USGS-OFR--83-429

DR 0002-7

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

COLORADO: 77

- ✓ Basic data for thermal springs and wells
as recorded in GEOTHERM

USGS-OFR--83-429

DE84 900960

By

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Open-File Report 83-429

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has not been reviewed for conformity
with U.S. Geological Survey
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Menlo Park, California

May 1983

MASTER

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INTRODUCTION

GEO THERM, 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). GEO THERM 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 GEO THERM and a general scheme of how the information system operated can be found in Bliss and Rapport 1983.

This report on Colorado is one of a series intended to preserve the data collected for GEO THERM 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.

GEO THERM INDEXES

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

Appendix A (p. 155-159) is sorted by the county name and the name of the source. Also given are latitude, longitude (both use decimal minutes), township, range, section, GEO THERM 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. 160-164) is sorted by county, 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. 165-170) 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 225 records for Colorado (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 Colorado published as of December, 1981. However, no claim is made for completeness, and published sources have probably been missed. For example, Presser and others, 1981, contains data which is missed here. None 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 lowtemperature 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.

GEOTHERM BIBLIOGRAPHY

A bibliography is given in Appendix D (p. 171). 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 Colorado were prepared by the staff of Colorado Geological Survey 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, 1983, GEOTHERM: the U.S. Geological Survey geothermal information system: Computers & Geosciences, v. 9, no. 1, p. 35-39.
- 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 low-temperature geothermal resources of the United States--1978: U.S. Geological Survey Circular 790, 163 p.
- Presser, T. S., Evans, W. C., White, L. D., and Barnes, Ivan, 1981, Chemical and isotopic compositions of selected soda and hot spring water and gases, Colorado: U.S. Geological Survey Open-File Report 81-684, 9 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 Colorado: 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 county and then by the name of the spring or well. 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 B. 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

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073174

NAME OF SAMPLE SOURCE... SAND DUNES SWIMMING POOL: HOT WATER WELL

LOCATION... TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 41N 01E 27 NE OF NE

LAT/LONG... 37-46.42 N 105-51.20 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... ALAMOSA

NORTHING... 4180841.

GEOLOGIC PROVINCE..

424847.

MAP REFERENCE..... DEADMAN CAMP 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/00

TEMPERATURE (C)..... 44.0

WATER ANALYSIS

PH..... 8.3

SPECIFIC CONDUCTANCE..... 385.

ALKALINITY..... 176.

AS HCO3

TOTAL DISSOLVED SOLIDS..... 334.

CHARGE IMBALANCE (3 DIFF).... 3.4

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG..... CO3..... LI... 0.010

AL..... 0.002 CR..... MG... 0.4

AS..... 0.144 CS..... MN... N

AU..... CU..... 0.001

H..... 0.510 F..... 5.9 NA... 81. SI02. 120.

HA..... 0.017 FE(TOT). 0.010 NB... S04.. 23.

HE..... GA..... NH4.. SR... 0.03

HI..... HCO3... 176. NO3.. N

CA..... 3.2 H2S..... PO4.. 0.003

CA-MG.. MG..... N PO4.. 0.18

CD..... CL..... 4.1

CO..... K..... 8.6 ZN... 0.010

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00002

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073184

NAME OF SAMPLE SOURCE... UNNAMED WARM SPRING

LOCATION... TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 38N 01E 34 SE OF SE

LAT/LONG... 37-29.32 N 105-51.45 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... ALAMOSA

NORTHING... 4149225.

GEOLOGIC PROVINCE..

424191.

MAP REFERENCE..... ALAMOSA EAST 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/00

TEMPERATURE (C)..... 40.0

WATER ANALYSIS

PH..... 8.3

SPECIFIC CONDUCTANCE..... 365.

ALKALINITY..... 151.

AS HCO3

TOTAL DISSOLVED SOLIDS... 311.

CHARGE IMBALANCE (% DIFF)... 4.1

ANALYSIS IN MG/L

ISOTOPE (U200)

AG....		CO3....		LI...	0.010		
AL....	0.03	CH....		MG...	0.4		
AS....	0.065	CS....		MN...	N		
AU....		CU....	0.002				
B....	0.340	F....	4.2	NA...	72.	SI02.	110.
BA....	0.035						
BE....		FE(TOT)...	0.020	NB...		SO4..	29.
BI....		GA....		NH4...		SR...	0.042
CA....	4.1	HCO3....	151.	NO3..	N		
CA+MG.		HG....	N	PB...	0.002		
CD....		H2S....		PO4..	0.15		
CL....	6.4						
CO....		N....	9.9				
				ZN...	N		

REFERENCE AND IDENTIFICATION

COMPILED BY..... HURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00003

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073231

NAME OF SAMPLE SOURCE... HUTCH CROWLEY ARTESIAN WELL

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE NW OF NW SW
 STATE..... COLORADO 32N 00E 19
 COUNTY..... ARCHULETA
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... CHROMO 1162500

COORDINATES

LAT/LONG... 37-00.02 N 106-47.05 W
 UTM ZONE... 13
 NORTHING... 4096194.
 341242.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 70.0
 DISCHARGE..... E 284. L/MIN
 OTHER SAMPLE INFORMATION.. OLD OIL TEST WELL.

WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 960.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00004

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073232

NAME OF SAMPLE SOURCE... FOFF ARTESIAN WELL

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE SW OF SE SW
 STATE..... COLORADO 34N 001W 07
 COUNTY..... ARCHULETA
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... CHROMO 1162500

COORDINATES

LAT/LONG... 37-11.43 N 106-59.00 W
 UTM ZONE... 13
 NORTHING... 4117603.
 323070.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 39.0
 DISCHARGE..... 149. L/MIN

~~WATER ANALYSIS~~

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 2500.

~~REFERENCE AND IDENTIFICATION~~

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00005

~~GEO THERM SAMPLE FILE~~

GEO THERM FILE ID: 0000423

NAME OF SAMPLE SOURCE... PAGOSA AREA - ARLINGTON HOTEL WELL
 LOCATION..... TOWNSHIP-RANGE

COORDINATES

LAT/LONG... 37-15.50 N 107-00.50 W
 UTM ZONE... +13
 NORTHING... 4125217.
 321899.

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... ARCHULETA
 GEOLOGIC PROVINCE..

~~SAMPLE DESCRIPTION AND CONDITIONS~~

TEMPERATURE (C)..... 60.0
 DISCHARGE..... 379. L/MIN

~~WATER ANALYSIS~~

DATE/ANALYST..... 1912/00/00
 CHARGE IMBALANCE (% DIFF)... 5.6

~~ANALYSIS~~

B.....	F.....	NA...	607.	SI02.	160.
BE.....	FE(TOT)...	NB...		SO4..	1494.
CA..... 230.	MC03..... 631.				
CL..... 201.					
CO.....	K..... 260.				

ISOTOPES (0/00)~~REFERENCE AND IDENTIFICATION~~

COMPILED BY..... GALTARDT, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GEORGE AND OTHERS, 1920

RECORD 00006

~~GEO THERM SAMPLE FILE~~

GEO THERM FILE ID: 0073124

NAME OF SAMPLE SOURCE... PAGOSA SPRINGS: BIG SPRING
 LOCATION..... TOWNSHIP-RANGE

COORDINATES

LAT/LONG... 37-15.87 N 107-00.62 W
 UTM ZONE... +13
 NORTHING... 4125905.
 321736.

COUNTRY..... UNITED STATES 35N 002W 13 SE OF SW
 STATE..... COLORADO
 COUNTY..... ARCHULETA
 GEOLOGIC PROVINCE.. 14

MAP REFERENCE..... PAGOSA SPRINGS 1:24000

~~SAMPLE DESCRIPTION AND CONDITIONS~~

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 55.0
 DISCHARGE..... 912. L/MIN

~~WATER ANALYSIS~~

PH..... 6.6
 SPECIFIC CONDUCTANCE..... 4200.
 ALKALINITY..... 862. AS MC03
 TOTAL DISSOLVED SOLIDS... 3040.
 CHARGE IMBALANCE (% DIFF)... 3.3

~~ANALYSIS IN MG/L~~

AL..... * * CR..... MG... 2.6

ISOTOPES (0/00)

AS....	CS.....	MN....	0.22			
H....	F.....	NA....	800.	SI02.	58.	
HA....						
HE....	FE(TOT)...	NH....		S04..	1500.	
HI....	03.....	NH4..		SR...	4.0	
CA....	HCO3.....	NO3..	0.01			
CO....	H2S.....	PO4..	0.09			
CL....						
CO....	K.....					

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00007

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073125

NAME OF SAMPLE SOURCE... PAGOSA SPRINGS: BIG SPRING
 LOCATION

TOWNSHIP=RANGE

COUNTRY..... UNITED STATES 35N 002W 13 SE OF SW
 STATE..... COLORADO
 COUNTY..... ARCHULETA
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 37-15.87 N 107-00.62 W
 UTM ZONE... 13
 NORTHING... 4125905.
 321736.

MAP REFERENCE..... PAGOSA SPRINGS 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 54.0
 DISCHARGE..... 984. L/MIN

WATER ANALYSIS

PI..... 6.5
 SPECIFIC CONDUCTANCE..... 4340.
 ALKALINITY..... 856. AS HCO3
 TOTAL DISSOLVED SOLIDS... 3040.
 CHARGE IMBALANCE (% DIFF)... 2.0

ANALYSIS IN MG/L

ISOTOPE (D/R)

AL....	CH.....	MG....	24.		
AS....	CS.....	MN....	0.2		
H....	F.....	NA....	730.	SI02.	59.
HE....	FE(TOT)...	NH....		S04..	1500.
CA....	HCO3.....	NO3..	0.01		
CO....	H2S.....	PO4..	0.21		
CL....					
CO....	K.....				

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00008

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073123

NAME OF SAMPLE SOURCE... PAGOSA SPRINGS: BIG SPRING
 LOCATION

TOWNSHIP=RANGE

COUNTRY..... UNITED STATES 35N 002W 13 SE OF SW
 STATE..... COLORADO
 COUNTY..... ARCHULETA

COORDINATES

LAT/LONG... 37-15.87 N 107-00.62 W
 UTM ZONE... 13
 NORTHING... 4125905.

321736.

GEOLOGIC PROVINCE...
 MAP REFERENCE..... PAGOSA SPRINGS 1124000

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 57.0
 DISCHARGE..... 855 L/MIN

WATER ANALYSIS

PH..... 6.9
 SPECIFIC CONDUCTANCE..... 4000.
 ALKALINITY..... 859. AS HCO3
 CHARGE IMBALANCE (% DIFF).... 2.8

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....		CO3....		LI....	3.2		
AL....		CR....		MG....	23.		
AS....	0.13	CS....		MN....	0.22		
H....	1.7	F....		NA....	790.		
HE....		FE(TOT)...	0.02	NB....		504..	1500.
CA....	210.	HCO3....	859.				
CA+MG.		MG....	N				
CL....	180.						
CO....		K....	87.				
				ZN....	0.2		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00009

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073122

NAME OF SAMPLE SOURCE... PAGOSA SPRINGS: BIG SPRING

LOCATION

COUNTRY..... UNITED STATES JSN 002W 13 SE OF SW

STATE..... COLORADO

COUNTY..... ARCHULETA

GEOLOGIC PROVINCE...

MAP REFERENCE..... PAGOSA SPRINGS 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/00

TEMPERATURE (C)..... 58.0

DISCHARGE..... 1003 L/MIN

WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 5810.
 ALKALINITY..... 855. AS HCO3
 TOTAL DISSOLVED SOLIDS.... 3200.
 CHARGE IMBALANCE (% DIFF).... 4.5

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....		CO3....		LI....	2.9		
AL....	0.13	CR....		MG....	25.		
AS....	0.12	CS....		MN....	0.23		
AI....		CU....	0.007	NA....	790.	5102.	54.
H....	1.8	F....	4.1				
HA....	0.00						
HE....		FE(TOT)...	0.00	NB....		504..	1400.
HI....		GA....		NH....		54....	4.0
CA....	230.	HCO3....	855.	NO3....	0.02		

CA+MG. HG..... 0.0001 PB... 0.02
 CU.... H2S..... P04.. 0.21
 CL.... 180. K..... 90. ZN... 0.01
 CO....

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRITT AND PEARL, 1976

RECORD 00010

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073126

NAME OF SAMPLE SOURCE... PAGOSA SPRINGS: COURTHOUSE HOT WATER WELL

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 35N 002W 13 SE OF SW
 STATE..... COLORADO
 COUNTY..... ARCHULETA
 GEOLOGIC PROVINCE..

LAT/LONG... 37-15.92 N 107-00.62 W
 UTM ZONE... 13
 NORTHING... 4125998.
 321738.

MAP REFERENCE..... PAGOSA SPRINGS 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/00
 TEMPERATURE (C)..... 56.0
 DISCHARGE..... 114. L/MIN

WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 6300.
 ALKALINITY..... 858. AS HCO3
 TOTAL DISSOLVED SOLIDS... 3300.
 CHARGE IMBALANCE (% DIFF)... 1.6

ANALYSIS IN MG/L

AG.... CO3..... LI... 2.8
 AL.... CR..... MG... 25.
 AS.... 0.093 CS..... MN... 0.270
 H.... 1.8 F..... 4.5 NA... 780. S102. 52.
 HE.... FE(TOT)... 0.020 NB... S04.. 1300.
 CA.... 250. HCO3... 854. NO3.. 0.01
 CA+MG. HG..... H P04.. 0.15
 CL.... H2S..... ZN... 0.010
 CO.... K..... 89.

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... HARRITT AND PEARL, 1976

RECORD 00011

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073127

NAME OF SAMPLE SOURCE... PAGOSA SPRINGS: SPA MOTEL HOT WATER WELL

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 35N 002W 13 SE OF SW
 STATE..... COLORADO
 COUNTY..... ARCHULETA
 GEOLOGIC PROVINCE..

LAT/LONG... 37-15.85 N 107-00.58 W
 UTM ZONE... 13
 NORTHING... 4125807.
 321794.

MAP REFERENCE..... PAGOSA SPRINGS 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/00
TEMPERATURE (C)..... 53.0

WATER ANALYSIS

PH..... 6.5
SPECIFIC CONDUCTANCE..... 6000.
ALKALINITY..... 753. AS HCO3
TOTAL DISSOLVED SOLIDS... 3320.
CHARGE IMBALANCE (% DIFF)... 0.3

ANALYSIS IN MG/L

AG....	CO3.....	LI....	2.9		
AL.... 0.35	CH.....	MG....	24.		
AS.... 0.080	CS.....	MN....	0.250		
AIJ....	CU..... 0.14				
H.... 1.9	F..... 4.4	NA....	780.	SI02.	51.
HA.... 0.28					
HE....	FE(TOT). 0.210	NH....		SO4..	1600.
HI....	GA.....	NH4..		SR...	4.6
CA.... 230.	HCO3.... 753.	NO3.. N			
CA.MG.	MG..... N	PB....	0.02		
CO....	M2S.....	PO4..	0.12		
CL.... 160.					
CO....	K..... 91.	ZN....	0.010		

ISOTOPES (D/ML)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, M.
COMPILE AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00012

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... STINKING SPRINGS

GEOTHERM FILE ID: 0073188

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE
STATE..... COLORADO 32N 001E 02 SE OF SE
COUNTY..... ARCHULETA
GEOLOGIC PROVINCE.. 14

COORDINATES

LAT/LONG... 37-02.08 N 106-48.42 W
UTM ZONE... 13
NORTHING... 4100042.
339282.

MAP REFERENCE..... CHROMO 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
TEMPERATURE (C)..... 27.0
DISCHARGE..... 91. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 1250.
ALKALINITY..... 258. AS HCO3
TOTAL DISSOLVED SOLIDS... 899.
CHARGE IMBALANCE (% DIFF)... 2.3

ANALYSIS IN MG/L

AG....	CO3.....	LI....	0.09		
AL.... 0.044	CH.....	MG....	27.		
AS.... N	CS.....	MN....	0.12		
AIJ....	CU..... 0.001				
H.... 0.06	F..... 0.6	NA....	20.	SI02.	24.
HA.... 0.037					
HE....	FE(TOT). 0.14	NH....		SO4..	470.
HI....	GA.....	NH4..		SR...	1.7
CA.... 210.	HCO3.... 258.	NO3.. N			

ISOTOPES (D/ML)

CA.MG. H..... N PB... 0.005
 CD.... H2S..... P04.. N
 CL.... 1.3 K..... 12. ZN... 0.01
 CO....

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARNETT AND PEARL, 1976

RECORD 00013

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073035

NAME OF SAMPLE SOURCE... ELDOORADO SPRING: SPRING B

LOCATION LOUISIANA-RANGE

COUNTRY..... UNITED STATES 015 071W 25 NE OF SE

STATE..... COLORADO

COUNTY..... BOULDER

GEOLOGIC PROVINCE.. 14

MAP REFERENCE..... ELDOORADO SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED WITHIN THE STONE BUILDING APPROX. 175 FEET NORTH OF CREEK AND 200 FT NORTHWEST OF BRIDGE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/02/00

TEMPERATURE (C)..... 26.0

WATER ANALYSIS

PH..... 6.6

SPECIFIC CONDUCTANCE..... 130.

ALKALINITY..... 38.

TOTAL DISSOLVED SOLIDS... 91.

CHARGE IMBALANCE (% DIFF)... 5.6

ANALYSIS IN MG/L

AL.... CR.....

AS.... CS.....

B.... 0.01 F..... 0.4

BA.... 0.1 FE(TOT). N

BE.... BA.....

BI.... HCO3.... 46.

CA.... 11. H2S.....

CD.... 1.5 K..... 3.3

CO....

AS CAC03

ISOTOPES (0/00)

MG... 3.3

MN... N

NA... 7.3

NB... S102. 15.

NH4... S04.. 23.

NO3... SR... 0.3

P04... 0.78

0.18

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARNETT AND PEARL, 1976

RECORD 00014

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073035

NAME OF SAMPLE SOURCE... ELDOORADO SPRING: SPRING A

LOCATION LOUISIANA-RANGE

COUNTRY..... UNITED STATES 015 071W 25 NE OF SE

STATE..... COLORADO

COUNTY..... BOULDER

GEOLOGIC PROVINCE..

MAP REFERENCE..... ELDOORADO SPRINGS 1124000

COORDINATES

LAT/LONG... 39-55.87 N 105-16.77 W

UTM ZONE... 13

NORTHING... 4419945.

476117.

OTHER LOCALITY INFORMATION: ACTUALLY A WELL LOCATED ON THE SOUTH SIDE OF THE CREEK, APPROX. 100 FT EAST OF THE BRIDGE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 24.0

WATER ANALYSIS

PH..... 6.9

SPECIFIC CONDUCTANCE..... 152.

ALKALINITY..... 63.

TOTAL DISSOLVED SOLIDS..... 101.

CHARGE IMBALANCE (% DIFF).... 3.2

ANALYSIS IN MG/L

AG.....		CO3.....		LI....	0.01		
AL.....	0.005	CH.....		MG....	4.8		
AS.....	0.014	CS.....		MN....	N		
AU.....		CU.....	0.002				
B.....	0.02	F.....	0.2	NA....	6.9	SiO2.	16.
BA.....	0.2						
BE.....		FE(TOT)...	0.01	NB....		SO4..	20.
BI.....		GA.....		NH4..		SR....	0.3
CA.....	15.	HCO3.....	63.	NO3..	0.54		
CA-MG.		MG.....	N	PB....	0.001		
CI.....		H2S.....		PO4..	0.09		
CL.....	1.						
CU.....		K.....	3.2				
				ZN....	0.03		

AS HCO3

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00015

GEOOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... FLORENCE SPRINGS: SPRING B

LOCATION

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... BOULDER

GEOLOGIC PROVINCE..

MAP REFERENCE..... FLORENCE 1:24000

OTHER LOCALITY INFORMATION: LOCATED WITHIN THE STONE BUILDING APPROX. 175 FEET NORTH OF CREEK AND 200 FT NORTHWEST OF BRIDGE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 24.0

WATER ANALYSIS

PH..... 6.6

SPECIFIC CONDUCTANCE..... 135.

ALKALINITY..... 43.

TOTAL DISSOLVED SOLIDS..... 84.

CHARGE IMBALANCE (% DIFF).... 2.2

ANALYSIS IN MG/L

AL.....		CR.....		MG....	3.0		
B.....	0.03	F.....	0.3	NA....	0.7	SiO2.	15.
BE.....		FE(TOT)...	N	NH....		SO4..	19.
CA.....	11.	HCO3.....	43.	NO3..	0.76		

AS HCO3

ISOTOPES (0/00)

GEOOTHERM FILE 101 0073036

COORDINATES

LAT/LONG... 39-55.88 N 105-16.78 W

UTM ZONE... 13

NORTHING... 4419963.

476103.

CO.... H2S..... PO4... 0.18

CL.... 0.8

CO.... K..... 3.0

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00016

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073034

NAME OF SAMPLE SOURCE... ELDORADO SPRINGS: SPRING H

LOCATION... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 01S 071W 25 NE OF SE

STATE..... COLORADO

COUNTY..... BOULDER

GEOLOGIC PROVINCE..

MAP REFERENCE..... ELDORADO SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED WITHIN THE STONE BUILDING APPROX. 175 FEET NORTH OF CREEK AND 200 FT NORTHWEST OF BRIDGE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 25.0

WATER ANALYSIS

PH..... 6.7

SPECIFIC CONDUCTANCE..... 122.

ALKALINITY..... 43.

AS HCO3

TOTAL DISSOLVED SOLIDS... 84.

CHARGE IMBALANCE (± DIFF).... 66.0

ANALYSIS IN MG/L

ISOTOPIES 10/001

AG.... CO3.... LI... 0.01

AL.... 0.02 CR.... MG... 2.9

AS.... 0.008 CS.... MN... N

AU.... CU.... 0.002

H.... 0.02 F.... 0.2 NA... 6.3 SiO2. 15.

HA.... 0.1

HE.... FE(10T)... 0.02 NB... SO4.. 75.

HI.... UA.... NH4.. SR... 0.3

CA.... 12. HCO3... 43. NO3.. 0.63

CA+MG. MG.... N PB... 0.004

CI.... H2S.... PO4.. 0.21

CL.... 0.8 ZN... 0.02

CO.... K..... 3.1

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00017

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073063

NAME OF SAMPLE SOURCE... MAYSTACK BUTTE WARM WATER WELL

LOCATION... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 02N 070W 33 NE OF NW

STATE..... COLORADO

COUNTY..... BOULDER

COORDINATES

LAT/LONG... 40-05.80 N 105-14.21 W

UTM ZONE... 13

NORTHING... 4434303.

479/21.

GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... NIWOT 1124000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/09/J0
 TEMPERATURE (C)..... 24.0
 DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 8.0
 SPECIFIC CONDUCTANCE..... 1840.
 ALKALINITY..... 1250. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1200.
 CHANGE IN BALANCE (A DIFF)... 3.2

ANALYSIS IN MG/L

AG....	COJ....	LI...	0.24
AL.... 0.1	CR....	MG...	0.7
AS.... N	CS....	MN... N	
AU....	CU.... 0.002		
H.... 0.74	F.... 4.4	NA...	510. S102. 29.
HA.... 0.06			
HE....	FE(TOT)... 0.05	NB...	S04.. 7.9
HI....	GA....	NH4...	SR... 0.2
CA.... 2.5	HCO3... 1250.	NO3...	0.03
CA+MG...	HG.... N	PB...	0.01
CD....	H2S....	PO4...	0.09
CL.... 30.			
CO....	K.... 1.3		
		ZN... N	

ISOLOPES 10/001

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00018

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073228

NAME OF SAMPLE SOURCE... BROWN'S CANON WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... COLORADO S1N 008E 23 NE OF SW SW
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE.. 14

COORDINATES

LAT/LONG... 38-38.23 N 106-04.28 W
 UTM ZONE... 13
 NORTHING... 4276851.
 406756.

MAP REFERENCE..... PONCHA SPRINGS 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 25.0

DISCHARGE..... E 3.8 L/MIN
 WATER ANALYSIS

PH..... 8.0
 SPECIFIC CONDUCTANCE..... 775.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00019

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073229

NAME OF SAMPLE SOURCE... BROWN'S GROTTO WARM SPRING

LOCATION		TOWNSHIP-RANGE	
COUNTRY.....	UNITED STATES	51N 00E	34 NW OF NE NW
STATE.....	COLORADO		
COUNTY.....	CHAFFEE		
GEOLOGIC PROVINCE..	14		
MAP REFERENCE.....	PONCHA SPRINGS 1162500		
<u>SAMPLE DESCRIPTION AND CONDITIONS</u>			
TEMPERATURE (C).....	23.0		
DISCHARGE.....	E 19.	L/MIN	
<u>WATER ANALYSIS</u>			
PH.....	7.0		
SPECIFIC CONDUCTANCE.....	720.		
<u>REFERENCE AND IDENTIFICATION</u>			
COMPILED BY.....	MANGNALL, P.		
COMPILER AFFILIATION..	COLORADO GEOLOGICAL SURVEY		
REFERENCE.....	BARRETT AND PEARL, 1976		

COORDINATES
LAT/LONG... 38-37.83 N 106-04.17 W
UTM ZONE... 413
NORTHING... 4276109.
408901.

RECORD 00020

NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRING

GEUTHERM FILE ID: 0073018

LOCATION	TOWNSHIP-RANGE	
COUNTRY.....	UNITED STATES	14S 079W 21 SW OF SE
STATE.....	COLORADO	
COUNTY.....	CHAFFEE	
GEOLOGIC PROVINCE.....	14	
MAP REFERENCE.....	MUENA VISTA 1:62500	

COORDINATES
LAT/LONG... 38-48.80 N 106-13.35 W
UTM ZONE... 413
NORTHING... 4296565.
393860.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR.....	1975/06/00
TEMPERATURE (C).....	54.0
DISCHARGE.....	70. L/MIN

ANALYSIS		
SPECIFIC CONDUCTANCE.....	510.	
ALKALINITY.....	73.	AS HCU3
TOTAL DISSOLVED SOLIDS...	370.	
CHARGE IMBALANCE (% DIFF)...	3.2	
ANALYSIS IN MU/L		

ISOLOPES (U/00)

AG....		CO3.....		LI....	0.160				
AL....	0.07	CR.....		MG....	J.5				
AS....	0.002	CS.....		MN....	N				
AU....		CU.....	0.007						
H....	0.090	F.....	14.	NA....	110.	SI02..	6v.		
HA....	0.052								
HE....		FE(TOT) ..	0.020	NB....		S04..	110.		
HI....		GA.....		NM4..		SR....	0.2		
CA....	6.2	MC03.....	73.	NOJ...	0.08				
CA-MG..		MG.....	N	PB....	0.003				
CJ)....		MZ5.....		PU4..	0.12				
CL....	30.								
CO....		K.....	2.8			ZN....	0.010		

REFERENCE AND IDENTIFICATION

COMPILED BY.....	HARRIS, H.
COMPILED AFFILIATION...	U.S. GEOLOGICAL SURVEY
REFERENCE.....	HARRIS AND PEARL, 1976

RECORD 00021

GEOTHERM FILE 101 0073020

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 14S 079W 21 SE OF SE

STATE..... COLORADO

COUNTY..... CHAFFEE

GEOLOGIC PROVINCE..

MAP REFERENCE..... BUENA VISTA 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 52.0

DISCHARGE..... 341 L/MIN

WATER ANALYSIS

P..... 6.0

SPECIFIC CONDUCTANCE..... 510.

ALKALINITY..... 76.

TOTAL DISSOLVED SOLIDS... 364.

CHARGE IMBALANCE (% DIFF)... 6.6

ANALYSIS IN MG/L

AG.... CO3.... LI... 0.16

AL.... CH.... MG... 0.3

AS.... 0.005 CS.... MN... 0.01

B.... 0.09 F.... 13. NA... 100. SI02. 54.

BE.... FE(TOT) N NB... 504.. 110.

CA.... 5.0 HCO3... 76. NO3.. 0.12

CA+MG. HG.... N PU4.. N

CD.... H2S....

CL.... 30.

CO.... K.... 2.6 ZN... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00022

GEOTHERM FILE 101 0073019

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 14S 079W 21 SE OF SE

STATE..... COLORADO

COUNTY..... CHAFFEE

GEOLOGIC PROVINCE..

MAP REFERENCE..... BUENA VISTA 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00

TEMPERATURE (C)..... 54.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 500.

ALKALINITY..... 73.

TOTAL DISSOLVED SOLIDS... 356.

CHARGE IMBALANCE (% DIFF)... 4.2

ANALYSIS IN MG/L

COORDINATES

LAT/LONG... 38-48.67 N 106-13.33 W

UTM ZONE... 13

NORTHING... 4296324.

393885.

ISOTOPES 10/001

AG.....		CO3.....		LI...	0.15		
AL.....		CR.....		MG...	0.0		
AS.....	0.004	CS.....		MN...	0.01		
H.....	0.04	F.....	14.	NA...	100.	SI02.	58.
HE.....		FE(TOT)...	0.01	NB...		SO4..	110.
CA.....	6.4	MCU3.....	73.	NO3..	0.12		
CA+MG.		MG.....	N				
CO.....		H2S.....		PO4..	N		
CL.....	28.						
CO.....		K.....	2.6				
				ZN...	0.02		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00023

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073022

NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPRING

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..

LAT/LONG... 38-48.67 N 106-13.33 W
 UTM ZONE... +13
 NORTHING... 4296324.
 393885.

MAP REFERENCE..... BUENA VISTA 1:62500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 53.0

DISCHARGE..... 189. L/MIN

WATER ANALYSIS

PH..... 8.5

SPECIFIC CONDUCTANCE..... 540.

ALKALINITY..... 56.

TOTAL DISSOLVED SOLIDS... 302.

CHARGE IMBALANCE (% DIFF)... 4.5

ANALYSIS IN MG/L

AG..... CO3..... 9.

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

AS..... CS.....

H..... F..... 1.7

HE..... FE(TOT)... 10.

CA..... MCU3..... 56.

CO..... H2S.....

CL..... 32.

CO..... K..... 2.7

AS MCU3

ISOTOPE (U/D/L)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00024

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073021

NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPRING

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..

LAT/LONG... 38-48.67 N 106-13.33 W

STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... BUENA VISTA 1:2500

UTM ZONE... 13
 NORTHING... 4296324.
 393885.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 53.0
 DISCHARGE..... 189. L/MIN

WATER ANALYSIS

PH..... 8.2
 SPECIFIC CONDUCTANCE..... 547.
 ALKALINITY..... 74.
 TOTAL DISSOLVED SOLIDS... 368.
 CHARGE IMBALANCE (% DIFF)... 1.7

AS HCO3

ANALYSIS IN MG/L

ISOTOPES (0/001)

AL.....	CR.....	MG...	0.3		
AS.....	CS.....	MN...	N		
H..... 0.110	F..... 14.	NA...	110.	5102.	58.
HE.....	FE(TOT). N	NB...		504..	110.
CA..... 5.9	HCO3.... 74.	NO3..	0.1		
CO.....	H2S.....	PO4..	0.03		
CL..... 30.					
CO.....	K..... 2.7				

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00025

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0015730

NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRINGS WELL

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE

TOWNSHIP-RANGE

14S 079W 21 SE OF SW

COORDINATES

LAT/LONG... 38-48.70 N 106-13.42 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/09/18
 TEMPERATURE (C)..... 50.
 OTHER SAMPLE INFORMATION.. ARTESIAN. WATER USED IN SPACE HEATING.

WATER ANALYSIS

PH..... 8.4

RADIATION ANALYSIS

ANALYST AND/OR AGENCY... U.S. EPA--ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY, LAS VEGAS; MONSANTO RES. CORP.,
 MOUND LABORATORY, MIAMISHURG, OHIO.

RADIATION ANALYTICAL COMMENTS... PROCEDURES: EPA HANDBOOK OF RADIOCHEMICAL ANALYTICAL METHODS, 1975; MODIFICATION OF
 METHODS IN TALVITIE, 1971; STEAM SAMPLING; STOKER AND KRUGER, 1975.

RADIOISOTOPES

K-40.....		TH-230....	L 0.014		
PH-210....		TH-232....	L 0.014		
RA-224....	0.68 +/- 0.12	U-234....	0.24 +/- 0.048		
RA-226....		U-238....	0.18 +/- 0.041		
PH-222....	250. +/- 94.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... BLISS, JAMES O.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

GEUTHERM FILE NO: 0073236

GEOGRAPHY SAMPLE FILE

NAME OF SAMPLE SOURCE... COTTONWOOD HOT SPRINGS; MERRIFIELD HOT WATER WELL

LOCATION

LOCATION
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... CHAFFEE
GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-48.67 N 106-13.35 W
UTM ZONE... 413
NORTHING... 4296324.
39J856.

MAP REFERENCE..... BUENA VISTA 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00
TEMPERATURE (C)..... 46.

WATER ANALYSIS

P.H.....	8.8
SPECIFIC CONDUCTANCE....	440.
TOTAL DISSOLVED SOLIDS....	301.
CHARGE IMBALANCE (% DIFF)...	7.7

ANALYSIS IN MU/L

AG....		CO3.....	23.	LI...	0.11				
AL....	0.04	CR.....		MG...	0.8				
AS....	0.004								
AU....		CU.....	0.003						
H.....	0.08	F.....	12.	NA...	81.	SiO2..	48.		
HA....	0.04								
HE....		FE(TOT)..	0.01	NB...		S04...	87.		
HI....		GA.....		NH4...		SR...	1.1		
CA....	9.5	MC03.....		NU3...	0.09				
CA+MG.		MG..... N		PB...	0.012				
CD....		H2S.....		PU4... N					
CL....	23.								
CO....		K.....	2.5			ZN...	0.02		

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R. M.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... RANKELL AND PEARL, 1976

RECUMD 00027

GEOTHEM-SAMPLE-FILE

NAME OF SAMPLE SOURCE... COTTONWOOD SPRINGS

LOCATION

COUNTRY.....	UNITED STATES
STATE.....	COLORADO
COUNTY.....	CHAFFEE

CARDINALS

LAT/LONG... 38-48.70 N 106-13.50 W
 TIME ZONE... +13
 NORTHING... 4296383.
 393640.

GEOLÓGIC. PROVINCE..

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 57.0

WATF7 ANALYSIS

DATE/ANALYST..... 1968/09/00

ANALYSIS

ANALYSIS					
H.....			NA...	108.	5102.
HE.....		FE(TOT).	NH...		504..
CA.....	5.6				55.
					104.

LOLOPES (12/00)

CL.... 2H.
 CO.... K..... 2.6
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... GALTARDT, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GEORGE AND OTHERS, 1920

RECORD 00028

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... MONTENSE WELL
 GEOTHERM FILE ID: 0015731

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 15S 079W 24 NW OF SE COORDINATES
 STATE..... COLORADO LAT/LONG... 38-43.95 N 106-10.10 W
 COUNTY..... CHAFFEE

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTION..... 1974/09/18
 TEMPERATURE (C)..... 84.
 OTHER SAMPLE INFORMATION.. ARTESIAN.

WATER ANALYSIS
 PH..... 8.0

RADIATION ANALYSIS
 ANALYST AND/OR AGENCY... U.S. EPA--ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY, LAS VEGAS; MONSANTO RES. CORP.,
 MOUND LABORATORY, MIAMISHUNG, OHIO.
 RADIATION ANALYTICAL COMMENTS... PROCEDURES: EPA HANDBOOK OF RADIOCHEMICAL ANALYTICAL METHODS, 1975; MODIFICATION OF
 METHODS IN TALVITIE, 1971; STEAM SAMPLING; STOKER AND KRUGER, 1975.

RADIOISOTOPES

K-40.....		TH-230....	0.027 +/-	0.023
PR-210....		TH-232....	L 0.012	
RA-226....	0.12 +/-	U-234....	0.30 +/-	0.055
RA-228....		U-238....	0.22 +/-	0.047
RN-222....	1400. +/-			73.

REFERENCE AND IDENTIFICATION

COMPILED BY..... BLISS, JAMES D.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... O'CONNELL AND KAUFMAN, 1976

RECORD 00029

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... MT PRINCETON HOT SPRINGS
 GEOTHERM FILE ID: 0000409

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE COORDINATES
 STATE..... COLORADO LAT/LONG... 38-43.90 N 106-10.20 W
 COUNTY..... CHAFFEE UTM ZONE... 13
 GEOLOGIC PROVINCE.. NORTHING... 4287442.
 398302.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 54.0

WATER ANALYSIS
 DATE/ANALYST..... 1968/09/00

ANALYSIS
 H..... F.....
 HE..... FE (TOT).
 CA..... 10.
 CL..... 0.4
 CO..... K..... 1.7

ISOTOPES (U/001)

GA...	57.	SI02.	61.
NI...		SO4..	64.

REFERENCE AND IDENTIFICATION

COMPILED BY..... GALTAMOT, KENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MALLORY AND BARNETT, 1973

RECORD 00030

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0015213

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA - MORTENSE HOT WATER WELL.
 LOCATION

COUNTRY..... UNITED STATES 155 079W 24 SE OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE

COORDINATES

LAT/LONG... 38-43.97 N 106-10.45 W
 UTM ZONE... 13
 NORTHING... 4287576.
 397941.

GEOLOGIC PROVINCE..

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 82.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 420.
 ALKALINITY..... 75.
 TOTAL DISSOLVED SOLIDS... 318.
 CHARGE IMBALANCE (% DIFF)... 0.7

AS HCO3

ANALYSIS IN MG/L

ISOTOPE 10/001

AG....	CG3....	LI...	0.120		
AL....	CH....	MG...	1.		
AS.... 0.002	CS....	MN...	0.010		
H.... 0.030	F.... 14.	NA...	84.	S102.. 72.	
HE....	FE(TOT).. 0.040	NB...		S04.. 92.	
CA.... 6.4	HCO3.... 75.				
CA+MG.	MG..... N				
CI....	H2S.....	PU4..	0.03		
CL.... 8.3					
CO....	K..... 2.8	ZN... N			

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00031

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073105

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: MORTENSE HOT WATER WELL
 LOCATION

COUNTRY..... UNITED STATES 155 079W 24 SE OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE

COORDINATES

LAT/LONG... 38-43.97 N 106-10.45 W
 UTM ZONE... 13
 NORTHING... 4287576.
 397941.

GEOLOGIC PROVINCE..

MAP REFERENCE..... PONCHA SPRINGS 1:62500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 82.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 420.
 ALKALINITY..... 75.
 TOTAL DISSOLVED SOLIDS... 318.
 CHARGE IMBALANCE (% DIFF)... 0.7

AS HCO3

ANALYSIS IN MG/L

ISOTOPIES (0/001)

AG....	COJ.....	LI....	0.12		
AL....	CR.....	MG....	1.		
AS.... 0.002	CS.....	MN....	0.01		
H.... 0.03	F..... 14.	NA....	84.	SI02.	72.
HE....	FE(TOT) 0.04	NB....		SO4..	92.
CA.... 6.4	HC03.... 75.	NO3..	0.02		
CA+MG.	MG..... N	PO4..	0.03		
CO....	H2S.....				
CL.... 8.3					
CO....	K..... 2.8				
		ZN... N			

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00032

GEOTERM SAMPLE FILE

GEOTERM FILE 10: 0073104

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: MORTENSE HOT SPRING

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-43.98 N 106-10.43 W
 UTM ZONE... 13
 NUTHING... 4287595.
 397971.

MAP REFERENCE..... PONCHA SPRINGS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 83.0
 DISCHARGE..... 64. L/MIN

WATER ANALYSIS

PH..... 8.2
 SPECIFIC CONDUCTANCE..... 471.
 ALKALINITY..... 86. AS HC03
 TOTAL DISSOLVED SOLIDS... 341.
 CHARGE IMBALANCE (% DIFF)... 2.6

ISOTOPIES (0/001)

ANALYSIS IN MG/L

AL....	CH.....	MG.... N			
AS....	CS.....	MN.... N			
H.... 0.040	F..... 15.	NA.... 94.	SI02.	88.	
HE....	FE(TOT) 0.010	NB....	SO4..	98.	
CA.... 4.7	HC03.... 86.	NO3..	0.01		
CO....	H2S.....	PO4..	0.21		
CL.... 10.					
CO....	K..... 3.2				

REFERENCE AND IDENTIFICATION

COMPILED BY..... RUMKHART, M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00033

GEOTERM SAMPLE FILE

GEOTERM FILE 10: 0073103

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: MORTENSE HOT SPRING

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-43.98 N 106-10.43 W

STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... PONCHA SPRINGS 1162500

UTM ZONE... +13
 NORTHING... 4287595.
 39/971.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 83.0
 DISCHARGE..... 68. L/MIN

WATER ANALYSIS

PH..... 8.2
 SPECIFIC CONDUCTANCE..... 469.
 ALKALINITY..... 82. AS HCO3
 TOTAL DISSOLVED SOLIDS... 351.
 CHARGE IMBALANCE (% DIFF)... 1.9

ANALYSIS IN MG/L

ISOTOPES (0/001)

AL....	CH....	MG...	N		
AS....	CS....	MN...	N		
H.... 0.04	F.... 19.	NA...	100.	SI02.	74.
HE....	FE(TOT). N	NB...		S04..	99.
CA.... 4.0	HCO3.... 82.	NO3..	0.01		
CO....	H2S....	PO4..	0.03		
CL.... 11.					
CU....	K.... 3.1				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARNETT AND PEARL, 1976

RECORD 00034

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073102

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: MORTENSE HOT SPRING

LOCATION

COORDINATES

COUNTRY..... UNITED STATES	155 079W 24 SE OF NW	LAT/LONG... 38-43.98 N 106-10.43 W
STATE..... COLORADO		UTM ZONE... +13
COUNTY..... CHAFFEE		NORTHING... 4287595.
GEOLOGIC PROVINCE.. MAP REFERENCE..... PONCHA SPRINGS 1162500		39/971.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 82.0
 DISCHARGE..... 64. L/MIN

WATER ANALYSIS

PH..... 8.5
 SPECIFIC CONDUCTANCE..... 480.
 ALKALINITY..... 17. AS HCO3
 TOTAL DISSOLVED SOLIDS... 336.
 CHARGE IMBALANCE (% DIFF)... 26.7

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....	CO3....	LI...	0.14		
AL.... 0.13	CH....	MG...	0.1		
AS.... 0.003	CS....	MN...	0.01		
AU....	CU.... 0.005				
H.... 0.05	F.... 14.	NA...	94.	SI02.	68.
HA.... 0.043					
HE....	FE(TOT). N	IM...		S04..	100.

HI....	GA.....	NH4..	SR...	0.18
CA.... 4.4	HC03.... 17.	NO3.. 0.01		
CA+MG.	MG..... 0.0002	PH... 0.003		
CO....	H2S.....	PO4.. 0.03		
CL.... 1.9				
CO....	K..... 3.1	ZN...	0.01	

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00035

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073106

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: WOOLMINGTON HOT WATER WELL

LOCATION

COUNTRY..... UNITED STATES 15S 079W 19 NW OF SE

STATE..... COLORADO

COUNTY..... CHAFFEE

GEOLOGIC PROVINCE..

MAP REFERENCE..... PONCHA SPRINGS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/00

TEMPERATURE (C)..... 39.0

ANALYSIS

SPECIFIC CONDUCTANCE..... 250.

ALKALINITY..... 75.

TOTAL DISSOLVED SOLIDS... 143.

CHANGE IMBALANCE (% DIFF)... 2.9

ANALYSIS IN MG/L

AG.... CO3..... LI... 0.06

AL.... CA..... MG... 0.6

AS.... CS..... MN... N

N.... F..... NA... 40. S102. 1.

NE.... FE(TOT)... 0.03 NO... S04.. 4/.

CA.... HC03.... 75. NO3.. 0.11

CA+MG. MG..... N

CH.... H2S..... PO4.. 0.09

CL.... 3.9

CO.... K..... 1.7 ZN... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00036

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073108

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATER WELL (WEST)

LOCATION

COUNTRY..... UNITED STATES 15S 079W 24 SW OF NE

STATE..... COLORADO

COUNTY..... CHAFFEE

GEOLOGIC PROVINCE..

MAP REFERENCE..... PONCHA SPRINGS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

COORDINATES

LAT/LONG... 38-43.97 N 106-10.42 W

UTM ZONE... 13

NORTHING... 4287576.

397985.

DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 72.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 370.
ALKALINITY..... 72.
TOTAL DISSOLVED SOLIDS..... 313.
CHARGE IMBALANCE (% DIFF).... 4.5

AS HCO3

ANALYSIS IN MG/L

AG.....	CU3.....	LI... 0.1		
AL.....	CH.....	MG... 0.3		
AS..... 0.001	CS.....	MN... N		
R..... 0.030	F..... 13.	NA... 73.	SI02.. 68.	
HE.....	FE(TOT) 0.020	NH... 81.	S04... 61.	
CA..... 5.8	HCO3..... 72.	NO3.. 0.09		
CA+MG.	HG..... 0.0002	PO4.. 27.		
CO.....	H2S.....			
CL..... 6.4	K..... 2.5			

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

ZN... 0.020

RECORD 00037

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATER WELL (EAST)
LOCATION

GEOTHERM FILE ID: 0073107

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... CHAFFEE

155 079W 24 SE OF NE

COORDINATES

LAT/LONG... 38-44.00 N 106-10.00 W
UTM ZONE... 13
NORTHING... 4281624.
398594.

