS, 1977

CHILDERS, J. M., SLOAN, C. E., MECKEL, J. P., AND NAUMAN, J. W., 1977, HYDROLOGIC RECONNAISSANCE OF THE EASTERN NORTH SLOPE, ALASKA, 1975: U. S. GEOLOGICAL SURVEY OPEN-FILE REPORT 77-492, 65 P.

CODE = GRANTZ AND OTHERS, 1962

GRANTZ, ARTHUR, WHITE, D. E., WHITEHEAD, H. C., AND TAGG, A. R., 1962, SALINE SPRINGS, COPPER RIVER LOWLAND, ALASKA: AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS BULLETIN, VOL. 46, NO. 11, P. 1990-2002.

CODE = MILLER AND OTHERS, 1973

MILLER, T. P., BARNES, IVAN, AND PATTON, W. W., JR., 1973, GEOLOGIC SETTING AND CHEMICAL CHARACTERISTICS OF HOT SPRINGS IN WEST-CENTRAL ALASKA: JOURNAL OF RESEARCH, U. S. GEOLOGICAL SURVEY, VOLUME 3, NO. 2, P. 149-162; ALSO, 1973 U. S. GEOLOGICAL SURVEY OPEN-FILE REPORT NO. 575, 18 P.

CODE = MILLER, 1973

MILLER, T. P., 1973, DISTRIBUTION AND CHEMICAL ANALYSES OF THERMAL SPRINGS IN ALASKA: U. S. GEOLOGICAL SURVEY OPEN-FILE MAP 570 (1973).

CODE = MOTYKA AND OTHERS, 1980

MOTYKA, R. J., MOORMAN, M. A., AND REEDER, J. W., 1980, ASSESSMENT OF THERMAL SPRINGS SITES IN SOUTHERN SOUTHEASTERN ALASKA--PRELIMINARY RESULTS AND EVALUATION: ALASKA DIV. OF GEOLOGICAL AND GEOPHYSICAL SURVEYS OPEN-FILE REPT. 127, 72 P.

CODE = MOTYKA AND MOORMAN, 1981

MOTYKA, R. J., AND MOORMAN, M. A., 1981, RECONNAISSANCE OF THERMAL SPRING SITES IN THE ALEUTIAN ARC, ATKA ISLAND TO BECHEROF LAKE: SUBMITTED TO GEOTHERMAL RESOURCES COUNCIL TRANSACTIONS, VOL. 5, P. 111-114.

CODE = NICHOLS AND YEHLE, 1961

NICHOLS, D. R. AND YEHLE, L. A., 1961, MUD VOLCANOES IN THE COPPER RIVER BASIN, ALASKA: GEOLOGY OF THE ARCTIC, INTERNATIONAL SYMPOSIUM ON ARCTIC GEOLOGY, FIRST, CALGARY, ALBERTA, PROCEEDINGS VOLUME 2, P. 1063-1087.

CODE = U. S. GEOLOGICAL SURVEY, 1977

U. S. GEOLOGICAL SURVEY, 1977, U. S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION, 1977, WATER RESOURCES DATA FOR ALASKA WATER YEAR 1976: U. S. GEOLOGICAL SURVEY WATER DATA REPORT AK-76-1.

CODE = WARING, 1917

WARING, G. A., 1917, MINERAL SPRINGS OF ALASKA: U. S. GEOLOGICAL SURVEY WATER SUPPLY PAPER 418, 114 P.

CODE = WARING, 1965

WARING, G. A., 1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD - A SUMMARY: U. S. GEOLOGICAL SURVEY PROFESSIONAL PAPER 492, 383 P.