GEOLOGIC PROVINCE..

MAP REFERENCE..... PONCHA SPRINGS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/00
TEMPERATURE (C)..... 67.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 240.
ALKALINITY..... 68.
TOTAL DISSOLVED SOLIDS..... 234.
CHARGE IMBALANCE (% DIFF).... 4.3

AS HCO3

ANALYSIS IN MG/L

AG.....	CO3.....	LI... 0.1		
AL.....	CH.....	MG... 0.3		
AS..... 0.001	CS.....	MN... N		
H..... 0.020	F..... 10.	NA... 61.	SI02.. 53.	
HE.....	FE(TOT) 0.050	NH... 60.	S04... 60.	
CA..... 8.3	HCO3..... 68.	NO3.. 0.15		
CA+MG.	HG..... N	PO4.. N		
CO.....	H2S.....			
CL..... 4.9	K..... 2.1			

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

ZN... 0.020

RECORD 00038

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073101

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS AREA: YOUNG LIFE HOT WATER WELL

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 15S 079W 24 SE OF NW

LAT/LONG... 38-43.95 N 106-10.45 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... CHAFFEE

NORTHING... 4287539.

GEOLOGIC PROVINCE..

397941.

MAP REFERENCE..... PONCHA SPRINGS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 66.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 320.

ALKALINITY..... 72.

AS HCO3

TOTAL DISSOLVED SOLIDS... 259.

CHANGE IMBALANCE (8 DIFF)... 1.2

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG.... CO3..... LI... 0.090

AL.... CR..... MG... 0.3

AS.... 0.002 CS..... MN... N

H.... 0.020 F..... 9.2 NA... 60. S102. 71.

FE.... FE(TOT)... 0.030 NH... S04.. 67.

CA.... 8.5 HCO3... 72. NO3.. 0.15

CA+MG... MG..... N PU4.. 0.12

CU.... H2S.....

CL.... 3.9

CO.... K..... 2.3 ZN... 0.030

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, M.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00039

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073100

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS, SPRING E

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 15S 078W 19 SW OF NW

LAT/LONG... 38-43.97 N 106-09.65 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... CHAFFEE

NORTHING... 4287562.

GEOLOGIC PROVINCE..

399100.

MAP REFERENCE..... PONCHA SPRINGS 1162500

OTHER LOCALITY INFORMATION: LOCATED 10 FEET EAST OF SPRING D

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 50.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 330.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R. H.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00040

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073096

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS: SPRING A
LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 155 078W 19 SW OF NW

LAT/LONG... 38-43.97 N 106-09.67 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... CHAFFEE

NORTHING... 4287502.

GEOLOGIC PROVINCE..

399071.

MAP REFERENCE..... PONCHA SPRINGS 1162500

OTHER LOCALITY INFORMATION: LOCATED APPROX 200 FT E OF OLD SWIMMING POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 56.0

DISCHARGE..... 87. L/MIN

WATER ANALYSIS

PH..... 7.8

SPECIFIC CONDUCTANCE..... 327.

ALKALINITY..... 76. AS HCO3

TOTAL DISSOLVED SOLIDS... 248.

CHARGE IMBALANCE (% DIFF)... 3.3

ANALYSIS IN MG/L

ISOTOPES (0/00)

AL..... CR..... MG... 0.8

AS..... CS..... MN... N

H..... 0.020 F..... 10. NA... 58. S102. 59.

HE..... FE(TOT)... 0.016 NB... S04.. 64.

CA..... 10. HCO3... 76. NO3.. 0.19

CO..... H2S..... PU4.. 0.15

CL..... 5.2

CU..... K..... 2.2

REFERENCE AND IDENTIFICATION

COMPILED BY..... RUNKHARDT, H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00041

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073095

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS: SPRING A
LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 155 078W 19 SW OF NW

LAT/LONG... 38-43.97 N 106-09.67 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... CHAFFEE

NORTHING... 4287502.

GEOLOGIC PROVINCE..

399071.

MAP REFERENCE..... PONCHA SPRINGS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 54.0

DISCHARGE..... 76. L/MIN

WATER ANALYSIS

PH..... 7.9

SPECIFIC CONDUCTANCE..... 331.

ALKALINITY..... 75. AS HCO3

TOTAL DISSOLVED SOLIDS... 244.

CHARGE IMBALANCE (% DIFF)... 2.5

ANALYSIS IN MG/L

ISOLUPES (0/001)

AL....		CH....		MG...	0.9		
AS....		CS....		MN...	N		
H....	0.00	F....	10.	NA...	57.	SI02.	56.
HE....		FE(TOT)...	N	NH...		SO4...	64.
CA....	11.	HCO3....	75.	NO3...	0.21		
CO....		H2S....		PO4...	N		
CL....	5.3						
CO....		K....	2.2				

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R. H.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARKETT AND PEARL, 1976

RECORD 00042

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073094

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS: SPRING A
 LOCATION.....
 COUNTRY..... UNITED STATES 155 078W 19 SW OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... PONCHA SPRINGS 1:62500

COORDINATES

LAT/LONG... 38-43.97 N 106-07.67 W
 UTM ZONE... 13
 NORTHING... 4287502.
 399071.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 54.0
 DISCHARGE..... 68. L/MIN

WATER ANALYSIS

PH..... 8.6
 SPECIFIC CONDUCTANCE..... 335.
 ALKALINITY..... 67. AS HCO3
 TOTAL DISSOLVED SOLIDS... 248.
 CHARGE IMBALANCE (A DIFF)... 3.7

ANALYSIS IN MG/L

ISOLUPES (0/001)

AG....		CO3....	3.	LI...	0.09		
AL....		CH....		MG...	0.2		
AS....	0.002	CS....		MN...	0.01		
R....	0.02	F....	8.3	NA...	58.	SI02.	58.
HE....		FE(TOT)...	N	NH...		SO4...	69.
CA....	10.	HCO3....	67.	NO3...	0.12		
CA+MG.		HG.....	0.0001	PO4...	0.03		
CO....		H2S....					
CL....	5.3						
CO....		K....	2.1			ZN...	0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R. H.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARKETT AND PEARL, 1976

RECORD 00043

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073093

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS: SPRING A
 LOCATION.....
 COUNTRY..... UNITED STATES 155 078W 19 SW OF NW

COORDINATES

LAT/LONG... 38-43.97 N 106-07.67 W

STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE.....
 MAP REFERENCE..... PONCHA SPRINGS 1162500
 UTM ZONE... +13
 NORTHING... 4287562.
 399071.

OTHER LOCALITY INFORMATION: LOCATED APPROX. 200 FT. EAST OF OLD SWIMMING POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 54.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 326.
 ALKALINITY..... 71. AS HCO3
 TOTAL DISSOLVED SOLIDS... 245.
 CHARGE IMBALANCE (A DIFF)... 0.7

ANALYSIS IN MG/L

ISOTOPES (D/001)

AG....		CO3.....		LI... 0.09			
AL.... 0.020		CR.....		MG... 0.3			
AS.... 0.001		CS.....		MN... 0.01			
AU....		CU..... 0.001					
H.... 0.02		F..... 9.1		NA... 57.	SI02.	66.	
HA.... 0.014							
HE....		FE(TOT). 0.04		NB...	SO4..	65.	
HI....		GA.....		NH4..	SR...	0.19	
CA.... 11.		HCO3... 71.		NO3.. 0.14			
CA+MG.		HG..... N		PB... 0.002			
CD....		H2S.....		PO4.. 0.15			
CL.... 4.4							
CO....		K..... 2.1		ZN... 0.01			

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R. M.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00044

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073098

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS: SPRING B

LOCATION TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 15S 07W 19 SW OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE.....

LAT/LONG... 38-43.97 N 106-09.68 W
 UTM ZONE... +13
 NORTHING... 4287562.
 399057.

MAP REFERENCE..... PONCHA SPRINGS 1162500

OTHER LOCALITY INFORMATION: LOCATED AT EAST END OF OLD SWIMMING POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 54.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 320.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R. M.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00045

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073099

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS: SPRING D
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 15S 078W 19 SW OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... PONCHA SPRINGS 1162500
 OTHER LOCALITY INFORMATION: LOCATED 30 FEET EAST OF SPRING A.

COORDINATES

LAT/LONG... 38-43.97 N 106-09.65 W
 UTM ZONE... 13
 NORTHING... 4287562.
 399100.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 44.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 320.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R. H.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00046

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073097

NAME OF SAMPLE SOURCE... MT. PRINCETON HOT SPRINGS: SPRING F
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 15S 078W 19 SW OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... PONCHA SPRINGS 1162500

COORDINATES

LAT/LONG... 38-43.97 N 106-09.72 W
 UTM ZONE... 13
 NORTHING... 4287563.
 398999.

OTHER LOCALITY INFORMATION: LOCATED AT SE CORNER OF SWIMMING POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 49.0
 DISCHARGE..... 45. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 310.
 ALKALINITY..... 73. AS MC03
 TOTAL DISSOLVED SOLIDS... 229.
 CHARGE IMBALANCE (% DIFF)... 2.5

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....		CO3.....		LI...	0.080		
AL....		CA.....		MG...	0.5		
AS....	0.001	CS.....		MN...	0.010		
BA....	0.010	F.....	8.3	NA...	50.	SI02.	57.
BE....		FE(TOT)...	0.010	NH...		SO4..	50.
CA....	12.	HC03.....	73.	NO3..	0.24		
CA+MG.		Mg.....	14	PO4..	0.12		
CD....		M2S.....					
CL....	3.8						
CO....		K.....	1.9				

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

GEUTHERM FILE NO: 0073147

GEOHEM SAMPLE FILE

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GEOTHERMAL SAMPLES
.. NAME OF SAMPLE SOURCE... PONCHA HOT SPRING: SPRING H
LOCATION                               TOWNSHIP-RANGE
COUNTRY..... UNITED STATES          49N 00E 15   NW OF SW
STATE..... COLORADO
COUNTY..... CHAFFEE
GEOLOGIC PROVINCE..
MAP REFERENCE..... HONANZA 1162500

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COORULNALES

LAT/LONG... 38-29.82 N 106-04.60 W
UTM ZONE... 413
NORTHING... 4261303.
406109.

OTHER LOCALITY INFORMATION: LOCATED APPROX 140 FT SE OF SPRING A AND APPROXIMATELY 50 FT HIGHER UP THE HILL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR.....	1975/06/00
TEMPERATURE (C).....	66.0
DISCHARGE.....	114. L/MIN

WATCH ANALYSIS

SPECIFIC CONDUCTANCE..... 940.
ALKALINITY..... 214. AS HCU3
TOTAL DISSOLVED SOLIDS... 655.
CHARGE IMBALANCE (± DIFF)... 0.2

ANALYSIS IN MG/L

ANALYSIS IN H2O/C		CO3.....		LI...		0.180	
AG.....		CR.....		MG...		0.5	
AL.....		CS.....		MN...		0.040	
AS.....	0.002	F.....	12.	NA...	190.		SiO2.
H.....	0.010	FE(TOT).	0.050	NH...			83.
HE.....		HCu3....	214.	NU3..	0.02		504..
CA.....	18.	MG.....	0.0001	PU4..	0.12		
CA+MG.		H2S.....					
CD.....							
CL.....	48.						
CO.....		K.....	7.8				ZN... N

REFERENCE AND JUSTIFICATION

COMPILED BY..... BURKHARDT, M.
COMPILED AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... BARNETT AND PEARL, 1976

RECORD 00048

GEUTHERM FILE NO: 0015732

GEOTHERM_SAMPLEFILE

NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS
LOCATION TOWNSHIP-RANGE
COUNTRY..... UNITED STATES 49N 008E 15 SW OF NW
STATE..... COLORADO
COUNTY..... CHAFFEE

COURNALLS

LAT/LONG... 18-29.80 N 106-04.00 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/09/18
TEMPERATURE (C)..... 71.
OTHER SAMPLE INFORMATION.. ABANDONED BATH HOUSE.

NAPEH ANALYSIS

P4..... 7.6

RADIATION ANALYSIS

ANALYST AND/OR AGENCY... U.S. EPA--ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY, LAS VEGAS; MONSANTO RES. CORP.,
MOUND LABORATORY, MIAMIURG, OHIO.
RADIATION ANALYTICAL COMMENTS... PROCEDURES: EPA HANDBOOK OF RADIOCHEMICAL ANALYTICAL METHODS, 1975; MODIFICATION OF

METHODS IN TALVITIE, 1971; STEAM SAMPLING: STOKER AND KRUGER, 1975.

RADIOMETRIES

K-40.....				TM-230....	0.022	+/-	0.016
PH-210....				TM-232....	0.02	+/-	0.017
HA-224....	0.16	+/-	0.067	U-234....	0.041	+/-	0.021
HA-228....				U-238....	0.034	+/-	0.020
RN-222....	1400.	+/-	71.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... ALISS, JAMES D.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... O'CONNELL AND KAUFMAN, 1976

RECORD 00049

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0000411

NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS

LOCATION

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-29.90 N 106-04.50 W
 UTM ZONE... 13
 NORTHING... 4261449.
 406257.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 66.1
 DISCHARGE..... 1.9 L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1974/00/00
 CHANGE IMBALANCE (% DIFF)... 8.0

ANALYSIS

ISOTOPIES (0/00)

H.....	F.....	NA....	200.	S102.	86.
HE.....	FE(TOT)...	NH....		S04..	190.
CA.... 16.	HC03.... 218.				
CL.... 51.					
CO....	K..... 8.6				

REFERENCE AND IDENTIFICATION

COMPILED BY..... GALTARDT, KENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WHITE AND WILLIAMS, 1975

RECORD 00050

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073146

NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS: SPRING A

LOCATION

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-29.82 N 106-04.62 W
 UTM ZONE... 13
 NORTHING... 4261303.
 406080.

MAP REFERENCE..... BONANZA 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 50.0
 DISCHARGE..... 757. L/MIN

WATER ANALYSIS

PH..... 7.5
 SPECIFIC CONDUCTANCE..... 495.
 ALKALINITY..... 219. AS HCO3

TOTAL DISSOLVED SOLIDS... 654.

CHARGE IMBALANCE (% DIFF)... 3.3

ANALYSIS IN MG/L

ISOTOPIES (U/100)

AL....	CR.....	MG...	0.2		
AS....	CS.....	MN...	0.030		
H..... 0.060	F..... 14.	NA...	190.	5102.	77.
HE....	FE(TOT)...	NH...		504..	190.
CA.... 17.	HCO3.... 219.	NO3..	0.01		
CO....	H2S.....	PO4..	0.12		
CL.... 49.					
CO....	K..... 8.7				

REFERENCE AND IDENTIFICATION

COMPILED BY..... RUMKHART, M.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00051

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073145

NAME OF SAMPLE SOURCE... PUNCHA HOT SPRINGS: SPRING A

LOCATION

COORDINATES

COUNTRY..... UNITED STATES 49N 008E 15 NW OF SW

LAT/LONG... 38-29.82 N 106-04.62 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... CHAFFEE

NORTHING... 4261303.

GEOLOGIC PROVINCE..

406080.

MAP REFERENCE..... BONANZA 1162500

OTHER LOCALITY INFORMATION: LOCATED 270 FEET SOUTHWEST IN LOWEST COLLECTION BOX.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 76.0

WATER ANALYSIS

PH..... 7.7

SPECIFIC CONDUCTANCE..... 996.

ALKALINITY..... 219.

AS HCO3

TOTAL DISSOLVED SOLIDS... 697.

CHARGE IMBALANCE (% DIFF)... 0.5

ANALYSIS IN MG/L

ISOTOPIES (U/100)

AL....	CR.....	MG...	0.2		
AS....	CS.....	MN...	0.04		
H..... 0.08	F..... 12.	NA...	200.	5102.	100.
HE....	FE(TOT)...	NH...		504..	200.
CA.... 17.	HCO3.... 219.	NO3..	0.01		
CO....	H2S.....	PO4..	0.09		
CL.... 51.					
CO....	K..... 8.3				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGHALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00052

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073144

NAME OF SAMPLE SOURCE... PUNCHA HOT SPRINGS: SPRING A

LOCATION

COORDINATES

COUNTRY..... UNITED STATES 49N 008E 15 NW OF SW

LAT/LONG... 38-29.82 N 106-04.62 W

STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... MONANZA 1:62500
 OTHER LOCALITY INFORMATION: LOCATED 270 FEET SOUTHEAST OF HOUSE IN LOWEST COLLECTION BOX.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 70.0
 WATER ANALYSIS
 PH..... 8.0
 SPECIFIC CONDUCTANCE..... 1040.
 ALKALINITY..... 202. AS HCO3
 TOTAL DISSOLVED SOLIDS... 678.
 CHARGE IMBALANCE (Δ DIFF)... 0.6
 ANALYSIS IN MG/L
 AG.... CO3..... LI... 0.18
 AL.... CR..... MG... 0.5
 AS.... 0.003 CS..... MN... 0.05
 H.... 0.07 F..... 11. NA... 200. SI02. 71.
 ME.... FE(TOT). N NO3.. N 504.. 220.
 CA.... 17. HCO3... 202. NO3.. N
 CA+MG. MG..... N
 CD.... H2S..... PU4.. 0.06
 CL.... 50. K..... 8.1 ZN... 0.01
 CO....
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ISOLOPES (0/00)

RECORD 00053

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PUNCHA HOT SPRINGS; SPRING A
 LOCATION
 COUNTRY..... UNITED STATES 49N 008E 15 NW OF SW
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... MONANZA 1:62500
 OTHER LOCALITY INFORMATION: LOCATED 270 FEET SOUTHEAST OF HOUSE IN LOWEST COLLECTION BOX.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/06/00
 TEMPERATURE (C)..... 71.0
 WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 870.
 ALKALINITY..... 216. AS HCO3
 TOTAL DISSOLVED SOLIDS... 667.
 CHARGE IMBALANCE (Δ DIFF)... 1.0
 ANALYSIS IN MG/L
 AG.... CO3..... LI... 0.19
 AL.... 0.07 CR..... MG... 0.7
 AS.... 0.002 CS..... MN... 0.04
 AU.... CU..... 0.001
 H.... 0.08 F..... 11. NA... 190. SI02. 61.
 HA.... 0.08

ISOLOPES (0/00)

GEOTHERM FILE ID: 0073143

COORDINATES
 LAT/LONG... 38-29.82 N 106-04.62 W
 UTM ZONE... 13
 NORTHING... 4261303.
 406080.

RE....		FE(TOT)...	0.02	NH....		SO4...	200.
HI....		GA.....		NH4...		SR...	0.56
CA....	20.	HCO3....	216.	NO3...	0.05		
CA+MG...		MG.....	0.0001	PH...	0.004		
CO....		H2S.....		PO4...	0.15		
CL....	49.						
CO....		K.....	8.			ZN...	0.01

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00054

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073151

NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS: SPRING C
 LOCATION
 COUNTRY..... UNITED STATES 49N 008E 15 SW OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... BONANZA 1162500

COORDINATES

LAT/LONG... JH-29.83 N 106-04.52 W
 UTM ZONE... 13
 NORTHING... 4261320.
 406226.

OTHER LOCALITY INFORMATION: UPPERMOST SPRING IN DRAW E OF SPRINGS A AND B
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 62.0
 DISCHARGE..... 15. L/MIN

WATER ANALYSIS

P.H..... 7.5
 SPECIFIC CONDUCTANCE..... 999.
 ALKALINITY..... 219. AS HCO3
 TOTAL DISSOLVED SOLIDS... 655.
 CHARGE IMBALANCE (% DIFF)... 2.6

ISOTOPIES (0/00)

ANALYSIS IN MU/L
 AL.... CR..... MG... 0.4
 AS.... CS..... MN... 0.040
 R.... 0.150 F..... 13. NA... 190. S102. 79.
 HE.... FE(TOT) N NO3... N S04.. 190.
 CA.... 17. HCO3.... 219. PO4.. N 0.15
 CO.... H2S.....
 CL.... 49.
 CO.... K..... 8.6

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, M.
 COMPILED AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00055

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073150

NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS: SPRING C
 LOCATION
 COUNTRY..... UNITED STATES 49N 008E 15 SW OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... BONANZA 1162500

COORDINATES

LAT/LONG... JH-29.83 N 106-04.52 W
 UTM ZONE... 13
 NORTHING... 4261320.
 406226.

MAP REFERENCE..... BONANZA 1162500
 OTHER LOCALITY INFORMATION: UPPERMOST SPRING IN UHAW EAST OF SPRINGS A AND B.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 63.0

DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS

PH..... 7.5

SPECIFIC CONDUCTANCE..... 998.

ALKALINITY..... 218.

TOTAL DISSOLVED SOLIDS... 685.

CHARGE IMBALANCE (% DIFF)... 0.5

ANALYSIS IN MG/L

AL....	CA....	CO....	CU....	CL....	CO....	K.....	8.3
AS....	CS....	FE(TOT)...	0.03	FE(TOT)...	0.03	FE(TOT)...	0.03
FE....	0.06	FE(TOT)...	12.	FE(TOT)...	12.	FE(TOT)...	12.
CA....	17.	FE(TOT)...	218.	FE(TOT)...	218.	FE(TOT)...	218.
CO....	52.	FE(TOT)...	0.02	FE(TOT)...	0.02	FE(TOT)...	0.02
CL....	52.	FE(TOT)...	0.09	FE(TOT)...	0.09	FE(TOT)...	0.09
CO....	52.	FE(TOT)...	0.09	FE(TOT)...	0.09	FE(TOT)...	0.09

ISOTOPES (U/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00056

GEOTERM SAMPLE FILE

NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS: SPRING C

GEOTERM FILE 10: 0073149

LOCATION

COUNTRY..... UNITED STATES 49N 00E 15 SW OF NW

STATE..... COLORADO

COUNTY..... CHAFFEE

GEOLOGIC PROVINCE..

MAP REFERENCE..... BONANZA 1162500

OTHER LOCALITY INFORMATION: UPPERMOST SPRING IN UHAW EAST OF SPRINGS A AND B.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 62.0

DISCHARGE..... 11. L/MIN

WATER ANALYSIS

PH..... 8.0

SPECIFIC CONDUCTANCE..... 860.

ALKALINITY..... 212.

TOTAL DISSOLVED SOLIDS... 660.

CHARGE IMBALANCE (% DIFF)... 3.6

ANALYSIS IN MG/L

AG....	CO3....	LI....	0.18
AL....	CA....	MG....	0.4
AS....	CS....	MN....	0.04
FE....	0.07	NA....	190.
CA....	17.	FE(TOT)...	0.01
CO....	52.	FE(TOT)...	0.01
CL....	52.	FE(TOT)...	0.01
CO....	52.	FE(TOT)...	0.01

ISOTOPES (U/001)

CL.... 59.
 CU..... K..... A.1
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... GARRETT AND PEARL, 1976

RECORD 00057

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PUNCHA HOT SPRINGS: SPRING C
 LOCATION
 COUNTRY..... UNITED STATES 49N 008E 15 SW OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... BONANZA 1:62500
 OTHER LOCALITY INFORMATION: UPPERMOST SPRING IN DRAW EAST OF SPRINGS A AND B.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTION..... 1975/06/00
 TEMPERATURE (C)..... 63.0
 DISCHARGE..... 7.6 L/MIN
 WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 960.
 ALKALINITY..... 214. AS HCO3
 TOTAL DISSOLVED SOLIDS... 670.
 CHARGE IMBALANCE (% DIFF)... 1.5
 ANALYSIS IN MG/L
 AG.... CO3..... LI... 0.2
 AL.... 0.035 CR..... MG... 0.8
 AS.... 0.006 CS..... MN... 0.05
 AU.... CU..... 0.001
 H.... 0.04 F..... 11. NA... 190. SI02. 81.
 HA.... 0.07
 HE.... FE(TOT). 0.04 NB... SO4.. 200.
 HI.... GA..... NH4.. SR... 0.52
 CA.... 24. HCO3... 214. NO3.. 0.02
 CA+MG. MG..... N PB... 0.004
 CU.... H2S..... PO4.. 0.15
 CL.... 49.
 CU..... K..... R.3
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... GARRETT AND PEARL, 1976

GEOTHERM FILE 101 0073148

COORDINATES
 LAT/LONG... 38-29.83 N 106-04.52 W
 UTM ZONE... 13
 NORTHING... 4261320.
 406226.

ISOTOPES (0/00)

ZN... 0.004

RECORD 00058

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... PUNCHA HOT SPRINGS: SPRING D
 LOCATION
 COUNTRY..... UNITED STATES 49N 008E 15 SW OF NW
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... BONANZA 1:62500
 OTHER LOCALITY INFORMATION:
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTION.....
 TEMPERATURE (C).....
 DISCHARGE.....
 WATER ANALYSIS
 SPECIFIC CONDUCTANCE.....
 ALKALINITY.....
 TOTAL DISSOLVED SOLIDS...
 CHARGE IMBALANCE (% DIFF)...
 ANALYSIS IN MG/L
 AG.... CO3..... LI...
 AL.... CR..... MG...
 AS.... CS..... MN...
 AU.... CU.....
 H.... F..... NA...
 HA....
 HE.... FE(TOT).
 HI.... GA..... NH4..
 CA.... HCO3...
 CA+MG. MG..... N PB...
 CU.... H2S..... PO4..
 CL....
 CU..... K.....
 REFERENCE AND IDENTIFICATION
 COMPILED BY.....
 COMPILER AFFILIATION...
 REFERENCE.....

GEOTHERM FILE 101 0073152

COORDINATES
 LAT/LONG... 38-29.83 N 106-04.53 W
 UTM ZONE... 13
 NORTHING... 4261320.
 406211.

OTHER LOCALITY INFORMATION: LOCATED APPROX. 40 FEET NORTHWEST OF SPRING C

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 56.0
DISCHARGE..... E 7.6 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 1000.

ANALYSIS IN MG/L

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00059

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... PONCHA HOT SPRINGS: SPRING E

GEOTHERM FILE ID: 0073153

LOCATION

COUNTRY..... UNITED STATES 49N 008E 15 SW OF NW

STATE..... COLORADO

COUNTY..... CHAFFEE

GEOLOGIC PROVINCE..

MAP REFERENCE..... BONANZA 1162500

COORDINATES

LAT/LONG... 38-29.83 N 106-04.53 W

UTM ZONE... 13

NORTHING... 4261320.

406211.

OTHER LOCALITY INFORMATION: LOCATED APPROX. 20 FEET SOUTHWEST OF SPRING D

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 60.0
DISCHARGE..... E 7.6 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 950.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00060

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... WELLSVILLE WARM SPRING

GEOTHERM FILE ID: 0073223

LOCATION

COUNTRY..... UNITED STATES 49N 010E 18

STATE..... COLORADO

COUNTY..... CHAFFEE

GEOLOGIC PROVINCE..

MAP REFERENCE..... HOWARD 1162500

COORDINATES

LAT/LONG... 38-29.12 N 105-54.60 W

UTM ZONE... 13

NORTHING... 4259851.

420631.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 28.0

DISCHARGE..... 662. L/MIN

WATER ANALYSIS

PH..... 7.1

SPECIFIC CONDUCTANCE..... 816.

ALKALINITY..... 329.

TOTAL DISSOLVED SOLIDS... 482.

CHARGE IMBALANCE (A DIFF)... 1.2

ANALYSIS IN MG/L

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

AS..... CS.....

AS MG/L

MG... 25.

MM... N

ISOTOPES (0/00)

H.....	0.1	F.....	0.6	NA...	49.	SI02.	31.
RE.....		FE(TOT)...	11	NB...		S04..	63.
CA.....	81.	HCO3.....	328.	NO3..	0.33		
CO.....		H2S.....		PO4..	0.03		
CL.....	63.						
CO.....		K.....	6.3				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... WELLSVILLE WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... HOWARD 1:62500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/06/00
 TEMPERATURE (C)..... 32.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 670.
 ALKALINITY..... 304.
 TOTAL DISSOLVED SOLIDS... 470.
 CHARGE IMBALANCE (% DIFF)... 2.9
 ANALYSIS IN MG/L

AG.....		CO3.....	
AL.....	0.04	CR.....	
AS.....	0.01	CS.....	
AU.....		CU.....	0.0007
H.....	0.1	F.....	0.5
HA.....	0.11		
HE.....		FE(TOT)...	0.02
HI.....		GA.....	
CA.....	79.	HCO3.....	
CA+MG.		HG..... N	
CD.....		H2S.....	
CL.....	61.		
CO.....			

AS HCO3

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... WELLSVILLE WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE

RECORD 00061

GEOTHERM FILE ID: 0073221

COORDINATES

LAT/LONG... 38-29.12 N 105-54.60 W
 UTM ZONE... 13
 NORTHING... 4259851.
 420631.

ISOTOPES (0/001)

LI...	0.11	SI02.	32.
HG...	24.	S04..	65.
MN...	0.005	SR...	0.4
NA...	51.		
NB...			
NH4..			
NO3..	0.27		
PB...	0.004		
PO4..	0.06		

ZN... N

RECORD 00062

GEOTHERM FILE ID: 0073224

COORDINATES

LAT/LONG... 38-29.12 N 105-54.60 W
 UTM ZONE... 13
 NORTHING... 4259851.

420631.

GEOLOGIC PROVINCE..
 MAP REFERENCE..... HOWARD 1:62500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 28.0
 DISCHARGE..... 757. L/MIN

WATER ANALYSIS

PH..... 7.2
 SPECIFIC CONDUCTANCE..... 809.
 ALKALINITY..... 328. AS HCO3
 TOTAL DISSOLVED SOLIDS... 482.
 CHARGE IMBALANCE (A DIFF)... 1.5
 ANALYSIS IN MG/L

ISOTOPES (0/001)

AL....	CR.....	MG...	26.		
AS....	CS.....	MN...	N		
R.... 0.04	F.....	NA...	52.	5102.	31.
HF....	FE(TOT) N	NB...		504..	65.
CA.... 76.	HCO3... 328.	NO3...	0.2		
CD....	H2S.....	PO4...	0.06		
CL.... 62.					
CO....	K..... 6.3				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00063

GEO THERM SAMPLE FILE

GEOTHERM FILE ID: 0015733

NAME OF SAMPLE SOURCE... YOUNG LIFE GROUP CAMP WELL
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CHAFFEE

COORDINATES

LAT/LONG... 38-43.95 N 106-10.10 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/09/18
 TEMPERATURE (C)..... 65.

OTHER SAMPLE INFORMATION.. WATER USED IN SPAT SAMPLE FROM CISTERN.

WATER ANALYSIS

PH..... 7.9

RADIATION ANALYSIS

ANALYST AND/OR AGENCY... U.S. EPA--ENVIRONMENTAL MONITORING AND SUPPORT LABORATORY, LAS VEGAS; MONSANTO RES. CORP.,
 MOHND LABORATORY, MIAMI, OHIO.

RADIATION ANALYTICAL COMMENTS... PROCEDURES: EPA HANDBOOK OF RADIOCHEMICAL ANALYTICAL METHODS, 1975; MODIFICATION OF
 METHODS IN TALVITIE, 1971; STEAM SAMPLING: STOKER AND KRUGER, 1975.

RADIOISOTOPES

K-40.....		TH-230....	1.7	+/-	0.18
PH-210....		TH-232....	L 0.018		
RA-226....	0.14 +/- 0.063	U-234....	0.14	+/-	0.063
RA-228....		U-235....	1.9	+/-	0.2
RM-222....	890. +/- 57.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... BLISS, JAMES D.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... O'CONNELL AND KAUFMAN, 1976

RECORD 00064

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073072

NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS SPRING A
LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 04S 073W 01 NE OF NW
STATE..... COLORADO
COUNTY..... CLEAR CREEK
GEOLOGIC PROVINCE..LAT/LONG... 39-44.33 N 105-30.72 W
UTM ZONE... 13
NORTHING... 4398687.
456129.

MAP REFERENCE..... IDAHO SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED 75 FEET SOUTH OF LODGE, EAST OF THE CREEK IN THE CLIFF.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/60

TEMPERATURE (C)..... 45.0

DISCHARGE..... 79. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 3400.

ALKALINITY..... 1510. AS HCO3

TOTAL DISSOLVED SOLIDS... 2020.

CHARGE IMBALANCE (% DIFF)... 2.3

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....		CO3....		LI...	0.64		
AL....	0.14	CH....		MG...	36.		
AS....	0.02	CS....		MN...	0.04		
AU....		CU....	0.008				
H....	0.35	F....	4.8	NA...	500.	SI02.	68.
HA....	0.74						
HE....		FE(TOT)...	0.02	NB...		SO4..	380.
RI....		GA....		NH4..		SR...	5.5
CA....	140.	HCO3....	1510.	NO3..	0.13		
CA+MG.		HG..... N		PB...	0.015		
CD....		H2S....		PO4..	0.34		
CL....	66.						
CO....		K.....	80.				
				ZN...	0.01		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00065

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073078

NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS LODGE HOT WATER WELL
LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 03S 073W 36 SE OF SW
STATE..... COLORADO
COUNTY..... CLEAR CREEK
GEOLOGIC PROVINCE.. 14LAT/LONG... 39-44.37 N 105-30.72 W
UTM ZONE... 13
NORTHING... 4398701.
456129.

MAP REFERENCE..... IDAHO SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED AT S END OF SWIMMING POOL APPROXIMATELY 100 FT N OF LODGE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 46.0

DISCHARGE..... 114. L/MIN

WATER ANALYSIS

PH..... 6.9
 SPECIFIC CONDUCTANCE..... 2920.
 ALKALINITY..... 1490. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2070.
 CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....	CO3....	LI...	0.070		
AL....	CR....	MG...	38.		
AS.... 0.046	CS....	MN...	0.070		
A.... 0.360	F.... 3.5	NA...	520.	SI02.	58.
HE....	FE(TOT)... 1.0	NH...		S04..	420.
CA.... 150.	HCO3.... 1490.	NO3.. N			
CA+MG.	MG.... N	PO4..	0.15		
CD....	H2S....				
CL.... 66.					
CO....	K..... 82.			ZN...	10.

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00066

GEOHERM SAMPLE FILE

GEOHERM FILE 101 0073074

NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS: SPRING A

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 04S 073W 01 NE OF NW
 STATE..... COLORADO
 COUNTY..... CLEAR CREEK

LAT/LONG... 39-44.33 N 105-30.72 W
 UTM ZONE... 13
 NORTHING... 4398007.
 456129.

GEOLOGIC PROVINCE..

MAP REFERENCE..... IDAHO SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED 75 FEET SOUTH OF LODGE, EAST OF THE CREEK IN THE CLIFF.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/02/00

TEMPERATURE (C)..... 40.0

WATER ANALYSIS

PH..... 6.7
 SPECIFIC CONDUCTANCE..... 2760.
 ALKALINITY..... 1390. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1950.
 CHARGE IMBALANCE (% DIFF)... 2.2

ANALYSIS IN MG/L

ISOTOPES (0/001)

AL....	CR....	MG...	34.		
AS....	CS....	MN...	0.070		
A.... 0.3	F.... 4.1	NA...	490.	SI02.	74.
HE....	FE(TOT)... 0.01	NH...		S04..	400.
CA.... 130.	HCO3.... 1390.	NO3..	0.2		
CD....	H2S....	PO4..	0.06		
CL.... 64.					
CO....	K..... 71.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00067

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073073

NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS: SPRING A

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 04S 073W 01 NE OF NW

STATE..... COLORADO

COUNTY..... CLEAR CREEK

GEOLOGIC PROVINCE..

MAP REFERENCE..... IDAHO SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED 75 FEET SOUTH OF LODGE, EAST OF THE CREEK IN THE CLIFF.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 40.0

WATER ANALYSIS

PH..... 6.9

SPECIFIC CONDUCTANCE..... 2800.

ALKALINITY..... 1520.

AS HCO3

TOTAL DISSOLVED SOLIDS.... 2110.

CHARGE IMBALANCE (% DIFF)... 0.5

ANALYSIS IN MG/L

AG.... CO3.... LI... 0.9

AL.... CR..... MG... 40.

AS.... 0.019

H.... 0.36

HE.... F..... 3.7 NA... 530. SI02. 58.

CA.... FE(TOT)... 0.07 NH... S04.. 430.

CU.... HCO3... 1520. NO3.. 0.05

CL.... H2S..... P04.. 0.09

CO.... K..... 84. ZN... 0.1

CO.... K..... 84.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00068

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073075

NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS: SPRING A

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 04S 073W 01 NE OF NW

STATE..... COLORADO

COUNTY..... CLEAR CREEK

GEOLOGIC PROVINCE..

MAP REFERENCE..... IDAHO SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED 75 FT S OF LODGE EAST OF CREEK IN CLIFF.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 40.0

WATER ANALYSIS

PH..... 6.9

SPECIFIC CONDUCTANCE..... 2600.

ALKALINITY..... 1390.

AS HCO3

TOTAL DISSOLVED SOLIDS.... 1940.

CHARGE IMBALANCE (% DIFF)... 1.1

COORDINATES

LAT/LONG... 39-44.33 N 105-30.72 W

UTM ZONE... 13

NORTHING... 4398687.

456129.

ANALYSIS IN 4G/L

AL.....		CR.....		MG...	36.		
AS.....		CS.....		MN...	0.060		
H.....	0.470	F.....	4.1	NA...	500.	5102.	60.
HE.....		FE(TOT)	0.110	Nb...		504..	380.
CA.....	130.	HCO3....	1390.	NO3..	0.15		
CU.....		H2S.....		PO4..	0.18		
CL.....	66.						
CO.....		K.....	76.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... RIKKHARDT, H.
COMPILER AFFILIATION.. U.S. GEOLOGICAL SURVEY
REFERENCE..... BARNETT AND PEARL, 1976

REC'D 00069

GEOTHERM SAMPLE-EILE

GEUTHERM FILE ID: 0073076

NAME OF SAMPLE SOURCE... IDAHO HOT SPRINGS; SPRING H
LOCATION TOWNSHIP-RANGE
COUNTRY..... UNITED STATES 03S 073W 36 SE OF SW
STATE..... COLORADO
COUNTY..... CLEAR CREEK
GEOLOGIC PROVINCE..
MAP REFERENCE..... IDAHO SPHINGS 1124000

COOKUINALS

LAI/LUNG... 39-44.35 N 105-30.72 W
UTM ZONE... 413
NORTHING... 4398724.
456129.

OTHER LOCALITY INFORMATION: LOCATED 50 FT E OF SE CORNER OF LODGE IN CLIFF.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 24.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE.....	2900.	
ALKALINITY.....	1520.	AS MCO_3
TOTAL DISSOLVED SOLIDS...	2070.	
CHARGE IMBALANCE (% DIFF)...	0.3	

ANALYSIS IN MG/L

AG....		CO3....		LI...	0.660		
AL....	0.2	CR.....		MG...	50.		
AS....	0.012	CS.....		MN...	0.020		
AU....		CU.....	0.009				
H....	0.370	F.....	4.8	NA...	520.	SI02.	68.
HA....	0.16						
RE....		FE(TQT).	0.020	NH...		SO4..	400.
RI....		GA.....		NH4..		SR...	6.0
CA....	130.	HCO3....	1520.	NO3..	0.08		
CA+MG.		HG.....	0.0001	PB...	0.015		
CD....		H2S.....		PO4..	0.18		
CL....	69.						
CO....		K.....	82.			ZN...	0.010

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURLKHAUDT, M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00070

GEOHEM_SAMPLE_FILE

GEUTHERM FILE NO: 0073077

NAME OF SAMPLE SOURCE... JUANU HOT SPRINGS: SPRING C

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 04S 073W 01 NE OF NW COORDINATES
 STATE..... COLORADO LAT/LONG... 39-44.32 N 105-30.72 W
 COUNTY..... CLEAR CREEK UTM ZONE... +13
 GEOLOGIC PROVINCE... NORTHING... 4398668.
 MAP REFERENCE..... IDAHO SPRINGS 1:24000 456128.

OTHER LOCALITY INFORMATION: LOCATED 100 FEET SOUTH OF LODGE AND EAST OF THE CREEK.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 20.0
 DISCHARGE..... 3.8 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 1620.
 ALKALINITY..... 759. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1070.
 CHARGE IMBALANCE (% DIFF)... 1.3

ANALYSIS IN MG/L

AG....	CO3....	LI...	0.34		
AL....	CR....	MG...	23.		
AS.... 0.002	CS....	MN...	0.04		
BA.... 0.17	F.....	NA...	260.	SI02.	45.
BE....	FE (TOT)...	NH...	0.04	S04..	210.
CA.... 77.	HCO3....	NO3..	0.13		
CD....	H2S....	PO4..	0.03		
CL.... 36.					
CO....	K.....				
		ZN...	0.02		

ISOTOPIES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00071

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000401

NAME OF SAMPLE SOURCE... IDAHO SPRINGS

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... CLEAR CREEK
 GEOLOGIC PROVINCE...

COORDINATES

LAT/LONG... 39-44.20 N 105-30.20 W
 UTM ZONE... +13
 NORTHING... 4398442.
 456870.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 50.0
 DATE/ANALYST..... 1976/06/28

ANALYSIS

BA....	F.....	NA...	500.	SI02.	50.
BE....	FE (TOT)...	NH...		S04..	400.
CA.... 138.					
CL.... 65.					
CO....	K.....				

ISOTOPIES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... GALYARDT, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MALLORY AND BARNETT, 1973

RECORD 00072

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073230

NAME OF SAMPLE SOURCE... DEXTER WARM SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 35N 011E 08 NE OF SE NE

STATE..... COLORADO

COUNTY..... CONEJOS

GEOLOGIC PROVINCE.. 15

MAP REFERENCE..... PIKES STOCKADE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 20.0

WELL DEPTH (M)..... 526.

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

OTHER SAMPLE INFORMATION.. SEVERAL SPRINGS AND SEEPS IN AREA.

WATER ANALYSIS

P.H..... 7.9

SPECIFIC CONDUCTANCE..... 340.

QUALIFICATION FIELD..... FLOW DIFFICULT TO ESTIMATE. EACH SPRING HAS A DISCHARGE OVER 19 L/MIN.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL. P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00073

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073234

NAME OF SAMPLE SOURCE... MCINTYRE WARM SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 35N 011E 18 NW OF SW NW

STATE..... COLORADO

COUNTY..... CONEJOS

GEOLOGIC PROVINCE..

MAP REFERENCE..... PIKES STOCKADE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 0 14.0

DISCHARGE..... 0 19. L/MIN

OTHER SAMPLE INFORMATION.. 15-20 SPRINGS IN AREA.

WATER ANALYSIS

P.H..... 7.9

SPECIFIC CONDUCTANCE..... 265.

QUALIFICATION FIELD..... ADJACENT SPRINGS 10-14 DEG C. TOTAL FLOW APPEARS TO BE LARGE, BUT DIFFICULT TO ESTIMATE DUE TO SURFACE WATER.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL. P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00074

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073016

NAME OF SAMPLE SOURCE... COLONEL CHINN HOT WATER WELL

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 14S 092W 14 SW OF SE NE

STATE..... COLORADO

COORDINATES

LAT/LONG... 38-52.38 N 107-38.07 W

UTM ZONE... 13

COUNTY..... DELTA
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... PAONIA 1124000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 42.0
 WATER ANALYSIS

P..... 6.5
 SPECIFIC CONDUCTANCE..... 3560.
 ALKALINITY..... 764. AS HCO3

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....		CO3....	162.		
AL....		CH....		MG....	32.
AS....		CS....		MN....	0.88
H....	1.7	F....	2.5	NA....	570. S102. 25.
HE....		FE(TOT)...	0.1		
CA....	110.	HCO3....	764.	NO3.. N	
CD....		H2S....		PO4..	0.06
CL....	400.				
CO....		K....	41.		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00075

GEOHERM SAMPLE FILE

GEOHERM FILE 101 00/3030

NAME OF SAMPLE SOURCE... DUNTON HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES 41N 011W 32
 STATE..... COLORADO
 COUNTY..... DOLORES
 GEOLOGIC PROVINCE.. 14

COORDINATES

LAT/LONG... 37-46.30 N 108-05.63 W
 UTM ZONE... +12
 NORTHING... 4184255.
 755977.

MAP REFERENCE..... DOLORES PEAK 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 44.0
 DISCHARGE..... 9H. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 1650.
 ALKALINITY..... 877. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1250.
 CHARGE IMBALANCE (% DIFF)... 1.7

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....		CO3....		LI....	0.1
AL....	0.04	CH....		MG....	45.
AS....	0.005	CS....		MN....	1.8
AU....		CU....	0.002		
H....	0.04	F....	0.6	NA....	35. S102. 34.
HA....	0.055				
HE....		FE(TOT)...	2.3	NH....	S04.. 350.
HI....		GA....		NH4..	J.0
CA....	330.	HCO3....	877.	NO3..	0.06
CA+MG.		HN....	N	PH....	0.009
CD....		H2S....		PO4..	0.09

CL.... 6.6 K..... 19. LN... N
 CO....
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00076

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... DUNTON HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 41N 11W 32
 STATE..... COLORADO
 COUNTY..... DOLORES
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... DOLORES PEAK 1124000

GEOTHERM FILE ID: 007J032

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 42.0
 DISCHARGE..... 95. L/MIN

COORDINATES
 LAT/LONG... 37-46.30 N 108-05.63 W
 UTM ZONE... 12
 NORTHING... 4184255.
 755977.

WATER ANALYSIS
 PH..... 6.4
 SPECIFIC CONDUCTANCE..... 1860.
 ALKALINITY..... 1020. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1300.
 CARGE IMBALANCE (% DIFF)... 3.1
 ANALYSIS IN MG/L

ISOTOPES (0/001)

AL....	CR....	MG....	45.		
AS....	CS....	MN....	1.9		
H.... 0.09	F.... 0.7	NA....	34.	SI02.	33.
HE....	FE (TOT)...	NB....		SO4..	310.
CA.... 340.	HCO3.... 1020.	NO3..	0.02		
CH....	H2S.....	PO4..	0.03		
CL.... 7.0					

CO.... K..... 21.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00077

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... DUNTON HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 41N 01W 32
 STATE..... COLORADO
 COUNTY..... DOLORES
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... DOLORES PEAK 1124000

GEOTHERM FILE ID: 007J031

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 42.0
 DISCHARGE..... 95. L/MIN
 WATER ANALYSIS

COORDINATES
 LAT/LONG... 37-46.30 N 108-05.63 W
 UTM ZONE... 12
 NORTHING... 4184255.
 755977.

P..... 7.0
 SPECIFIC CONDUCTANCE..... 1890.
 ALKALINITY..... 1010. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1340.
 CHARGE IMBALANCE (% DIFF)... 1.3

ANALYSIS IN MG/L

ISOLOPES (02/001)

AL....	CR.....	MG...	43.		
AS....	CS.....	MN...	1.7		
H..... 0.11	F..... 0.4	NA...	34.	S102.	32.
HE....	FE(TOT).. 0.83	NH...		S04..	340.
CA.... 360.	HCO3.... 1010.	NO3..	0.01		
CO....	H2S.....	PO4..	0.15		
CL.... 4.3					
CO....	K..... 21.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00078

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073042

NAME OF SAMPLE SOURCE... GEYSER WARM SPRING
 LOCATION..... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 40N 011W 06
 STATE..... COLORADO
 COUNTY..... DOLORES
 GEOLOGIC PROVINCE..

MAP REFERENCE..... NICO 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 28.0

DISCHARGE..... 0

OTHER SAMPLE INFORMATION.. GEYSER-LIKE ACTIVITY.

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2500.
 ALKALINITY..... 1770. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1620.
 CHARGE IMBALANCE (% DIFF)... 0.9

ANALYSIS IN MG/L

ISOLOPES (02/001)

AG....	CO3.....	LI...	0.28		
AL.... 0.21	CR.....	Mg...	40.		
AS.... N	CS.....	MN...	0.7		
AI....	CU..... 0.006	NA...	400.	S102.	37.
H..... 0.12	F..... 0.4			S04..	68.
HA.... 1.0		NH4..		SH...	12.
HE....	FE(TOT).. 0.02	NH...			
HI....	GA.....	NO3..	0.02		
CA.... 170.	HCO3.... 1770.	PH...	0.024		
CA+MG.	HG..... N	PO4..	0.28		
CO....	H2S.....				
CL.... 2.4					
CO....	K..... 29.				

QUALIFICATION FIELD..... DISCHARGE VARIES DUE TO GEYSER-LIKE ACTIVITY. UNABLE TO MAKE MEASUREMENT.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00079

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073128

NAME OF SAMPLE SOURCE... PARADISE HOT SPRING
LOCATION
COUNTRY..... UNITED STATES 40N 011W 06
STATE..... COLORADO
COUNTY..... DOLORES
GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 37-45.25 N 108-07.88 W
UTM ZONE... +12
NORTHING... 4182210.
752733.

MAP REFERENCE..... GROUNDHOG MOUNTAIN 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
TEMPERATURE (C)..... 46.0
DISCHARGE..... 98. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 9560.
ALKALINITY..... 628. AS HCO3
TOTAL DISSOLVED SOLIDS... 6070.
CHARGE IMBALANCE (% DIFF)... 1.7

ANALYSIS IN MG/L

ISOTOPIES (0/00)

AG....	CO3....	LI....	9.6			
AL.... 0.24	CR....	MG....	27.			
AS.... 0.14	CS....	MN....	0.78			
AU....	CU.... 0.004					
B.... 9.3	F.... 3.9	NA....	1800.	SI02.	150.	
BA.... 0.29						
BE....	FE(TOT). 0.15	NB....		SO4..	140.	
BI....	GA....	NH4..		SR...	3.8	
CA.... 160.	HCO3... 628.	NO3..	0.07			
CA-MG.	HG.... 0.0001	PB....	0.037			
CD....	H2S....	PO4..	0.31			
CL.... 3100.						
CU....	K..... 360.	ZN...	0.05			

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGHALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00080

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073130

NAME OF SAMPLE SOURCE... PARADISE HOT SPRING
LOCATION
COUNTRY..... UNITED STATES 40N 011W 06
STATE..... COLORADO
COUNTY..... DOLORES
GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 37-45.25 N 108-07.88 W
UTM ZONE... +12
NORTHING... 4182210.
752733.

MAP REFERENCE..... GROUNDHOG MOUNTAIN 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/04/00
TEMPERATURE (C)..... 42.0
DISCHARGE..... 114. L/MIN

WATER ANALYSIS

P..... 6.8
 SPECIFIC CONDUCTANCE..... 10000.
 ALKALINITY..... 697. AS HCO₃
 TOTAL DISSOLVED SOLIDS... 6180.
 CHARGE IMBALANCE (% DIFF)... 1.5
 ANALYSIS IN MG/L

ISOTOPES (0/00)

AL....	CR.....	MG...	28.		
AS....	CS.....	MN...	0.830		
H..... 4.3	F..... 3.7	NA...	1900.	SI02.	150.
HE.....	FE(TOT) 0.2	NH...		S04..	110.
CA.... 170.	HCO ₃ ... 697.	NO ₃ ..	0.09		
CU....	H ₂ S.....	PO ₄ ..	0.67		
CL.... 3100.					

CO.... R..... 370.
 REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00081

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073129

NAME OF SAMPLE SOURCE... PARADISE HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... COLORADO 40N 01W 06
 COUNTY..... DOLORES
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 37-45.25 N 108-07.88 W
 UTM ZONE... +12
 NORTHING... 4182210.
 752733.

MAP REFERENCE..... GROUNDHOG MOUNTAIN 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 40.0
 DISCHARGE..... 129. L/MIN

WATER ANALYSIS

P..... 6.9
 SPECIFIC CONDUCTANCE..... 10700.
 ALKALINITY..... 685. AS HCO₃
 TOTAL DISSOLVED SOLIDS... 6530.
 CHARGE IMBALANCE (% DIFF)... 0.6
 ANALYSIS IN MG/L

ISOTOPES (0/00)

AL....	CR.....	MG...	30.		
AS....	CS.....	MN...	0.86		
H..... 1.0	F..... 3.8	NA...	1900.	SI02.	200.
HE.....	FE(TOT) 0.06	NH...		S04..	140.
CA.... 240.	HCO ₃ ... 685.	NO ₃ ..	0.11		
CU....	H ₂ S.....	PO ₄ ..	0.37		
CL.... 3300.					

CO.... R..... 380.
 REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00082

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073163

NAME OF SAMPLE SOURCE... RICO AREA: BIG GEYSER WARM SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY... UNITED STATES 40N 01W

STATE... COLORADO

COUNTY... DOLORES

GEOLOGIC PROVINCE..

MAP REFERENCE... RICO 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1976/04/00

TEMPERATURE (C)... 36.0

DISCHARGE... 45. L/MIN

WATER ANALYSIS

P4... 6.8

SPECIFIC CONDUCTANCE... 3100.

ALKALINITY... 1650. AS HCO3

TOTAL DISSOLVED SOLIDS... 2740.

CHARGE IMBALANCE (% DIFF)... 1.3

ANALYSIS IN MG/L

AL.... CR.... MG... 93.

AS.... CS.... MN... 4.4

H.... 0.070 F... 1.5 NA... 67. SI02. 140.

HE.... FE(TOT)... 8.5 NB... 920.

CA.... 690. HCO3... 1650. NO3... 0.01

CD.... H2S.... PO4... 0.55

CL.... 4.3

CO.... K.... 31.

REFERENCE AND IDENTIFICATION

COMPILED BY... BURKHARDT, H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE... BARRETT AND PEARL, 1976

ISOTOPES (O/DWL)

RECORD 00083

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 00/J162

NAME OF SAMPLE SOURCE... RICO AREA: BIG GEYSER WARM SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY... UNITED STATES 40N 01W

STATE... COLORADO

COUNTY... DOLORES

GEOLOGIC PROVINCE..

MAP REFERENCE... RICO 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/09/00

TEMPERATURE (C)... 34.0

DISCHARGE... 30. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE... 3250.

ALKALINITY... 1700. AS HCO3

TOTAL DISSOLVED SOLIDS... 2750.

CHARGE IMBALANCE (% DIFF)... 1.4

ANALYSIS IN MG/L

AG.... CO3.... LI... 0.25

AL.... CR.... MG... 98.

AS.... 0.031 CS.... MN... 3.1

H.... 0.04 F... 2.1 NA... 78. SI02. 110.

HE.... FE(TOT)... 8.3 NB... 900.

ISOTOPES (O/DWL)

CA.... 680. HCU3.... 1700. NOJ.. 0.05
 CA.MG. MG..... N
 CO.... H2S..... PU4.. 0.25
 CL.... 4.1
 CO.... K..... 30. ZN... 1.0

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00084

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073161

NAME OF SAMPLE SOURCE... RICO AREA: DIAMOND DRILL HOLE
 LOCATION

COUNTRY..... UNITED STATES 40N 011W
 STATE..... COLORADO
 COUNTY..... DOLORES
 GEOLOGIC PROVINCE.. 14

COORDINATES

LAT/LONG... 37-42.08 N 108-01.75 W
 UTM ZONE... 12
 NORTHING... 4176628.
 761922.

MAP REFERENCE..... RICO 1124000

OTHER LOCALITY INFORMATION: LOCATED APPROX 100 YDS NW OF LITTLE SPRING IN MIDDLE OF FLOODPLAIN.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 44.0
 DISCHARGE..... 57. L/MIN

WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 2/10.
 ALKALINITY..... 1120. AS HCU3
 TOTAL DISSOLVED SOLIDS... 2250.
 CHARGE IMBALANCE (% DIFF)... 11.7

ANALYSIS IN MG/L

AL....	CR....	MG...	82.		
AS....	CS....	MN...	1.3		
B.... 0.070	F.... 1.4	NA...	66.	SI02.	120.
HE....	FE(TOT). 0.030	NH...		SO4..	810.
CA.... 590.	HCU3.... 1120.	NO3..	0.07		
CD....	H2S.....	PU4..	0.25		
CL.... 2.4					
CO....	K..... 28.				

ISOTOPE (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00085

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073164

NAME OF SAMPLE SOURCE... RICO AREA: GEYSER WARM SPRING
 LOCATION

COUNTRY..... UNITED STATES 40N 011W
 STATE..... COLORADO
 COUNTY..... DOLORES
 GEOLOGIC PROVINCE..

MAP REFERENCE..... RICO 1124000

SAMPLE DESCRIPTION AND CONDITIONS

COORDINATES

LAT/LONG... 37-42.03 N 108-01.73 W
 UTM ZONE... 12
 NORTHING... 4176536.
 761954.

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 38.0
 DISCHARGE..... 53. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 3200.
 ALKALINITY..... 1730. AS HCO₃
 TOTAL DISSOLVED SOLIDS... 2790.
 CHARGE IMBALANCE (% DIFF)... 2.3

ANALYSIS IN MG/L

ISOTOPIES (0/001)

AG....		CO ₃		LI....	0.250		
AL....	0.13	CR....		MG....	100.		
AS....	0.026	CS....		MN....	1.9		
AI....		CU....	0.004				
H....	0.080	F....	2.1	NA....	80.	SI02.	110.
HA....	0.034						
HE....		FE(TOT)...	8.5	NH....		SO4..	920.
HI....		GA....		NH4..		SR....	6.7
CA....	680.	HCO ₃	1730.	NO ₃ ..	0.02		
CA+MG.		MG.....	N	PO ₄ ..	0.017		
CD....		H ₂ S....			0.28		
CL....	3.9						
CO....		K.....	32.	ZN....		0.080	

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00086

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073165

NAME OF SAMPLE SOURCE... RICO AREA: LITTLE SPRING
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... COLORADO 40N 01W
 COUNTY..... DOLores
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 37-42.07 N 108-01.73 W
 UTM ZONE... 12
 NOTHING... 4176610.
 761952.

MAP REFERENCE..... RICO 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 38.0
 DISCHARGE..... 49. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 4700.
 ALKALINITY..... 1710. AS HCO₃
 TOTAL DISSOLVED SOLIDS... 2790.
 CHARGE IMBALANCE (% DIFF)... 12.0

ANALYSIS IN MG/L

ISOTOPIES (0/001)

AG....		CO ₃		LI....	0.210		
AL....		CR....		MG....	110.		
AS....	0.026	CS....		MN....	1.5		
H....	0.03	F....	1.5	NA....	76.	SI02.	120.
HE....		FE(TOT)...	4.8	NH....		SO4..	1000.
CA....	620.	HCO ₃	1710.	NO ₃ ..	0.05		
CA+MG.		MG.....	0.0001	PO ₄ ..	0.25		
CD....		H ₂ S....					
CL....	2.3						

CO.... K..... 5.6
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... RARETT AND PEARL, 1976

RECORD 00087

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073166

NAME OF SAMPLE SOURCE... RICO AREA: LITTLE SPRING
 LOCATION

COUNTRY..... UNITED STATES 40N 011W
 STATE..... COLORADO
 COUNTY..... DOLORES
 GEOLOGIC PROVINCE..

MAP REFERENCE..... NICO 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 39.0

DISCHARGE..... 57. L/MIN

WATER ANALYSIS

PH..... 7.0

SPECIFIC CONDUCTANCE..... 3350.

ALKALINITY..... 1450.

AS HCO₃

TOTAL DISSOLVED SOLIDS... 2700.

CHARGE IMBALANCE (% DIFF)... 4.6

ANALYSIS IN MG/L

AL....	CR....	MG....	92.		
AS....	CS....	MN....	1.6		
H.... 0.070	F.... 4.8	NA....	77.	5102.	120.
HE....	FE(TOT) 7.4	NH....		504..	900.
CA.... 690.	HCO ₃ 1450.	NO ₃ ..	0.08		
CL....	H ₂ S....	PO ₄ ..	0.34		
CL.... 3.					

ISOTOPE (0/00)

CO.... K..... 32.

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... RARETT AND PEARL, 1976

RECORD 00088

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073028

NAME OF SAMPLE SOURCE... DOTSERU WARM SPRINGS

LOCATION

COUNTRY..... UNITED STATES 05S 087W 12 SE OF NA
 STATE..... COLORADO
 COUNTY..... EAGLE
 GEOLOGIC PROVINCE..

MAP REFERENCE..... GLENWOOD SPRINGS 1:62500

OTHER LOCALITY INFORMATION: THIS SPRING LOCATED ON NORTH SIDE OF COLORADO RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

WATER ANALYSIS

PH..... 7.3

SPECIFIC CONDUCTANCE..... 18500.

COORDINATES

LAT/LONG... 39-37.65 N 107-06.37 W
 UTM ZONE... 13
 NORTHING... 4388325.
 319233.

ALKALINITY..... 454. AS HCO₃
 TOTAL DISSOLVED SOLIDS... 9940.
 CHARGE IMBALANCE (% DIFF)... 0.9
 ANALYSIS IN MG/L

ISOTOPIES (0/00)

AL....	CR.....	MG...	65.		
AS....	CS.....	MN...	0.02		
H.... 0.22	F..... 0.3	NA...	3500.	SI02.	13.
HE....	FE(TOT).. 0.04	NB...		S04..	430.
CA.... 240.	HCO ₃ 454.	NO ₃ ..	0.06		
CO....	H ₂ S.....	PO ₄ ..	0.03		
CL.... 5400.					
CO....	K..... 44.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00089

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0073027

NAME OF SAMPLE SOURCE... DOTSERU WARM SPRINGS

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... EAGLE
 GEOLOGIC PROVINCE..

TOWNSHIP-RANGE

TSS 087N 12 SE OF NW

COORDINATES

LAT/LONG... 39-37.65 N 107-06.37 W
 UTM ZONE... 13
 NORTHING... 4388325.
 319233.

MAP REFERENCE..... GLENWOOD SPRINGS 1:62500

OTHER LOCALITY INFORMATION: THIS SPRING LOCATED ON NORTH SIDE OF COLORADO RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 31.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 7.2
 SPECIFIC CONDUCTANCE..... 17000.
 ALKALINITY..... 451. AS HCO₃
 TOTAL DISSOLVED SOLIDS... 10400.

ISOTOPIES (0/00)

AL....	CR.....	MG...	79.		
AS....	CS.....	MN...	N		
H.... 0.21	F..... 0.8	NA...	3500.	SI02.	13.
HE....	FE(TOT).. N	NB...		S04..	430.
CA.... 260.	HCO ₃ 451.	NO ₃ ..	0.06		
CO....	H ₂ S.....	PO ₄ ..	0.06		
CO....	K..... 45.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00090

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0073026

NAME OF SAMPLE SOURCE... DOTSERU WARM SPRINGS

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... EAGLE
 GEOLOGIC PROVINCE..

TOWNSHIP-RANGE

TSS 087N 12 SE OF NW

COORDINATES

LAT/LONG... 39-37.65 N 107-06.37 W

STATE..... COLORADO
 COUNTY..... EAGLE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... GLENWOOD SPRINGS 1162500
 OTHER LOCALITY INFORMATION: THIS SPRING LOCATED ON NORTH SIDE OF COLORADO RIVER.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 31.0
 DISCHARGE..... N L/MIN
 WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 20000.
 ALKALINITY..... 453. AS HCO3
 CHARGE IMBALANCE (% DIFF).... 0.9
 ANALYSIS IN MG/L
 AG.... CO3.... LI... 0.1
 AL.... 0.1 CH.... MG... 62.
 AS.... N CS.... MN... 0.020
 AU.... CU.... 0.012
 H.... 0.21 F.... NA... 3500.
 HA.... 0.07
 HE.... FE(TOT). 0.02 NH... S04... 420.
 HI.... GA.... NH4... SR... 2.5
 CA.... 230. HCO3.... 453.
 CA+MG. MG.... 0.0001 PB... 0.06
 CL.... 5400.
 CO.... K..... 44. ZN... 0.01
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00091

GEOHERM SAMPLE FILE

GEOHERM FILE 101 0073029

NAME OF SAMPLE SOURCE... DOTSEHO WARM SPRINGS, SOUTH
 LOCATION
 COUNTRY..... UNITED STATES 055 087W 12 NW
 STATE..... COLORADO
 COUNTY..... EAGLE
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... GLENWOOD SPRINGS 1162500

COORDINATES

LAT/LONG... 39-37.62 N 107-06.00 W
 UTM ZONE... 13
 NORTING... 4388257.
 319761.

OTHER LOCALITY INFORMATION: THIS SPRING LOCATED ON SOUTH SIDE OF COLORADO RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/12/00
 TEMPERATURE (C)..... 32.0
 DISCHARGE..... N L/MIN
 WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 15000.
 ALKALINITY..... 421. AS HCO3
 TOTAL DISSOLVED SOLIDS... 9040.
 CHARGE IMBALANCE (% DIFF).... 1.6

ANALYSIS IN MG/L

AG.... CO3.... LI... 0.08
 AL.... CH.... MG... 54.
 AS.... 0.001 CS.... MN... 0.02

ISOLOPES (0/001)

H.....	0.19	F.....	0.3	NA...	3100.	SI02.	13.
HE.....		FE(TOT)...	0.01	NH...		S04..	480.
CA.....	250.	HC03....	421.	N03..	0.09		
CA+MG.		MG.....	N	P04..	0.06		
CO.....		M2S.....					
CL.....	4900.						
CO.....		K.....	37.	ZN...	0.01		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00092

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073004

NAME OF SAMPLE SOURCE... CANON CITY HOT SPRING

LOCATION

COUNTRY.....	UNITED STATES	TOWNSHIP-RANGE	18S 070W 31 SE
STATE.....	COLORADO		
COUNTY.....	FREMONT		
GEOLOGIC PROVINCE..			

MAP REFERENCE..... ROYAL GORGE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 40.0

DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS

PH.....	7.1		
SPECIFIC CONDUCTANCE.....	1980.		
ALKALINITY.....	888.	AS HC03	
TOTAL DISSOLVED SOLIDS...	1210.		
CHARGE IMBALANCE (% DIFF)...	1.5		

ANALYSIS IN MG/L

AL.....		CR.....		MG...	61.		
AS.....		CS.....		MN...	N		
H.....	0.2	F.....	1.5	NA...	190.	SI02.	21.
HE.....		FE(TOT)...	0.020	NH...		S04..	120.
CA.....	170.	HC03....	888.	N03..	0.67		
CO.....		M2S.....	.	P04..	0.09		
CL.....	190.						
CO.....		K.....	15.				

ISOLINES 10/001

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00093

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073003

NAME OF SAMPLE SOURCE... CANON CITY HOT SPRING

LOCATION

COUNTRY.....	UNITED STATES	TOWNSHIP-RANGE	18S 070W 31 SE
STATE.....	COLORADO		
COUNTY.....	FREMONT		
GEOLOGIC PROVINCE..			

MAP REFERENCE..... ROYAL GORGE 1124000

COORDINATES

LAT/LONG...	38-25.95 N 105-15.77 W
UTM ZONE...	+13
NORTHING...	4253630.
	477060.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 40.0
 DISCHARGE..... 3.8 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2010.
 ALKALINITY..... 888. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1220.
 CHARGE IMBALANCE (% DIFF)... 1.9

ANALYSIS IN MG/LISOTOPIES (0/001)

AL.... 0.02	CR.....	MG...	55.		
AS....	CS.....	MN...	0.01		
AU....	CU..... 0.002				
H.... 0.2	F..... 1.5	NA...	180.	SiO2.	21.
HA.... 0.1					
HF....	FE(TOT). 0.03	NB...		SO4..	130.
HI....	GA.....	NH4..		SR...	1.1
CA.... 190.	HCO3.... 888.	NO3..	0.65		
CA+MG.	HG.....	PH...	0.009		
CO....	H2S.....	PO4..	0.03		
CL.... 190.					
CO....	K..... 16.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00094

GEOHEM SAMPLE FILE

GEOHEM FILE ID: 0073002

NAME OF SAMPLE SOURCE... CANON CITY HOT SPRING

LOCATIONTOWNSHIP-RANGE

COUNTRY..... UNITED STATES 18S 07W 31 SE
 STATE..... COLORADO
 COUNTY..... FREMONT
 GEOLOGIC PROVINCE.. 14

MSP REFERENCE..... ROYAL GORGE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 40.0
 DISCHARGE..... 19. L/MIN

WATER ANALYSIS

PH..... 6.3
 SPECIFIC CONDUCTANCE..... 1900.
 ALKALINITY..... 887. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1230.
 CHARGE IMBALANCE (% DIFF)... 3.8

ANALYSIS IN MG/LISOTOPIES (0/001)

AG....	CO3....	LI...	0.230		
AL....	CR.....	MG...	62.		
AS.... 0.011	CS.....	MN...	0.01		
H.... 0.19	F..... 1.5	NA...	190.	SiO2.	22.
HF....	FE(TOT). 0.03	NB...		SO4..	130.
CA.... 190.	HCO3.... 887.	NO3..	0.55		
CA+MG.	HG.....				
CO....	H2S.....	PO4..	2.2		

CL.... 180.
 CO.... K.... 15.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... PEARL, R.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ZN... 0.010

RECORD 00095

GEOHEM SAMPLE FILE

GEOHEM FILE 10: 0073025

NAME OF SAMPLE SOURCE... DUN K RANCH ARTESIAN WELL
 LOCATION
 COUNTRY..... UNITED STATES 225 068W 05 NE
 STATE..... COLORADO
 COUNTY..... FREMONT
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... NETHORE 1:24000

COORDINATES

LAT/LONG... 38-10.33 N 105-00.53 W
 UTM ZONE... 13
 NORTHING... 4224712.
 499226.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 28.0
 DISCHARGE..... 95. L/MIN

WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 2300.
 ALKALINITY..... 1580. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1710.
 CHARGE IMBALANCE (% DIFF)... 2.0

ISOTOPIES (0/00)

ANALYSIS IN MG/L					
AG....		CO3....		LI...	0.52
AL.... 0.04		CR....		MG...	66.
AS.... 0.14		CS....		MN...	0.87
AU....		CU.... 0.003			
H.... 0.56		F.... 1.9		NA...	400.
BA.... 0.3				SI02.	44.
BE....		FE(TOT). 1.1		NH...	
BI....		GA....		SO4...	64.
CA.... 160.		HCO3.... 1580.		SR...	1.1
CA+MG.		HG..... N			
CD....		H2S....		NO3...	0.01
CL.... 150.				PB...	0.012
				PO4...	0.16

ZN... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00096

GEOHEM SAMPLE FILE

GEOHEM FILE 10: 0073037

NAME OF SAMPLE SOURCE... FLORENCE ARTESIAN WELL
 LOCATION
 COUNTRY..... UNITED STATES 195 068W 07 NE OF NW
 STATE..... COLORADO
 COUNTY..... FREMONT
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... FLORENCE 1:24000

COORDINATES

LAT/LONG... 38-24.88 N 105-02.72 W
 UTM ZONE... 13
 NORTHING... 4251619.
 495042.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 28.0
 DISCHARGE..... 492. L/MIN

WATER ANALYSIS

PH..... 6.3
 SPECIFIC CONDUCTANCE..... 2200.
 ALKALINITY..... 1200. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1480.
 CHARGE IMBALANCE (% DIFF)... 4.4

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....		CO3....		LI...	0.24		
AL....	0.03	CH....		MG...	78.		
AS....	0.001	CS....		MN...	0.05		
AU....		CU....	0.003				
H....	0.16	F.....	1.1	NA...	270.	SI02.	21.
HA....	0.06						
HE....		FE(TOT).	0.5	NB...		SO4..	210.
HI....		GA....		NH4..		SR...	2.9
CA....	180.	HCO3...	1200.	NO3..	0.01		
CA+MG.		HG..... N		PB...	0.01		
CD....		H2S....		PO4..	0.03		
CL....	98.						
CO....		K.....	32.	ZN...	0.01		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00097

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073038

NAME OF SAMPLE SOURCE... FREMONT NATATORIUM HOT SPRING
 LOCATION

COUNTRY..... UNITED STATES 185 070W 26
 STATE..... COLORADO
 COUNTY..... FREMONT
 GEOLOGIC PROVINCE..

MAP REFERENCE..... CANON CITY 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 35.0
 DISCHARGE..... 76. L/MIN

WATER ANALYSIS

PH..... 6.9
 SPECIFIC CONDUCTANCE..... 1900.
 ALKALINITY..... 628. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1370.
 CHARGE IMBALANCE (% DIFF)... 1.8

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....		CO3....		LI...	0.12		
AL....	0.03	CH....		MG...	70.		
AS.... N		CS....		MN...	0.05		
AU....		CU....	0.002				
H....	0.09	F.....	0.5	NA...	220.	SI02.	16.
HA....	0.03						

BE....	FE(TOT)...	0.88	NB...	S04...	550.
BI....	GA.....		NH4...	SR...	1.7
CA.... 150.	HCO3.....	628.	NO3... 0.03		
CA+MG.	MG.....	0.0001	PH... 0.009		
CD....	H2S.....		PO4... N		
CL.... 36.					
CO....	K.....	13.		ZN...	0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00098

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 007J040

NAME OF SAMPLE SOURCE... FREMONT NATATORIUM HOT SPRING
 LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... COLORADO 18S 07W 26
 COUNTY..... FREMONT
 GEOLOGIC PROVINCE..

MAP REFERENCE..... CANON CITY 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 35.0
 DISCHARGE..... 68. L/MIN

WATER ANALYSIS

PH..... 6.7
 SPECIFIC CONDUCTANCE..... 1850.
 ALKALINITY..... 633. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1330.
 CHARGE IMBALANCE (% DIFF)... 2.5

ANALYSIS IN MG/L

AL....	CR.....	MG...	67.		
AS....	CS.....	MN...	0.04		
R.... 0.09	F..... 0.5	NA...	210.	S102.	15.
HF....	FE(TOT)...	NO...		S04...	540.
CA.... 140.	HCO3..... 633.	NO3...	0.01		
CO....	H2S.....	PO4...	0.03		
CL.... 30.					
CO....	K.....				

ISOTOPIES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00099

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 007J039

NAME OF SAMPLE SOURCE... FREMONT NATATORIUM HOT SPRING
 LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... COLORADO 18S 07W 26
 COUNTY..... FREMONT
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... CANON CITY 1:24000

COORDINATES

LAT/LONG... 38-27.63 N 105-11.77 W
 UTM ZONE... 13
 NORTHING... 4256722.
 482885.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 36.0
 DISCHARGE..... 76. L/MIN

WATER ANALYSIS

PH..... 6.8
 SPECIFIC CONDUCTANCE..... 1900.
 ALKALINITY..... 630. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1300.
 CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

AL....		CR.....		MG....	67.		
AS....		CS.....		MN....	0.05		
H....	0.08	F.....	0.5	NA....	210.	SI02..	15.
RE....		FE(TOT)..	0.98	NB....		SO4... 150.	
CA....	140.	HCO3....	630.	NO3... 0.01			
CO....		H2S.....		PO4... N			
CL....	30.						
CO....		K.....	13.				

ISOTOPIES (D/RH)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00100

GEOTHERM FILE 101 0073189

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SWISSVALE WARM SPRINGS: SPRING A
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... FREMONT

COORDINATES

LAT/LONG... 38-28.82 N 105-53.42 W
 UTM ZONE... 13
 NORTHING... 4259280.
 422341.

GEOLOGIC PROVINCE.. 15
 MAP REFERENCE..... HOWARD 1162500

OTHER LOCALITY INFORMATION: LOCATED 30 FEET SOUTH OF U.S. BUREAU OF LAND MANAGEMENT CADASTRAL SURVEY MARKER.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 38.0
 DISCHARGE..... 473. L/MIN

WATER ANALYSIS

PH..... 7.
 SPECIFIC CONDUCTANCE..... 880.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00101

GEOTHERM FILE 101 0073190

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SWISSVALE WARM SPRINGS: SPRING F
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... FREMONT
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... HOWARD 1162500

COORDINATES

LAT/LONG... 38-28.82 N 105-53.47 W
 UTM ZONE... 13
 NORTHING... 4259281.
 422268.

OTHER LOCALITY INFORMATION: LOCATED APPROX. 350 FEET WEST OF SPRING A AND ABOUT 20 FT ABOVE THE RIVER BANK.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 20.0
DISCHARGE..... 76. L/MIN

WATER ANALYSIS

PH..... 7.
SPECIFIC CONDUCTANCE..... 775.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00102

GEOHEM SAMPLE FILE

GEOHEM FILE 101 0073222

NAME OF SAMPLE SOURCE... WELLSVILLE WARM SPRING

LOCATION..... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 49N 010E 18

STATE..... COLORADO

COUNTY..... FREMONT

GEOLOGIC PROVINCE... 15

MAP REFERENCE..... HOWARD 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 33.0

DISCHARGE..... 606. L/MIN

WATER ANALYSIS

PH..... 7.0

SPECIFIC CONDUCTANCE..... 760.

ALKALINITY..... 322.

TOTAL DISSOLVED SOLIDS... 484.

CHARGE IMBALANCE (% DIFF)... 2.5

ANALYSIS IN MG/L

AG....		CO3.....		LI....	0.1		
AL....		CR.....		MG....	27.		
AS....	0.009	CS.....		MN....	0.01		
H....	0.1	F.....	0.9	NA....	50.	SI02..	30.
HE....		FE(TOT)...	0.06	NB....		SO4...	72.
CA....	76.	HCO3.....	322.	NO3...	0.26		
CA+MG..		HG..... N					
CO....		H2S.....		PO4... N			
CL....	62.						

CO.... 62. K..... 6.1

ZN... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 38-29.12 N 105-54.60 W

UTM ZONE... 13

NORTHING... 4259851.

420631.

ISOTOPES (0/00)

RECORD 00103

GEOHEM SAMPLE FILE

GEOHEM FILE 101 0000403

NAME OF SAMPLE SOURCE... GREENWOOD SPRINGS

LOCATION..... TOWNSHIP-RANGE

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... GARFIELD

COORDINATES

LAT/LONG... 39-33.00 N 107-19.30 W

UTM ZONE... 13

NORTHING... 4380179.

300513.

GEOLOGIC PROVINCE..

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 41.1
DISCHARGE..... 53. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1912/00/00

PH..... 8.5

CHARGE IMBALANCE (% DIFF).... 2.9

ANALYSIS

ISOTOPE (0/00)

B.....	F.....	NA...	7586.	SI02.	100.
ME.....	FE(TOT).	NH...		S04..	2693.
CA.... 853.	HC03....				
CL.... 11593.					
CO....	K.....				

REFERENCE AND IDENTIFICATION

COMPILED BY..... GARYARD, RENNER, J.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
REFERENCE..... GEORGE AND OTHERS, 1920

RECORD 00104

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0073047

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: DRINKING SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 06S 089W 09 SE OF NE

STATE..... COLORADO

COUNTY..... GARFIELD

GEOLOGIC PROVINCE..

MAP REFERENCE..... GLENWOOD SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 100 FEET EAST OF POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 51.0

DISCHARGE..... 530. L/MIN

WATER ANALYSIS

PH..... 6.4

SPECIFIC CONDUCTANCE..... 30000.

ALKALINITY..... 772. AS HC03

TOTAL DISSOLVED SOLIDS.... 18800.

CHARGE IMBALANCE (% DIFF).... 0.3

ANALYSIS IN MG/L

ISOTOPE (0/00)

AL....	CR....	MG...	15.		
AS....	CS....	MN...	0.06		
H.... 0.87	F.....	NA...	6600.	SI02.	30.
ME....	FE(TOT).	NH...		S04..	1100.
CA.... 480.	HC03....	NO3..	0.01		
CO....	H2S....	PO4..	0.15		
CL.... 10000.					
CU....	K.....				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HANNETT AND PEARL, 1976

RECORD 00105

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073046

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: DRINKING SPRING
 LOCATION

COUNTRY..... UNITED STATES 06S 089W 09 SE OF NE
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE.. 14

COORDINATES

LAT/LONG... 39-32.98 N 107-19.32 W
 UTM ZONE... 13
 NORTHING... 4380142.
 300483.

MAP REFERENCE..... GLENWOOD SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 100 FEET EAST OF POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 51.0

DISCHARGE..... 609. L/MIN

WATER ANALYSIS

PH..... 6.4

SPECIFIC CONDUCTANCE..... 31100.

ALKALINITY..... 773.

AS HCO3

TOTAL DISSOLVED SOLIDS... 20500.

CHARGE IMBALANCE (% DIFF)... 0.0

ANALYSIS IN MG/L

AL....		CH....		MG....	82.		
AS....		CS....		MN....	0.07		
R....	0.92	F....	2.7	NA....	7000.	S102.	30.
HE....		FE(TOT)...	0.02	NB....		S04..	1100.
CA....	500.	HCO3....	773.	NO3..	0.01		
CO....		H2S....		PO4..	0.18		
CL....	11000.						
CO....		K.....	380.				

ISOTOPE5 (U/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00106

GEOTERM FILE 101 0073045

GEOTERM SAMPLE FILE

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: DRINKING SPRING
 LOCATION

COUNTRY..... UNITED STATES 06S 089W 09 SE OF NE
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE..

MAP REFERENCE..... GLENWOOD SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 100 FEET EAST OF POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 50.0

WATER ANALYSIS

PH..... 6.5

SPECIFIC CONDUCTANCE..... 30100.

ALKALINITY..... 771.

AS HCO3

TOTAL DISSOLVED SOLIDS... 20200.

CHARGE IMBALANCE (% DIFF)... 2.3

COORDINATES

LAT/LONG... 39-32.98 N 107-19.32 W
 UTM ZONE... 13
 NORTHING... 4380142.
 300483.

ANALYSIS IN MG/L

ISOLINES (U/MU)

AG....		CO3....		LI...	0.9		
AL....		CR....		MG...	88.		
AS....	0.001	CS....		MN...	0.09		
H....	0.88	F....	2.0	NA...	6900.	SI02.	29.
RE....		FE(TOT)...	0.15	NH...		S04..	1100.
CA....	530.	HCO3....	777.	NO3..	N		
CA+MG.		MG....	N				
CD....		H2S....		PO4..	0.15		
CL....	11000.						
CO....		K....	170.			ZN...	0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00107

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073044

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: DRINKING SPRING
 LOCATION

COUNTRY..... UNITED STATES 065 089W 09 SE OF NE

STATE..... COLORADO

COUNTY..... GARFIELD

GEOLOGIC PROVINCE..

MAP REFERENCE..... GLENWOOD SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 100 FEET EAST OF POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 50.0

WATER ANALYSIS

PH..... 6.3

ALKALINITY..... 778.

AS HCO3

TOTAL DISSOLVED SOLIDS... 20300.

CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

ISOLINES (U/MU)

AG....		CO3....		LI...	0.81		
AL....		CR....		MG...	90.		
AS....	0.001	CS....		MN...	0.08		
H....	0.91	F....	2.3	NA...	7000.	SI02.	32.
RE....		FE(TOT)...	0.02	NH...		S04..	1100.
CA....	510.	HCO3....	778.	NO3..	0.01		
CA+MG.		MG....	N				
CD....		H2S....		PO4..	0.09		
CL....	11000.						
CO....		K....	180.			ZN...	0.02

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00108

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073049

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: GRAVES SPRING
 LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 065 089W 09 NW OF NW LAT/LONG... 39-33.23 N 107-20.13 W
 STATE..... COLORADO UTM ZONE... 13
 COUNTY..... GARFIELD NORTHING... 4380635.
 GEOLOGIC PROVINCE... 299335.
 MAP REFERENCE..... GLENWOOD SPRINGS 1124000
 OTHER LOCALITY INFORMATION: LOCATED AT 0281 164 ROAD IN GLENWOOD SPRINGS.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 46.0
 DISCHARGE..... 14. L/MIN

WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 33500.
 ALKALINITY..... 744. AS HCO3
 TOTAL DISSOLVED SOLIDS... 21500.
 CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

AG....	CO3....	LI...	0.69		
AL....	CR....	MG...	150.		
AS.... N	CS....	MN...	0.05		
H.... 1.0	F.... 2.9	NA...	7000.	SI02.	32.
HE....	FE(TOT) 0.07	NB...		SO4...	2000.
CA.... 770.	HCO3... 744.	NO3..	0.04		
CA+MG.	HG..... N	PO4..	0.15		
CD....	H2S.....				
CL.... 11000.					
CO....	K..... 180.				
		ZN...	0.02		

ISOTOPE (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGHALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00109

GEOHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: RAILROAD SPRING
 LOCATION

GEOHERM FILE ID: 0073057

COUNTRY..... UNITED STATES 065 089W 10 NW OF NE NW
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE...
 MAP REFERENCE..... GLENWOOD SPRINGS 1124000

COORDINATES

LAT/LONG... 39-33.27 N 107-18.85 W
 UTM ZONE... 13
 NORTHING... 4380662.
 301170.

OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER WEST OF RAILROAD TUNNEL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 51.0
 DISCHARGE..... 244. L/MIN

WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 29900.
 ALKALINITY..... 479. AS HCO3
 TOTAL DISSOLVED SOLIDS... 18200.
 CHARGE IMBALANCE (% DIFF)... 1.3

ISOTOPE (0/00)

ANALYSIS IN MG/L

AL....	CA....	MG...	84.
AS....	CS....	MN...	0.04

H.....	0.89	F.....	2.1	NA...	6200.	SI02.	29.
FE.....		FE(TOT)...	0.04	NH...		S04..	880.
CA.....	460.	HCO3.....	479.	NO3..	0.01		
CO.....		H2S.....		PO4..	0.12		
CL.....	10000.						
CO.....		K.....	180.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00110

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073056

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: RAILROAD SPRING

LOCATION TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 06S 089W 10 NW OF NE NW
 STATE..... COLORADO
 COUNTY..... GARFIELD

LAT/LONG... 39-33.27 N 107-18.85 W
 UTM ZONE... +13
 NORTHING... 4380662.
 301170.

GEOLOGIC PROVINCE..

MAP REFERENCE..... GLENWOOD SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER WEST OF RAILROAD TUNNEL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 51.0

DISCHARGE..... 284. L/MIN

WATER ANALYSIS

P4..... 7.1

SPECIFIC CONDUCTANCE..... 30500.

ALKALINITY..... 775. AS HCO3

TOTAL DISSOLVED SOLIDS... 18400.

CHARGE IMBALANCE (% DIFF)... 5.8

ANALYSIS IN MG/L

AL.....		CR.....		MG...	80.		
AS.....		CS.....		MN...	0.07		
H.....	0.85	F.....	2.4	NA...	6100.	SI02.	29.
FE.....		FE(TOT)...	0.02	NH...		S04..	1100.
CA.....	460.	HCO3.....	775.	NO3..	0.01		
CO.....		H2S.....		PO4..	0.12		
CL.....	10000.						
CO.....		K.....	200.				

ISOTOPE (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00111

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073050

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING A

LOCATION TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 06S 089W 09 NW OF NW
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... GLENWOOD SPRINGS 1:24000

LAT/LONG... 39-32.97 N 107-19.17 W
 UTM ZONE... +13
 NORTHING... 4380118.
 300690.

OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER, 480 FEET WEST OF SIPHON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 44.0
DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 6.3
SPECIFIC CONDUCTANCE..... 31000.
ALKALINITY..... 736. AS HCO₃
TOTAL DISSOLVED SOLIDS..... 17600.
CHARGE IMBALANCE (% DIFF).... 3.5

ANALYSIS IN MG/L

AG....	CO ₃	LI...	0.73		
AL....	CR....	MG...	88.		
AS.... N	CS....	MN...	0.07		
H.... 0.8	F.... 2.2	NA...	6000.	SI02.	30.
HF....	FE(TOT).... 0.04	NH...		SO4...	980.
CA.... 410.	HCO ₃ 736.	NO ₃ ..	0.01		
CA+MG.	HG.... N	P04..	0.09		
CD....	H2S.....				
CL.... 9600.					
CO....	N..... 160.	ZN...	0.02		

ISOTOPIES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00112

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073051

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING B

LOCATION
COUNTRY..... UNITED STATES 06S 089W 10 NW OF SW
STATE..... COLORADO
COUNTY..... GARFIELD
GEOLOGIC PROVINCE..
MAP REFERENCE..... GLENWOOD SPRINGS 1124000

COORDINATES

LAT/LONG... 39-33.03 N 107-19.07 W
UTM ZONE... 13
NUTTING... 4380226.
300844.

OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER 27 FEET WEST OF SIPHON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 51.0
DISCHARGE..... 284. L/MIN

WATER ANALYSIS

PH..... 6.5
SPECIFIC CONDUCTANCE..... 35000.
ALKALINITY..... 747. AS HCO₃
TOTAL DISSOLVED SOLIDS..... 18300.
CHARGE IMBALANCE (% DIFF).... 1.4

ANALYSIS IN MG/L

AG....	CO ₃	LI...	0.8		
AL.... 0.5	CR....	MG...	88.		
AS.... N	CS....	MN...	0.07		
AI....	CU.... 0.02	NA...	6300.	SI02.	30.
H.... 0.70	F.... 2.1	NH...		SO4...	1000.
HA.... 0.07	FE(TOT).... 0.03				
HF....					

ISOTOPIES (0/001)

HI....	GA.....	NH4..	SR... 8.1
CA.... 450.	HCO3.... 747.	NO3.. 0.02	
CA+MG.	MG..... N	PO4.. 0.09	
CO....	H2S.....	PO4.. 0.03	
CL.... 9900.			
CO....	K..... 170.		
		ZN... 0.02	

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00113

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073054

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING B

LOCATION TOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 06S 089W 10 NW OF SW

LAT/LONG... 39-33.03 N 107-19.07 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... GARFIELD

NORTHING... 4380226.

GEOLOGIC PROVINCE..

300844.

MAP REFERENCE..... GLENWOOD SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER 27 FEET WEST OF SIPHON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 51.0

DISCHARGE..... 416. L/MIN

WATER ANALYSIS

PH..... 7.0

SPECIFIC CONDUCTANCE.... 29700.

ALKALINITY..... 746. AS HCO3

TOTAL DISSOLVED SOLIDS... 17800.

CHARGE IMBALANCE (% DIFF)... 0.8

ANALYSIS IN MG/L

ISOTOPE (0/00)

AL.... CR.... MG... 86.

AS.... CS.... MN... 0.06

H.... 0.84 F.... 2.1 NA... 6300. S102. 28.

HE.... FE(TOT). 0.04 NB... 504.. 990.

CA.... 360. HCO3.... 746. NO3.. N

CO.... H2S..... PO4.. 0.12

CL.... 9500.

CO.... K..... 170.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00114

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073053

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING B

LOCATION TOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 06S 089W 10 NW OF SW

LAT/LONG... 39-33.03 N 107-19.07 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... GARFIELD

NORTHING... 4380226.

GEOLOGIC PROVINCE.. 14

300844.

MAP REFERENCE..... GLENWOOD SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER 27 FEET WEST OF SIPHON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 51.0
 DISCHARGE..... 379. L/MIN

WATER ANALYSIS

PH..... 6.7
 SPECIFIC CONDUCTANCE..... 24100.
 ALKALINITY..... 749. AS HCO₃
 TOTAL DISSOLVED SOLIDS..... 17700.
 CHARGE IMBALANCE (% DIFF).... 1.6

ANALYSIS IN MG/L

ISOTOPES (0/001)

AL.....	CH.....	MG.....	76.		
AS.....	CS.....	MN.....	0.07		
H..... 0.84	F..... 2.1	NA.....	6500.	SI02.	28.
HE.....	FE(TOT)..... 0.03	NB.....		SO4..	1000.
CA..... 49.	HCO ₃ 749.	NO ₃	0.01		
CO.....	H ₂ S.....	PO ₄	0.12		
CL..... 9500.					
CO.....	K..... 190.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRITT AND PEARL, 1976

RECORD 00115

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073052

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA SPRING B

LOCATION
 COUNTRY..... UNITED STATES 06S 089W 10 NW OF SD
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 39-33.03 N 107-19.07 W
 UTM ZONE... 13
 NORTING... 4380226.
 300844.

MAP REFERENCE..... GLENWOOD SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER 27 FEET WEST OF SIPHON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 50.0
 DISCHARGE..... 284. L/MIN

WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 31000.
 ALKALINITY..... 752. AS HCO₃
 TOTAL DISSOLVED SOLIDS..... 18400.
 CHARGE IMBALANCE (% DIFF).... 0.6

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG.....	CO ₃	LI.....	0.86		
AL.....	CR.....	MG.....	79.		
AS..... 0.001	CS.....	MN.....	0.07		
H..... 0.83	F..... 2.3	NA.....	6400.	SI02.	27.
HE.....	FE(TOT)..... 0.06	NB.....		SO4..	1100.
CA..... 490.	HCO ₃ 752.	NO ₃	0.18		
CA+MG.	H ₂ S.....	PO ₄	0.09		
CO.....					
CL..... 9800.					

CO... K... 160. ZN... U.02
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00116

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073233

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING C
 LOCATION

COUNTRY..... UNITED STATES 06S 089W 10 NW OF SW
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 39-32.03 N 107-19.03 W
 UTM ZONE... 13
 NORTING... 4378374.
 300853.

MAP REFERENCE..... GLENWOOD SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED 170 FEET OF SIPHON PIPE ON SOUTH SIDE OF COLORADO RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 46.0

DISCHARGE..... N L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00117

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073055

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: SPRING D
 LOCATION

COUNTRY..... UNITED STATES 06S 089W 10 NW OF SW
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 39-33.08 N 107-19.00 W
 UTM ZONE... 13
 NORTING... 4380316.
 300946.

MAP REFERENCE..... GLENWOOD SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED ON SOUTH SIDE OF COLORADO RIVER, 225 FEET EAST OF SIPHON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 50.0

DISCHARGE..... 280. L/MIN

WATER ANALYSIS

PH..... 6.4

SPECIFIC CONDUCTANCE..... 36000.

ALKALINITY..... 745.

TOTAL DISSOLVED SOLIDS... 18000.

CHARGE IMBALANCE (% DIFF)... 156.8

ANALYSIS IN MG/L

AG....	COJ....	LI...	0.8
AL.... 0.65	CR....	MG...	82.
AS.... N	CS....	MN...	0.07
AU....	CU.... 0.02	NA...	89.
H.... 0.81	F.... 2.1	SI02.	30.
HA.... 0.08	FE (TOT)... 0.03	SO4...	1000.
HE....	GA....	SH...	9.0
HI....	HC03.... 745.	NUJ...	0.01
CA.... 450.			

ISOTOPES (O/R/L)

CA+MG. HG..... N PB... 0.09
 CD.... H2S..... PU4.. 0.09
 CL.... 9800. K..... 160. ZN... 0.01
 CO....

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00118

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073048

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: VAPOR CAVES, MENS HOT SPRING
 LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY..... UNITED STATES 06S 089W 09 SE OF NE LAT/LONG... 39-32.98 N 107-19.28 W
 STATE..... COLORADO UTM ZONE... +13
 COUNTY..... GARFIELD NORTHING... 4380141.
 GEOLOGIC PROVINCE... 300541.
 MAP REFERENCE..... GLENWOOD SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED ON NORTH SIDE OF COLORADO RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 50.0
 DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 6.7
 SPECIFIC CONDUCTANCE..... 31000.
 ALKALINITY..... 744. AS HCO3
 TOTAL DISSOLVED SOLIDS... 18000.
 CHARGE IMBALANCE (± DIFF)... 0.9

ANALYSIS IN MG/L

AG....	CO3....	LI...	0.67		
AL....	CH....	MG...	40.		
AS.... 0.001	CS....	MN...	0.07		
H.... 0.87	F.... 1.9	NA...	6300.	SI02.	28.
HE....	FE(TOT)... 0.08	NH...		SO4..	1100.
CA.... 440.	HCO3.... 744.	NO3..	0.01		
CA+MG.	HG..... N	PU4..	0.09		
CU....	H2S.....				
CL.... 9600.					
CO....	K..... 150.	ZN...	0.02		

ISOTOPES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00119

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073043

NAME OF SAMPLE SOURCE... GLENWOOD SPRINGS AREA: YAMPA (BIG) SPRINGS
 LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY..... UNITED STATES 06S 089W 09 SE OF NE LAT/LONG... 39-32.98 N 107-19.30 W
 STATE..... COLORADO UTM ZONE... +13
 COUNTY..... GARFIELD NORTHING... 4380142.
 GEOLOGIC PROVINCE... 300512.
 MAP REFERENCE..... GLENWOOD SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED ON NORTH SIDE OF COLORADO RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 50.0
 DISCHARGE..... 8566. L/MIN

WATER ANALYSIS

PH..... 6.3
 SPECIFIC CONDUCTANCE..... 36800.
 ALKALINITY..... 773. AS HCO3
 TOTAL DISSOLVED SOLIDS... 20200.
 CHARGE IMBALANCE (% DIFF)... 2.3

ANALYSIS IN MG/L

AG....		CO3....		LI....	0.8		
AL....	0.22	CR....		MG....	91.		
AS....	N	CS....		MN....	0.08		
AU....		CU....	0.02				
B....	0.89	F....	2.3	NA....	6900.	5102.	32.
BA....	0.1						
BE....		FE(TOT)...	0.06	NB....		504..	1100.
BI....		GA....		NH4..		SR...	8.9
CA....	510.	HCO3....	773.	NO3..	0.01		
CA+MG.		HG....	N	PH...	0.1		
CD....		H2S....		PO4..	0.12		
CL....	11000.						
CO....		K....	180.				
				ZN...		0.03	

ISOTOPES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00120

GEOHEM SAMPLE FILE

NAME OF SAMPLE SOURCE... SOUTH CANYON HOT SPRINGS; SPRING A
 LOCATION
 COUNTRY..... UNITED STATES 065 090W 02 SE OF SW
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... STORM KING MOUNTAIN 1124000

GEOHEM FILE ID: 0073182

COORDINATES

LAT/LONG... 39-33.27 N 107-23.88 W
 UTM ZONE... 13
 NORTHING... 4380850.
 293967.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 47.0
 DISCHARGE..... 64. L/MIN

WATER ANALYSIS

PH..... 7.3
 SPECIFIC CONDUCTANCE..... 1100.
 ALKALINITY..... 305. AS HCO3
 TOTAL DISSOLVED SOLIDS... 772.
 CHARGE IMBALANCE (% DIFF)... 1.7

ANALYSIS IN MG/L

AL....		CR....		MG....	0.9		
AS....		CS....		MN....	0.05		
B....	0.20	F....	3.5	NA....	270.	5102.	41.
BE....		FE(TOT)...	0.03	NH....		504..	100.
CA....	7.8	HCO3....	305.	NO3..	0.07		

ISOTOPES (0/001)

CD.... M25..... P04.. 0.03
 CL.... 190. K..... 8.2
 CO....
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00121

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... SOUTH CANYON HOT SPRINGS; SPRING A
 LOCATION
 COUNTRY..... UNITED STATES 06S 090W 02 SE OF SW
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... STORM KING MOUNTAIN 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 48.0
 DISCHARGE..... 34. L/MIN

GEOTHERM FILE 101 0073181

COORDINATES
 LAT/LONG... 39-33.27 N 107-23.88 W
 UTM ZONE... +13
 NORTING... 4380850.
 293967.

WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 1220:
 ALKALINITY..... 306. AS HCO3
 TOTAL DISSOLVED SOLIDS... 783.
 CHARGE IMBALANCE (% DIFF)... 2.3
 ANALYSIS IN MG/L

ISOTOPES (0/00)

AL....	CR.....	MG...	2.2		
AS....	CS.....	MN...	0.05		
H.... 0.29	F..... 4.0	NA...	270.	SiO2.	45.
HE....	FE(TOT). 0.01	NB...		SO4..	94.
CA.... 7.9	HCO3.... 306.	NO3..	0.01		
CI....	M25.....	P04..	0.03		
CL.... 200.					
CO....	K..... 8.2				

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00122

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... SOUTH CANYON HOT SPRINGS; SPRING A
 LOCATION
 COUNTRY..... UNITED STATES 06S 090W 02 SE OF SW
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... STORM KING MOUNTAIN 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 48.0
 DISCHARGE..... 45. L/MIN
 WATER ANALYSIS

GEOTHERM FILE 101 0073179

COORDINATES
 LAT/LONG... 39-33.27 N 107-23.88 W
 UTM ZONE... +13
 NORTING... 4380850.
 293967.

P4..... 7.1
 SPECIFIC CONDUCTANCE..... 1300.
 ALKALINITY..... 302. AS HCO3
 TOTAL DISSOLVED SOLIDS... 794.
 CHARGE IMBALANCE (% DIFF)... 0.2
 ANALYSIS IN MG/L

ISOTOPIES (0/001)

AG....	CO3....	LI...	0.15		
AL.... 0.075	CR....	MG...	1.0		
AS.... 0.002	CS....	MN...	0.04		
AU....	CU.... 0.005				
R.... 0.21	F.... 4.2	NA...	280.	SI02.	44.
RA.... 0.12					
RE....	FE(TOT)... 0.02	NH...		S04..	110.
HI....	GA....	NH4..		SR...	0.23
CA.... 7.0	HCO3.... 302.	NO3..	0.04		
CA+MG.	MG..... N	PO4..	0.005		
CI....	H2S....		0.06		
CL.... 190.					
CO....	K..... 8.2				
		ZN...	N		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00123

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073183

NAME OF SAMPLE SOURCE... SOUTH CANYON HOT SPRINGS; SPRING B
 LOCATION
 COUNTRY..... UNITED STATES 065 090W 02 SE OF SW
 STATE..... COLORADO
 COUNTY..... GARFIELD
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... STORM KING MOUNTAIN 1:24000

COORDINATES

LAT/LONG... 39-33.25 N 107-23.85 W
 UTM ZONE... 13
 NORTHING... 4380812.
 294009.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 48.0
 DISCHARGE..... N L/MIN

WATER ANALYSIS

P4..... 7.1
 SPECIFIC CONDUCTANCE..... 1300.
 ALKALINITY..... 291. AS HCO3
 TOTAL DISSOLVED SOLIDS... 757.
 CHARGE IMBALANCE (% DIFF)... 3.8
 ANALYSIS IN MG/L

ISOTOPIES (0/001)

AG....	CO3....	LI...	0.15		
AL....	CR....	MG...	0.9		
AS.... 0.002	CS....	MN...	0.05		
R.... 0.23	F.... 4.0	NA...	260.	SI02.	43.
RE....	FE(TOT)... 0.04	NH...		S04..	100.
CA.... 7.1	HCO3.... 291.	NO3..	0.01		
CA+MG.	MG..... N	PO4..	0.03		
CI....	H2S....				
CL.... 190.					
CO....	K..... 7.8				
		ZN...	N		

REFERENCE AND IDENTIFICATION

GEOHERM-SAMPLE-EILE

GEUTHERM FILE ID: 0073066

NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS; SPRING A

LOCATION

COUNTRY.....	UNITED STATES	TOWNSHIP-RANGE	11N 07W 03	SW OF SE
STATE.....	COLORADO			
COUNTY.....	GRAND			
GEOLOGIC PROVINCE..	14			

COORUNAILS

LAT/LONG... 40-04.55 N 106-06.72 W
UTM ZONE... 413
NORTHING... 4436556.
405182.

MAP REFERENCE..... HOT SULPHUR SPRINGS 1:62500

OTHER LOCALITY INFORMATION: LOCATED APPROX. 250 FEET NORTH OF LODGE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 44.0

DISCHARGE..... 45. L/MIN

WATER ANALYSIS

P4.....6.9

SPECIFIC CONDUCTANCE..... 1930.

ALKALINITY..... 829.

TOTAL DISSOLVED SOLIDS... 1220.

CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

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

AS..... CS.....

0.48 F..... 13.

FE(TOT).	0.01
----------	------

CA..... 15. HCO3..... 829.

CD..... H₂S.....

CL. 140.

CD..... K..... 23.

AS HC03

ISULOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL. P.

COMPTON AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE.....BARRETT AND PEARL, 1976

RECORD 00125

GEOGRAPHIC_SAMPLE-EILE

GEUTHERM FILE ID: 0073067

NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING A

LOCATION.....
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... GRAND

TOWNSHIP-RANGE
11N 078W 03 SW OF SE

COMMUNALES

LAT/LONG... 40-04.55 N 106-06.72 W
UTM ZONE... 41J
NORTHING... 4436556.
405182.

MAP REFERENCE..... HOT SULPHUR SPRINGS 1:62500

OTHER LOCALITY INFORMATION: LOCATED APPROX. 250 FEET NORTH OF LIDGE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C) 44.3

DISCHARGE..... 49. L/MIN

WATER ANALYSIS

P.1..... 6.7

SPECIFIC CONDUCTANCE..... 1900.
 ALKALINITY..... 840. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1160.
 CHARGE IMBALANCE (% DIFF)... 1.8

ANALYSIS IN MG/L

ISOTOPES (0/001)

AL.....		CR.....		MG...	3.9		
AS.....		CS.....		MN...	0.09		
H.....	0.56	F.....	12.	NA...	420.	SI02.	33.
HE.....		FE(TOT)...	0.03	NB...		SO4..	120.
CA.....	15.	HCO3....	840.	NO3..	0.01		
CO.....		H2S.....		PO4..	0.09		
CL.....	120.						
CO.....		K.....	23.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00126

GEOHEM SAMPLE FILE

GEOHEM FILE 101 0073065

NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING A

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 01N 078W 03 SW OF SE
 STATE..... COLORADO
 COUNTY..... GRAND

LAT/LONG... 40-04.55 N 106-06.72 W
 UTM ZONE... +13
 NORTHING... 4436556.
 405182.

GEOLOGIC PROVINCE..

MAP REFERENCE..... HOT SULPHUR SPRINGS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 44.0

DISCHARGE..... 45. L/MIN

WATER ANALYSIS

PH..... 7.1
 SPECIFIC CONDUCTANCE..... 1800.
 ALKALINITY..... 815. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1210.
 CHARGE IMBALANCE (% DIFF)... 1.3

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG.....		CO3.....		LI...	1.5		
AL.....		CR.....		MG...	3.6		
AS.....	0.005	CS.....		MN...	0.07		
H.....	0.56	F.....	9.4	NA...	440.	SI02.	31.
HE.....		FE(TOT)...	0.08	NB...		SO4..	140.
CA.....	15.	HCO3....	815.	NO3..	N		
CA+MG.		HG.....	N	PO4..	0.03		
CO.....		H2S.....					
CL.....	140.						
CO.....		K.....	23.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00127

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073064

NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING A

LOCATION
COUNTRY..... UNITED STATES TOWNSHIP=RANGE COORDINATES
STATE..... COLORADO 01N 07W 03 SW OF SE LAT/LONG... 40-04.55 N 106-06.72 W

COUNTY..... GRAND UTM ZONE... 13

GEOLOGIC PROVINCE.. NORTHING... 4436556.

MAP REFERENCE..... HOT SULPHUR SPRINGS 1162500
405182.

OTHER LOCALITY INFORMATION: LOCATED APPROX. 250 FEET NORTH OF LODGE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 44.0

WATER ANALYSIS

PH..... 6.6

SPECIFIC CONDUCTANCE..... 1920.

ALKALINITY..... 813.

AS HCO3

TOTAL DISSOLVED SOLIDS... 1200.

CHARGE IMBALANCE (3 DIFF)... 1.4

ANALYSIS IN MG/L

AG.... CO3....

AL.... 0.095 CR....

AS.... 0.006 CS....

AU.... CU.... 0.003

H.... 0.57 F.... 12.

HA.... 0.1 NA.... 430.

BE.... FE (TOT)... 0.02

BI.... GA....

CA.... 14. HCO3.... 813.

CA+MG. MG.... N

CD.... H2S....

CL.... 140.

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

CN.... ZN.... N

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGHALL, P.

COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

ISOTOPE (U/001)

GEOTERM SAMPLE FILE

RECORD 00128
GEOTERM FILE ID: 0073068

NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING B

LOCATION
COUNTRY..... UNITED STATES TOWNSHIP=RANGE COORDINATES
STATE..... COLORADO 01N 07W 03 SW OF SE LAT/LONG... 40-04.55 N 106-06.73 W

COUNTY..... GRAND UTM ZONE... 13

GEOLOGIC PROVINCE.. NORTHING... 4436556.

MAP REFERENCE..... HOT SULPHUR SPRINGS 1162500
405167.

OTHER LOCALITY INFORMATION: LOCATED APPROX. 75 FEET NORTHWEST OF SPRING A IN COLLECTION BOX.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 41.0

DISCHARGE..... 3.8 L/MIN

WATER ANALYSIS

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00130

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073069

NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING C
 LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 01N 078W 03 SW OF SE
 STATE..... COLORADO
 COUNTY..... GRAND
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 40-04.55 N 106-06.75 W
 UTM ZONE... +13
 NORTING... 4436557.
 405139.

MAP REFERENCE..... HOT SULPHUR SPRINGS 1:62500

OTHER LOCALITY INFORMATION: LOCATED AT BASE OF NORTH WALL OF INDOOR SWIMMING POOL BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 40.0

DISCHARGE..... 11. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 1870.

ALKALINITY..... 814. AS HCO3

TOTAL DISSOLVED SOLIDS... 1210.

CHARGE IMBALANCE (B DIFF)... 0.7

ANALYSIS IN MG/L

AG....	CO3....	LI...	1.1		
AL....	CR....	MG...	3.5		
AS.... 0.004	CS....	MN...	0.09		
H.... 0.53	F.... 12.	NA...	440.	SI02.	35.
HE....	FE(TOT).. 0.06	NB...		SO4..	140.
CA.... 15.	HCO3.... 814.	NO3.. N			
CA+MG.	MG..... N				
CO....	M2S.....	PO4.. N			
CL.... 140.					
CU....	K..... 25.	ZN... N			

ISOTOPIES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00131

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073071

NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING D
 LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 01N 078W 03 SW OF SE
 STATE..... COLORADO
 COUNTY..... GRAND
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 40-04.53 N 106-06.75 W
 UTM ZONE... +13
 NORTING... 4436520.
 405136.

MAP REFERENCE..... HOT SULPHUR SPRINGS 1:62500

OTHER LOCALITY INFORMATION: LOCATED APPROX. 50 FEET SOUTH OF POOL BUILDING IN MARSHY AREA.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 40.0

DISCHARGE..... 97. L/MIN

AS HCVJ

LSU LOPEL 10/00

REFERENCE AND IDENTIFICATION

ZN... N

GEUTHERM FILE 101 0073070

NAME OF SAMPLE SOURCE... HOT SULPHUR SPRINGS: SPRING C
 LOCATION... TOWNSHIP=RANGE
 COUNTRY..... UNITED STATES 01N 078W 03 SW OF SE
 STATE..... COLORADO
 COUNTY..... GRAND
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 40-04.55 N 106-06.75 W
UTM ZONE... 413
NORTHING... 4436557.
405139.

MAP REFERENCE..... HOT SULPHUR SPRINGS 1162500

OTHER LOCALITY INFORMATION: LOCATED AT BASE OF NORTH WALL OF INDOOR SWIMMING POOL BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C) 40.0

DISCHARGE..... 57. L/MIN

WATER ANALYSIS

AS HCU3

ISOLOPES (0/00)

AG....		CO ₃		LI...	1.5		
AL....		CR....		MG...	3.2		
AS....	0.006	CS....		MN...	0.07		
B....	0.56	F....	9.5	NA...	430.	SiO ₂ .	31.
BE....		FE(TQT).	0.12	NH...		SiO ₄ ..	130.
CA....	15.	HCO ₃	828.	NO ₃ ..	N		
CA+MG.		MG.....	N				
Cl.....		H ₂ S.....		PO ₄ ..	0.03		
CL....	140.	K.....	22.			Zn...	0.01
CO....							

WATER ANALYSIS

PH..... 7.1
 SPECIFIC CONDUCTANCE..... 1800.
 ALKALINITY..... 790. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1190.
 CHARGE IMBALANCE (% DIFF)... 0.3
 ANALYSIS IN MG/L

ISOTOPIES (0/00)

AG....	CO3....	LI....	1.5		
AL....	CR....	MG....	3.0		
AS.... 0.009	CS....	MN....	0.09		
H.... 0.570	F.... 9.1	NA....	430.	SI02..	30.
HE....	FE(TOT).. 0.2	NB....		S04..	150.
CA.... 16.	HCO3.... 790.	NO3..	0.02		
CA+MG.	MG.... 0.0001				
CO....	H2S....	PO4.. N			
CL.... 140.					
CO....	K.... 23.			ZN...	0.02

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00132

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0000417

NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS (POWDERHORN HOT SPRINGS)

LOCATION TOWNSHIP=RANGE

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... GUNNISON

GEOLOGIC PROVINCE..

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 45.6

DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1912/00/00

CHARGE IMBALANCE (% DIFF)... 18.5

ANALYSIS

H....	F.....	NA....	267.	SI02..	80.
HE....	FE(TOT)..	NB....		S04..	132.
CA.... 133.	HCO3.... 1107.				
CL.... 120.					
CO....	K.... 75.				

ISOTOPIES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... GALKARUT, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GEORGE AND OTHERS, 1920

RECORD 00133

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073006

NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS: SPRING A

LOCATION TOWNSHIP=RANGE

COUNTRY..... UNITED STATES 46N 0024 04 NW OF NE

STATE..... COLORADO

COUNTY..... GUNNISON

COORDINATES

LAT/LONG... 38-16.43 N 107-05.87 W

UTM ZONE... 13

NORTHING... 3350812.

GEOLOGIC PROVINCE.. 14

298152.

MAP REFERENCE..... POWDERHORN 1124000

OTHER LOCALITY INFORMATION: LOCATED IN SOUTHERN MOST OF TWO CABINS, APPROX. 300 FEET SOUTH OF ROAD. WESTERN POOL
IN BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 41.0

DISCHARGE..... 11. L/MIN

WATER ANALYSIS

PH..... 6.8

SPECIFIC CONDUCTANCE..... 2000.

ALKALINITY..... 1180. AS HCO3

TOTAL DISSOLVED SOLIDS... 1440.

CHARGE IMBALANCE (% DIFF)... 1.4

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....		CO3....		LI....	0.750		
AL....		CR....		MG....	47.		
AS....	0.0410	CS....		MN....	0.05		
H....	1.1	F....	3.9	NA....	310.	SI02..	66.
RE....		FE(TOT)...	0.05	NH....		SO4..	120.
CA....	120.	HCO3....	1180.	NO3..	0.04		
CA+MG..		MG....	N				
CO....		H2S....		PO4..	0.09		
CL....	120.						
CO....		K....	64.			ZN...	0.008

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00134

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073005

NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS; SPRING A

LOCATION

COUNTRY..... UNITED STATES 46N 002W 04 NW OF NE

STATE..... COLORADO

COUNTY..... GUNNISON

GEOLOGIC PROVINCE..

MAP REFERENCE..... POWDERHORN 1124000

OTHER LOCALITY INFORMATION: LOCATED IN SOUTHERN MOST OF TWO CABINS, APPROX. 300 FEET SOUTH OF ROAD. WESTERN POOL
IN BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 41.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2100.

ALKALINITY..... 1170. AS HCO3

TOTAL DISSOLVED SOLIDS... 1450.

CHARGE IMBALANCE (% DIFF)... 0.1

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....		CO3....		LI....	0.710		
AL....	0.06	CR....		MG....	50.		
AS....	0.045	CS....		MN....	0.05		
AL....		Cl....	0.002				
H....	1.1	F....	3.7	NA....	310.	SI02..	74.

RA....	0.13						
RE....		FE(TOT)...	0.05	NB...		S04...	130.
RI....		GA.....		NH4...		SR...	6.0
CA....	120.	MC03....	1170.	NO3...	0.08		
CA+MG...		MG.....	0.0605	PH...	0.010		
CO....		H2S.....		PO4...	0.34		
CL....	120.						
CU....		K.....	63.			ZN...	0.03

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00135

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073008

NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS: SPRING A
 LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 46N 002W 04 NW OF NE

LAT/LONG... 38-16.43 N 107-05.87 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... GUNNISON

NORTHING... 3350812.

GEOLOGIC PROVINCE...

298152.

OTHER LOCALITY INFORMATION: LOCATED IN SOUTHERN MUST OF TWO CABINS APPROXIMATELY 300 FEET SOUTH OF ROAD. WESTERN
 POOL IN BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 38.0

DISCHARGE..... 11. L/MIN

WATER ANALYSIS

PH..... 6.4

SPECIFIC CONDUCTANCE..... 2200.

ALKALINITY..... 1180.

AS MC03

TOTAL DISSOLVED SOLIDS... 1450.

CHARGE IMBALANCE (% DIFF)... 0.5

ANALYSIS IN MG/L

ISOTOPES 10/001

AL....

CR.....

MG.... 51.

AS....

CS.....

MN.... 0.1

H.... 1.1

F.....

4.9

NA.... 110.

S102.

92.

HE....

FE(TOT)...

0.020

NB....

S04...

120.

CA.... 120.

MC03....

1180.

NO3...

0.03

CO....

H2S.....

PO4...

0.31

CL.... 120.

CU....

K.....

66.

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, M.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00136

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073007

NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS: SPRING A

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 46N 002W 04 NW OF NE

LAT/LONG... 38-16.43 N 107-05.87 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... GUNNISON

NORTHING... 3350812.

GEOLOGIC PROVINCE..

298152.

MAP REFERENCE..... POWDERHORN 1124000

OTHER LOCALITY INFORMATION: LOCATED IN SOUTHERN MOST OF TWO CABINS, APPROX. 300 FEET SOUTH OF ROAD, WESTERN POOL IN BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 39.0

DISCHARGE..... 11. L/MIN

WATER ANALYSIS

PH..... 6.9

SPECIFIC CONDUCTANCE..... 2220.

ALKALINITY..... 1170. AS HCO3

TOTAL DISSOLVED SOLIDS... 1470.

CHARGE IMBALANCE (% DIFF)... 1.0

ANALYSIS IN MG/L

ISOTOPIES (O/001)

AL....		CR....		MG....	48.		
AS....		CS....		MN....	0.05		
B....	1.1	F....	4.6	NA....	330.	S102.	85.
BE....		FE(TOT). N		NB....		S04..	130.
CA....	120.	HCO3....	1170.	NO3..	0.06		
CD....		H2S.....		PO4..	0.18		
CL....	120.						
CO....		K.....	58.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00137

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0073009

NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS; SPRING B

LOCATION

COUNTRY..... UNITED STATES 46N 002W 04 NW OF NE

STATE..... COLORADO

COUNTY..... GUNNISON

GEOLOGIC PROVINCE..

OTHER LOCALITY INFORMATION: LOCATED IN SOUTHERN MOST OF TWO CABINS APPROXIMATELY 300 FEET SOUTH OF ROAD, WESTERN POOL IN BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 38.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2050.

ALKALINITY..... 1180. AS HCO3

TOTAL DISSOLVED SOLIDS... 1460.

CHARGE IMBALANCE (% DIFF)... 1.6

ANALYSIS IN MG/L

ISOTOPIES (O/001)

AG....		CO3....		LI....	0.720		
AL....		CR....		MG....	50.		
AS....	0.040	CS....		MN....	0.050		
B....	1.1	F....	5.8	NA....	310.	S102.	77.
BE....		FE(TOT).	0.050	NB....		S04..	130.
CA....	120.	HCO3....	1180.	NO3..	0.08		
CA+MG.		H2S.....	0.0002	PO4..	0.06		
CD....							

CL.... 120.
 CO.... K..... 64.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... BURKHARDT, M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ZN... 0.020

RECORD 00138

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0073010

NAME OF SAMPLE SOURCE... CEBOLLA HOT SPRINGS; SPRING C
 LOCATION
 COUNTRY..... UNITED STATES 46N 02W 04 NW OF NE
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 39-16.43 N 107-05.90 W
 UTM ZONE... 13
 NORTHING... 4238074.
 316445.

OTHER LOCALITY INFORMATION: LOCATED IN NORTHERN CABIN APPROXIMATELY 200 FT S OF ROAD AND APPROXIMATELY 75 FT NW OF SPRINGS A AND B.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 40.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2100.
 ALKALINITY..... 1170. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1460.
 CHARGE IMBALANCE (% DIFF)... 0.3

ISOTOPE (0/001)

ANALYSIS IN MG/L
 AG.... CO3..... LI... 0.710
 AL.... CR..... MG... 51.
 AS.... 0.040 CS..... MN... 0.040
 H.... 1.1 F..... 4.6 NA... 300. S102. 79.
 HE.... FE (TOT). 0.040 NB... S04.. 130.
 CA.... 130. HCO3... 1170. NO3.. 0.03
 CA+MG. MG..... N
 CD.... H2S..... PO4.. 0.15
 CL.... 120.
 CO.... K..... 63. ZN... 0.010

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00139

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0073013

NAME OF SAMPLE SOURCE... CEMENT CREEK WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES 14S 08W 18 SE OF SW
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-50.10 N 106-49.57 W
 UTM ZONE... 13
 NORTHING... 4299843.
 341493.

MAP REFERENCE..... CEMENT MIN. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 25.0
 DISCHARGE..... 227. L/MIN

PH.....	7.0	
SPECIFIC CONDUCTANCE.....	650.	
ALKALINITY.....	305.	AS MG/L
TOTAL DISSOLVED SOLIDS....	398.	
CHARGE IMBALANCE (% DIFF)...	0.8	

ANALYSIS

AL	AS	H	HE	CA	CD	CL	CO	CR	CS	F	FE(TOT)	HC03	H2S	K	MG	MN	NA	NH	NO3	PO4	SI02	S04
0.07	73	11								1.9	N	305		6		N	40		0.15	N		17

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILED AFFILIATION.. COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00140

GEOTHERM SAMPLE-LILE

GEUTHERM FILE 101 0073012

NAME OF SAMPLE SOURCE... CEMENT CREEK WARM SPRING
LOCATION... TOWNSHIP-RANGE 14S 084W 18 SE OF SW
COUNTRY..... UNITED STATES
STATE..... COLORADO
COUNTY..... GUNNISON
GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-50.10 N 106-49.57 W
UTM ZONE... 413
NUMTINING... 4299843.
341493.

MAP REFERENCE..... CEMENT MIN. 1:2400U

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTION..... 1975/10/00
TEMPERATURE (C)..... 25.
DISCHARGE..... 303. L/MIN

WATER ANALYSIS

P 1.....	7.2	
SPECIFIC CONDUCTANCE.....	540.	
ALKALINITY.....	388.	AS HC03
TOTAL DISSOLVED SOLIDS....	389.	
CHARGE IMBALANCE (% DIFF)...	1.0	

ANALYSIS IN MG/L

AG....		CO ₃		LI...	0.09		
AL....		CR....		MG...	18.		
AS....	0.01	CS....		MN...	N		
H....	0.06	F....	1.4	NA...	41.	SiO ₂ .	17.
HE....		FE(TOT).	0.03	NB...		SO ₄ ..	74.
CA....	69.	HCO ₃	398.	NO ₃ ..	0.11		
CA+MG.		MG.....	N				
CD....		M ₂ S.....		PU ₄ ..	N		
CL....	19.						
CO....		K.....	6.			ZN...	N

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARNETT AND PEARL, 1976

RECORD 00141

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073011

NAME OF SAMPLE SOURCE... CEMENT CREEK WARM SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 14S 084W 18 SE OF SW

STATE..... COLORADO

COUNTY..... GUNNISON

GEOLOGIC PROVINCE..

MAP REFERENCE..... CEMENT MTN. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 26.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 640.

ALKALINITY..... 302.

AS HCO3

TOTAL DISSOLVED SOLIDS... 401.

CHARGE IMBALANCE (% DIFF)... 3.4

ANALYSIS IN MG/L

AG....		CO3.....	LI...	0.09		
AL....	0.03	CH.....	MG...	22.		
AS....	0.01	CS.....	MN...	0.01		
AU....		CU.....	NA...	36.	5102.	19.
H....	0.06	F.....				
HA....	0.082					
HE....		FE(TQT).	NB...		504..	81.
HI....		GA.....	NH4..		SR...	0.48
CA....	75.	HCO3....	NO3..	0.14		
CA+MG.		HG.....	PB...	0.003		
CU....		H2S.....	PO4..	0.03		
CL....	11.					
CO....		K.....				
			ZN...	0.01		

ISOTOPES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRITT AND PEARL, 1976

RECORD 00142

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073014

NAME OF SAMPLE SOURCE... CEMENT CREEK WARM SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 14S 084W 18 SE OF SW

STATE..... COLORADO

COUNTY..... GUNNISON

GEOLOGIC PROVINCE.. 14

MAP REFERENCE..... CEMENT MTN. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 26.0

DISCHARGE..... 227. L/MIN

WATER ANALYSIS

PH..... 7.2

SPECIFIC CONDUCTANCE..... 625.

ALKALINITY..... 306. AS HCO3

COORDINATES

LAT/LONG... 38-50.10 N 106-49.57 W

UTM ZONE... 13

NORTHING... 4299843.

341493.

TOTAL DISSOLVED SOLIDS... 342.

CHARGE IMBALANCE (% DIFF)... 1.1

ANALYSIS IN MG/L

ISOTOPIES (0/001)

AL....		CR....		MG...	20.		
AS....		CS....		MN...	N		
B....	0.08	F....	1.5	NA...	36.	SI02.	18.
BE....		FE(TOT)...	0.01	NH...		SO4...	69.
CA....	68.	HCO3....	306.	NO3...	0.15		
CU....		H2S....		PO4...	N		
CL....	11.						
CO....		K....	6.4				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00143

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 007J220

NAME OF SAMPLE SOURCE... LOWER MAUNITA HOT SPRINGS

LOCATION TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 49N 004E 10 SW OF NW
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..

LAT/LONG... 38-31.02 N 106-31.00 W
 UTM ZONE... 13
 NORTHING... 4264063.
 367774.

MAP REFERENCE..... PITKIN 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 62.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 800.

ALKALINITY..... 153.

AS HCO3

TOTAL DISSOLVED SOLIDS... 535.

CHARGE IMBALANCE (% DIFF)... 4.3

ISOTOPIES (0/001)

AG....		CO3....		LI...	0.2		
AL....	0.02	CR....		MG...	0.5		
AS....	N	CS....		MN...	0.020		
AU....		CU....	N				
H....	0.070	F....	20.	NA...	150.	SI02.	86.
HA....	0.078						
HE....		FE(TOT)...	0.170	NH...		SO4...	170.
HI....		GA....		NH4...		SR...	0.3
CA....	6.9	HCO3....	153.	NO3...	0.05		
CA+MG.		HG....	N	PB...	0.004		
CI....		H2S....		PO4...	0.12		
CL....	15.						
CO....		K....	10.				

ZN... N

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROOK, C.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00144

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 007J215

NAME OF SAMPLE SOURCE... LOWER WAUNITA HOT SPRINGS: SPRING A
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 49N 004E 10 SW OF NW
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..

COORDINATES
 LAT/LONG... 38-31.03 N 106-30.93 W
 UTM ZONE... +13
 NORTHING... 4264080.
 367876.

MAP REFERENCE..... PITKIN 1124000
 SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 70.0

DISCHARGE..... 284. L/MIN

OTHER SAMPLE INFORMATION.. AREA CONSISTS OF A SERIES OF SMALL TO MEDIUM SIZE SPRINGS.

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 765.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... HARRITT AND PEARL, 1976

RECORD 00145

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073218

NAME OF SAMPLE SOURCE... LOWER WAUNITA HOT SPRINGS: SPRING B
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 49N 004E 10 SW OF NW
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..

COORDINATES
 LAT/LONG... 38-31.00 N 106-30.92 W
 UTM ZONE... +13
 NORTHING... 4264024.
 367890.

MAP REFERENCE..... PITKIN 1124000

OTHER LOCALITY INFORMATION: LOCATED IN SMALL CEMENT POOL NEAR EAST MARGIN OF GROUP.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 70.0

DISCHARGE..... 76. L/MIN

WATER ANALYSIS

P4..... 8.0

SPECIFIC CONDUCTANCE..... 830.

ALKALINITY..... 165.

TOTAL DISSOLVED SOLIDS... 549.

CHARGE IMBALANCE (% DIFF)... 0.2

ANALYSIS IN MG/L

AG....	CO3....	LI...	0.2		
AL....	CH....	MG...	0.4		
AS.... N	CS....	MN...	0.03		
H.... 0.36	F.... 15.	NA...	160.	SI02.	77.
RE....	FE(TOT). 0.01	NH...		SO4..	180.
CA.... 8.6	HCO3... 165.	NO3.. N			
CA+MG.	HG..... N				
CO....	H2S.....	PO4..	0.03		
CL.... 16.					
CU....	K..... 10.				
		ZN... N			

ISOTOPES (0/000)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... HARRITT AND PEARL, 1976

RECORD 00146

GEUTHERM FILE ID: 0073217

GEOTHEM SAMPLE-LILE

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... LOWER NAUNITA HOT SPRINGS: SPRING B
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 49N 004E 10 SW OF NW
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..

CONCLUSIONS

LAT/LONG... 38-31.00 N 106-30.92 W
UTM ZONE... 413
NORTHING... 4264024.
367890.

MAP REFERENCE..... PITKIN 1124000
OTHER LOCALITY INFORMATION: LOCATED IN SMALL CEMENT POOL NEAR EAST MARGIN OF GROUP.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 70.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE.....	765.
ALKALINITY.....	152.
TOTAL DISSOLVED SOLIDS....	544.

AS HC03

CHARGE IMBALANCE (% DIFF)... 4.0

ANALYSIS IN MG/L

AG....		C03.....		L1... ..	0.2		
AL....	0.085	CH.....		MG... ..	0.7		
AS....	N	CS.....		MN... ..	0.02		
AU....		CU.....	0.001				
H....	0.07	F.....	17.	NA... ..	150.	S102..	88.
HA....	0.094						
HE....		FE(TOT)..	0.05	NB... ..		S04... ..	180.
HI....		UA.....		NH4... ..		SR... ..	0.29
CA....	7.8	HCO3.....	152.	NO3... ..	0.04		
CA+MG..		MG.....	N	PB... ..	0.004		
Cl)....		M2S.....		PU4... ..	N		
CL....	15.						
			0.4			ZN... ..	0.01

ISOIOPES (0/00)

REFERENCE AND IDENTIFICATION

REFERENCE AND CITATIONS
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00147

GEUTHERM FILE 101 0073219

GEOTHELM_SAMPLE_TITLE

GEOTHERM_SAMPLE_TITLE
 NAME OF SAMPLE SOURCE... LOWER WAUNITA HOT SPRINGS; SPRING 8
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 49N 004E 10 SW OF NW
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..

CONCLUSIONS

LAT/LONG... 38-31.00 N 106-30.92 W
 UTM ZONE... 41J
 UTM EING... 4264024.
 107890.

MAP REFERENCE..... PITKIN 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

SAMPLE DESCRIPTION-ADD HERE
DATE/COLLECTOR..... 1976/04/00
TEMPERATURE (C)..... 70.0

DISCHARGE..... E 25. L/MIN

WATER ANALYSIS

PH..... 1.7
SPECIFIC CONDUCTANCE..... 173.

ALKALINITY..... 165. AS HCO3
 TOTAL DISSOLVED SOLIDS... 528.
 CHARGE IMBALANCE (% DIFF)... 0.2
 ANALYSIS IN MG/L

ISOTOPE 10/001

AL....	CR.....	MG...	1.0		
AS....	CS.....	MN...	0.030		
H..... 0.060	F..... 16.	NA...	150.	SI02.	86.
HF....	FE(TOT) 0.160	NH...		SO4..	160.
CA.... 8.5	HCO3... 165.	NO3..	0.01		
CD....	H2S.....	PO4..	0.12		
CL.... 15.					
CO....	K..... 10.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROOK, C.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00148

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073216

NAME OF SAMPLE SOURCE... LOWER MAUNITA HOT SPRINGS: SPRING C

LOCATION
COUNTRY..... UNITED STATES TOWNSHIP-RANGE 49N 004E 10 SW OF NW

STATE..... COLORADO

COUNTY..... GUNNISON

GEOLOGIC PROVINCE..

MAP REFERENCE..... PITKIN 1:24000

OTHER LOCALITY INFORMATION: LOCATED UNDER ROCK BUILDING.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 70.0

DISCHARGE..... 30. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 780.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00149

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073158

NAME OF SAMPLE SOURCE... RANGER WARM SPRING

LOCATION
COUNTRY..... UNITED STATES TOWNSHIP-RANGE 14S 08SW 22 SW OF SE

STATE..... COLORADO

COUNTY..... GUNNISON

GEOLOGIC PROVINCE..

MAP REFERENCE..... CEMENT Mtn. 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 27.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

pH..... 7.1

SPECIFIC CONDUCTANCE..... 760.

ALKALINITY..... 363. AS HCO3

COORDINATES

LAT/LONG... 38-30.45 N 106-30.92 W

UTM ZONE... 13

NORTHING... 4263007.

367873.

COORDINATES

LAT/LONG... 38-48.95 N 106-52.47 W

UTM ZONE... 13

NORTHING... 4297801.

337253.

TOTAL DISSOLVED SOLIDS... 474.

CHARGE IMBALANCE (% DIFF)... 0.6

ANALYSIS IN MG/L

ISOTOPES (O/001)

AL....	CR.....	MG...	23.		
AS....	CS.....	MN...	N		
H.... 0.08	F..... 1.9	NA...	63.	S102.	19.
HE....	FE(TOT) 0.01	NB...		S04..	89.
CA.... 71.	MC03... 363.	NO3..	0.14		
CD....	H2S.....	PU4..	N		
CL.... 19.					
CO....	K..... 8.2				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00150

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073157

NAME OF SAMPLE SOURCE... RANGER WARM SPRING

LOCATION

COORDINATES

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 14S 08SW 22 SW OF SE
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..

LAT/LONG... 38-48.95 N 106-52.47 W
 UTM ZONE... +13
 NORTHING... 4297801.
 337253.

MAP REFERENCE..... CEMENT MTN. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 27.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 6.9
 SPECIFIC CONDUCTANCE..... 760.
 ALKALINITY..... 332. AS MC03
 TOTAL DISSOLVED SOLIDS... 466.
 CHARGE IMBALANCE (% DIFF)... 0.0

ANALYSIS IN MG/L

ISOTOPES (O/001)

AL....	CR.....	MG...	20.		
AS....	CS.....	MN...	N		
H.... 0.08	F..... 1.5	NA...	62.	S102.	19.
HE....	FE(TOT) N	NB...		S04..	100.
CA.... 72.	MC03... 332.	NO3..	0.12		
CD....	H2S.....	PU4..	N		
CL.... 19.					
CO....	K..... 8.1				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00151

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073156

NAME OF SAMPLE SOURCE... RANGER WARM SPRING

LOCATION

COORDINATES

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 14S 08SW 22 SW OF SE

LAT/LONG... 38-48.95 N 106-52.47 W

STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... CEMENT MTN. 112400V
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 27.0

UTM ZONE... +13
 NORTHING... 4297801.
 337253.

DISCHARGE..... N L/MIN

WATER ANALYSIS

P4..... 7.1
 SPECIFIC CONDUCTANCE..... 730.
 ALKALINITY..... 363.
 TOTAL DISSOLVED SOLIDS... 465.
 CHARGE IMBALANCE (% DIFF)... 4.0

AS HCO3

ANALYSIS IN MG/L

ISOTOPIES (0/001)

AG....	CO3....	LI...	0.160			
AL....	CR....	MG...	20.			
AS.... 0.015	CS....	MN... N				
H.... 0.00	F..... 0.2	NA...	61.	SI02.	18.	
HE....	FE (TOT) 0.02	NB...		SO4..	90.	
CA.... 70.	HCO3... 363.	NO3..	0.08			
CA+MG.	HG.... N					
CD....	H2S....	PO4.. N				
CL.... 18.						
CO....	K..... 7.7					
		ZN...	0.010			

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00152

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073155

NAME OF SAMPLE SOURCE... RANGER WARM SPRING

LOCATION

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 14S 08SW 22 SW OF SE
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE.. 14

MAP REFERENCE..... CEMENT MTN. 112400V

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00

TEMPERATURE (C)..... 26.0

DISCHARGE..... 500. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 700.
 ALKALINITY..... 347.
 TOTAL DISSOLVED SOLIDS... 461.
 CHARGE IMBALANCE (% DIFF)... 1.5

AS HCO3

ANALYSIS IN MG/L

ISOTOPIES (0/001)

AG....	CO3....	LI...	0.14			
AL.... 0.1	CR....	MG...	22.			
AS.... 0.012	CS....	MN... N				
AU....	CU..... 0.00H					
H.... 0.00	F..... 1.0	NA...	59.	SI02.	20.	
HA.... 0.14						

ME....	FE(TOT)...	0.01	NH...	S04...	89.
HI....	GA.....		NH4...	SR...	0.36
CA.... 73.	HCO3....	347.	NO3...		0.1
CA-MG.	MG..... N		PH...		0.004
CO....	H2S.....		PO4...		0.03
CL.... 17.					
CO....	K.....	7.2		ZN...	0.03

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARNETT AND PEARL, 1976

RECORD 00153

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073211

NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS; SPRING C

LOCATION

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... GUNNISON

GEOLOGIC PROVINCE..

MAP REFERENCE..... PITKIN 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 77.0

DISCHARGE..... 189. L/MIN

WATER ANALYSIS

PH..... 7.9

SPECIFIC CONDUCTANCE..... 756.

ALKALINITY..... 133.

TOTAL DISSOLVED SOLIDS... 575.

CHARGE IMBALANCE (% DIFF)... 3.2

ANALYSIS IN MG/L

AL....

AS....

H.... 0.000

ME....

CA.... 5.8

CO....

CL.... 16.

CO....

K..... 10.

AS HCO3

MG... 7.3

MN... 0.010

NA... 150.

NH... 120.

NO3... 0.01

PO4... 0.15

COORDINATES

LAT/LONG... 38-30.83 N 106-30.45 W

UTM ZONE... +13

NORTHING... 4263698.

368568.

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... BARNETT AND PEARL, 1976

RECORD 00154

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0000415

NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS

LOCATION

COUNTRY..... UNITED STATES

STATE..... COLORADO

COUNTY..... GUNNISON

GEOLOGIC PROVINCE..

SAMPLE DESCRIPTION AND CONDITIONS

COORDINATES

LAT/LONG... 38-31.00 N 106-29.10 W

UTM ZONE... +13

NORTHING... 4263981.

370534.

TEMPERATURE (C)..... 70.0
 ...DISCHARGE..... 38. L/MIN
 WATER ANALYSIS

DATE/ANALYST..... 1912/00/00
 CHARGE IMBALANCE (% DIFF)... 4.7

ANALYSIS

ISOTOPIES (U/00)

H.....	F.....	NA...	155.	SI02.	86.
HE.....	FE(TOT)...	NB...		SO4..	182.
CA..... 5.4	HC03..... 175.				
CL..... 2/.					
CO.....	K..... 2.5				

REFERENCE AND IDENTIFICATION

COMPILED BY..... GALTARDT, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GEORGE AND OTHERS, 1920

RECORD 00155

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073213

NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS; SPRING A

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... PITKIN 1124000

TOWNSHIP-RANGE

49N 004E 11 SW OF SW

COORDINATES

LAT/LONG... 38-30.83 N 106-30.45 W
 UTM ZONE... +13
 NORTHING... 4263698.
 368560.

OTHER LOCALITY INFORMATION: LOCATED IN ROCK SHED IN FRONT OF LODGE.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 70.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 750.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00156

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073214

NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS; SPRING B

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... PITKIN 1124000

TOWNSHIP-RANGE

49N 004E 11 SW OF SW

COORDINATES

LAT/LONG... 38-30.83 N 106-30.45 W
 UTM ZONE... +13
 NORTHING... 4263698.
 368560.

OTHER LOCALITY INFORMATION: LOCATED 75 FEET FROM SPRING A ALONG CREEK.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 70.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 720.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00157

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073210

NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS: SPRING C
 LOCATION
 COUNTRY..... UNITED STATES 49N 004E 11 SW OF SW
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-30.83 N 106-30.45 W
 UTM ZONE... 13
 NORTHING... 4263698.
 368568.

MAP REFERENCE..... PITKIN 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 77.0
 DISCHARGE..... 208. L/MIN

WATER ANALYSIS

PH..... 8.5
 SPECIFIC CONDUCTANCE..... 766.
 ALKALINITY..... 119. AS HCO3
 TOTAL DISSOLVED SOLIDS... 613.
 CHARGE IMBALANCE (% DIFF)... 2.0

ANALYSIS IN MG/L

AG..... CO3..... 9.
 AL..... CR..... MG... 0.3
 AS..... CS..... MN... N
 B..... 0.06 F..... 19. NA... 160. SI02. 140.
 HE..... FE(TOT)... 0.01 NH... S04.. 190.
 CA..... 11. HCO3.... 119. NO3.. 0.01
 CU..... H2S..... PO4.. 0.12
 CL..... 15.
 CO..... K..... 9.8

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00158

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073209

NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS: SPRING C
 LOCATION
 COUNTRY..... UNITED STATES 49N 004E 11 SW OF SW
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-30.83 N 106-30.45 W
 UTM ZONE... 13
 NORTHING... 4263698.
 368568.

MAP REFERENCE..... PITKIN 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 80.0
 DISCHARGE..... 114. L/MIN

WATER ANALYSIS

PH..... 8.4
 SPECIFIC CONDUCTANCE..... 796.
 ALKALINITY..... 119. AS HCO3
 TOTAL DISSOLVED SOLIDS... 579.
 CHARGE IMBALANCE (% DIFF)... 1.3

LSU LOPEZ 10/001

AG....		COJ.....	11.	LI...	0.22		
AL....		CR.....		MG...	N		
AS....	0.002	CS.....		MN...	0.005		
R.....	0.06	F.....	18.	NA...	160.	SI02.	110.
HF....		FE(TOT).	0.03	NB...		SO4..	190.
CA....	5.9	HCO3....	119.	NO3..	N		
CA.MG.		MG.....	N				
CO....		H2S.....		PO4..	0.03		
CL....	15.						
CO....		K.....	10.			ZN...	N

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

GEUTHERM FILE 10: 0073208

GEO THERM SAMPLE - EILE

NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS: SPRING C
LOCATION TOWNSHIP-RANGE
COUNTRY..... UNITED STATES 49N 004E 11 SW OF SW
STATE..... COLORADO
COUNTY..... GUNNISON
GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-30.83 N 106-30.45 W
UTM ZONE... 413
NORTHING... 4263698.
368568.

MAP REFERENCE..... PITKIN 112400U

SAMPLE DESCRIPTION AND CONDITIONS
DATE/COLLECTOR..... 1975/07/00
TEMPERATURE (C)..... 78.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE.....	720.	
ALKALINITY.....	129.	AS MC03
TOTAL DISSOLVED SOLIDS...	557.	
CHARGE IMBALANCE (% DIFF)...	2.8	

ANALYSIS IN MG/L

AG....		CO3....		LI...	0.2				
AL....	0.11	CR.....		MG...	0.2				
AS....	N	CS.....		MN...	N				
AU....		CU.....	0.003						
H....	0.07	F.....	17.	NA...	150.	SI02.	110.		
RA....	0.11								
HE....		FE(TOT).	0.04	NB...		SO4..	180.		
HI....		GA.....		NH4..		SH...	0.24		
CA....	11.	HCO3....	129.	NO3..	0.02				
CA+MG.		MG.....	N	PB...	0.004				
CD....		H2S.....		PU4..	0.15				
CL....	15.								
CO....			10.			ZN...	N		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILED AFFILIATION.. COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARKETT AND PEARL, 1976

RECORD 00160

GEOHERM_SAMPLE-FILE

GEUTHENM FILE NO: 0073212

NAME OF SAMPLE SOURCE... WAUNITA HOT SPRINGS; SPRING D
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... GUNNISON
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... PITKIN 1:24000

TOWNSHIP-RANGE

49N 004E 11 SW OF SW

COORDINATES

LAT/LONG... 38-30.83 N 106-30.47 W
 UTM ZONE... +13
 NORTHING... 4263699.
 368539.

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 54.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 770.

ALKALINITY..... 132.

AS HCO3

TOTAL DISSOLVED SOLIDS... 594.

CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

AG.... CO3.... LI... 0.210

AL.... CR.... MG... N

AS... N CS.... MN... N

H.... 0.070 F.... 18. NA... 160. SI02. 130.

HE.... FE(TOT). 0.010 NH... S04.. 190.

CA.... 6.0 HCO3... 132. NO3.. 0.01

CA+MG. MG..... N

CO.... H2S.... PO4.. 0.06

CL.... 15.

CO.... K..... 10. ZN... N

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROOK, C.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00161

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0073227

NAME OF SAMPLE SOURCE... RHANDS RANCH ARTESIAN WELL
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... JACKSON
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... PITCHPINE MOUNTAIN 1:24000

TOWNSHIP-RANGE

09N 081W 31 SE OF SW SE

COORDINATES

LAT/LONG... 40-42.28 N 106-32.08 W
 UTM ZONE... +13
 NORTHING... 4506894.
 370352.

SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 42.0
 WELL DEPTH (M)..... 244.
 DISCHARGE..... 303. L/MIN

OTHER SAMPLE INFORMATION.. OLD OIL WELL.
WATER ANALYSIS
 PH..... 6.0
 SPECIFIC CONDUCTANCE..... 405.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00162

GEOTERM SAMPLE FILE

GEOTERM FILE 10: 0073142

NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS; LITTLE MOUND SPRINGS

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 37N 009W 25 NE OF NW

STATE..... COLORADO

COUNTY..... LA PLATA

GEOLOGIC PROVINCE..

MAP REFERENCE..... HERMOSA 1124000

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 26.0

DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS

PH..... 7.0

SPECIFIC CONDUCTANCE..... 5500.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 37-27.15 N 107-48.35 W

UTM ZONE... 13

NORTHING... 4148565.

251803.

RECORD 00163

GEOTERM SAMPLE FILE

GEOTERM FILE 10: 0073141

NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS; MOUND SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 37N 009W 25 NE OF NW

STATE..... COLORADO

COUNTY..... LA PLATA

GEOLOGIC PROVINCE..

MAP REFERENCE..... HERMOSA 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 29.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 6.4

SPECIFIC CONDUCTANCE..... 5890.

ALKALINITY..... 1620. AS HCO3

TOTAL DISSOLVED SOLIDS... 3840.

CHARGE IMBALANCE (% DIFF)... 2.5

ANALYSIS IN MG/L

AL....	CR....	MG....	72.		
AS....	CS....	MN....	0.48		
H.... 2.9	F.... 3.0	NA....	710.	SI02.	28.
HE....	FE(TOT). 4.3	NB....		SO4..	650.
CA.... 550.	HCO3.... 1620.	NO3.. N			
CO....	H2S....	PO4.. N			
CL.... 900.					
CO....	K.... 120.				

ISOTOPIES (0/000)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00164

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073140

NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS; MOUND SPRING
 LOCATION
 COUNTRY..... UNITED STATES 37N 009W 25 NE OF NW
 STATE..... COLORADO
 COUNTY..... LA PLATA
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... HERMOSA 1:24000

COORDINATES

LAT/LONG... 37-27.12 N 107-48.33 W
 UTM ZONE... 13
 NORTHING... 4148508.
 251831.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 29.0
 DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 6050.
 ALKALINITY..... 1610. AS HCO3
 TOTAL DISSOLVED SOLIDS... 3880.
 CHARGE IMBALANCE (% DIFF)... 0.3

ANALYSIS IN MG/L

AL....	CR.....	MG...	68.		
AS....	CS.....	MN...	0.49		
H.... 3.0	F..... 1.9	NA...	710.	SI02.	28.
HE....	FE(TOT)... 4.2	NB...		S04..	600.
CA.... 550.	HCO3.... 1610.	NO3.. N			
CO....	H2S.....	PO4..	0.09		
CL.... 1000.					
CO....	K..... 120.				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGWALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... RARETT AND PEARL, 1976

RECORD 00165

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073139

NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS; MOUND SPRING
 LOCATION
 COUNTRY..... UNITED STATES 37N 009W 25 NE OF NW
 STATE..... COLORADO
 COUNTY..... LA PLATA
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 37-27.12 N 107-48.33 W
 UTM ZONE... 13
 NORTHING... 4148508.
 251831.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 30.0
 DISCHARGE..... N L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 5600.
 ALKALINITY..... 1630. AS HCO3
 TOTAL DISSOLVED SOLIDS... 3940.
 CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

AG....	CO3.....	LI...	2.0
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ISOTOPES (0/00)

AL....		CR....		MG...	74.		
AS....	0.18	CS....		MN...	0.5		
H....	3.0	F....	2.1	NA...	730.	SI02.	29.
HE....		FE(TOT)...	4.1	NB...		S04..	620.
CA....	550.	HC03....	1630.	NO3..	0.06		
CA+MU.		MG..... N		PO4..	0.03		
CO....		H2S.....					
CL....	1000.						
CO....		K.....	120.			ZN...	0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00166

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073137

NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS; SPRING A

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 37N 009W 25 NW OF NE
 STATE..... COLORADO
 COUNTY..... LA PLATA
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 37-26.83 N 107-48.28 W
 UTM ZONE... 13
 NORTHING... 4147970.
 251889.

MAP REFERENCE..... HERMOSA 1124000

OTHER LOCALITY INFORMATION: LOCATED SOUTH OF RESORT AND APPROX. 50 FEET EAST OF U.S. 50.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 32.0
 DISCHARGE..... 204. L/MIN

WATER ANALYSIS

P.H..... 6.4
 SPECIFIC CONDUCTANCE..... 5930.
 ALKALINITY..... 1520. AS HC03
 TOTAL DISSOLVED SOLIDS... 3770.
 CHARGE IMBALANCE (+ DIFF)... 3.3

ANALYSIS IN MG/L

AL....		CR....		MG...	72.		
AS....		CS....		MN...	0.48		
H....	2.8	F....	3.9	NA...	720.	SI02.	29.
HE....		FE(TOT)...	4.5	NB...		S04..	540.
CA....	530.	HC03....	1520.	NO3.. N			
CO....		H2S.....		PO4..	0.21		
CL....	1000.						
CO....		K.....	120.				

ISOTOPIES (U/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00167

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073135

NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS; SPRING A

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 37N 009W 25 NW OF NE
 STATE..... COLORADO

COORDINATES

LAT/LONG... 37-26.83 N 107-48.28 W
 UTM ZONE... 13

COUNTY..... LA PLATA
GEOLOGIC PROVINCE..
MAP REFERENCE..... MERMOSA 1124000
NORTHING... 4147970.
251889.

OTHER LOCALITY INFORMATION: LOCATED SOUTH OF RESORT AND APPROX. 50 FEET EAST OF U.S. 50.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
TEMPERATURE (C)..... 32.0
DISCHARGE..... 204. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 5600.
ALKALINITY..... 1630. AS HCO3
TOTAL DISSOLVED SOLIDS... 3990.
CHARGE IMBALANCE (% DIFF)... 1.9

ANALYSIS IN MG/L

AG....		CO3.....		LI....	2.5		
AL....	0.13	CR.....		MG....	79.		
AS....	0.12	CS.....		MN....	0.47		
AU....		CU.....	0.006				
H....	3.0	F.....	2.1	NA....	750.	SI02.	28.
HA....	0.033						
HE....		FE(TOT)...	4.4	NH....		SO4..	690.
HI....		GA.....		NH4..		SR....	5.0
CA....	510.	HCO3.....	1630.	NO3..	0.1		
CA+MG.		HG..... N		PB....	0.026		
CD....		H2S.....		PO4..	0.15		
CL....	1000.						
CO....		K.....	120.				
				ZN....	N		

ISOTOPES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00168

GEOTERM SAMPLE FILE

NAME OF SAMPLE SOURCE... PINKERTON HOT SPRINGS: SPRING A
LOCATION

COUNTRY..... UNITED STATES 37N 009W 25 NW OF NE
STATE..... COLORADO
COUNTY..... LA PLATA
GEOLOGIC PROVINCE.. 14
MAP REFERENCE..... MERMOSA 1124000

OTHER LOCALITY INFORMATION: LOCATED SOUTH OF RESORT AND APPROX. 50 FEET EAST OF U.S. 50.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
TEMPERATURE (C)..... 32.0
DISCHARGE..... 204. L/MIN

WATER ANALYSIS

PH..... 6.5
SPECIFIC CONDUCTANCE..... 6060.
ALKALINITY..... 1620. AS HCO3
TOTAL DISSOLVED SOLIDS... 3880.
CHARGE IMBALANCE (% DIFF)... 1.7

ANALYSIS IN MG/L

AL....		CR.....		MG....	69.
AS....		CS.....		MN....	0.49

ISOTOPES (0/001)

GEOTERM FILE ID: 0073136

COORDINATES

LAT/LONG... 37-26.83 N 107-46.28 W
UTM ZONE... 13
NORTHING... 4147970.
251889.

B.....	2.8	F.....	1.9	NA...	690.	SI02.	28.
HF.....		FE(TOT).	4.0	NB...		S04..	610.
CA.....	560.	HCO3....	1620.	NO3..	0.01		
CO.....		H2S.....		PO4..	0.03		
CL.....	1000.						

CO..... K..... 110.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00169

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073138

NAME OF SAMPLE SOURCE... PINKENTON HOT SPRINGS; SPRING B

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 37N 009W 25 NE

STATE..... COLORADO

COUNTY..... LA PLATA

GEOLOGIC PROVINCE..

MAP REFERENCE..... HERMOSA 1:24000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 1200 FEET WEST OF SPRING A.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 33.0

DISCHARGE..... 76. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 6000.

ALKALINITY..... 1640. AS HCO3

CHARGE IMBALANCE (% DIFF)... 0.6

ANALYSIS IN MG/L

AG.....		CO3.....		LI...	2.8		
AL.....		CR.....		MG...	71.		
AS.....	0.16	CS.....		MN...	0.53		
H.....	3.0	F.....		NA...	720.		
HE.....		FE(TOT).	4.4	NB...		S04..	610.
CA.....	530.	HCO3....	1640.				
CA+MG.		MG.....	N				
CI.....		H2S.....		PO4..	0.04		
CL.....	990.						

ISOTOPIES (0/00)

CO..... K..... 120.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00170

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073191

NAME OF SAMPLE SOURCE... TRIMBLE HOT SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 36N 009W 15 NW OF NW

STATE..... COLORADO

COUNTY..... LA PLATA

GEOLOGIC PROVINCE.. 14

MAP REFERENCE..... HERMOSA 1:24000

COORDINATES

LAT/LONG... 37-23.47 N 107-50.87 W

UTM ZONE... 13

NORTHING... 4141870.

247881.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTION..... 1975/09/00
 TEMPERATURE (C)..... 36.0
 DISCHARGE..... 4. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 4400.
 ALKALINITY..... 1090. AS HCO3
 TOTAL DISSOLVED SOLIDS... 3340.
 CHARGE IMBALANCE (% DIFF)... 1.4

ISOTOPES (0/00)

ANALYSIS IN MG/L

AG....		CO3....		LI....	1.6		
AL....	0.04	CR....		MG....	42.		
AS....	0.017	CS....		MN....	0.080		
AU....		CU....	0.003				
H....	1.4	F....	2.7	NA....	510.	SiO2.	72.
HA....	0.015						
HE....		FE(TOT).	0.050	NH....		SO4..	1400.
HI....		GA....		NH4..		SR...	4.5
CA....	510.	HCO3....	1090.	NO3..	0.08		
CA+MG.		MG....	N	PB...	0.01		
CD....		H2S....		PO4..	0.06		
CL....	220.						
CO....		K....	47.	ZN...			0.010

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEAKL, 1976

RECORD 00171

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073192

NAME OF SAMPLE SOURCE... TRIPP HOT SPRING

LOCATION

COUNTRY.....	UNITED STATES	TOWNSHIP-RANGE	36N 009W 10	SW OF SW
STATE.....	COLORADO			
COUNTY.....	LA PLATA			
GEOLOGIC PROVINCE..	14			

COORDINATES

LAT/LONG... 37-23.50 N 107-50.87 W
 UTM ZONE... 13
 NUTTHING... 4141925.
 247883.

MAP REFERENCE..... HERMOSA 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTION..... 1975/09/00
 TEMPERATURE (C)..... 44.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 3900.
 ALKALINITY..... 988. AS HCO3
 TOTAL DISSOLVED SOLIDS... 3240.
 CHARGE IMBALANCE (% DIFF)... 3.0

ISOTOPES (0/00)

ANALYSIS IN MG/L

AG....		CO3....		LI....	1.6		
AL....	0.16	CR....		MG....	41.		
AS....	0.017	CS....		MN....	0.080		
AU....		CU....	0.005				
H....	1.5	F....	2.7	NA....	500.	SiO2.	69.
HA....	0.035						
HE....		FE(TOT).	0.010	NH....		SO4..	1400.
HI....		GA....		NH4..		SR...	7.5
CA....	470.	HCO3....	988.	NO3..	0.16		

CA+MG. MG..... N PB... 0.02
 CD.... H2S..... PO4.. 0.15
 CL.... 220. K..... 47. ZN... 0.020
 CO....

REFERENCE AND IDENTIFICATION

COMPILED BY..... RUKKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00172

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073001

NAME OF SAMPLE SOURCE... ANTELOPE WARM SPRING

LOCATION
 COUNTRY..... UNITED STATES 40N 002W 01 SE OF SE.
 STATE..... COLORADO
 COUNTY..... MINERAL
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... WORKMAN 1:24000

COORDINATES

LAT/LONG... 37-44.60 N 107-02.23 W
 UTM ZONE... 13
 NORTHING... 4179087.
 320507.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 72.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 8.9
 SPECIFIC CONDUCTANCE..... 160.
 ALKALINITY..... 95. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 150.
 CHARGE IMBALANCE (% DIFF)... 6.5

ANALYSIS IN MG/L

AG.... CO3.... 19. LI... 0.008
 AL.... CR.... MG... 0.6
 AS.... N CS.... MN... N
 H.... 0.130 F.... 1.6 NA... 43. SiO2. 39.
 HE.... FE(TOT). 0.06 NH... S04.. 3.2
 CA.... 1.7 HCO3.... 77. NU3.. 0.02
 CA+MG. HG..... N PO4.. 0.03
 CD.... H2S.....
 CL.... 3.5 K..... 0.3 ZN... N
 CO....

ISOTOPES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL, R.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00173

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073000

NAME OF SAMPLE SOURCE... ANTELOPE WARM SPRINGS

LOCATION
 COUNTRY..... UNITED STATES 40N 002W 01 SE OF SE
 STATE..... COLORADO
 COUNTY..... MINERAL
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... WORKMAN 1:24000

COORDINATES

LAT/LONG... 37-44.60 N 107-02.23 W
 UTM ZONE... 13
 NORTHING... 4179087.
 320507.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/00
 TEMPERATURE (C)..... 32.0
 DISCHARGE..... N L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 180.
 ALKALINITY..... 110. AS MC03
 TOTAL DISSOLVED SOLIDS... 151.
 CHARGE IMBALANCE (3 DIFF)... 5.2

ANALYSIS IN MU/L

ISOTOPES (U/100)

AG....	CO3....	LI....	0.01		
AL....	CR....	MG....	0.3		
AS.... N	CS....	MN.... N			
B.... 0.130	F.... 2.0	NA.... 44.	SI02..	41.	
RE....	FE(NT).. 0.02	NH....	S04..	2.2	
CA.... 4.	MC03.... 110.	NO3.. 0.08			
CA+MG.	MG.... N				
CD....	H2S....	P04.. N			
CL.... 2.8					
CO....	K.... 0.1	ZN... 0.03			

REFERENCE AND IDENTIFICATION

COMPILED BY..... PEARL R.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00174

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073226

NAME OF SAMPLE SOURCE... BIRDIE WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 40N 002W 14 SW OF NW NE
 STATE..... COLORADO
 COUNTY..... MINERAL
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... WORKMAN 1124000

COORDINATES

LAT/LONG... 37-44.60 N 107-02.23 W
 UTM ZONE... 13
 NORTHING... 4179087.
 320507.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 30.0
 DISCHARGE..... 57. L/MIN

WATER ANALYSIS

PH..... 8.6
 SPECIFIC CONDUCTANCE..... 200.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00175

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073154

NAME OF SAMPLE SOURCE... RAINBOW HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 38N 001W 09
 STATE..... COLORADO
 COUNTY..... MINERAL
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... SPAR CITY 1162500

COORDINATES

LAT/LONG... 37-30.57 N 106-56.87 W
 UTM ZONE... 13
 NORTHING... 4152973.
 327840.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 40.0
 DISCHARGE..... 170.

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 220.
 ALKALINITY..... 85.
 TOTAL DISSOLVED SOLIDS... 161.
 CHARGE IMBALANCE (% DIFF)... 3.2

AS HCO3

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....		CO3....		LI...	0.01		
AL....	0.04	CR....		MG...	0.2		
AS....	N	CS....		MN...	0.01		
AU....		CU....	0.001				
H....	0.45	F....	2.2	NA...	45.		
HA....	0.001						
HE....		FE(TOT)...	0.08	NB...		S04..	30.
HI....		GA....		NH4..		SR...	0.042
CA....	2.1	HCO3....	85.	NO3..	N		
CA+MG.		MG....	N	PB...	0.001		
CD....		M25....		PU4..	N		
CL....	0.1						
CO....		K.....	0.2				
				ZN...	0.01		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00176

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0000421

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS
 LOCATION... TOWNSHIP-RANGE

COORDINATES

LAT/LONG... 37-45.00 N 106-49.25 W
 UTM ZONE... 13
 NORTING... 4179433.
 339584.

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... MINERAL
 GEOLOGIC PROVINCE..

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 57.0
 DISCHARGE..... 189. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1968/09/00
 P4..... 7.0
 CHARGE IMBALANCE (% DIFF)... 5.1

ISOTOPES (0/001)

AG....		F....		NA...	462.	S102.	86.
HE....		FE(TOT)...		NB...		S04..	165.
CA....	65.	HCO3....	976.				
CL....	231.						
CO....		K.....	46.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... GARYANOT, WENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... MALLORY AND BARNETT, 1973

RECORD 00177

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0073207

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: CFI SPRING

LOCATION
COUNTRY..... UNITED STATES TOWNSHIP-RANGE 40N 001E 02 NW OF NE

STATE..... COLORADO

COUNTY..... MINERAL

GEOLOGIC PROVINCE..

MAP REFERENCE..... SPAR CITY 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 50.0

DISCHARGE..... 121. L/MIN

WATER ANALYSIS

PH..... 6.4

SPECIFIC CONDUCTANCE..... 2330.

ALKALINITY..... 1030. AS HCO3

TOTAL DISSOLVED SOLIDS... 1470.

CHARGE IMBALANCE (% DIFF)... 3.6

ANALYSIS IN MG/L

ISOTOPIES (0/001)

AL....		CR.....		MG...	15.		
AS....		CS.....		MN...	0.540		
H....	2.6	F.....	8.5	NA...	430.	S102.	67.
HE....		FE(TOT)...	0.170	NB...		S04..	130.
CA....	68.	HCO3....	1030.	NO3..	0.02		
CO....		H2S.....		PO4..	0.25		
CL....	190.						
CO....		K.....	46.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, M.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00178

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0073206

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: CFI SPRING

LOCATION
COUNTRY..... UNITED STATES TOWNSHIP-RANGE 40N 001E 02 NW OF NE

STATE..... COLORADO

COUNTY..... MINERAL

GEOLOGIC PROVINCE..

MAP REFERENCE..... SPAR CITY 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 48.0

DISCHARGE..... 114. L/MIN

WATER ANALYSIS

PH..... 6.5

SPECIFIC CONDUCTANCE..... 2360.

ALKALINITY..... 1020. AS HCO3

TOTAL DISSOLVED SOLIDS... 1540.

CHARGE IMBALANCE (% DIFF)... 3.0

ANALYSIS IN MG/L

COORDINATES

LAT/LONG... 37-41.03 N 106-49.78 W

UTM ZONE... 13

NORTHING... 4172107.

338662.

ISOTOPIES (0/001)

AL....	CR.....	MG...	15.		
AS....	CS.....	MN...	0.56		
N..... 1.3	F..... 6.8	NA...	450.	SI02.	88.
ME....	FE(TOT).. 0.12	NB...		SO4..	160.
CA.... 66.	HCO3.... 1020.	NO3..	0.04		
CO....	H2S.....	PO4..	0.18		
CL.... 200.					
CO....	K..... 46.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00179

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073205

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS; CFI SPRING
 LOCATION

COUNTRY..... UNITED STATES 40N 001E 02 NW OF NE
 STATE..... COLORADO
 COUNTY..... MINERAL
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 37-41.03 N 106-49.78 W
 UTM ZONE... 13
 NORTHING... 4172107.
 338662.

MAP REFERENCE..... SPAR CITY 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 51.0

DISCHARGE..... 189. L/MIN

WATER ANALYSIS

PH..... 6.4

SPECIFIC CONDUCTANCE..... 2400.

ALKALINITY..... 1020. AS HCO3

TOTAL DISSOLVED SOLIDS... 1520.

CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

AG....	CO3....	LI...	2.0		
AL....	CR.....	MG...	15.		
AS.... 0.002	CS.....	MN...	0.53		
N..... 2.5	F..... 6.3	NA...	460.	SI02.	68.
ME....	FE(TOT).. 0.25	NB...		SO4..	150.
CA.... 60.	HCO3.... 1020.	NO3..	0.03		
CA+MG.	HG..... 0.0001	PO4..	0.06		
CO....	H2S.....				
CL.... 200.					
CO....	K..... 47.				

ISOTOPIES (0/00)

ZN... 0.002

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00180

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073204

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS; CFI SPRING
 LOCATION

COUNTRY..... UNITED STATES 40N 001E 02 NW OF NE
 STATE..... COLORADO

COORDINATES

LAT/LONG... 37-41.03 N 106-49.78 W
 UTM ZONE... 13

CA.... 60. MC03.... 1020. NO3.. N
 CO.... H2S.... P04.. 0.31
 CL.... 200.
 CO.... K..... 48.

REFERENCE AND IDENTIFICATION

COMPILED BY..... HURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00182

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073202

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: 40R RANCH SPRING

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 41N 001E 35 SE OF SE
 STATE..... COLORADO
 COUNTY..... MINERAL
 GEOLOGIC PROVINCE..

LAT/LONG... 37-41.10 N 106-49.78 W
 UTM ZONE... 13
 NORTING... 4172236.
 338664.

MAP REFERENCE..... SPAN CITY 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 55.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 2240.
 ALKALINITY..... 1010. AS MC03
 TOTAL DISSOLVED SOLIDS... 1550.
 CHARGE IMBALANCE (% DIFF)... 2.7

ANALYSIS IN MG/L

ISOTOPIES (0/001)

AL....	CR.....	MG...	14.		
AS....	CS.....	MN...	0.32		
B.... 1.3	F..... 6.7	NA...	460.	SI02.	90.
HE....	FE(TOT). 0.01	NH...		SO4..	170.
CA.... 60.	MC03.... 1010.	NO3..	0.01		
CO....	H2S....	P04..	0.21		
CL.... 200.					

CO.... K..... 48.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00183

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073201

NAME OF SAMPLE SOURCE... WAGON WHEEL GAP HOT SPRINGS: 40R RANCH SPRING

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 41N 001E 35 SE OF SE
 STATE..... COLORADO
 COUNTY..... MINERAL
 GEOLOGIC PROVINCE..

LAT/LONG... 37-41.10 N 106-49.78 W
 UTM ZONE... 13
 NORTING... 4172236.
 338664.

MAP REFERENCE..... SPAN CITY 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 57.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 7.0
 SPECIFIC CONDUCTANCE..... 2400.
 ALKALINITY..... 1040. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1580.
 CHARGE IMBALANCE (% DIFF)... 1.1

ANALYSIS IN MG/L

AG....	CO3....	LI...	2.2		
AL.... 0.11	CR.....	MG...	15.		
AS.... 0.021	CS.....	MN...	0.31		
AU....	CU..... 0.003				
B.... 2.5	F..... 6.6	NA...	480.	SI02.	81.
HA.... 0.16					
HE....	FE(TOT). 0.03	NH...		SO4..	170.
HI....	GA.....	NH4..		SR...	3.4
CA.... 61.	HCO3.... 1040.	NO3..	0.01		
CA+MG.	HG..... N	PB...	0.03		
CD....	H2S.....	PO4..	0.06		
CL.... 200.					
CO....	K..... 51.	ZN...	0.02		

ISOTOPES (U/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00184

GEOOTHERM SAMPLE FILE

GEOOTHERM FILE 101 0073024

NAME OF SAMPLE SOURCE... CRAIG WARM WATER WELL
 LOCATION
 COUNTRY..... UNITED STATES 06N 091W 01 NW OF SW SE
 STATE..... COLORADO
 COUNTY..... MOFFAT
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... CRAIG 1124000

COORDINATES

LAT/LONG... 40-30.10 N 107-33.07 W
 UTM ZONE... 13
 NUTTING... 4486356.
 28JB18.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 39.0
 DISCHARGE..... 91. L/MIN

WATER ANALYSIS

PH..... 8.2
 SPECIFIC CONDUCTANCE..... 1440.
 ALKALINITY..... 998. AS HCO3
 TOTAL DISSOLVED SOLIDS... 896.
 CHARGE IMBALANCE (% DIFF)... 3.9

ANALYSIS IN MG/L

AL....	CR.....	MG...	0.9		
AS....	CS.....	MN...	N		
H.... 0.21	F..... 3.1	NA...	360.	SI02.	19.
HE....	FE(TOT). 0.06	NH...		SO4..	6.7
CA.... 5.8	HCO3.... 998.	NO3..	0.04		
CH....	H2S.....	PO4..	0.12		
CL.... 4.1					
CO....	K..... 4.1				

ISOTOPES (U/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00185

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073079

NAME OF SAMPLE SOURCE... JUNIPER HOT SPRINGS

LOCATION

COUNTRY..... UNITED STATES 06N 094W 16 SE OF SW
 STATE..... COLORADO
 COUNTY..... MOFFAT
 GEOLOGIC PROVINCE.. 14

COORDINATES

LAT/LONG... 40-28.02 N 107-57.17 W
 UTM ZONE... 13
 NORTHING... 4483570.
 249648.

MAP REFERENCE..... JUNIPER HOT SPRING 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 38.0
 DISCHARGE..... 49. L/MIN

WATER ANALYSIS

PH..... 7.8
 SPECIFIC CONDUCTANCE..... 1900.
 ALKALINITY..... 1100. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1150.
 CHARGE IMBALANCE (% DIFF)... 3.8

ANALYSIS IN MG/L

AG....		CO3....		LI....	0.17		
AL....	0.095	CR....		MG....	0.8		
AS....	N	CS....		MN....	0.01		
AU....		CU....	0.008				
B....	0.54	F....	4.	NA....	460.	SI02.	33.
BA....	0.12						
BE....		FE(TQT)...	0.01	NB....		SO4..	14.
BI....		GA....		NH4..		SR....	0.36
CA....	3.7	HCO3....	1100.	NO3..	0.05		
CA+MG.		HG....	0.0002	PB....	0.009		
CD....		H2S....		PO4..	0.03		
CL....	94.						
CO....		K.....	2.3				
				ZN....	N		

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00186

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073082

NAME OF SAMPLE SOURCE... JUNIPER HOT SPRINGS

LOCATION

COUNTRY..... UNITED STATES 06N 094W 16 SE OF SW
 STATE..... COLORADO
 COUNTY..... MOFFAT
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 40-28.02 N 107-57.17 W
 UTM ZONE... 13
 NORTHING... 4483570.
 249648.

MAP REFERENCE..... JUNIPER HOT SPRING 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 36.0

DISCHARGE..... 69. L/MIN

WATER ANALYSIS

PH..... 7.9
 SPECIFIC CONDUCTANCE..... 1850.
 ALKALINITY..... 1100. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1150.
 CHARGE IMBALANCE (% DIFF)... 3.7

ANALYSIS IN MG/L

ISOTOPIES (0/00)

AL....		CR.....		MG...	0.3		
AS....		CS.....		MN...	N		
H....	0.52	F.....	3.3	NA...	460.	SI02.	32.
HE....		FE(TOT)...	0.02	NH...		SO4...	13.
CA....	3.3	HCO3....	1100.	NO3..	0.01		
CU....		H2S.....		PO4..	0.09		
CL....	90.						
CO....		K.....	2.1				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00187

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073081

NAME OF SAMPLE SOURCE... JUNIPER HOT SPRINGS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 06N 094W 16 SE OF SW
 STATE..... COLORADO
 COUNTY..... MOFFAT
 GEOLOGIC PROVINCE..

LAT/LONG... 40-28.02 N 107-57.17 W
 UTM ZONE... +13
 NORTHING... 4483570.
 249648.

MAP REFERENCE..... JUNIPER HOT SPRING 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 37.0

DISCHARGE..... 49. L/MIN

WATER ANALYSIS

PH..... 8.2
 SPECIFIC CONDUCTANCE..... 1180.
 ALKALINITY..... 1090. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1160.
 CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

ISOTOPIES (0/00)

AL....		CR.....		MG...	0.3		
AS....		CS.....		MN...	N		
H....	0.48	F.....	3.3	NA...	470.	SI02.	31.
HE....		FE(TOT)...	0.01	NH...		SO4...	20.
CA....	3.9	HCO3....	1090.	NO3..	0.1		
CU....		H2S.....		PO4..	0.09		
CL....	89.						
CO....		K.....	2.2				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00188

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073080

NAME OF SAMPLE SOURCE... JUNIPER HOT SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 06N 09W 16 SE OF SW
 STATE..... COLORADO
 COUNTY..... MOFFAT
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 40-28.02 N 107-57.17 W
 UTM ZONE... +13
 NORTING... 4483570.
 249648.

MAP REFERENCE..... JUNIPER HOT SPRING 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 73.0
 DISCHARGE..... 53. L/MIN

WATER ANALYSIS

PH..... 8.0
 SPECIFIC CONDUCTANCE..... 1900.
 ALKALINITY..... 1090. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1160.
 CHARGE IMBALANCE (% DIFF)... 1.5

ISOTOPES (0/00)

ANALYSIS IN MG/L

AG....		CO3....		LI....	0.25		
AL....		CR....		MG....	0.4		
AS....	0.001	CS....		MN....	0.01		
B....	0.55	F....	3.1	NA....	480.	SI02.	29.
BR....		FE(TOT)...	0.01	NB....		SO4..	8.3
CA....	2.9	HCO3....	1090.	NO3..	0.01		
CA+MG.		HG..... N					
CH....		H2S....		PO4..	0.03		
CL....	93.						
CO....		K.....	2.0				
				ZN...	0.01		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00189

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073111

NAME OF SAMPLE SOURCE... ORVIS HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 45N 008W 22 SE OF SW
 STATE..... COLORADO
 COUNTY..... OURAY
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-07.98 N 107-44.02 W
 UTM ZONE... +13
 NORTING... 4223897.
 260398.

MAP REFERENCE..... DALLAS 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 52.0
 DISCHARGE..... 3.4 L/MIN

WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 3180.
 ALKALINITY..... 277. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2490.

CHANGE IMBALANCE (% DIFF)... 1.1

ANALYSIS IN MG/L

ISOTOPIES (0/00)

AL....		CR....		MG...	18.		
AS....		CS....		MN...	0.13		
B....	0.94	F....	4.1	NA...	460.	SI02.	60.
FE....		FE(TOT)...	0.92	NB...		SO4..	1400.
CA....	290.	MC03....	277.	NO3..	0.01		
CD....		H2S....		PO4..	0.21		
CL....	88.						
CO....		K....	33.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00190

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073110

NAME OF SAMPLE SOURCE... ORVIS HOT SPRING

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 45N 008W 22 SE OF SW
 STATE..... COLORADO
 COUNTY..... OURAY
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... DALLAS 1:24000

LAT/LONG... 38-07.98 N 107-44.02 W
 UTM ZONE... 13
 NORTING... 4223897.
 260398.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 53.0
 DISCHARGE..... 3.8 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2900.
 ALKALINITY..... 409. AS MC03
 TOTAL DISSOLVED SOLIDS... 2270.
 CHANGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

ISOTOPIES (0/00)

AG....		CO3....		LI...	1.4		
AL....	0.09	CR....		MG...	19.		
AS....	0.24	CS....		MN...	0.13		
AU....		CU....	0.004	NA...	420.	SI02.	51.
H....	1.0	F....	3.6				
HA....	0.035			NB...		SO4..	1200.
HF....		FE(TOT)...	0.92	NH4..		SR...	6.0
HI....		GA....		NO3..	0.02		
CA....	260.	MC03....	409.	PB...	0.013		
CA+MG.		MG..... N		PO4..	0.03		
CD....		H2S....					
CL....	85.						
CO....		K....	28.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00191

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073112

NAME OF SAMPLE SOURCE... ORVIS HOT SPRING

LOCATION
 COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... OURAY
 GEOLOGIC PROVINCE... 14
 MAP REFERENCE..... DALLAS 1124000

TOWNSHIP-RANGE

45N 008W 22 SE OF SW

COORDINATES

LAT/LONG... 38-07.98 N 107-44.02 W
 UTM ZONE... +13
 NORTING... 4223897.
 260398.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 52.0

DISCHARGE..... 3.8 L/MIN

WATER ANALYSIS

PH..... 6.6

SPECIFIC CONDUCTANCE..... 3030.

ALKALINITY..... 424.

AS HCO3

TOTAL DISSOLVED SOLIDS... 2270.

CHARGE IMBALANCE (% DIFF)... 3.8

ANALYSIS IN MG/L

AL....		CH.....		MG....	19.		
AS....		CS.....		MN....	0.130		
H....	1.0	F.....	4.0	NA....	390.	S102.	53.
HE....		FE(TOT)...	0.960	NB....		S04..	1200.
CA....	280.	HCO3....	424.	NO3..	0.01		
CO....		H2S.....		PO4..	0.34		
CL....	80.						
CO....		K.....	30.				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00192

GEO THERM SAMPLE FILE

NAME OF SAMPLE SOURCE... ORVIS HOT SPRING (MIDWAY HOT SPRING)

LOCATION

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... OURAY
 GEOLOGIC PROVINCE...

TOWNSHIP-RANGE

COORDINATES

LAT/LONG... 38-08.00 N 107-44.00 W
 UTM ZONE... +13
 NORTING... 4223933.
 260428.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 57.5

DISCHARGE..... 1136. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1912/00/00

CHARGE IMBALANCE (% DIFF)... 5.1

ANALYSIS

H....		F.....		NA....	374.	S102.	58.
HE....		FE(TOT)...		NB....		S04..	1287.
CA....	274.	HCO3....	278.				
CL....	103.						
CO....		K.....	102.				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... GALTARDT, PENNER, J.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... GEORGE AND OTHERS, 1920

GEO THERM FILE 101 0000419

RECORD 00193

GEOHEM SAMPLE FILE

GEOHEM FILE ID: 0073119

NAME OF SAMPLE SOURCE... OURAY AREA: POOL SPRING
LOCATIONCOUNTRY..... UNITED STATES 44N 007W 31
STATE..... COLORADO
COUNTY..... OURAY
GEOLOGIC PROVINCE.. 14
MAP REFERENCE..... OURAY 1124000

OTHER LOCALITY INFORMATION: LOCATED IN BOX CANYON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
TEMPERATURE (C)..... 69.0
DISCHARGE..... 227. L/MIN

WATER ANALYSIS

P4..... 6.5
SPECIFIC CONDUCTANCE..... 2020.
ALKALINITY..... 131. AS HCO3
TOTAL DISSOLVED SOLIDS... 1660.
CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

AL....	CR.....	MG...	8.5		
AS....	CS.....	MN...	0.75		
H.... 0.2	F..... 3.6	NA...	120.	SI02.	49.
HE....	FE(TOT). N	NB...		SO4..	1000.
CA.... 360.	HCO3.... 131.	NO3..	0.01		
CI....	H2S.....	PO4..	0.06		
CL.... 44.					
CO....	K..... 8.8				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGHALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00194

GEOHEM SAMPLE FILE

GEOHEM FILE ID: 0073118

NAME OF SAMPLE SOURCE... OURAY AREA: POOL SPRING
LOCATIONCOUNTRY..... UNITED STATES 44N 007W 31
STATE..... COLORADO
COUNTY..... OURAY
GEOLOGIC PROVINCE.. 14
MAP REFERENCE..... OURAY 1124000

OTHER LOCALITY INFORMATION: LOCATED IN BOX CANYON.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
TEMPERATURE (C)..... 67.0
DISCHARGE..... 473. L/MIN

WATER ANALYSIS

P4..... 6.7
SPECIFIC CONDUCTANCE..... 2000.
ALKALINITY..... 129. AS HCO3
TOTAL DISSOLVED SOLIDS... 1650.

COORDINATES

LAT/LONG... 38-01.00 N 107-40.68 W
UTM ZONE... +13
NORTHING... 4210444.
264905.

CHARGE IMBALANCE (% DIFF)... 2.9

ANALYSIS IN MG/L

ISOTOPIES (U/VOL)

AG....		CO3....		LI...	2.8		
AL....	0.05	CR....		MG...	8.9		
AS....	0.013	CS....		MN...	0.67		
AU....		CU....	0.002	NA...	110.	SI02.	47.
H....	0.2	F....	3.				
BA....	0.04						
HF....		FE(TOT)...	0.01	NB...		S04..	990.
HI....		GA....		NH4..		SR...	5.6
CA....	370.	HCO3....	129.	NO3..	0.01		
CA+MG.		HG.....	N	PB...	0.009		
CD....		H2S....		PO4..	0.03		
CL....	41.						
CO....		K.....	9.2	ZN...	0.01		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00195

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073117

NAME OF SAMPLE SOURCE... OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HUT SPRING C

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	44N 007W 31	LAT/LONG...	38-01.25 N 107-40.05 W
STATE.....	COLORADO		UTM ZONE...	13
COUNTY.....	OURAY		NORTHING...	4211280.
GEOLOGIC PROVINCE..				265840.

MAP REFERENCE..... OURAY 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 48.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH.....	7.1		
SPECIFIC CONDUCTANCE.....	1850.		
ALKALINITY.....	192.	AS HCO3	
TOTAL DISSOLVED SOLIDS...	1390.		

CHARGE IMBALANCE (% DIFF)... 3.5

ANALYSIS IN MG/L

ISOTOPIES (U/VOL)

AL....		CR....		MG...	8.9		
AS....		CS....		MN...	0.54		
H....	0.17	F....	3.	NA...	110.	SI02.	39.
HE....		FE(TOT)...	0.02	NB...		S04..	780.
CA....	310.	HCO3....	192.	NO3..	0.04		
CD....		H2S....		PO4..	0.15		
CL....	34.						
CO....		K.....	9.4				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00196

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073116

NAME OF SAMPLE SOURCE... OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT SPRING C
 LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY... UNITED STATES 44N 007W 31 LAT/LONG... 38-01.25 N 107-40.05 W
 STATE... COLORADO UTM ZONE... +13
 COUNTY... OURAY NORTHING... 4211280.
 GEOLOGIC PROVINCE... 265840.

MAP REFERENCE... OURAY 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1976/01/00
 TEMPERATURE (C)... 30.0

DISCHARGE... N L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE... 1810.
 ALKALINITY... 194. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1430.
 CHARGE IMBALANCE (% DIFF)... 0.6

ANALYSIS IN MG/L

ISOTOPES (0/00)

AL....	CR....	MG...	8.5		
AS....	CS....	MN...	0.48		
H.... 0.17	F.... 3.	NA...	110.	SI02.	39.
HE....	FE(TOT) N	NB...		SO4..	H2O.
CA.... 310.	HCO3... 194.	NO3..	0.03		
CO....	H2S....	PO4..	0.03		
CL.... 32.					
CO....	K.... 9.1				

REFERENCE AND IDENTIFICATION

COMPILED BY... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE... BARRETT AND PEARL, 1976

RECORD 00197

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073115

NAME OF SAMPLE SOURCE... OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT SPRING C
 LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY... UNITED STATES 44N 007W 31 LAT/LONG... 38-01.25 N 107-40.05 W
 STATE... COLORADO UTM ZONE... +13
 COUNTY... OURAY NORTHING... 4211280.
 GEOLOGIC PROVINCE... 265840.

MAP REFERENCE... OURAY 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... 1975/09/00
 TEMPERATURE (C)... 46.0

DISCHARGE... E 7.8 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE... 1840.
 ALKALINITY... 194. AS HCO3
 TOTAL DISSOLVED SOLIDS... 1380.
 CHARGE IMBALANCE (% DIFF)... 3.7

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....	CO3....	LI...	3.2
AL....	CR....	MG...	8.8

AS....	0.012	CS.....		MN....	0.47		
H.....	0.16	F.....	2.7	NA....	110.	SI02.	39.
HE....		FE(TOT)...	0.03	NB....		S04..	780.
CA....	300.	MC03....	194.	NO3..	0.03		
CA+MG.		HG.....	N				
CD....		H2S.....		P04..	0.03		
CL....	30.						
CO....		K.....	8.9	ZN...	0.02		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00198

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073114

NAME OF SAMPLE SOURCE... OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT SPRING B
 LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY..... UNITED STATES 44N 007W 31 LAT/LONG... 38-01.25 N 107-40.05 W
 STATE..... COLORADO UTM ZONE... 13
 COUNTY..... OURAY NORTHING... 4211280.
 GEOLOGIC PROVINCE.. 265840.
 MAP REFERENCE..... OURAY 1:24000

OTHER LOCALITY INFORMATION: LOCATED 15 FEET INSIDE CAVE ON LEDGE ABOUT 8 FEET ABOVE FLOOR.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 30.0
 DISCHARGE..... N L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 975.
 ALKALINITY..... 189. AS MC03
 TOTAL DISSOLVED SOLIDS.... 695.
 CHARGE IMBALANCE (B DIFF)... 1.4

ANALYSIS IN MG/L

AG....		CO3.....		LI...	1.2		
AL....		CR.....		MG...	8.3		
AS....	0.004	CS.....		MN...	0.02		
H.....	0.06	F.....	1.1	NA....	53.	SI02.	29.
HE....		FE(TOT)...	0.02	NB....		S04..	340.
CA....	150.	MC03....	189.	NO3..	0.04		
CA+MG.		HG.....	N				
CD....		H2S.....		P04..	N		
CL....	14.						
CO....		K.....	5.	ZN...	N		

ISOTOPES 10/001

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00199

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073113

NAME OF SAMPLE SOURCE... OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT SPRING A
 LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY..... UNITED STATES 44N 007W 31 LAT/LONG... 38-01.25 N 107-40.05 W
 STATE..... COLORADO UTM ZONE... 13

WATER ANALYSIS

SPECIFIC CONDUCTANCE.....	1900.
ALKALINITY.....	213.
TOTAL DISSOLVED SOLIDS....	1580.
CHARGE IMBALANCE (% DIFF)...	3.1

AS HCU3

ISOLOPES (0/00)

ANALYSIS IN MG/L

ANALYSIS IN HOLE		C03.....		LI....		2.4	
AG....		CR.....		MG....		8.	
AL....	0.25	CS.....		MN....		0.8	
AS....	0.016	CU.....	0.005				
AU....		F.....	2.7	NA....	120.		SI02. 40.
Q.....	0.15						
HA....	0.024	FE(TOT).	0.09	NB....			SO4.. 910.
RE....		GA.....		NH4..			SR... 10.
NI....		HCO3.....	213.	NO3..	0.05		
CA....	350.	MG..... N		PB....	0.009		
CA-MG.		H2S.....		PO4..	0.06		
CO....							
CL....	31.						ZN... 0.2

CO...
REFERENCE AND IDENTIFICATION

EFFERENCE AND IDENTIFICATION
COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... HARRITT AND PEARL, 1976

RECORD 00200

GEOTHERM FILE 101 0073058

GEOHERM_SAMPLE_E1E

GEO THERM SAMPLE FILE
NAME OF SAMPLE SOURCE... HARTSEL HOT SPRING SPRING A
LOCATION TOWNSHIP-RANGE
UNITED STATES 125 075W 08 NE OF SE

SECTION.....
 COUNTRY.....
 STATE.....
 COUNTY.....
 GEOLOGIC PROVINCE..

UNITED STATES
 COLORADO
 PARK

GEOLOGIC PROVINCE..
MAP REFERENCE..... HANTSSEL 1124000
WESTERN

MAP REFERENCE..... MARISEL 1124000
OTHER LOCALITY INFORMATION: WESTERN MOST SPRING.
DESCRIPTION AND CONDITIONS

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00

TEMPERATURE (C)..... 52.0

TEMPERATURE WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 3/HG.

AS HCU3

ALKALINITY.....

TOTAL DISSOLVED SOLIDS...

TOTAL DISSOLVED
ANALYSIS IN MG/L

ANALYSIS IN MODEL
AG..... C03.....

AG..... 0.1
AL.....

AL.....	0.01	0.00000
AS.....	0.002	0.00000

AS..... 0.000
AU..... CU.....

Al.....	0.56	f.....
H.....		

HA.....	0.09
---------	------

Li...	1.0
Mg...	20.
Mn...	0.150

HA... 680. 5102. 41.

CONCLUSIONS

COORDINATES
LAT/LONG... 39-01.08 N 105-47.67 W
UIM ZONE... 413
NORTHING... 4318866.
431218.

15010PES 102002

HE....	FE(TOT)...	0.17	Na...	504...	320.
HI....	GA.....		NH4...	SR...	2.2
CA.... 120.	HCO3....		NO3...	0.22	
CA+MG.	MG..... N		PB...	0.013	
CO....	H2S.....		PO4...	0.12	
CL.... 820.					
CO....	K.....	33.	ZN...	0.01	

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00201

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073059

NAME OF SAMPLE SOURCE... HARTSEL HOT SPRINGS; SPRING B
 LOCATION
 COUNTRY..... UNITED STATES 125 075W 08 NE OF SE
 STATE..... COLORADO
 COUNTY..... PARK
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 39-01.08 N 105-47.65 W
 UTM ZONE... 13
 NORTHING... 4318866.
 431247.

MAP REFERENCE..... HARTSEL 1124000

OTHER LOCALITY INFORMATION: EASTERN MOST SPRING.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00
 TEMPERATURE (C)..... 52.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 3650.
 ALKALINITY..... 484. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2140.
 CHARGE IMBALANCE (% DIFF)... 3.9

ANALYSIS IN MG/L

AG....	CO3.....	LI...	1.0		
AL....	CR.....	MG...	20.		
AS.... 0.002	CS.....	MN...	0.18		
H.... 0.55	F.....	NA...	650.	SI02.	38.
HE....	FE(TOT)...	NB...	520.	504...	260.
CA.... 120.	HCO3....	NO3...	484.		
CA+MG.	MG.....	PO4...	0.0001		
CO....	H2S.....		0.09		
CL.... 780.					
CO....	K.....	ZN...	32.	0.01	

ISOTOPIES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00202

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073062

NAME OF SAMPLE SOURCE... HARTSEL HOT SPRINGS; SPRING B
 LOCATION
 COUNTRY..... UNITED STATES 125 075W 08 NE OF SE
 STATE..... COLORADO
 COUNTY..... PARK
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 39-01.08 N 105-47.65 W
 UTM ZONE... 13
 NORTHING... 4318866.
 431247.

MAP REFERENCE..... HARTSEL 1124000
 OTHER LOCALITY INFORMATION: EASTERN MOST SPRING
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 45.0
 DISCHARGE..... 189. L/MIN

WATER ANALYSIS

P.H..... 6.6
 SPECIFIC CONDUCTANCE..... 3800.
 ALKALINITY..... 491. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2330.
 CHARGE IMBALANCE (% DIFF)... 3.9

ANALYSIS IN MG/L

ISOTOPES (0/00)

AL....		CR.....		MG...	21.		
AS....		CS.....		MN...	0.170		
R....	0.38	-F.....	2.0	NA...	670.	SI02.	3/.
RE....		FE(TOT).	0.42	NB...		SO4..	380.
CA....	120.	HCO3....	491.	NO3..	0.06		
CO....		H2S.....		PO4..	0.03		
CL....	820.						
CO....		K.....	33.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00203

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0073060

NAME OF SAMPLE SOURCE... HARTSEL HOT SPRINGS: SPRING B
 LOCATION
 COUNTRY..... UNITED STATES 125 075W 08 NE OF SE
 STATE..... COLORADO
 COUNTY..... PARK
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 39-01.08 N 105-47.65 W
 UTM ZONE... +13
 NORTHING... 4318866.
 431247.

MAP REFERENCE..... HARTSEL 1124000
 OTHER LOCALITY INFORMATION: EASTERN MOST SPRING.
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 45.0
 DISCHARGE..... 151. L/MIN

WATER ANALYSIS

P.H..... 7.0
 SPECIFIC CONDUCTANCE..... 3600.
 ALKALINITY..... 503. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2260.
 CHARGE IMBALANCE (% DIFF)... 2.3

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....		CO3.....		LI...	1.0		
AL....		CR.....		MG...	20.		
AS....	0.001	CS.....		MN...	0.21		
R....	0.54	-F.....	1.4	NA...	670.	SI02.	35.
RE....		FE(TOT).	0.57	NB...		SO4..	320.
CA....	110.	HCO3....	503.	NO3..	0.03		
CA+MG.		HG.....	0.0001	PO4..			
CO....		H2S.....					

CL.... 820. K..... 33.
 CO.....
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

ZN... 0.01

RECORD 00204

GEOHERM SAMPLE FILE

GEOHERM FILE 101 0073061

NAME OF SAMPLE SOURCE... MARTSEL HOT SPRINGS; SPRING B
 LOCATION
 COUNTRY..... UNITED STATES 12S 07SW 08 NE OF SE
 STATE..... COLORADO
 COUNTY..... PARK
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... MARTSEL 1124000
 OTHER LOCALITY INFORMATION: EASTERN MOST SPRING

COORDINATES

LAT/LONG... 39-01.08 N 105-47.65 W
 UTM ZONE... +13
 NORTHING... 4318866.
 431247.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00
 TEMPERATURE (C)..... 45.0
 DISCHARGE..... 182. L/MIN

WATER ANALYSIS

PH..... 6.6
 SPECIFIC CONDUCTANCE..... 3800.
 ALKALINITY..... 500. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2310.
 CHARGE IMBALANCE (% DIFF)... 3.1

ANALYSIS IN MG/L

AL....	CR....	MG...	19.		
AS....	CS....	MN...	0.18		
B.... 0.51	F.... 2.0	NA...	710.	SI02.	36.
BE....	FE(TOT)... 0.45	NB...		SO4..	320.
CA.... 120.	HCO3.... 500.	NU3..	0.03		
CU....	H2S.....	PO4..	0.03		
CL.... 820.					

ISOTOPIES (0/001)

CO..... K..... 34.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00205

GEOHERM SAMPLE FILE

GEOHERM FILE 101 0073160

NAME OF SAMPLE SOURCE... RHODES WARM SPRING
 LOCATION
 COUNTRY..... UNITED STATES 10S 07SW 24 NW OF SW
 STATE..... COLORADO
 COUNTY..... PARK
 GEOLOGIC PROVINCE.. 14
 MAP REFERENCE..... FAIRPLAY WEST 1124000

COORDINATES

LAT/LONG... 39-09.82 N 106-03.88 W
 UTM ZONE... +13
 NORTHING... 3337219.
 397479.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 25.0
 DISCHARGE..... 757. L/MIN

AS HCO3

ISOLOPES (0/00)

ZN... 0.01

ZN... 0.01

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

GEOTHERM FILE ID: 0073159

GEOTHERM FILE ID: 0073159

COORDINATES

LAT/LONG... 39-09.82 N 106-03.88 W
UTM ZONE... 413
NORTHING... 3337219.
397479.

LAT/LONG... 39-09.82 N 106-03.88 W
UTM ZONE... 413
NORTHING... 3337219.
397479.

DATE/COLLECTOR..... 1975/06/00
TEMPERATURE (C)..... 24.0

DATE/COLLECTOR..... 1975/06/00
TEMPERATURE (C)..... 24.0

AS HCU3

ISULOPES (6/00)

AG.....		CO3.....		LI....	0.01
AL.....	0.005	CR.....		MG....	21.
AS.....	0.001	CS.....		MN....	0.005
AU.....		CU.....	0.001		
H.....	0.03	F.....	0.2	NA....	5.5
HA.....	0.18				
HE.....		FE(TQT).	0.02	NH....	
HI.....		GA.....		NH4...	
CA.....	3.3	HCO3.....	197.	NO3..	0.21
CA+MG.		MG.....	N	PH....	0.002
CD.....		H2S.....		PO4..	N
CL.....	1.8				

AG....		COJ.....		LI....	0.01
AL....	0.005	CH.....		MG....	21.
AS....	0.001	CS.....		MN....	0.005
AU....		CU.....	0.001		
H....	0.03	F.....	0.2	NA....	5.5
HA....	0.18				
HE....		FE(ITT)..	0.02	NH....	
HI....		GA.....		NH4..	
CA....	33.	HCOJ.....	197.	NU3..	0.21
CA*MG.		MG.....	"	PH....	0.002
CD....		MPS.....		PU4..	"
CL....	1.0				

CO.... K..... 1.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ZN... 0.02

RECORD 00207

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0000405

NAME OF SAMPLE SOURCE... AVALANCHE SPRINGS
 LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... PITKIN
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 39-13.90 N 107-13.50 W
 UTM ZONE... +13
 NORTHING... 4344636.
 307940.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 53.9
 DISCHARGE..... 757. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1912/00/00
 CHARGE IMBALANCE (% DIFF)... 11.2

ANALYSIS

ISOTOPES (0/001)

H.....	F.....	NA...	337.	SI02.	98.
HE.....	FE(TOT).	NB...		S04..	1214.
CA.... 383.	MCU3.... 473.				
CL.... 260.					

CO.... K..... 90.
 REFERENCE AND IDENTIFICATION

COMPILED BY..... GARYHOT, KENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GEORGE AND OTHERS, 1920

RECORD 00208

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073017

NAME OF SAMPLE SOURCE... CONUNDRUM HOT SPRING
 LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 125 085W 16
 STATE..... COLORADO
 COUNTY..... PITKIN
 GEOLOGIC PROVINCE.. 14

COORDINATES

LAT/LONG... 39-00.73 N 106-53.43 W
 UTM ZONE... +13
 NORTHING... 4319619.
 336316.

WSP REFERENCE..... MAROON BELLS 1124000

OTHER LOCALITY INFORMATION: TWO SPRINGS WITHIN 100 FEET OF EACH OTHER. LOWER SPRING SAMPLED.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 38.
 DISCHARGE..... 50. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 2400.
 TOTAL DISSOLVED SOLIDS... 1910.

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....	CO3.....	LI...	0.01		
AL....	CR.....	MG...	1.4		
AS.... 0.001	CS.....	MN...	0.14		
H..... 0.03	F..... 2.3	NA...	44.	SI02.	38.
HE.....	FE(TOT). 0.25	NB...		S04..	1300.

CA.... 500. MC03.... NO3.. 0.01
 CA+MG. HG..... N
 CU.... H2S.... PO4.. N
 CL.... 8.6

CO.... K..... 3.4 ZN... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00209

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073132

NAME OF SAMPLE SOURCE... PENNY HOT SPRING

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 10S 08W 04 NE OF NW
 STATE..... COLORADO
 COUNTY..... PITKIN
 GEOLOGIC PROVINCE..

LAT/LONG... 39-13.55 N 107-13.47 W
 UTM ZONE... 13
 NORTING... 4343988.
 307976.

MAP REFERENCE..... REDSTONE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 46.0

DISCHARGE..... 38. L/MIN

WATER ANALYSIS

PH..... 6.3
 SPECIFIC CONDUCTANCE..... 3450.
 ALKALINITY..... 593. AS MC03
 TOTAL DISSOLVED SOLIDS... 2820.
 CHARGE IMBALANCE (% DIFF)... 2.2

ISOTOPE (u/00)

ANALYSIS IN MG/L

AL....	CR....	MG...	51.		
AS....	CS....	MN...	0.43		
R.... 0.64	F.... 3.4	NA...	390.	S102.	74.
HE....	FE(TOT).. 1.0	NH...		S04..	1300.
CA.... 420.	MC03.... 593.	NO3..	0.01		
CU....	H2S....	PO4..	0.12		
CL.... 250.					

CO.... K..... 36.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00210

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073131

NAME OF SAMPLE SOURCE... PENNY HOT SPRINGS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 10S 08W 04 NE OF NW
 STATE..... COLORADO
 COUNTY..... PITKIN
 GEOLOGIC PROVINCE..

LAT/LONG... 39-13.55 N 107-13.47 W
 UTM ZONE... 13
 NORTING... 4343988.
 307976.

MAP REFERENCE..... REDSTONE 1124000

OTHER LOCALITY INFORMATION: LOCATED IN MEADOWS ON EAST SIDE OF CRYSTAL RIVER. SAMPLING POINT IS LOCATED 50 FT
 SOUTH OF WOODEN FENCE-LIKE STRUCTURE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00
 TEMPERATURE (C)..... 40.0
 DISCHARGE..... 38. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 3550.
 ALKALINITY..... 570. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2820.
 CHARGE IMBALANCE (% DIFF)... 0.3

ANALYSIS IN MG/LISOTOPES (0/00)

AG....		CO3....		LI...	0.97		
AL....	0.03	CR....		MU...	50.		
AS....	0.005	CS....		MN...	0.38		
AU....		CU....	0.004				
H....	0.7	F....	3.	NA...	400.	SI02.	96.
HA....	0.04						
RE....		FE(TOT).	1.3	NH...		SI04..	1300.
HI....		GA....		NH4..		SR...	5.7
CA....	410.	HCO3....	570.	NO3..	0.02		
CA+MG.		HG..... N		PB...	0.016		
CU....		H2S....		PO4..	0.06		
CL....	240.						
CO....		K.....	38.				
				ZN...	0.02		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILED AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00211

GEOOTHERM SAMPLE FILE

GEOOTHERM FILE 101 0073133

NAME OF SAMPLE SOURCE... PENNY HOT SPRINGS

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... COLORADO 10S 08W 04 NE OF NW
 COUNTY..... PITKIN
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 39-13.55 N 107-13.47 W
 UTM ZONE... 13
 NORTHING... 4343988.
 307976.

MAP REFERENCE..... REDSTONE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 45.0
 DISCHARGE..... 38. L/MIN

WATER ANALYSIS

PH..... 6.3
 SPECIFIC CONDUCTANCE..... 3850.
 ALKALINITY..... 599. AS HCO3
 TOTAL DISSOLVED SOLIDS... 2750.
 CHARGE IMBALANCE (% DIFF)... 1.0

ANALYSIS IN MG/LISOTOPES (0/00)

AL....		CR....		MG...	53.		
AS....		CS....		MN...	0.430		
H....	0.670	F....	3.4	NA...	380.	SI02.	150.
HA....		FE(TOT).	1.3	NH...		SI04..	1200.
CA....	390.	HCO3....	599.	NO3..	0.01		
CU....		H2S....		PO4..	0.15		
CL....	240.						

CO.... K..... 38.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... BURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00212

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073134

NAME OF SAMPLE SOURCE... PENNY HOT SPRINGS: GRANGES SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 09S 08W 33 SW OF SE SW

STATE..... COLORADO

COUNTY..... PITKIN

GEOLOGIC PROVINCE..

MAP REFERENCE..... NEUSTONE 1124000

OTHER LOCALITY INFORMATION: BIGGEST SPRING ON W SIDE OF CRYSTAL RIVER APPROXIMATELY 100 YDS N OF RIVER.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 56.0

DISCHARGE..... 45. L/MIN

WATER ANALYSIS

PH..... 9.2

SPECIFIC CONDUCTANCE..... 3760.

ALKALINITY..... 565.

AS HCO3

TOTAL DISSOLVED SOLIDS... 2960.

CHARGE IMBALANCE (3 DIFF)... 2.3

ANALYSIS IN MG/L

ISOLOPES (02/001)

AL....

CR.....

MG....

55.

AS....

CS.....

MN....

0.3

H..... 0.650

F.....

2.7

NA....

400.

SI02.

81.

HE....

FE(TOT)...

2.3

NB....

0.01

S04..

1400.

CA.... 440.

HCO3....

565.

NO3..

0.15

CO....

H2S.....

P04..

0.15

CL.... 260.

CO.... K..... 38.

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, H.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00213

GEOTERM SAMPLE FILE

GEOTERM FILE 101 0073015

NAME OF SAMPLE SOURCE... CLARK SPRING WARM WATER WELL

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 21S 06SW 01 NE OF NE

STATE..... COLORADO

COUNTY..... PUEBLO

GEOLOGIC PROVINCE.. 14

MAP REFERENCE..... NE PUEBLO 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/09/00

TEMPERATURE (C)..... 25.0

DISCHARGE..... 45. L/MIN

WATER ANALYSIS

COORDINATES

LAT/LONG... 38-15.4N N 104-36.38 W

UTM ZONE... 13

NORTHING... 4234307.

534151.

P4..... 6.8
 SPECIFIC CONDUCTANCE..... 1650.
 ALKALINITY..... 323.
 TOTAL DISSOLVED SOLIDS..... 1210.
 CHARGE IMBALANCE (3 DIFF).... 1.1

AS HCO3

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....		CO3....		LI....	0.22		
AL....	0.02	CR....		MG....	45.		
AS....	N	CS....		MN....	0.04		
AU....		CU....	0.003				
H....	0.1	F....	1.4	NA....	250.	SI02.	11.
RA....	0.02						
HE....		FE(TOT)...	2.7	NB....		S04..	620.
HI....		GA....		NH4..		SR...	2.4
CA....	75.	HCO3....	323.	NO3..	N		
CA+MG.		HG.....	N	PB....	0.007		
CD....		H2S.....		PO4..	N		
CL....	28.						
CO....		K.....	18.				
				ZN...	0.01		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00214

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073171

NAME OF SAMPLE SOURCE... ROUTT HOT SPRING/ SPRING B
 LOCATION

COUNTRY..... UNITED STATES 07N 084W 18 SW OF SE
 STATE..... COLORADO
 COUNTY..... ROUTT
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... ROCKY PEAK 1:24000

COORDINATES

LAT/LONG... 40-33.58 N 106-50.98 W
 UTM ZONE... +13
 NORTHING... 4491311.
 343401.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 62.0

DISCHARGE..... 114. L/MIN

WATER ANALYSIS

P4..... 7.1
 SPECIFIC CONDUCTANCE..... 770.
 ALKALINITY..... 135.
 TOTAL DISSOLVED SOLIDS..... 539.
 CHARGE IMBALANCE (3 DIFF).... 1.5

AS HCO3

ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....		CO3....		LI....	0.310		
AL....	0.15	CR....		MG....	0.5		
AS....	0.1	CS....		MN....	0.010		
AU....		CU....	0.004				
H....	0.280	F....	17.	NA....	160.	SI02.	98.
HA....	0.02						
HE....		FE(TOT)...	0.080	NB....		S04..	49.
HI....		GA....		NH4..		SR...	0.38
CA....	7.8	HCO3....	135.	NO3..	N		
CA+MG.		HG.....	0.0001	PB....	0.004		
CD....		H2S.....		PO4..	0.06		

CL.... 130.
 CO.... K..... 9.1
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... BURKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

ZN... 0.006

RECORD 00215

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0000397

NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS
 LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... ROUTT
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 40-33.60 N 106-51.00 W
 UTM ZONE... 13
 NORTHING... 4491348.
 343374.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 64.4

WATER ANALYSIS

DATE/ANALYST..... 1912/00/00

CHARGE IMBALANCE (% DIFF)... 8.3

ANALYSIS

ISOTOPES (0/00)

H....	F.....	NA...	162.	SI02.	88.
HE....	FE(TOT)...	NB...		SO4...	44.
CA.... 7.6	MC03.... 141.				
CL.... 137.					

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

REFERENCE AND IDENTIFICATION

COMPILED BY..... GALTARDT, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GEORGE AND OTHERS, 1920

RECORD 00216

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073169

NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING A
 LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 07N 084W 18 SW OF SE
 STATE..... COLORADO
 COUNTY..... ROUTT
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 40-33.57 N 106-51.00 W
 UTM ZONE... 13
 NORTHING... 4491293.
 343373.

MAP REFERENCE..... ROCKY PEAK 1:24000

OTHER LOCALITY INFORMATION: LOCATED SOUTH OF CREEK AND APPROX. 100. FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 64.0

DISCHARGE..... 95. L/MIN

WATER ANALYSIS

PH.....	9.3	
SPECIFIC CONDUCTANCE.....	819.	
ALKALINITY.....	139.	AS MC03
TOTAL DISSOLVED SOLIDS...	521.	
CHARGE IMBALANCE (% DIFF)...	0.8	

ISOTOPES (0/00)

ANALYSIS IN MU/L
 AL.... CA.... MU... 0.1
 AS.... CS..... MN... N

H..... 0.260 F..... 16. NA... 160. SI02. 86.
 ME..... FE(TOT). N NB... 504.. 54.
 CA..... 7.7 MC03.... 139. NO3.. 0.01
 CD..... H2S..... P04.. 0.12
 CL..... 120. K..... 8.5
 CO.....

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00217

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073168

NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING A
 LOCATION

COUNTRY..... UNITED STATES 07N 084W 18 SW OF SE
 STATE..... COLORADO
 COUNTY..... ROUTT
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 40-33.57 N 106-51.00 W
 UTM ZONE... 13
 NORTHING... 4491293.
 343373.

MAP REFERENCE..... ROCKY PEAK 1:24000

OTHER LOCALITY INFORMATION: LOCATED SOUTH OF CREEK AND APPROX. 100 FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 64.0

DISCHARGE..... 189. L/MIN

WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 890.
 ALKALINITY..... 138. AS MC03
 TOTAL DISSOLVED SOLIDS... 518.
 CHARGE IMBALANCE (% DIFF)... 0.9

ANALYSIS IN MG/L

AG..... CO3.... LI... 0.420
 AL..... CR..... MG... 0.2
 AS... 0.085 CS..... MN... 0.01
 R... 0.290 F..... 14. NA... 160. SI02. 86.
 HE..... FE(TOT). 0.06 NB... 504.. 54.
 CA..... 7.3 MC03.... 138. NO3.. N
 CA+MG. HG..... H P04.. 0.06
 CD..... H2S.....
 CL..... 130. K..... 8.3 ZN... 0.01
 CO.....

ISOLOPES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00218

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073170

NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING A
 LOCATION

COUNTRY..... UNITED STATES 07N 084W 18 SW OF SE
 STATE..... COLORADO
 COUNTY..... ROUTT

COORDINATES

LAT/LONG... 40-33.57 N 106-51.00 W
 UTM ZONE... 13
 NORTHING... 4491293.

34337J.

GEOLOGIC PROVINCE..
 MAP REFERENCE..... ROCKY PEAK 1124000
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00
 TEMPERATURE (C)..... 64.0
 DISCHARGE..... 132. L/MIN
 WATER ANALYSIS

PH..... 7.8
 SPECIFIC CONDUCTANCE..... 1000.
 ALKALINITY..... 139. AS HCO3
 TOTAL DISSOLVED SOLIDS... 527.
 CHARGE IMBALANCE (+ DIFF)... 2.6
 ANALYSIS IN MG/L

ISOTOPIES (0/00)

AL....	CR....	MG...	0.1		
AS....	CS....	MN...	0.010		
R.... 0.280	F.... 17.	NA...	160.	SI02.	89.
HE....	FE(TOT).. 0.110	NB...		SO4..	45.
CA.... 7.7	HCO3.... 139.	NO3..	0.02		
CD....	H2S....	PO4..	0.15		
CL.... 130.					

CO.... K.... 8.8
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... BURKHARDT, M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... HARRETT AND PEARL, 1976

RECORD 00219

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073167

NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING A
 LOCATION
 COUNTRY..... UNITED STATES 07N 084W 18 SW OF SE
 STATE..... COLORADO
 COUNTY..... ROUTT
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... ROCKY PEAK 1124000

COORDINATES

LAT/LONG... 40-33.57 N 106-51.00 W
 UTM ZONE... 13
 NORTING... 4491293.
 34337J.

OTHER LOCALITY INFORMATION: LOCATED SOUTH OF CREEK AND APPROX. 100 FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/00
 TEMPERATURE (C)..... 64.0
 DISCHARGE..... 125. L/MIN
 WATER ANALYSIS

PH..... 7.6
 SPECIFIC CONDUCTANCE..... 830.
 ALKALINITY..... 136. AS HCO3
 TOTAL DISSOLVED SOLIDS... 552.
 CHARGE IMBALANCE (+ DIFF)... 2.3
 ANALYSIS IN MG/L

ISOTOPIES (0/00)

AG....	CO3....	LI...	0.29		
AL.... 0.07	CR....	MG...	0.4		
AS.... 0.038	CS....	MN...	"		
AU....	CU.... 0.001	NA...	160.	SI02.	97.
R.... 0.28	F.... 18.	NB...		SO4..	47.
HA.... 0.015		NO3..		SH...	0.30
HE....	FE(TOT).. N				
HI....	GA.....				

CA.... 13. HC03.... 136. NU3.. N
 CA-MG. HG..... N PH... 0.004
 CD.... H2S.... PU4.. 0.03
 CL.... 140. K..... 9. ZN... N
 CU.....

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00220

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 007J172

NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING C

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 07N 084W 18 SW OF SE

STATE..... COLORADO

COUNTY..... ROUTT

GEOLOGIC PROVINCE..

MAP REFERENCE..... ROCKY PEAK 1:24000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 50 FEET EAST OF SPRING A.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 54.0

DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 860.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00221

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 007J173

NAME OF SAMPLE SOURCE... ROUTT HOT SPRINGS: SPRING D

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 07N 084W 18 SW OF SE

STATE..... COLORADO

COUNTY..... ROUTT

GEOLOGIC PROVINCE..

MAP REFERENCE..... ROCKY PEAK 1:24000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 40 FEET SOUTHEAST OF SPRING C.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 51.0

DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 830.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00222

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0000399

NAME OF SAMPLE SOURCE... STEAMBOAT SPRINGS

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES
 STATE..... COLORADO
 COUNTY..... ROUTT
 GEOLOGIC PROVINCE..

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 24.0

WATER ANALYSIS

DATE/ANALYST..... 1912/00/00

CHARGE IMBALANCE (% DIFF).... 2.7

ANALYSIS

H.....	F.....	NA...	2047.	SI02.	85.
HE.....	FE(TOT)...	NH...		504...	486.
CA..... 113.	HC03..... 3253.				
CL..... 1345.					
CO.....	K..... 155.				

ISOLUPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... GALKAROT, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... GEORGE AND OTHERS, 1920

RECORD 00223

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073185

NAME OF SAMPLE SOURCE... STEAMBOAT SPRINGS AREA HEART HOT SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 06N 084W 17 NW OF SE NE
 STATE..... COLORADO
 COUNTY..... ROUTT
 GEOLOGIC PROVINCE.. 14

MAP REFERENCE..... STEAMBOAT SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED AT EAST END OF MAIN STREET.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 39.0

DISCHARGE..... 530. L/MIN

OTHER SAMPLE INFORMATION.. SUPPLIES WATER TO SWIMMING POOL.

WATER ANALYSIS

PH..... 8.0
 SPECIFIC CONDUCTANCE..... 1450.
 ALKALINITY..... 103. AS HC03
 TOTAL DISSOLVED SOLIDS... 903.
 CHARGE IMBALANCE (% DIFF).... 3.0

ANALYSIS IN MG/L

AG.....	CO3.....	LI...	0.35		
AL.....	CR.....	MG...	1.		
AS..... 0.905	CS.....	MN... N			
H..... 0.7	F..... 1.9	NA...	300.	SI02.	49.
HE.....	FE(TOT).... 0.04	NH...		504...	150.
CA..... 18.	HC03..... 103.	NO3...	0.04		
CA+MG.	HG..... N				
CD.....	H2S.....	PU4..	0.06		
CL..... 320.					
CO.....	K..... 11.				

ISOLUPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

RECORD 00224

GEOHEM_SAMPLE_FILE

GEOTHERM FILE ID: 0073187

NAME OF SAMPLE SOURCE... STEAMBOAT SPRINGS AREA STEAMBOAT SPRING

LOCATION.....
COUNTRY..... UNITED STATES

COORULNALES

LAT/LONG... 40-29.30 N 106-50.45 W
UTM ZONE... 13
NORTHING... 4483376.
343984.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C) 26.0

DISCHARGE..... 76. L/MIN

WAFB ANALYSIS

P-..... 6.7

SPECIFIC CONDUCTANCE..... 9130

ALKALINITY..... 3J90. AS HCU3

TOTAL DISSOLVED SOLIDS...	6170.
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CHARGE IMBALANCE (B DIFF) ... 0.3

ANALYSIS IN MG/L

ISOLOPES 10/001

AG....		CO ₃		LI....	3.7		
AL....		CR....		MG....	31.		
AS....	0.13	CS....		MN....	0.38		
H....	3.2	F....	2.9	NA....	2200.	SiO ₂ .	21.
HE....		FE(TOT).	0.01	NB....		SiO ₄ ..	590.
CA....	110.	HCO ₃	3390.	NO ₃ ..	0.16		
CA+MG.		HG.....	N				
CD....		H ₂ S.....		PO ₄ ..	0.21		
CL....	1400.						
CO....		K.....	140.			ZN...	0.03

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00225

GEOCHEM_SAMPLE_FILE

GEUTHERM FILE 101 0073186

NAME OF SAMPLE SOURCE... STEAMBOAT SPRINGS AREA; SULPHUR CAVE SPRING

LOCATION
COUNTRY..... UNITED STATES

COORDINATES

LAT/LONG... 40-29.03 N 106-50.38 W
UIM ZONE... +13
NORTHING... 4482875.
344072.

SAMPLE DESCRIPTION AND CONCLUSIONS

DATE/COLLECTION..... 1976/04/30

TEMPERATURE (C) 20.0

DISCHARGE..... 35. L/MIN

WATER ANALYSIS

P:1..... 6.5

SPECIFIC CONDUCTANCE..... 5000.

ALKALINITY..... 2420. AS HC03
 TOTAL DISSOLVED SOLIDS... 4530.
 CHARGE IMBALANCE (% DIFF)... 1.4

ANALYSIS IN MG/L

ISOTOPE 10/001

AG....	CO3....	LI...	3.0		
AL....	CR....	MG...	24.		
AS.... 0.045	CS....	MN...	0.31		
H.... 2.9	F.... 3.0	NA...	1600.	SiO2.	18.
HE....	FE(TOT)... 0.06	NB...		SO4..	490.
CA.... 90.	HC03.... 2420.	NO3.. N			
CA+MG.	MG..... N				
CO....	H2S.....	PO4..	0.18		
CL.... 1000.					
CO....	K..... 110.	ZN...		0.01	

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00226

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073041

NAME OF SAMPLE SOURCE... FULLINWIDER WARM SPRING
 LOCATION

COORDINATES

COUNTRY..... UNITED STATES 47N 009E 21 SE OF SW
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE... 15

LAT/LONG... 38-18.30 N 105-58.92 W
 UTM ZONE... 13
 NORTING... 4239906.
 414138.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 18.0
 DISCHARGE..... 42. L/MIN

WATER ANALYSIS

PH..... 6.7
 SPECIFIC CONDUCTANCE..... 530.
 ALKALINITY..... 116. AS HC03
 TOTAL DISSOLVED SOLIDS... 332.
 CHARGE IMBALANCE (% DIFF)... 2.5

ISOTOPE 10/001

AG....	CO3....	LI...	0.1		
AL....	CR....	MG...	4.2		
AS.... 0.001	CS....	MN...	0.005		
H.... 0.05	F.... 4.4	NA...	80.	SiO2.	21.
HE....	FE(TOT)... 0.01	NB...		SO4..	140.
CA.... 21.	HC03.... 116.	NO3..	0.29		
CA+MG.	MG..... N				
CO....	H2S.....	PO4..	0.06		
CL.... 15.					
CO....	K..... 1.6	ZN...		0.008	

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00227

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0073900

NAME OF SAMPLE SOURCE... MINERAL HOT SPRING: SPRING C

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 45N 009E 12 SE OF NE

STATE..... COLORADO

COUNTY..... SAGUACHE

GEOLOGIC PROVINCE..

MAP REFERENCE..... VILLA GROVE 1124000

COORDINATES

LAT/LONG... 38-10.10 N 105-55.18 W

UTM ZONE... 13

NORTHING... 4224686.

419438.

OTHER LOCALITY INFORMATION: LOCATED APPROX 2300 FT E OF CULO 17 AND 150 FT NW OF SPRING A.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00

TEMPERATURE (C)..... 60.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 1060.

ALKALINITY..... 341. AS MC03

TOTAL DISSOLVED SOLIDS... 723.

CHARGE IMBALANCE (% DIFF)... 0.9

ANALYSIS IN MG/L

AG....		CO3....		LI....	0.330		
AL....		CR....		MG....	14.		
AS....	0.028	CS....		MN....	0.030		
R....	0.370	F....	4.2	NA....	150.	SI02.	50.
HE....		FE(TOT)...	0.020	NB....		SO4..	190.
CA....	60.	MC03....	341.	NU3..	6.5		
CA-MG.		MG..... N		PU4..	0.12		
CO....		M2S.....					
CL....	43.						
CO....		K.....	14.				
				ZN....	N		

ISOTOPIES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BURKHARDT, M.

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00228

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000413

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS (CHAMBERLAIN HOT SPRINGS)

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE

STATE..... COLORADO

COUNTY..... SAGUACHE

GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-10.10 N 105-55.00 W

UTM ZONE... 13

NORTHING... 4224683.

419701.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 63.0

DISCHARGE..... 133. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1974/09/00

PH..... 7.0

CHARGE IMBALANCE (% DIFF)... 9.2

ANALYSIS

H....		F.....		NA....	140.	SI02.	51.
HF....		FE(TOT)...		NB....		SO4..	160.
CA....	56.	MCU3....	34H.				

ISOTOPIES (0/00)

CI..... 39.
 CO..... K..... 14.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... GARYARDT, RENNER, J.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... WHITE AND WILLIAMS, 1975

RECORD 00229

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073005

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS; SPRING A
 LOCATION
 COUNTRY..... UNITED STATES 45N 009E 12 SE OF NE
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE.. 15
 MAP REFERENCE..... VILLA GROVE 1124000
 COORDINATES
 LAT/LONG... 38-10.13 N 105-55.08 W
 UTM ZONE... +13
 NORTHING... 4224740.
 419584.
 OTHER LOCALITY INFORMATION: ACTUALLY A WELL, LOCATED IN EASTERNMOST GROUP OF SPRINGS.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00
 TEMPERATURE (C)..... 60.0
 DISCHARGE..... 379. L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 970.
 ALKALINITY..... 335. AS HCO3
 TOTAL DISSOLVED SOLIDS... 643.
 CHARGE IMBALANCE (% DIFF)... 2.4

ANALYSIS IN MG/L

AG....	CO3....	LI....	0.3		
AL.... 0.045	CR....	MG....	14.		
AS.... 0.028	CS....	MN....	0.02		
AU....	CU.... 0.002				
H.... 0.36	F.... 3.7	NA....	130.	SI02.	48.
HA.... 0.09					
HE....	FE(TOT).. 0.27	NB....		SO4..	170.
HI....	GA....	NH4..		SR...	1.2
CA.... 57.	HCO3.... 335.	NO3..	0.14		
CA+MG.	HG..... N	PB...	0.004		
CD....	H2S....	PO4..	0.12		
CL.... 39.					

ISOTOPES (0/00)

ZN... N

CO..... K..... 14.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00230

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073088

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS; SPRING A
 LOCATION
 COUNTRY..... UNITED STATES 45N 009E 12 SE OF NE
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE.. 15
 MAP REFERENCE..... VILLA GROVE 1124000
 COORDINATES
 LAT/LONG... 38-10.13 N 105-55.08 W
 UTM ZONE... +13
 NORTHING... 4224740.
 419584.

OTHER LOCALITY INFORMATION: ACTUALLY, LOCATED IN EASTERMOST GROUP OF SPRINGS.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 60.0

DISCHARGE..... 360. L/MIN

WATER ANALYSIS

PH..... 6.8

SPECIFIC CONDUCTANCE..... 995.

ALKALINITY..... 352. AS HCO3

TOTAL DISSOLVED SOLIDS... 639.

CHARGE IMBALANCE (% DIFF)... 2.7

ANALYSIS IN MG/LISOTOPIES (0/00)

AL....	CR.....	MG...	13.		
AS....	CS.....	MN...	0.01		
R.... 0.45	F..... 4.6	NA...	140.	SI02.	47.
BE....	FE(TOT).. 0.25	NB...		SO4..	150.
CA.... 59.	HCO3.... 352.	NO3.. N			
CD....	H2S.....	PO4..	0.12		
CL.... 37.					

CO.... K..... 14.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00231

GEOOTHERM SAMPLE FILE

GEOOTHERM FILE ID: 0073087

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING A

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 45N 009E 12 SE OF NE

STATE..... COLORADO

COUNTY..... SAGUACHE

GEOLOGIC PROVINCE..

MAP REFERENCE..... VILLA GROVE 1124000

OTHER LOCALITY INFORMATION: ACTUALLY A WELL, LOCATED IN EASTERMOST GROUP OF SPRINGS.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 60.0

DISCHARGE..... 265. L/MIN

WATER ANALYSIS

PH..... 7.0

SPECIFIC CONDUCTANCE..... 1020.

ALKALINITY..... 1020. AS HCO3

TOTAL DISSOLVED SOLIDS... 658.

CHARGE IMBALANCE (% DIFF)... 70.0

ANALYSIS IN MG/LISOTOPIES (0/00)

AL....	CR.....	MG...	13.		
AS....	CS.....	MN...	0.02		
R.... 0.37	F..... 3.9	NA...	140.	SI02.	47.
BE....	FE(TOT).. 0.15	NB...		SO4..	170.
CA.... 57.	HCO3.... 1020.	NO3.. N			
CD....	H2S.....	PO4.. N			
CL.... 39.					

CO.... K..... 15.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00232

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073086

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING A
 LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 45N 009E 12 SE OF NE
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... VILLA GROVE 1124000

LAT/LONG... 38-10.13 N 105-55.08 W
 UTM ZONE... 13
 NORTHING... 4224740.
 419584.

OTHER LOCALITY INFORMATION: ACTUALLY A WELL, LOCATED IN EASTERNMOST GROUP OF SPRINGS.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 60.0
 DISCHARGE..... 632. L/MIN

WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 1000.
 ALKALINITY..... 335. AS HCO3
 TOTAL DISSOLVED SOLIDS... 663.
 CHARGE IMBALANCE (% DIFF)... 0.3

ANALYSIS IN MG/L

AG....	CO3....	LI...	0.32		
AL....	CH....	MG...	13.		
AS.... 0.032	CS....	MN...	0.02		
H.... 0.35	F.... 3.6	NA...	140.	SI02.	45.
HE....	FE(TOT). 0.22	NH...		S04..	180.
CA.... 60.	HCO3.... 335.	NO3..	0.04		
CA+MG.	HG..... N				
CD....	H2S....	PU4..	0.13		
CL.... 41.					

ISOTOPES (10/00)

CO..... K..... 14. ZN... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00233

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073235

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING B
 LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 45N 009E 12 SE OF NE
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... VILLA GROVE 1124000

LAT/LONG... 38-10.12 N 105-55.10 W
 UTM ZONE... 13
 NORTHING... 4224722.
 419555.

OTHER LOCALITY INFORMATION: LOCATED APPROXIMATELY 25 FT NORTHWEST OF SPRING A.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 51.0
 DISCHARGE..... N L/MIN

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 1000.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00234

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073092

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS; SPRING D

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 45N 009W 12 SE OF NE

LAT/LONG... 38-10.07 N 105-55.33 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... SAGUACHE

NORTHING... 4224632.

GEOLOGIC PROVINCE..

419216.

MAP REFERENCE..... VILLA GROVE 1124000

OTHER LOCALITY INFORMATION: LOCATED IN CONCRETE CISTERN APPROX. 1800 FEET EAST OF COLORADO 17.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 60.0

WATER ANALYSIS

PH..... 7.3

SPECIFIC CONDUCTANCE..... 995.

ALKALINITY..... 351.

AS HCO3

TOTAL DISSOLVED SOLIDS... 648.

CHARGE IMBALANCE (% DIFF)... 0.1

ANALYSIS IN MG/L

ISOTOPES (0/00)

AL....	CR....	MG....	13.		
AS....	CS....	MN....	0.01		
H.... 0.4	F.... 4.6	NA....	140.	SI02.	47.
RE....	FE (TOT) 0.06	NB....		SO4..	160.
CA.... 58.	HCO3... 351.	NO3..	0.01		
CO....	H2S....	PO4..	0.12		
CL.... 38.					

CO.... K.... 14.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00235

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073091

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS; SPRING D

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 45N 009W 12 SE OF NE

LAT/LONG... 38-10.07 N 105-55.33 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... SAGUACHE

NORTHING... 4224632.

GEOLOGIC PROVINCE..

419216.

MAP REFERENCE..... VILLA GROVE 1124000

OTHER LOCALITY INFORMATION: LOCATED IN CONCRETE CISTERN APPROX. 1800 FEET EAST OF COLORADO 17.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 60.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 950.
 ALKALINITY..... 352.
 TOTAL DISSOLVED SOLIDS... 657.
 CHARGE IMBALANCE (% DIFF)... 3.1

AS HCO3

ANALYSIS IN MG/L

AL....	CR....	MG....	13.		
AS....	CS....	MN....	0.02		
H.... 0.34	F.... 3.8	NA....	140.	SI02..	46.
FE....	FE(TOT).. 0.05	NB....		S04..	170.
CA.... 56.	HCO3.... 352.	NO3..	0.02		
CO....	H2S.....	PO4..	N		
CL.... 40.					
CO....	K..... 14.				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00236

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0073090

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING D

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	45N 009W 12	SE OF NE	LAT/LONG...	38-10.07 N 105-55.33 W
STATE.....	COLORADO			UTM ZONE...	+13
COUNTY.....	SAGUACHE			NORTHING...	4224632.
GEOLOGIC PROVINCE..					419218.
MAP REFERENCE.....	VILLA GROVE 1124000				

OTHER LOCALITY INFORMATION: LOCATED IN CONCRETE CISTERN APPROX. 1800 FEET EAST OF COLORADO 17.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 60.0

WATER ANALYSIS

PH..... 6.5
 SPECIFIC CONDUCTANCE..... 1000.
 ALKALINITY..... 354.
 TOTAL DISSOLVED SOLIDS... 690.
 CHARGE IMBALANCE (% DIFF)... 1.1

AS HCO3

ANALYSIS IN MG/L

AG....	CO3....	LI....	0.32		
AL....	CR....	MG....	13.		
AS.... 0.036	CS....	MN....	0.01		
H.... 0.35	F.... 3.4	NA....	150.	SI02..	45.
HF....	FE(TOT).. 0.13	NB....		S04..	190.
CA.... 59.	HCO3.... 354.	NO3..	0.05		
CA+MG.	HG..... N				
CO....	H2S.....	PO4..	0.03		
CL.... 40.					
CO....	K..... 14.	ZN...	0.01		

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... RARRETT AND PEARL, 1976

RECORD 00237

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073089

NAME OF SAMPLE SOURCE... MINERAL HOT SPRINGS: SPRING D
LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 45N 009W 12 SE OF NE
STATE..... COLORADO
COUNTY..... SAGUACHE
GEOLOGIC PROVINCE..LAT/LONG... 38-10.07 N 105-55.33 W
UTM ZONE... +13
NORTHING... 4224632.
419218.

MAP REFERENCE..... VILLA GROVE 1:24000

OTHER LOCALITY INFORMATION: LOCATED IN CONCRETE CISTERN APPROX. 1800 FEET EAST OF COLORADO 17.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00
TEMPERATURE (C)..... 59.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 995.

ALKALINITY..... 349.

AS HCO3

TOTAL DISSOLVED SOLIDS... 665.

CHARGE IMBALANCE (% DIFF)... 2.2

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....		CO3....		LI...	0.33		
AL....	0.04	CH....		MG...	13.		
AS....	0.026	CS....		MN...	0.02		
AU....		CU....	0.001				
H....	0.37	F....	3.9	NA...	140.	SI02.	48.
HA....	0.09						
HE....		FE(TOT).	0.03	NB...		SO4..	170.
HI....		GA....		NH4..		SR...	0.92
CA....	55.	HCO3....	349.	NO3..	2.		
CA+MG.		MG....	N	PH...	0.005		
CI....		H2S....		PO4..	0.09		
CL....	39.						
CO....		K....	14.			ZN...	0.008

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00238

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0073175

NAME OF SAMPLE SOURCE... SHAW'S WARM SPRING

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 41N 006E 33 SE OF SE
STATE..... COLORADO
COUNTY..... SAGUACHE
GEOLOGIC PROVINCE..

MAP REFERENCE..... TWIN MOUNTAINS SE 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/00
TEMPERATURE (C)..... 30.0

DISCHARGE..... 129. L/MIN

WATER ANALYSIS

PH..... 9.3
SPECIFIC CONDUCTANCE..... 550.

ALKALINITY..... 121. AS HCO3
 TOTAL DISSOLVED SOLIDS... 406.
 CHARGE IMBALANCE (% DIFF)... 1.6
 ANALYSIS IN MG/L

ISOTOPE (10/00)

AG....		CO3....	69.	LI...	0.01		
AL....	0.04	CR....		MG...	0.6		
AS....	N	CS....		MN...	N		
AU....		CU....	0.001				
R....	0.13	F....	3.1	NA...	130.	SI02.	83.
BA....	0.003						
RE....		FE(TOT)...	0.04	NB...		SO4..	50.
RI....		GA....		NH4..		SR...	0.01
CA....	0.9	HCO3...	121.	NO3..	0.01		
CA+MG.		MG....	N	PB...	0.003		
CD....		H2S....		PO4..	0.12		
CL....	7.5						
CO....		K....	1.5				
				ZN...	N		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00239

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0073176

NAME OF SAMPLE SOURCE... SHAW'S WARM SPRING

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 41N 006E 33 SE OF SE

STATE..... COLORADO

COUNTY..... SAGUACHE

GEOLOGIC PROVINCE..

MAP REFERENCE..... TWIN MOUNTAINS SE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 30.0

DISCHARGE..... 129. L/MIN

WATER ANALYSIS

PH..... 9.3
 SPECIFIC CONDUCTANCE..... 540.
 ALKALINITY..... 114. AS HCO3
 TOTAL DISSOLVED SOLIDS... 402.
 CHARGE IMBALANCE (% DIFF)... 2.6
 ANALYSIS IN MG/L

ISOTOPE (10/00)

AG....		CO3....	77.	LI...	0.01		
AL....		CR....		MG...	0.3		
AS....	N	CS....		MN...	N		
H....	0.14	F....	2.9	NA...	130.	SI02.	73.
HE....		FE(TOT)...	0.02	NB...		SO4..	53.
CA....	0.5	HCO3...	114.	NO3..	0.02		
CA+MG.		MG....	N				
CD....		H2S....		PO4..	0.09		
CL....	7.2						
CO....		K....	1.4				
				ZN...	N		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00240

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073177

NAME OF SAMPLE SOURCE... SHAW'S WARM SPRING
LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 41N 006E 33 SE OF SE

LAT/LONG... 37-45.02 N 106-19.02 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... SAGUACHE

NORTHING... 4178726.

GEOLOGIC PROVINCE.. 15

383975.

MAP REFERENCE..... TWIN MOUNTAINS SE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 30.0

DISCHARGE..... 197. L/MIN

WATER ANALYSIS

PH..... 9.0

SPECIFIC CONDUCTANCE..... 569.

ALKALINITY..... 154.

AS HCO3

TOTAL DISSOLVED SOLIDS... 424.

CHARGE IMBALANCE (% DIFF)... 2.4

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG..... CO3..... 57.

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

MG... 0.7

AS..... CS.....

MN... N

H..... 0.12 F..... 3.0

NA... 130.

SiO2. 100.

HE..... FE(TOT)... 0.01

NB...

SO4.. 46.

CA..... 2.7 HCO3... 154.

NO3.. 0.02

CO..... H2S.....

PO4.. 0.15

CL..... 7.3

CO..... K..... 1.5

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00241

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0073180

NAME OF SAMPLE SOURCE... SOUTH CANYON HOT SPRINGS: SPRING A

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 06S 090W 02 SE OF SW

LAT/LONG... 39-33.27 N 107-23.68 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... SAGUACHE

NORTHING... 4380850.

GEOLOGIC PROVINCE..

293967.

MAP REFERENCE..... STORM KING MOUNTAIN 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C)..... 48.0

DISCHARGE..... 26. L/MIN

WATER ANALYSIS

PH..... 7.6

SPECIFIC CONDUCTANCE..... 1300.

ALKALINITY..... 303.

AS HCO3

TOTAL DISSOLVED SOLIDS... 800.

ANALYSIS IN MG/L

ISLOPES 10/001

AG....		CO3....		LI...	0.15		
AL....		CR....		MG...	1.4		
AS....	0.001	CS....		MN...	0.04		
R....	0.26	F....	3.0	NA...	280.	SI02.	39.
HE....		FE(TOT)...	0.03	NB...		SO4..	100.
CA....	7.7	HCO3....	303.	NO3..	0.19		
CA-MG.		HG.....	N				
CD....		H2S.....		PU4..	0.06		
CL....	210.						
CO....		K.....	8.0			ZN...	0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00242

GEOTHERM SAMPLE EILE

GEUTHERM FILE ID: 0073194

NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING A

LOCATION

TOWNSHIP=RANGE

COORDINALES

COUNTRY.....	UNITED STATES	46N 010E 36	NW OF SE	LAT/LONG...	38-11.53 N 105-48.82 W
STATE.....	COLORADO			UTM ZONE...	13
COUNTY.....	SAGUACHE			NORTHING...	4227243.
GEOLOGIC PROVINCE..					428747.

MAP REFERENCE..... VALLEY VIEW HOT SPRINGS 112400U

OTHER LOCALITY INFORMATION: LOCATED APPROX. 300 FEET EAST OF OLD SWIMMING POOL

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00

TEMPERATURE (C) 36.0

...DISCHARGE..... N L/MIN

WAFEN ANALYSIS

PH.....	6.5	
SPECIFIC CONDUCTANCE.....	384.	
ALKALINITY.....	124.	AS HC03
TOTAL DISSOLVED SOLIDS.....	249.	

CHARGE IMBALANCE (% DIFF) ... 5.0

ANALYSIS IN MG/L

ISOLOPES (10/01)

AG....		CO3....		LI...	0.01		
AL....		CR....		MG...	14.		
AS....	0.001	CS....		MN...	0.01		
B....	0.01	F.....	0.4	NA...	3.7	SiO2.	20.
BE....		FE(TOT).	0.02	NB...		SiO4..	95.
CA....	50.	HCO3....	124.	NO3..	0.11		
CA+MG.		MG.....	N				
CD....		H2S.....		PO4..	N		
CL....	1.5						
CO....		K.....	2.6			ZN...	0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLUMBIA GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00243

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073196

NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING A

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 46N 010E 36 NW OF SE

STATE..... COLORADO

COUNTY..... SAGUACHE

GEOLOGIC PROVINCE..

MAP REFERENCE..... VALLEY VIEW HOT SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 300 FEET EAST OF OLD SWIMMING POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 36.0

WATER ANALYSIS

PH..... 7.5

SPECIFIC CONDUCTANCE..... 381.

ALKALINITY..... 125.

TOTAL DISSOLVED SOLIDS... 234.

CHARGE IMBALANCE (% DIFF)... 2.2

ANALYSIS IN MG/L

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

AS..... CS.....

H..... 0.31 F..... 0.7

HE..... FE(TOT)... 0.01

CA..... 50. HCO3... 125.

CD..... H2S.....

CL..... 0.9

CO..... K..... 2.8

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

COORDINATES

LAT/LONG... 38-11.53 N 105-48.82 W

UTM ZONE... 13

NORTHING... 4227243.

428747.

ISOTOPE (U/001)

MG... 14.

MN... 0.01

NA... 3.3

NB... 0.01

NO3... 0.14

PO4... 0.03

SI02.

S04..

20.

80.

RECORD 00244

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0073195

NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING A

LOCATION TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 46N 010E 36 NW OF SE

STATE..... COLORADO

COUNTY..... SAGUACHE

GEOLOGIC PROVINCE..

MAP REFERENCE..... VALLEY VIEW HOT SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 300 FEET EAST OF OLD SWIMMING POOL.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 35.0

WATER ANALYSIS

PH..... 6.8

SPECIFIC CONDUCTANCE..... 385.

ALKALINITY..... 124.

TOTAL DISSOLVED SOLIDS... 243.

CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

AS HCO3

COORDINATES

LAT/LONG... 38-11.53 N 105-48.82 W

UTM ZONE... 13

NORTHING... 4227243.

428747.

ISOTOPE (U/001)

AL....		CR.....		MG....	14.		
AS....		CS.....		MN....	N		
H....	0.007	F.....	0.3	NA....	3.9	SI02.	20.
HE....		FE(TOT)...	0.01	NB....		S04..	89.
CA....	50.	HCO3.....	124.	NO3..	0.17		
CD....		H2S.....		PO4..	0.09		
CL....	1.1						
CO....		K.....	2.7				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00245

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0073193

NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING A

LOCATION

COORDINATES

COUNTRY..... UNITED STATES 46N 010E 36 NW OF SE

LAT/LONG... 38-11.53 N 105-48.82 W

STATE..... COLORADO

UTM ZONE... 13

COUNTY..... SAGUACHE

NORTHING... 4227243.

GEOLOGIC PROVINCE.. 15

428747.

MAP REFERENCE..... VALLEY VIEW HOT SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED APPROX. 300 FEET EAST OF OLD SWIMMING POOL

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00

TEMPERATURE (C)..... 77.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 390.

ALKALINITY..... 120.

AS HCO3

TOTAL DISSOLVED SOLIDS... 252.

CHARGE IMBALANCE (% DIFF)... 0.0

ANALYSIS IN MG/L

ISOTOPIES (D/001)

AG.... CO3.....

LI... N

AL.... 0.01 CR.....

MG.... 15.

AS.... 0.001 CS.....

MN.... 0.02

AU.... CU..... 0.001

NA... 3.5 SI02. 21.

H.... 0.008 F..... 0.4

S04.. 96.

HA.... 0.074

SR... 0.5

HE.... FE(TOT)...

0.01

NB...

S04..

96.

HI....	GA.....		NH4..	
CA....	HCO3.....	120.	NO3..	0.57
CA+MG.	MG.....	N	PO4..	0.002
CD....	H2S.....			0.03
CL....				
CO....				
	K.....	2.5		
			ZN... N	

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00246

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0073197

NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING B

LOCATION

COORDINATES

COUNTRY..... UNITED STATES 46N 010E 36 NW OF SE
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... VALLEY VIEW HOT SPRINGS 1124000
 OTHER LOCALITY INFORMATION: LOCATED 150 FEET SOUTHWEST OF SPRING A

LAT/LONG... 38-11.52 N 105-48.83 W
 UTM ZONE... +13
 NORTHING... 4227225.
 426732.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/06/00
 TEMPERATURE (C)..... 32.0

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 350.
 ALKALINITY..... 128.
 TOTAL DISSOLVED SOLIDS... 234.
 CHARGE IMBALANCE (% DIFF)... 6.1

AS HCO3

ANALYSIS IN MG/L

ISOTOPIES (0/00)

AG....		CO3.....		LI....	0.01		
AL....		CR.....		MG....	14.		
AS....	0.002	CS.....		MN....	N		
B....	0.008	F.....	0.3	NA....	3.7	SI02.	19.
BR....		FE(TOT)...	0.02	NB....		SO4..	82.
CA....	46.	HCO3.....	128.	NO3..	0.22		
CA-MG.		MG.....	N				
CD....		M2S.....		PO4..	0.03		
CL....	2.6						
CU....		K.....	2.2				
				ZN...	N		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00247

GEOHERM SAMPLE FILE

GEOHERM FILE 101 0073198

NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING O
 LOCATION

TOWNSHIP-RANGECOORDINATES

COUNTRY.....	UNITED STATES	46N 010E 36		LAT/LONG...	38-11.38 N 105-48.58 W
STATE.....	COLORADO			UTM ZONE...	+13
COUNTY.....	SAGUACHE			NORTHING...	4226963.
GEOLOGIC PROVINCE..					429095.

MAP REFERENCE..... VALLEY VIEW HOT SPRINGS 1124000

OTHER LOCALITY INFORMATION: LOCATED 1200 FEET SOUTHEAST OF SPRING A AND 300 FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/10/00
 TEMPERATURE (C)..... 34.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 6.0
 SPECIFIC CONDUCTANCE..... 360.
 ALKALINITY..... 122.
 TOTAL DISSOLVED SOLIDS... 229.
 CHARGE IMBALANCE (% DIFF)... 4.0

AS HCO3

ANALYSIS IN MG/L

ISOTOPIES (0/00)

AG....		CO3.....		LI....	0.01		
AL....		CR.....		MG....	12.		
AS....	0.001	CS.....		MN....	0.01		
B....	0.009	F.....	0.5	NA....	3.2	SI02.	17.

HE.... FE(TOT). 0.01 NH... S04.. 82.
 CA.... 49. HCO3.... 122. NO3.. 0.12
 CA-MG. MG..... N
 CU.... H2S..... PU4.. N
 CL.... 1.8
 CO.... K..... 2.4 ZN... 0.01

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00248

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING D

GEOTHERM FILE 101 007J200

LOCATION

COUNTRY..... UNITED STATES 46N 010E 36
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-11.38 N 105-48.58 W
 UTM ZONE... 13
 NORTHING... 4226963.
 429095.

MAP REFERENCE..... VALLEY VIEW HOT SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED 1200 FEET SOUTHEAST OF SPRING A AND 300 FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/04/00

TEMPERATURE (C)..... 36.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

P..... 7.5

SPECIFIC CONDUCTANCE..... 361.

ALKALINITY..... 125.

AS HCO3

TOTAL DISSOLVED SOLIDS... 223.

CHARGE IMBALANCE (3 DIFF)... 3.7

ANALYSIS IN MG/L

AL.... CR..... MG... 13.
 AS.... CS..... MN... N
 H.... 0.22 F..... 0.4 NA... 2.6 S102. 18.
 HE.... FE(TOT). 0.02 NH... S04.. 73.
 CA.... 50. HCO3.... 125. NO3.. 0.15
 CU.... H2S..... PU4.. 0.03
 CL.... 0.6
 CO.... K..... 2.5

ISOTOPIES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.
 COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00249

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... VALLEY VIEW HOT SPRINGS: SPRING D

GEOTHERM FILE 101 007J199

LOCATION

COUNTRY..... UNITED STATES 46N 010E 36
 STATE..... COLORADO
 COUNTY..... SAGUACHE
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 38-11.38 N 105-48.58 W
 UTM ZONE... 13
 NORTHING... 4226963.
 429095.

MAP REFERENCE..... VALLEY VIEW HOT SPRINGS 1:24000

OTHER LOCALITY INFORMATION: LOCATED 1200 FEET SOUTHEAST OF SPRING A AND 300 FEET UP THE HILLSIDE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 35.0

DISCHARGE..... N L/MIN

WATER ANALYSIS

PH..... 6.5

SPECIFIC CONDUCTANCE..... 360.

ALKALINITY..... 124. AS HCO3

TOTAL DISSOLVED SOLIDS... 247.

CHARGE IMBALANCE (% DIFF)... 4.5

ANALYSIS IN MG/L

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

AS..... CS.....

H..... 0.02 F..... 0.2

HE..... FE(TOT)... 0.06

CA..... 51. HCO3... 124.

CO..... H2S.....

CL..... 2.5

CO..... K..... 2.8

MG... 13.

MN... 0.01

NA... 4.3

NB... 0.17

NO3... 0.17

PO4... N

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

COMPILER AFFILIATION... COLORADO GEOLOGICAL SURVEY

REFERENCE..... BARRETT AND PEARL, 1976

RECORD 00250

GEOHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... LEMON HOT SPRING

LOCATION

COUNTRY..... UNITED STATES 44N 011W 34 SE OF SE

STATE..... COLORADO

COUNTY..... SAN MIGUEL

GEOLOGIC PROVINCE..

MAP REFERENCE..... PLACERVILLE 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/01/00

TEMPERATURE (C)..... 33.0

DISCHARGE..... 74. L/MIN

WATER ANALYSIS

PH..... 6.5

SPECIFIC CONDUCTANCE..... 3950.

ALKALINITY..... 1100. AS HCO3

TOTAL DISSOLVED SOLIDS... 2810.

CHARGE IMBALANCE (% DIFF)... 0.4

ANALYSIS IN MG/L

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

AS..... CS.....

H..... 0.49 F..... 4.9

HE..... FE(TOT)... 0.89

CA..... 150. HCO3... 1100.

CO..... H2S.....

CL..... 280.

CO..... K..... 80.

MG... 10.

MN... 0.380

NA... 780.

NB... 800.

NO3... 0.08

PO4... 0.25

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MANGNALL, P.

GEOHERM FILE ID: 0073084

COORDINATES

LAT/LONG... 38-51.00 N 108-03.18 W

UTM ZONE... 12

NORTHING... 4304051.

755755.

SPECIFIC CONDUCTANCE..... 3950.
 ALKALINITY..... 1110. AS MC03
 TOTAL DISSOLVED SOLIDS... 2740.
 CHARGE IMBALANCE (% DIFF)... 1.5

ANALYSIS IN MG/L

ISOTOPES (0/00)

AL....		CR.....		MG...	11.		
AS....		CS.....		MN...	0.390		
9....	2.5	F.....	5.0	NA...	760.	SI02.	94.
HE....		FE(TOT)...	0.840	NH...		S04..	810.
CA....	150.	MC03....	1110.				
CU....		M2S.....		P04..	4.3		
CL....	270.						
CO....		K.....	84.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... RUKKHARDT, H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BARRETT AND PEARL, 1976

APPENDIX A

Index to GEOTHERM'S sample file for the state of Colorado. This computer generated appendix contains some truncated fields. The index is sorted by county and name of the source. TNS - township, RNG range, Sect. - section, I.D. - GEOTHERM record identifier, Temp. - temperature °C (see Table 1 for explanation of alphabetic qualifiers proceeding temperature.)

County	Name of Source	Latitude	Longitude	TNS	RNG	Sect.	I.D.	Temp.
ALAMOSA	SAND DUNES SWIMMING POOL: HOT WATER WELL	37-46.42 N	105-51.20 W	41N	010E	27	0073174	44.0
ALAMOSA	UNNAMED WARM SPRING	37-29.32 N	105-51.45 W	30N	010E	34	0073184	40.0
ARCHULETA	DUTCH CROWLEY ARTESIAN WELL	37-00.02 N	106-47.05 W	32N	002E	19	0073231	70.0
ARCHULETA	EDFF ARTESIAN WELL	37-11.43 N	106-59.60 W	34N	001W	07	0073232	39.0
ARCHULETA	PAGOSA AREA - ARLINGTON HOTEL WELL	37-15.50 N	107-00.50 W				0000423	60.0
ARCHULETA	PAGOSA SPRINGS: BIG SPRING	37-15.87 N	107-00.62 W	35N	002W	13	0073124	55.0
ARCHULETA	PAGOSA SPRINGS: BIG SPRING	37-15.87 N	107-00.62 W	35N	002W	13	0073125	54.0
ARCHULETA	PAGOSA SPRINGS: BIG SPRING	37-15.87 N	107-00.62 W	35N	002W	13	0073123	57.0
ARCHULETA	PAGOSA SPRINGS: BIG SPRING	37-15.87 N	107-00.62 W	35N	002W	13	0073122	58.0
ARCHULETA	PAGOSA SPRINGS: COURTHOUSE HOT WATER WELL	37-15.92 N	107-00.62 W	35N	002W	13	0073126	56.0
ARCHULETA	PAGOSA SPRINGS: SPA MOTEL HOT WATER WELL	37-15.85 N	107-00.58 W	35N	002W	13	0073127	53.0
ARCHULETA	STINKING SPRINGS	37-02.08 N	106-48.42 W	32N	001E	02	0073188	27.0
BOULDER	ELDORADO SPRING: SPRING B	39-55.88 N	105-16.78 W	01S	071W	25	0073035	26.0
BOULDER	ELDORADO SPRINGS: SPRING A	39-55.87 N	105-16.77 W	01S	071W	25	0073033	24.0
BOULDER	ELDORADO SPRINGS: SPRING B	39-55.88 N	105-16.78 W	01S	071W	25	0073036	24.0
BOULDER	ELDORADO SPRINGS: SPRING B	39-55.88 N	105-16.78 W	01S	071W	25	0073034	25.0
BOULDER	HAYSTACK BUTTE WARM WATER WELL	40-05.80 N	105-14.27 W	02N	070W	33	0073063	28.0
CHAFFEE	BROWN'S CANON WARM SPRING	38-38.23 N	106-04.28 W	51N	008E	23	0073228	25.0
CHAFFEE	BROWN'S GROTTO WARM SPRING	38-37.83 N	106-04.17 W	51N	008E	34	0073229	23.0
CHAFFEE	COTTONWOOD HOT SPRING	38-48.80 N	106-13.35 W	14S	079W	21	0073018	58.0
CHAFFEE	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SP	38-48.67 N	106-13.33 W	14S	079W	21	0073020	52.0
CHAFFEE	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	38-48.67 N	106-13.33 W	14S	079W	21	0073019	54.0
CHAFFEE	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	38-48.67 N	106-13.33 W	14S	079W	21	0073022	53.0
CHAFFEE	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	38-48.67 N	106-13.33 W	14S	079W	21	0073021	53.0
CHAFFEE	COTTONWOOD HOT SPRINGS WELL	38-48.70 N	106-13.42 W	14S	079W	21	0015730	50.0
CHAFFEE	COTTONWOOD HOT SPRINGS: MERRIFIELD HOT WATER WE	38-48.67 N	106-13.35 W	14S	079W	21	0073236	46.0
CHAFFEE	COTTONWOOD SPRINGS	38-48.70 N	106-13.50 W				0000407	57.0
CHAFFEE	HORTENSE WELL	38-43.95 N	106-10.10 W	15S	079W	24	0015731	84.0
CHAFFEE	MT PRINCETON HOT SPRINGS	38-43.90 N	106-10.20 W				0000409	54.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA - HORTENSE HOT W	38-43.97 N	106-10.45 W	15S	079W	24	0015213	82.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT WA	38-43.97 N	106-10.45 W	15S	079W	24	0073105	82.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	38-43.98 N	106-10.43 W	15S	079W	24	0073104	83.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	38-43.98 N	106-10.43 W	15S	079W	24	0073103	83.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	38-43.98 N	106-10.43 W	15S	079W	24	0073102	82.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: WOOLMINGTON HOT	38-43.40 N	106-10.63 W	15S	079W	19	0073106	39.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATE	38-43.97 N	106-10.42 W	15S	079W	24	0073108	72.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATE	38-44.00 N	106-10.00 W	15S	079W	24	0073107	67.0
CHAFFEE	MT. PRINCETON HOT SPRINGS AREA: YOUNG LIFE HOT	38-43.95 N	106-10.45 W	15S	079W	24	0073101	66.0
CHAFFEE	MT. PRINCETON HOT SPRINGS, SPRING E	38-43.97 N	106-09.65 W	15S	078W	19	0073100	50.0
CHAFFEE	MT. PRINCETON HOT SPRINGS: SPRING A	38-43.97 N	106-09.67 W	15S	078W	19	0073096	56.0
CHAFFEE	MT. PRINCETON HOT SPRINGS: SPRING A	38-43.97 N	106-09.67 W	15S	078W	19	0073095	54.0
CHAFFEE	MT. PRINCETON HOT SPRINGS: SPRING A	38-43.97 N	106-09.67 W	15S	078W	19	0073094	54.0
CHAFFEE	MT. PRINCETON HOT SPRINGS: SPRING A	38-43.97 N	106-09.67 W	15S	078W	19	0073093	54.0
CHAFFEE	MT. PRINCETON HOT SPRINGS: SPRING B	38-43.97 N	106-09.68 W	15S	078W	19	0073098	54.0
CHAFFEE	MT. PRINCETON HOT SPRINGS: SPRING D	38-43.97 N	106-09.65 W	15S	078W	19	0073099	44.0

CHAFFEE	MT. PRINCETON HOT SPRINGS: SPRING F	38-43.97 N 106-09.72 W 15S 078W	19	0073097	49.0
CHAFFEE	PONCHA HOT SPRING: SPRING B	38-29.82 N 106-04.60 W 49N 008E	15	0073147	66.0
CHAFFEE	PONCHA HOT SPRINGS	38-29.80 N 106-04.60 W 49N 008E	15	0015732	71.
CHAFFEE	PONCHA HOT SPRINGS	38-29.90 N 106-04.50 W		0000411	66.1
CHAFFEE	PONCHA HOT SPRINGS: SPRING A	38-29.02 N 106-04.62 W 49N 008E	15	0073146	50.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING A	38-29.82 N 106-04.62 W 49N 008E	15	0073145	70.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING A	38-29.82 N 106-04.62 W 49N 008E	15	0073144	70.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING A	38-29.82 N 106-04.62 W 49N 008E	15	0073143	71.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING C	38-29.03 N 106-04.52 W 49N 008E	15	0073151	62.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING C	38-29.83 N 106-04.52 W 49N 008E	15	0073150	63.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING C	38-29.83 N 106-04.52 W 49N 008E	15	0073149	62.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING C	38-29.83 N 106-04.52 W 49N 008E	15	0073148	63.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING D	38-29.83 N 106-04.53 W 49N 008E	15	0073152	56.0
CHAFFEE	PONCHA HOT SPRINGS: SPRING E	38-29.83 N 106-04.53 W 49N 008E	15	0073153	60.0
CHAFFEE	WELLSVILLE WARM SPRING	38-29.12 N 105-54.60 W 49N 010E	18	0073223	28.0
CHAFFEE	WELLSVILLE WARM SPRING	38-29.12 N 105-54.60 W 49N 010E	18	0073221	32.0
CHAFFEE	WELLSVILLE WARM SPRING	38-29.12 N 105-54.60 W 49N 010E	18	0073224	28.0
CHAFFEE	YOUNG LIFE GROUP CAMP WELL	38-43.95 N 106-10.10 W 15S 079E	24	0015733	65.
CLEAR CREEK	IDAHO HOT SPRING: SPRING A	39-44.33 N 105-30.72 W 04S 073W	01	0073072	45.0
CLEAR CREEK	IDAHO HOT SPRINGS: LODGE HOT WATER WELL	39-44.37 N 105-30.72 W 03S 073W	36	0073078	46.0
CLEAR CREEK	IDAHO HOT SPRINGS: SPRING A	39-44.33 N 105-30.72 W 04S 073W	01	0073074	40.0
CLEAR CREEK	IDAHO HOT SPRINGS: SPRING A	39-44.33 N 105-30.72 W 04S 073W	01	0073073	40.0
CLEAR CREEK	IDAHO HOT SPRINGS: SPRING A	39-44.33 N 105-30.72 W 04S 073W	01	0073075	40.0
CLEAR CREEK	IDAHO HOT SPRINGS: SPRING B	39-44.35 N 105-30.72 W 03S 073W	36	0073076	24.0
CLEAR CREEK	IDAHO HOT SPRINGS: SPRING C	39-44.32 N 105-30.72 W 04S 073W	01	0073077	20.0
CLEAR CREEK	IDAHO SPRINGS	39-44.20 N 105-30.20 W		0000401	50.0
CONEJOS	DEXTER WARM SPRING	37-17.68 N 105-47.08 W 35N 011E	08	0073230	20.0
CONEJOS	MCINTYRE WARM SPRING	37-16.80 N 105-49.12 W 35N 011E	18	0073234	14.0
DELTA	COLONEL CHINN HOT WATER WELL	38-52.38 N 107-38.07 W 14S 092W	14	0073016	42.0
DOLORES	DUNTON HOT SPRING	37-46.30 N 108-05.63 W 41N 011W	32	0073030	44.0
DOLORES	DUNTON HOT SPRING	37-46.30 N 108-05.63 W 41N 011W	32	0073032	42.0
DOLORES	DUNTON HOT SPRING	37-46.30 N 108-05.63 W 41N 011W	32	0073031	42.0
DOLORES	GEYSER WARM SPRING	37-44.80 N 108-07.03 W 40N 011W	06	0073042	28.0
DOLORES	PARADISE HOT SPRING	37-45.25 N 108-07.88 W 40N 011W	06	0073128	46.0
DOLORES	PARADISE HOT SPRING	37-45.25 N 108-07.88 W 40N 011W	06	0073130	42.0
DOLORES	PARADISE HOT SPRING	37-45.25 N 108-07.88 W 40N 011W	06	0073129	40.0
DOLORES	RICO AREA: BIG GEYSER WARM SPRING	37-42.00 N 108-01.73 W 40N 011W		0073163	36.0
DOLORES	RICO AREA: BIG GEYSER WARM SPRING	37-42.00 N 108-01.73 W 40N 011W		0073162	34.0
DOLORES	RICO AREA: DIAMOND DRILL HOLE	37-42.08 N 108-01.75 W 40N 011W		0073161	44.0
DOLORES	RICO AREA: GEYSER WARM SPRING	37-42.03 N 108-01.73 W 40N 011W		0073164	38.0
DOLORES	RICO AREA: LITTLE SPRING	37-42.07 N 108-01.73 W 40N 011W		0073165	38.0
DOLORES	RICO AREA: LITTLE SPRING	37-42.07 N 108-01.73 W 40N 011W		0073166	39.0
EAGLE	DOTSERO WARM SPRINGS	39-37.65 N 107-06.37 W 05S 087W	12	0073028	
EAGLE	DOTSERO WARM SPRINGS	39-37.65 N 107-06.37 W 05S 087W	12	0073027	31.0
EAGLE	DOTSERO WARM SPRINGS	39-37.65 N 107-06.37 W 05S 087W	12	0073026	31.0
EAGLE	DOTSERO WARM SPRINGS, SOUTH	39-37.62 N 107-06.00 W 05S 087W	12	0073029	32.0
FREMONT	CANON CITY HOT SPRING	38-25.95 N 105-15.77 W 18S 070W	31	0073004	40.0
FREMONT	CANON CITY HOT SPRING	38-25.95 N 105-15.77 W 18S 070W	31	0073003	40.0
FREMONT	CANON CITY HOT SPRING	38-25.95 N 105-15.77 W 18S 070W	31	0073002	40.0
FREMONT	DON K RANCH ARTESIAN WELL	38-10.33 N 105-00.53 W 22S 068W	05	0073025	28.0
FREMONT	FLORENCE ARTESIAN WELL	38-24.88 N 105-02.72 W 19S 068W	07	0073037	28.0
FREMONT	FREMONT NATATORIUM HOT SPRING	38-27.63 N 105-11.77 W 18S 070W	26	0073038	35.0
FREMONT	FREMONT NATATORIUM HOT SPRING	38-27.63 N 105-11.77 W 18S 070W	26	0073040	35.0
FREMONT	FREMONT NATATORIUM HOT SPRING	38-27.63 N 105-11.77 W 18S 070W	26	0073039	36.0

FREMONT	SWISSVALE WARM SPRINGS: SPRING A	38-28.82 N 105-53.42 W 49N 010E	20	0073189	28.0
FREMONT	SWISSVALE WARM SPRINGS: SPRING F	38-28.82 N 105-53.47 W 49N 010E	20	0073190	20.0
FREMONT	WELLSVILLE WARM SPRING	38-29.12 N 105-54.60 W 49N 010E	18	0073222	33.0
GARFIELD	GLENWOOD SPRINGS	39-33.00 N 107-19.30 W		0000403	41.1
GARFIELD	GLENWOOD SPRINGS AREA: DRINKING SPRING	39-32.98 N 107-19.32 W 06S 089W	09	0073047	51.0
GARFIELD	GLENWOOD SPRINGS AREA: DRINKING SPRING	39-32.98 N 107-19.32 W 06S 089W	09	0073046	51.0
GARFIELD	GLENWOOD SPRINGS AREA: DRINKING SPRING	39-32.98 N 107-19.32 W 06S 089W	09	0073045	50.0
GARFIELD	GLENWOOD SPRINGS AREA: DRINKING SPRING	39-32.98 N 107-19.32 W 06S 089W	09	0073044	50.0
GARFIELD	GLENWOOD SPRINGS AREA: GRAVES SPRING	39-33.23 N 107-20.13 W 06S 089W	09	0073049	46.0
GARFIELD	GLENWOOD SPRINGS AREA: RAILROAD SPRING	39-33.27 N 107-18.85 W 06S 089W	10	0073057	51.0
GARFIELD	GLENWOOD SPRINGS AREA: RAILROAD SPRING	39-33.27 N 107-18.85 W 06S 089W	10	0073056	51.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING A	39-32.97 N 107-19.17 W 06S 089W	09	0073050	44.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING B	39-33.03 N 107-19.07 W 06S 089W	10	0073051	51.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING B	39-33.03 N 107-19.07 W 06S 089W	10	0073054	51.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING B	39-33.03 N 107-19.07 W 06S 089W	10	0073053	51.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING B	39-33.03 N 107-19.07 W 06S 089W	10	0073052	50.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING C	39-33.03 N 107-19.03 W 06S 089W	10	0073233	46.0
GARFIELD	GLENWOOD SPRINGS AREA: SPRING D	39-33.08 N 107-19.00 W 06S 089W	10	0073055	50.0
GARFIELD	GLENWOOD SPRINGS AREA: VAPOR CAVES, MENS HOT SP	39-32.98 N 107-19.28 W 06S 089W	09	0073048	50.0
GARFIELD	GLENWOOD SPRINGS AREA: YAMPA (BIG) SPRINGS	39-32.98 N 107-19.30 W 06S 089W	09	0073043	50.0
GARFIELD	SOUTH CANYON HOT SPRINGS: SPRING A	39-33.27 N 107-23.88 W 06S 090W	02	0073182	47.0
GARFIELD	SOUTH CANYON HOT SPRINGS: SPRING A	39-33.27 N 107-23.88 W 06S 090W	02	0073181	48.0
GARFIELD	SOUTH CANYON HOT SPRINGS: SPRING A	39-33.27 N 107-23.88 W 06S 090W	02	0073179	48.0
GARFIELD	SOUTH CANYON HOT SPRINGS: SPRING B	39-33.25 N 107-23.85 W 06S 090W	02	0073183	48.0
GRAND	HOT SULPHUR SPRINGS: SPRING A	40-04.55 N 106-06.72 W 01N 078W	03	0073066	44.0
GRAND	HOT SULPHUR SPRINGS: SPRING A	40-04.55 N 106-06.72 W 01N 078W	03	0073067	44.0
GRAND	HOT SULPHUR SPRINGS: SPRING A	40-04.55 N 106-06.72 W 01N 078W	03	0073065	44.0
GRAND	HOT SULPHUR SPRINGS: SPRING A	40-04.55 N 106-06.72 W 01N 078W	03	0073064	44.0
GRAND	HOT SULPHUR SPRINGS: SPRING B	40-04.55 N 106-06.73 W 01N 078W	03	0073068	41.0
GRAND	HOT SULPHUR SPRINGS: SPRING C	40-04.55 N 106-06.75 W 01N 078W	03	0073070	40.0
GRAND	HOT SULPHUR SPRINGS: SPRING C	40-04.55 N 106-06.75 W 01N 078W	03	0073069	40.0
GRAND	HOT SULPHUR SPRINGS: SPRING D	40-04.53 N 106-06.75 W 01N 078W	03	0073071	40.0
GUINISON	CEBOLLA HOT SPRINGS (POWDERHORN HOT SPRINGS)	38-16.50 N 107-05.90 W		0000417	45.6
GUINISON	CEBOLLA HOT SPRINGS: SPRING A	38-16.43 N 107-05.87 W 46N 002W	04	0073006	41.0
GUINISON	CEBOLLA HOT SPRINGS: SPRING A	38-16.43 N 107-05.87 W 46N 002W	04	0073005	41.0
GUINISON	CEBOLLA HOT SPRINGS: SPRING A	38-16.43 N 107-05.87 W 46N 002W	04	0073008	38.0
GUINISON	CEBOLLA HOT SPRINGS: SPRING A	38-16.43 N 107-05.87 W 46N 002W	04	0073007	39.0
GUINISON	CEBOLLA HOT SPRINGS: SPRING B	38-16.43 N 107-05.87 W 46N 002W	04	0073009	38.0
GUINISON	CEBOLLA HOT SPRINGS: SPRING C	38-16.43 N 107-05.90 W 46N 002W	04	0073010	40.0
GUINISON	CEMENT CREEK WARM SPRING	38-50.10 N 106-49.57 W 14S 084W	18	0073013	25.0
GUINISON	CEMENT CREEK WARM SPRING	38-50.10 N 106-49.57 W 14S 084W	18	0073012	25.0
GUINISON	CEMENT CREEK WARM SPRING	38-50.10 N 106-49.57 W 14S 084W	18	0073011	26.0
GUINISON	CEMENT CREEK WARM SPRING	38-50.10 N 106-49.57 W 14S 084W	18	0073014	26.0
GUINISON	LOWER WAUNITA HOT SPRINGS	38-31.02 N 106-31.00 W 49N 004E	10	0073220	62.0
GUINISON	LOWER WAUNITA HOT SPRINGS: SPRING A	38-31.03 N 106-30.93 W 49N 004E	10	0073215	70.0
GUINISON	LOWER WAUNITA HOT SPRINGS: SPRING B	38-31.00 N 106-30.92 W 49N 004E	10	0073218	70.0
GUINISON	LOWER WAUNITA HOT SPRINGS: SPRING B	38-31.00 N 106-30.92 W 49N 004E	10	0073217	70.0
GUINISON	LOWER WAUNITA HOT SPRINGS: SPRING B	38-31.00 N 106-30.92 W 49N 004E	10	0073219	70.0
GUINISON	LOWER WAUNITA HOT SPRINGS: SPRING C	38-30.45 N 106-30.92 W 49N 004E	10	0073216	70.0
GUINISON	RANGER WARM SPRING	38-48.95 N 106-52.47 W 14S 085W	22	0073158	27.0
GUINISON	RANGER WARM SPRING	38-48.95 N 106-52.47 W 14S 085W	22	0073157	27.0
GUINISON	RANGER WARM SPRING	38-48.95 N 106-52.47 W 14S 085W	22	0073156	27.0
GUINISON	RANGER WARM SPRING	38-48.95 N 106-52.47 W 14S 085W	22	0073155	26.0
GUINISON	WAUNITA HOT SPRINGS: SPRING C	38-30.83 N 106-30.45 W 49N 004E	11	0073211	77.0

GUINISON	WAUNITA HOT SPRINGS	38-31.00 N 106-29.10 W	0000415	70.0
GUINISON	WAUNITA HOT SPRINGS: SPRING A	38-30.83 N 106-30.45 W 49N 004E	11	0073213 76.0
GUINISON	WAUNITA HOT SPRINGS: SPRING B	38-30.83 N 106-30.45 W 49N 004E	11	0073214 78.0
GUINISON	WAUNITA HOT SPRINGS: SPRING C	38-30.83 N 106-30.45 W 49N 004E	11	0073210 77.0
GUINISON	WAUNITA HOT SPRINGS: SPRING C	38-30.83 N 106-30.45 W 49N 004E	11	0073209 80.0
GUINISON	WAUNITA HOT SPRINGS: SPRING C	38-30.83 N 106-30.45 W 49N 004E	11	0073208 78.0
GUINISON	WAUNITA HOT SPRINGS: SPRING D	38-30.83 N 106-30.47 W 49N 004E	11	0073212 54.0
JACKSON	BRANDS RANCH ARTESIAN WELL	40-42.28 N 106-32.08 W 09N 081W	31	0073227 42.0
LA PLATA	PINKERTON HOT SPRINGS: LITTLE MOUND SPRINGS	37-27.15 N 107-48.35 W 37N 009W	25	0073142 26.0
LA PLATA	PINKERTON HOT SPRINGS: MOUND SPRING	37-27.12 N 107-48.33 W 37N 009W	25	0073141 29.0
LA PLATA	PINKERTON HOT SPRINGS: MOUND SPRING	37-27.12 N 107-48.33 W 37N 009W	25	0073140 29.0
LA PLATA	PINKERTON HOT SPRINGS: MOUND SPRING	37-27.12 N 107-48.33 W 37N 009W	25	0073139 30.0
LA PLATA	PINKERTON HOT SPRINGS: SPRING A	37-26.83 N 107-48.28 W 37N 009W	25	0073137 32.0
LA PLATA	PINKERTON HOT SPRINGS: SPRING A	37-26.83 N 107-48.28 W 37N 009W	25	0073135 32.0
LA PLATA	PINKERTON HOT SPRINGS: SPRING A	37-26.83 N 107-48.28 W 37N 009W	25	0073136 32.0
LA PLATA	PINKERTON HOT SPRINGS: SPRING B	37-27.97 N 107-48.30 W 37N 009W	25	0073138 33.0
LA PLATA	TRIMBLE HOT SPRING	37-23.47 N 107-50.87 W 36N 009W	15	0073191 36.0
LA PLATA	TRIPP HOT SPRING	37-23.50 N 107-50.87 W 36N 009W	10	0073192 44.0
MINERAL	ANTELOPE WARM SPRING	37-44.60 N 107-02.23 W 40N 002W	01	0073001 32.0
MINERAL	ANTELOPE WARM SPRINGS	37-44.60 N 107-02.23 W 40N 002W	01	0073000 32.0
MINERAL	BIRDSIE WARM SPRING	37-44.60 N 107-02.23 W 40N 002W	14	0073226 30.0
MINERAL	RAINBOW HOT SPRING	37-30.57 N 106-56.87 W 38N 001W	09	0073154 40.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS	37-45.00 N 106-49.25 W		0000421 57.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	37-41.03 N 106-49.78 W 40N 001E	02	0073207 50.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	37-41.03 N 106-49.78 W 40N 001E	02	0073206 48.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	37-41.03 N 106-49.78 W 40N 001E	02	0073205 51.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	37-41.03 N 106-49.78 W 40N 001E	02	0073204 50.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	37-41.10 N 106-49.78 W 41N 001E	35	0073203 57.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	37-41.10 N 106-49.78 W 41N 001E	35	0073202 55.0
MINERAL	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	37-41.10 N 106-49.78 W 41N 001E	35	0073201 57.0
MOFFAT	CRAIG WARM WATER WELL	40-30.10 N 107-33.07 W 06N 091W	01	0073024 39.0
MOFFAT	JUNIPER HOT SPRINGS	40-28.02 N 107-57.17 W 06N 094W	16	0073079 38.0
MOFFAT	JUNIPER HOT SPRINGS	40-28.02 N 107-57.17 W 06N 094W	16	0073082 36.0
MOFFAT	JUNIPER HOT SPRINGS	40-28.02 N 107-57.17 W 06N 094W	16	0073081 37.0
MOFFAT	JUNIPER HOT SPRINGS	40-28.02 N 107-57.17 W 06N 094W	16	0073080 33.0
OURAY	ORVIS HOT SPRING	38-07.98 N 107-44.02 W 45N 008W	22	0073111 52.0
OURAY	ORVIS HOT SPRING	38-07.98 N 107-44.02 W 45N 008W	22	0073110 53.0
OURAY	ORVIS HOT SPRING	38-07.98 N 107-44.02 W 45N 008W	22	0073112 52.0
OURAY	ORVIS HOT SPRING (RIDGWAY HOT SPRING)	38-08.00 N 107-44.00 W		0000419 57.5
OURAY	OURAY AREA: POOL SPRING	38-01.00 N 107-40.68 W 44N 007W	31	0073119 69.0
OURAY	OURAY AREA: POOL SPRING	38-01.00 N 107-40.68 W 44N 007W	31	0073118 67.0
OURAY	OURAY AREA: WESBADEN VAPOR CAVES AND HOTEL HOT	38-01.25 N 107-40.05 W 44N 007W	31	0073117 48.0
OURAY	OURAY AREA: WESBADEN VAPOR CAVES AND HOTEL HOT	38-01.25 N 107-40.05 W 44N 007W	31	0073116 30.0
OURAY	OURAY AREA: WESBADEN VAPOR CAVES AND HOTEL HOT	38-01.25 N 107-40.05 W 44N 007W	31	0073115 46.0
OURAY	OURAY AREA: WESBADEN VAPOR CAVES AND HOTEL HOT	38-01.25 N 107-40.05 W 44N 007W	31	0073114 30.0
OURAY	OURAY AREA: WESBADEN VAPOR CAVES AND HOTEL HOT	38-01.25 N 107-40.05 W 44N 007W	31	0073113 53.0
PARK	HARTSEL HOT SPRING: SPRING A	39-01.08 N 105-47.67 W 12S 075W	08	0073058 52.0
PARK	HARTSEL HOT SPRINGS: SPRING B	39-01.08 N 105-47.65 W 12S 075W	08	0073059 52.0
PARK	HARTSEL HOT SPRINGS: SPRING B	39-01.08 N 105-47.65 W 12S 075W	08	0073062 45.0
PARK	HARTSEL HOT SPRINGS: SPRING B	39-01.08 N 105-47.65 W 12S 075W	08	0073060 45.0
PARK	HARTSEL HOT SPRINGS: SPRING B	39-01.08 N 105-47.65 W 12S 075W	08	0073061 45.0
PARK	RHODES WARM SPRING	39-09.82 N 106-03.88 W 10S 078W	24	0073160 25.0
PARK	RHODES WARM SPRING	39-09.82 N 106-03.88 W 10S 078W	24	0073159 24.0
PITKIN	AVAIANCHE SPRINGS	39-13.90 N 107-13.40 W		0000405 53.0

PITKIN	CONUNDRUM HOT SPRING	39-00.73 N 106-53.43 W 12S 085W	16	0073017	38.
PITKIN	PENNY HOT SPRING	39-13.55 N 107-13.47 W 10S 088W	04	0073132	46.0
PITKIN	PENNY HOT SPRINGS	39-13.55 N 107-13.47 W 10S 088W	04	0073131	40.0
PITKIN	PENNY HOT SPRINGS	39-13.55 N 107-13.47 W 10S 088W	04	0073133	45.0
PITKIN	PENNY HOT SPRINGS: GRANGES SPRING	39-13.83 N 107-13.60 W 09S 088W	33	0073134	56.0
PUEBLO	CLARK SPRING WARM WATER WELL	38-15.48 N 104-36.58 W 21S 065W	01	0073015	25.0
ROUTT	ROUTT HOT SPRING: SPRING B	40-33.58 N 106-50.98 W 07N 084W	18	0073171	62.0
ROUTT	ROUTT HOT SPRINGS	40-33.60 N 106-51.00 W		0000397	64.4
ROUTT	ROUTT HOT SPRINGS: SPRING A	40-33.57 N 106-51.00 W 07N 084W	18	0073169	64.0
ROUTT	ROUTT HOT SPRINGS: SPRING A	40-33.57 N 106-51.00 W 07N 084W	18	0073168	64.0
ROUTT	ROUTT HOT SPRINGS: SPRING A	40-33.57 N 106-51.00 W 07N 084W	18	0073170	64.0
ROUTT	ROUTT HOT SPRINGS: SPRING A	40-33.57 N 106-51.00 W 07N 084W	18	0073167	64.0
ROUTT	ROUTT HOT SPRINGS: SPRING C	40-33.57 N 106-50.98 W 07N 084W	18	0073172	54.0
ROUTT	ROUTT HOT SPRINGS: SPRING D	40-33.57 N 106-50.97 W 07N 084W	18	0073173	51.0
ROUTT	STEAMBOAT SPRINGS	40-29.10 N 106-50.30 W		0000399	24.0
ROUTT	STEAMBOAT SPRINGS AREA: HEART HOT SPRING	40-28.97 N 106-49.62 W 06N 084W	17	0073185	39.0
ROUTT	STEAMBOAT SPRINGS AREA: STEAMBOAT SPRING	40-29.30 N 106-50.45 W 06N 084W	08	0073187	26.0
ROUTT	STEAMBOAT SPRINGS AREA: SULPHUR CAVE SPRING	40-29.03 N 106-50.38 W 06N 084W	17	0073186	20.0
SAGUACHE	FULLINWIDER WARM SPRING	38-18.30 N 105-58.92 W 47N 009E	21	0073041	18.0
SAGUACHE	MINERAL HOT SPRING: SPRING C	38-10.10 N 105-55.18 W 45N 009E	12	0073900	60.0
SAGUACHE	MINERAL HOT SPRINGS (CHAMBERLAIN HOT SPRINGS)	38-10.10 N 105-55.00 W		0000413	63.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING A	38-10.13 N 105-55.08 W 45N 009E	12	0073085	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING A	38-10.13 N 105-55.08 W 45N 009E	12	0073088	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING A	38-10.13 N 105-55.08 W 45N 009E	12	0073087	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING A	38-10.13 N 105-55.08 W 45W 009E	12	0073086	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING B	38-10.12 N 105-55.10 W 45N 009E	12	0073235	51.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING D	38-10.07 N 105-55.33 W 45N 009W	12	0073092	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING D	38-10.07 N 105-55.33 W 45N 009W	12	0073091	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING D	38-10.07 N 105-55.33 W 45N 009W	12	0073090	60.0
SAGUACHE	MINERAL HOT SPRINGS: SPRING D	38-10.07 N 105-55.33 W 45N 009W	12	0073089	59.0
SAGUACHE	SHAWS WARM SPRING	37-45.02 N 106-19.02 W 41N 006E	33	0073175	30.0
SAGUACHE	SHAWS WARM SPRING	37-45.02 N 106-19.02 W 41N 006E	33	0073176	30.0
SAGUACHE	SHAWS WARM SPRING	37-45.02 N 106-19.02 W 41N 006E	33	0073177	30.0
SAGUACHE	SOUTH CANYON HOT SPRINGS: SPRING A	39-33.27 N 107-23.88 W 06S 090W	02	0073180	48.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING A	38-11.53 N 105-48.82 W 46N 010E	36	0073194	36.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING A	38-11.53 N 105-48.82 W 46N 010E	36	0073196	36.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING A	38-11.53 N 105-48.82 W 46N 010E	36	0073195	35.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING A	38-11.53 N 105-48.82 W 46N 010E	36	0073193	37.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING B	38-11.52 N 105-48.83 W 46N 010E	36	0073197	32.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING D	38-11.38 N 105-48.58 W 46N 010E	36	0073198	34.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING D	38-11.38 N 105-48.58 W 46N 010E	36	0073200	36.0
SAGUACHE	VALLEY VIEW HOT SPRINGS: SPRING D	38-11.38 N 105-48.58 W 46N 010E	36	0073199	35.0
SAN MIGUEL	LEMON HOT SPRING	38-51.00 N 108-03.18 W 44N 011W	34	0073084	33.0
SAN MIGUEL	LEMON HOT SPRING	38-51.00 N 108-03.18 W 44N 011W	34	0073083	31.0
SAN MIGUEL	LEMON HOT SPRING	38-51.00 N 108-03.18 W 44N 011W	34	0015208	33.0

APPENDIX B

Index to GEOTHERM sample file for the state of Colorado sorted by county, township (TNS), range (RNG), and section (Sect.) Also given are the name of source, GEOTHERM record identifier (I.D.), and temperature (Temp. °C). See Table 1 for explanation of alphabetic qualifiers proceeding temperature.

<u>County</u>	<u>TNS</u>	<u>RNG</u>	<u>Sect.</u>	<u>Name of Source</u>	<u>I.D.</u>	<u>Temp.</u>
ALAMOSA	38N	010E	34	UNNAMED WARM SPRING	0073184	40.0
ALAMOSA	41N	010E	27	SAND DUNES SWIMMING POOL: HOT WATER WELL	0073174	44.0
ARCHULETA				PAGOSA AREA - ARLINGTON HOTEL WELL	0000423	60.0
ARCHULETA	32N	001E	02	STINKING SPRINGS	0073188	27.0
ARCHULETA	32N	002E	19	DUTCH CROWLEY ARTESIAN WELL	0073231	70.0
ARCHULETA	34N	001W	07	EOFF ARTESIAN WELL	0073232	39.0
ARCHULETA	35N	002W	13	PAGOSA SPRINGS: BIG SPRING	0073124	55.0
ARCHULETA	35N	002W	13	PAGOSA SPRINGS: SPA MOTEL HOT WATER WELL	0073127	53.0
ARCHULETA	35N	002W	13	PAGOSA SPRINGS: COURTHOUSE HOT WATER WELL	0073126	56.0
ARCHULETA	35N	002W	13	PAGOSA SPRINGS: BIG SPRING	0073125	54.0
ARCHULETA	35N	002W	13	PAGOSA SPRINGS: BIG SPRING	0073123	57.0
ARCHULETA	35N	002W	13	PAGOSA SPRINGS: BIG SPRING	0073122	58.0
BOULDER	01S	071W	25	ELDORADO SPRING: SPRING B	0073035	26.0
BOULDER	01S	071W	25	ELDORADO SPRINGS: SPRING A	0073033	24.0
BOULDER	01S	071W	25	ELDORADO SPRINGS: SPRING B	0073036	24.0
BOULDER	01S	071W	25	ELDORADO SPRINGS: SPRING B	0073034	25.0
BOULDER	02N	070W	33	HAYSTACK BUTTE WARM WATER WELL	0073063	28.0
CHAFFEE				COTTONWOOD SPRINGS	0000407	57.0
CHAFFEE				MT PRINCETON HOT SPRINGS	0000409	54.0
CHAFFEE				PONCHA HOT SPRINGS	0000411	66.1
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRING	0073018	58.0
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRINGS: MERRIFIELD HOT WATER WE	0073236	46.
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	0073022	53.0
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	0073021	53.0
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SP	0073020	52.0
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	0073019	54.0
CHAFFEE	14S	079W	21	COTTONWOOD HOT SPRINGS WELL	0015730	50.
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS, SPRING E	0073100	50.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING D	0073099	44.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING B	0073098	54.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING F	0073097	49.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING A	0073096	56.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING A	0073095	54.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING A	0073094	54.0
CHAFFEE	15S	078W	19	MT. PRINCETON HOT SPRINGS: SPRING A	0073093	54.0
CHAFFEE	15S	079E	24	YOUNG LIFE GROUP CAMP WELL	0015733	65.
CHAFFEE	15S	079W	19	MT. PRINCETON HOT SPRINGS AREA: WOOLMINGTON HOT	0073106	39.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT WA	0073105	82.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATE	0073108	72.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATE	0073107	67.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	0073104	83.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	0073103	83.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	0073102	82.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA: YOUNG LIFE HOT	0073101	66.0
CHAFFEE	15S	079W	24	MT. PRINCETON HOT SPRINGS AREA - HORTENSE HOT W	0015213	82.0

CHAFFEE	15S 079W	24	HORTENSE WELL	0015731	84.
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS	0015732	71.
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING A	0073143	71.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING E	0073153	60.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING D	0073152	56.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING C	0073151	62.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING C	0073150	63.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING C	0073149	62.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING C	0073148	63.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRING: SPRING B	0073147	66.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING A	0073146	50.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING A	0073145	70.0
CHAFFEE	49N 008E	15	PONCHA HOT SPRINGS: SPRING A	0073144	70.0
CHAFFEE	49N 010E	18	WELLSVILLE WARM SPRING	0073223	28.0
CHAFFEE	49N 010E	18	WELLSVILLE WARM SPRING	0073221	32.0
CHAFFEE	49N 010E	18	WELLSVILLE WARM SPRING	0073224	28.0
CHAFFEE	51N 008E	23	BROWN'S CANON WARM SPRING	0073228	25.0
CHAFFEE	51N 008E	34	BROWN'S GROTTO WARM SPRING	0073229	23.0
CLEAR CREEK			IDAHO SPRINGS	0000401	50.0
CLEAR CREEK	03S 073W	36	IDAHO HOT SPRINGS: LODGE HOT WATER WELL	0073078	46.0
CLEAR CREEK	03S 073W	36	IDAHO HOT SPRINGS: SPRING B	0073076	24.0
CLEAR CREEK	04S 073W	01	IDAHO HOT SPRINGS: SPRING A	0073075	40.0
CLEAR CREEK	04S 073W	01	IDAHO HOT SPRINGS: SPRING C	0073077	20.0
CLEAR CREEK	04S 073W	01	IDAHO HOT SPRINGS: SPRING A	0073074	40.0
CLEAR CREEK	04S 073W	01	IDAHO HOT SPRINGS: SPRING A	0073073	40.0
CLEAR CREEK	04S 073W	01	IDAHO HOT SPRING: SPRING A	0073072	45.0
CONEJOS	35N 011E	08	DEXTER WARM SPRING	0073230	20.0
CONEJOS	35N 011E	18	MCINTYRE WARM SPRING	0073234	Q 14.0
DELTA	14S 092W	14	COLONEL CHINN HOT WATER WELL	0073016	42.0
DOLORES	40N 011W		RICO AREA: BIG GEYSER WARM SPRING	0073163	36.0
DOLORES	40N 011W		RICO AREA: BIG GEYSER WARM SPRING	0073162	34.0
DOLORES	40N 011W		RICO AREA: DIAMOND DRILL HOLE	0073161	44.0
DOLORES	40N 011W		RICO AREA: LITTLE SPRING	0073166	39.0
DOLORES	40N 011W		RICO AREA: LITTLE SPRING	0073165	38.0
DOLORES	40N 011W		RICO AREA: GEYSER WARM SPRING	0073164	38.0
DOLORES	40N 011W	06	PARADISE HOT SPRING	0073128	46.0
DOLORES	40N 011W	06	PARADISE HOT SPRING	0073130	42.0
DOLORES	40N 011W	06	PARADISE HOT SPRING	0073129	40.0
DOLORES	40N 011W	06	GEYSER WARM SPRING	0073042	28.0
DOLORES	41N 011W	32	DUNTON HOT SPRING	0073032	42.0
DOLORES	41N 011W	32	DUNTON HOT SPRING	0073031	42.0
DOLORES	41N 011W	32	DUNTON HOT SPRING	0073030	44.0
EAGLE	05S 087W	12	DOTSERO WARM SPRINGS, SOUTH	0073029	32.0
EAGLE	05S 087W	12	DOTSERO WARM SPRINGS	0073028	
EAGLE	05S 087W	12	DOTSERO WARM SPRINGS	0073027	31.0
EAGLE	05S 087W	12	DOTSERO WARM SPRINGS	0073026	31.0
FREMONT	18S 070W	26	FREMONT NATATORIUM HOT SPRING	0073040	35.0
FREMONT	18S 070W	26	FREMONT NATATORIUM HOT SPRING	0073039	36.0
FREMONT	18S 070W	26	FREMONT NATATORIUM HOT SPRING	0073038	35.0
FREMONT	18S 070W	31	CANON CITY HOT SPRING	0073004	40.0
FREMONT	18S 070W	31	CANON CITY HOT SPRING	0073003	40.0
FREMONT	18S 070W	31	CANON CITY HOT SPRING	0073002	40.0
FREMONT	19S 068W	07	FLORENCE ARTESIAN WELL	0073037	28.0
FREMONT	22S 068W	05	DON K RANCH ARTESIAN WELL	0073025	28.0

FREMONT	49N 010E	18	WELLSVILLE WARM SPRING	0073222	33.0
FREMONT	49N 010E	20	SWISSVALE WARM SPRINGS: SPRING A	0073189	28.0
FREMONT	49N 010E	20	SWISSVALE WARM SPRINGS: SPRING F	0073190	20.0
GARFIELD			GLENWOOD SPRINGS	0000403	41.1
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: YAMPA (BIG) SPRINGS	0073043	50.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: SPRING A	0073050	44.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: GRAVES SPRING	0073049	46.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: VAPOR CAVES, MENS HOT SP	0073048	50.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: DRINKING SPRING	0073047	51.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: DRINKING SPRING	0073046	51.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: DRINKING SPRING	0073045	50.0
GARFIELD	06S 089W	09	GLENWOOD SPRINGS AREA: DRINKING SPRING	0073044	50.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: SPRING B	0073051	51.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: RAILROAD SPRING	0073057	51.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: RAILROAD SPRING	0073056	51.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: SPRING D	0073055	50.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: SPRING B	0073054	51.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: SPRING B	0073053	51.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: SPRING B	0073052	50.0
GARFIELD	06S 089W	10	GLENWOOD SPRINGS AREA: SPRING C	0073233	46.0
GARFIELD	06S 090W	02	SOUTH CANYON HOT SPRINGS: SPRING A	0073182	47.0
GARFIELD	06S 090W	02	SOUTH CANYON HOT SPRINGS: SPRING B	0073183	48.0
GARFIELD	06S 090W	02	SOUTH CANYON HOT SPRINGS: SPRING A	0073181	48.0
GARFIELD	06S 090W	02	SOUTH CANYON HOT SPRINGS: SPRING A	0073179	48.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING D	0073071	40.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING A	0073066	44.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING C	0073070	40.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING C	0073069	40.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING B	0073068	41.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING A	0073067	44.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING A	0073065	44.0
GRAND	01N 078W	03	HOT SULPHUR SPRINGS: SPRING A	0073064	44.0
GUNNISON			CEBOLLA HOT SPRINGS (POWDERHORN HOT SPRINGS)	0000417	45.6
GUNNISON			WAUNITA HOT SPRINGS	0000415	70.0
GUNNISON	14S 084W	18	CEMENT CREEK WARM SPRING	0073014	26.0
GUNNISON	14S 084W	18	CEMENT CREEK WARM SPRING	0073013	25.0
GUNNISON	14S 084W	18	CEMENT CREEK WARM SPRING	0073012	25.
GUNNISON	14S 084W	18	CEMENT CREEK WARM SPRING	0073011	26.0
GUNNISON	14S 085W	22	RANGER WARM SPRING	0073155	26.0
GUNNISON	14S 085W	22	RANGER WARM SPRING	0073158	27.0
GUNNISON	14S 085W	22	RANGER WARM SPRING	0073157	27.0
GUNNISON	14S 085W	22	RANGER WARM SPRING	0073156	27.0
GUNNISON	46N 002W	04	CEBOLLA HOT SPRINGS: SPRING A	0073006	41.0
GUNNISON	46N 002W	04	CEBOLLA HOT SPRINGS: SPRING A	0073005	41.0
GUNNISON	46N 002W	04	CEBOLLA HOT SPRINGS: SPRING C	0073010	40.0
GUNNISON	46N 002W	04	CEBOLLA HOT SPRINGS: SPRING B	0073009	38.0
GUNNISON	46N 002W	04	CEBOLLA HOT SPRINGS: SPRING A	0073008	38.0
GUNNISON	46N 002W	04	CEBOLLA HOT SPRINGS: SPRING A	0073007	39.0
GUNNISON	49N 004E	10	LOWER WAUNITA HOT SPRINGS	0073220	62.0
GUNNISON	49N 004E	10	LOWER WAUNITA HOT SPRINGS: SPRING B	0073219	70.0
GUNNISON	49N 004E	10	LOWER WAUNITA HOT SPRINGS: SPRING B	0073218	70.0
GUNNISON	49N 004E	10	LOWER WAUNITA HOT SPRINGS: SPRING B	0073217	70.0
GUNNISON	49N 004E	10	LOWER WAUNITA HOT SPRINGS: SPRING C	0073216	70.0

GUNNISON	49N 004E	10	LOWER WAUNITA HOT SPRINGS: SPRING A	0073215	70.0
GUNNISON	49N 004E	11	WAUNITA HOT SPRINGS: SPRING B	0073214	78.0
GUNNISON	49N 004E	11	WAUNITA HOT SPRINGS: SPRING A	0073213	76.0
GUNNISON	49N 004E	11	WAUNITA HOT SPRINGS: SPRING D	0073212	54.0
GUNNISON	49N 004E	11	WAUNITA HOT SPINNGS: SPRING C	0073211	77.0
GUNNISON	49N 004E	11	WAUNITA HOT SPRINGS: SPRING C	0073210	77.0
GUNNISON	49N 004E	11	WAUNITA HOT SPRINGS: SPRING C	0073209	80.0
GUNNISON	49N 004E	11	WAUNITA HOT SPRINGS: SPRING C	0073208	78.0
JACKSON	09N 081W	31	BRANDS RANCH ARTESIAN WELL	0073227	42.0
LA PLATA	36N 009W	10	TRIPP HOT SPRING	0073192	44.0
LA PLATA	36N 009W	15	TRIMBLE HOT SPRING	0073191	36.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: LITTLE MOUND SPRINGS	0073142	26.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: MOUND SPRING	0073141	29.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: MOUND SPRING	0073140	29.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: MOUND SPRING	0073139	30.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: SPRING B	0073138	33.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: SPRING A	0073137	32.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: SPRING A	0073135	32.0
LA PLATA	37N 009W	25	PINKERTON HOT SPRINGS: SPRING A	0073136	32.0
MINERAL			WAGON WHEEL GAP HOT SPRINGS	0000421	57.0
MINERAL	38N 001W	09	RAINBOW HOT SPRING	0073154	40.0
MINERAL	40N 001E	02	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	0073207	50.0
MINERAL	40N 001E	02	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	0073206	48.0
MINERAL	40N 001E	02	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	0073205	51.0
MINERAL	40N 001E	02	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	0073204	50.0
MINERAL	40N 002W	01	ANTELOPE WARM SPRING	0073001	32.0
MINERAL	40N 002W	01	ANTELOPE WARM SPRINGS	0073000	32.0
MINERAL	40N 002W	14	BIRDSIE WARM SPRING	0073226	30.0
MINERAL	41N 001E	35	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	0073203	57.0
MINERAL	41N 001E	35	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	0073202	55.0
MINERAL	41N 001E	35	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	0073201	57.0
MOFFAT	06N 091W	01	CRAIG WARM WATER WELL	0073024	39.0
MOFFAT	06N 094W	16	JUNIPER HOT SPRINGS	0073079	38.0
MOFFAT	06N 094W	16	JUNIPER HOT SPRINGS	0073082	36.0
MOFFAT	06N 094W	16	JUNIPER HOT SPRINGS	0073081	37.0
MOFFAT	06N 094W	16	JUNIPER HOT SPRINGS	0073080	33.0
OURAY			ORVIS HOT SPRING (RIDGWAY HOT SPRING)	0000419	57.5
OURAY	44N 007W	31	OURAY AREA: POOL SPRING	0073119	69.0
OURAY	44N 007W	31	OURAY AREA: POOL SPRING	0073118	67.0
OURAY	44N 007W	31	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073117	48.0
OURAY	44N 007W	31	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073116	30.0
OURAY	44N 007W	31	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073115	46.0
OURAY	44N 007W	31	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073114	30.0
OURAY	44N 007W	31	OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	0073113	53.0
OURAY	45N 008W	22	ORVIS HOT SPRING	0073111	52.0
OURAY	45N 008W	22	ORVIS HOT SPRING	0073110	53.0
OURAY	45N 008W	22	ORVIS HOT SPRING	0073112	52.0
PARK	10S 078W	24	RHODES WARM SPRING	0073160	25.0
PARK	10S 078W	24	RHODES WARM SPRING	0073159	24.0
PARK	12S 075W	08	HARTSEL HOT SPRINGS: SPRING B	0073061	45.0
PARK	12S 075W	08	HARTSEL HOT SPRINGS: SPRING B	0073062	45.0
PARK	12S 075W	08	HARTSEL HOT SPRINGS: SPRING B	0073060	45.0
PARK	12S 075W	08	HARTSEL HOT SPRINGS: SPRING B	0073059	52.0
PARK	12S 075W	08	HARTSEL HOT SPRING: SPRING A	0073058	52.0

PITKIN			AVALANCHE SPRINGS	0000405	53.9
PITKIN	09S 088W	33	PENNY HOT SPRINGS: GRANGES SPRING	0073134	56.0
PITKIN	10S 088W	04	PENNY HOT SPRINGS	0073133	45.0
PITKIN	10S 088W	04	PENNY HOT SPRING	0073132	46.0
PITKIN	10S 088W	04	PENNY HOT SPRINGS	0073131	40.0
PITKIN	12S 085W	16	CONUNDRUM HOT SPRING	0073017	38.
PUEBLO	21S 065W	01	CLARK SPRING WARM WATER WELL	0073015	25.0
ROUTT			STEAMBOAT SPRINGS	0000399	24.0
ROUTT			ROUTT HOT SPRINGS	0000397	64.4
ROUTT	06N 084W	08	STEAMBOAT SPRINGS AREA: STEAMBOAT SPRING	0073187	26.0
ROUTT	06N 084W	17	STEAMBOAT SPRINGS AREA: HEART HOT SPRING	0073185	39.0
ROUTT	06N 084W	17	STEAMBOAT SPRINGS AREA: SULPHUR CAVE SPRING	0073186	20.0
ROUTT	07N 084W	18	ROUTT HOT SPRINGS: SPRING D	0073173	51.0
ROUTT	07N 084W	18	ROUTT HOT SPRINGS: SPRING C	0073172	54.0
ROUTT	07N 084W	18	ROUTT HOT SPRINGS: SPRING A	0073167	64.0
ROUTT	07N 084W	18	ROUTT HOT SPRING: SPRING B	0073171	62.0
ROUTT	07N 084W	18	ROUTT HOT SPRINGS: SPRING A	0073170	64.0
ROUTT	07N 084W	18	ROUTT HOT SPRINGS: SPRING A	0073169	64.0
ROUTT	07N 084W	18	ROUTT HOT SPRINGS: SPRING A	0073168	64.0
SAGUACHE			MINERAL HOT SPRINGS (CHAMBERLAIN HOT SPRINGS)	0000413	63.0
SAGUACHE	06S 090W	02	SOUTH CANYON HOT SPRINGS: SPRING A	0073180	48.0
SAGUACHE	41N 006E	33	SHAWS WARM SPRING	0073176	30.0
SAGUACHE	41N 006E	33	SHAWS WARM SPRING	0073175	30.0
SAGUACHE	41N 006E	33	SHAWS WARM SPRING	0073177	30.0
SAGUACHE	45N 009E	12	MINERAL HOT SPRINGS: SPRING B	0073235	51.0
SAGUACHE	45N 009E	12	MINERAL HOT SPRINGS: SPRING A	0073085	60.0
SAGUACHE	45N 009E	12	MINERAL HOT SPRINGS: SPRING A	0073088	60.0
SAGUACHE	45N 009E	12	MINERAL HOT SPRINGS: SPRING A	0073087	60.0
SAGUACHE	45N 009E	12	MINERAL HOT SPRING: SPRING C	0073900	60.0
SAGUACHE	45N 009W	12	MINERAL HOT SPRINGS: SPRING D	0073092	60.0
SAGUACHE	45N 009W	12	MINERAL HOT SPRINGS: SPRING D	0073091	60.0
SAGUACHE	45N 009W	12	MINERAL HOT SPRINGS: SPRING D	0073090	60.0
SAGUACHE	45N 009W	12	MINERAL HOT SPRINGS: SPRING D	0073089	59.0
SAGUACHE	45W 009E	12	MINERAL HOT SPRINGS: SPRING A	0073086	60.0
SAGUACHE	46N 010E	36	VALLEY VIEW HOT SPRINGS: SPRING A	0073194	36.0
SAGUACHE	46N 010E	36	VALLEY VIEW HOT SPRINGS: SPRING D	0073198	34.0
SAGUACHE	46N 010E	36	VALLEY VIEW HOT SPRINGS: SPRING B	0073197	32.0
SAGUACHE	46N 010E	36	VALLEY VIEW HOT SPRINGS: SPRING A	0073196	36.0
SAGUACHE	46N 010E	36	VALLEY VIEW HOT SPRINGS: SPRING A	0073195	35.0
SAGUACHE	46N 010E	36	VALLEY VIEW HOT SPRINGS: SPRING D	0073200	36.0
SAGUACHE	46N 010E	36	VALLEY VIEW HOT SPRINGS: SPRING D	0073199	35.0
SAGUACHE	46N 010E	36	VALLEY VIEW HOT SPRINGS: SPRING A	0073193	37.0
SAGUACHE	47N 009E	21	FULLINWIDER WARM SPRING	0073041	18.0
SAN MIGUEL	44N 011W	34	LEMON HOT SPRING	0015208	33.0
SAN MIGUEL	44N 011W	34	LEMON HOT SPRING	0073084	33.0
SAN MIGUEL	44N 011W	34	LEMON HOT SPRING	0073083	31.0

APPENDIX C

Index to GEOTHERM sample file for the state of Colorado 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 proceeding temperature. I.D. - GEOTHERM record identifier. Temp. - Temperature °C.

<u>Latitude</u>	<u>Longitude</u>	<u>Name of Source</u>	<u>County</u>	<u>I.D.</u>	<u>Temp.</u>
TRINIDAD 1:250,000					
37-17.68 N	105-47.08 W	DEXTER WARM SPRING	CONEJOS	0073230	20.0
37-16.80 N	105-49.12 W	MCINTYRE WARM SPRING	CONEJOS	0073234 Q	14.0
37-46.42 N	105-51.20 W	SAND DUNES SWIMMING POOL: HOT WATER WELL	ALAMOSA	0073174	44.0
37-29.32 N	105-51.45 W	UNNAMED WARM SPRING	ALAMOSA	0073184	40.0
DURANGO 1:250,000					
37-00.02 N	106-47.05 W	DUTCH CROWLEY ARTESIAN WELL	ARCHULETA	0073231	70.0
37-11.43 N	106-59.60 W	EOFF ARTESIAN WELL	ARCHULETA	0073232	39.0
37-30.57 N	106-56.87 W	RAINBOW HOT SPRING	MINERAL	0073154	40.0
37-45.02 N	106-19.02 W	SHAWS WARM SPRING	SAGUACHE	0073177	30.0
37-45.02 N	106-19.02 W	SHAWS WARM SPRING	SAGUACHE	0073175	30.0
37-45.02 N	106-19.02 W	SHAWS WARM SPRING	SAGUACHE	0073176	30.0
37-02.08 N	106-48.42 W	STINKING SPRINGS	ARCHULETA	0073188	27.0
37-45.00 N	106-49.25 W	WAGON WHEEL GAP HOT SPRINGS	MINERAL	0000421	57.0
37-41.03 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	MINERAL	0073207	50.0
37-41.03 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	MINERAL	0073206	48.0
37-41.03 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	MINERAL	0073205	51.0
37-41.03 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: CFI SPRING	MINERAL	0073204	50.0
37-41.10 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	MINERAL	0073203	57.0
37-41.10 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	MINERAL	0073202	55.0
37-41.10 N	106-49.78 W	WAGON WHEEL GAP HOT SPRINGS: 4UR RANCH SPRING	MINERAL	0073201	57.0
37-44.60 N	107-02.23 W	ANTELOPE WARM SPRING	MINERAL	0073001	32.0
37-44.60 N	107-02.23 W	ANTELOPE WARM SPRINGS	MINERAL	0073000	32.0
37-44.60 N	107-02.23 W	BIRDSIE WARM SPRING	MINERAL	0073226	30.0
37-15.50 N	107-00.50 W	PAGOSA AREA - ARLINGTON HOTEL WELL	ARCHULETA	0000423	60.0
37-15.87 N	107-00.62 W	PAGOSA SPRINGS: BIG SPRING	ARCHULETA	0073124	55.0
37-15.87 N	107-00.62 W	PAGOSA SPRINGS: BIG SPRING	ARCHULETA	0073125	54.0
37-15.87 N	107-00.62 W	PAGOSA SPRINGS: BIG SPRING	ARCHULETA	0073123	57.0
37-15.87 N	107-00.62 W	PAGOSA SPRINGS: BIG SPRING	ARCHULETA	0073122	58.0
37-15.92 N	107-00.62 W	PAGOSA SPRINGS: COURTHOUSE HOT WATER WELL	ARCHULETA	0073126	56.0
37-15.85 N	107-00.58 W	PAGOSA SPRINGS: SPA MOTEL HOT WATER WELL	ARCHULETA	0073127	53.0
37-27.15 N	107-48.35 W	PINKERTON HOT SPRINGS: LITTLE MOUND SPRINGS	LA PLATA	0073142	26.0
37-27.12 N	107-48.33 W	PINKERTON HOT SPRINGS: MOUND SPRING	LA PLATA	0073141	29.0
37-27.12 N	107-48.33 W	PINKERTON HOT SPRINGS: MOUND SPRING	LA PLATA	0073140	29.0
37-27.12 N	107-48.33 W	PINKERTON HOT SPRINGS: MOUND SPRING	LA PLATA	0073139	30.0
37-26.83 N	107-48.28 W	PINKERTON HOT SPRINGS: SPRING A	LA PLATA	0073137	32.0
37-26.83 N	107-48.28 W	PINKERTON HOT SPRINGS: SPRING A	LA PLATA	0073135	32.0
37-26.83 N	107-48.28 W	PINKERTON HOT SPRINGS: SPRING A	LA PLATA	0073136	32.0
37-27.97 N	107-48.30 W	PINKERTON HOT SPRINGS: SPRING B	LA PLATA	0073138	33.0
37-23.47 N	107-50.87 W	TRIMBLE HOT SPRING	LA PLATA	0073191	36.0
37-23.50 N	107-50.87 W	TRIPP HOT SPRING	LA PLATA	0073192	44.0

CORTEZ 1:250,000

37-46.30 N 108-05.63 W DUNTON HOT SPRING	DOLORES	0073032	42.0
37-46.30 N 108-05.63 W DUNTON HOT SPRING	DOLORES	0073031	42.0
37-46.30 N 108-05.63 W DUNTON HOT SPRING	DOLORES	0073030	44.0
37-44.80 N 108-07.03 W GEYSER WARM SPRING	DOLORES	0073042	28.0
37-45.25 N 108-07.88 W PARADISE HOT SPRING	DOLORES	0073128	46.0
37-45.25 N 108-07.88 W PARADISE HOT SPRING	DOLORES	0073130	42.0
37-45.25 N 108-07.88 W PARADISE HOT SPRING	DOLORES	0073129	40.0
37-42.00 N 108-01.73 W RICO AREA: BIG GEYSER WARM SPRING	DOLORES	0073163	36.0
37-42.00 N 108-01.73 W RICO AREA: BIG GEYSER WARM SPRING	DOLORES	0073162	34.0
37-42.08 N 108-01.75 W RICO AREA: DIAMOND DRILL HOLE	DOLORES	0073161	44.0
37-42.03 N 108-01.73 W RICO AREA: GEYSER WARM SPRING	DOLORES	0073164	38.0
37-42.07 N 108-01.73 W RICO AREA: LITTLE SPRING	DOLORES	0073165	38.0
37-42.07 N 108-01.73 W RICO AREA: LITTLE SPRING	DOLORES	0073166	39.0

PUEBLO 1:250,000

38-15.48 N 104-36.58 W CLARK SPRING WARM WATER WELL	PUEBLO	0073015	25.0
38-25.95 N 105-15.77 W CANON CITY HOT SPRING	FREMONT	0073004	40.0
38-25.95 N 105-15.77 W CANON CITY HOT SPRING	FREMONT	0073003	40.0
38-25.95 N 105-15.77 W CANON CITY HOT SPRING	FREMONT	0073002	40.0
38-10.33 N 105-00.53 W DON K RANCH ARTESIAN WELL	FREMONT	0073025	28.0
38-24.88 N 105-02.72 W FLORENCE ARTESIAN WELL	FREMONT	0073037	28.0
38-27.63 N 105-11.77 W FREMONT NATATORIUM HOT SPRING	FREMONT	0073038	35.0
38-27.63 N 105-11.77 W FREMONT NATATORIUM HOT SPRING	FREMONT	0073040	35.0
38-27.63 N 105-11.77 W FREMONT NATATORIUM HOT SPRING	FREMONT	0073039	36.0
38-18.30 N 105-58.92 W FULLINWIDER WARM SPRING	SAGUACHE	0073041	18.0
38-10.10 N 105-55.18 W MINERAL HOT SPRING: SPRING C	SAGUACHE	0073900	60.0
38-10.10 N 105-55.00 W MINERAL HOT SPRINGS (CHAMBERLAIN HOT SPRINGS)	SAGUACHE	0000413	63.0
38-10.13 N 105-55.08 W MINERAL HOT SPRINGS: SPRING A	SAGUACHE	0073085	60.0
38-10.13 N 105-55.08 W MINERAL HOT SPRINGS: SPRING A	SAGUACHE	0073088	60.0
38-10.13 N 105-55.08 W MINERAL HOT SPRINGS: SPRING A	SAGUACHE	0073087	60.0
38-10.13 N 105-55.08 W MINERAL HOT SPRINGS: SPRING A	SAGUACHE	0073086	60.0
38-10.12 N 105-55.10 W MINERAL HOT SPRINGS: SPRING B	SAGUACHE	0073235	51.0
38-10.07 N 105-55.33 W MINERAL HOT SPRINGS: SPRING D	SAGUACHE	0073092	60.0
38-10.07 N 105-55.33 W MINERAL HOT SPRINGS: SPRING D	SAGUACHE	0073091	60.0
38-10.07 N 105-55.33 W MINERAL HOT SPRINGS: SPRING D	SAGUACHE	0073090	60.0
38-10.07 N 105-55.33 W MINERAL HOT SPRINGS: SPRING D	SAGUACHE	0073089	59.0
38-28.82 N 105-53.42 W SWISSVALE WARM SPRINGS: SPRING A	FREMONT	0073189	28.0
38-28.82 N 105-53.47 W SWISSVALE WARM SPRINGS: SPRING F	FREMONT	0073190	20.0
38-11.53 N 105-48.82 W VALLEY VIEW HOT SPRINGS: SPRING A	SAGUACHE	0073194	36.0
38-11.53 N 105-48.82 W VALLEY VIEW HOT SPRINGS: SPRING A	SAGUACHE	0073196	36.0
38-11.53 N 105-48.82 W VALLEY VIEW HOT SPRINGS: SPRING A	SAGUACHE	0073195	35.0
38-11.53 N 105-48.82 W VALLEY VIEW HOT SPRINGS: SPRING A	SAGUACHE	0073193	37.0
38-11.52 N 105-48.83 W VALLEY VIEW HOT SPRINGS: SPRING B	SAGUACHE	0073197	32.0
38-11.38 N 105-48.58 W VALLEY VIEW HOT SPRINGS: SPRING D	SAGUACHE	0073198	34.0
38-11.38 N 105-48.58 W VALLEY VIEW HOT SPRINGS: SPRING D	SAGUACHE	0073200	36.0
38-11.38 N 105-48.58 W VALLEY VIEW HOT SPRINGS: SPRING D	SAGUACHE	0073199	35.0
38-29.12 N 105-54.60 W WELLSVILLE WARM SPRING	CHAFFEE	0073223	28.0
38-29.12 N 105-54.60 W WELLSVILLE WARM SPRING	CHAFFEE	0073221	32.0
38-29.12 N 105-54.60 W WELLSVILLE WARM SPRING	CHAFFEE	0073224	28.0
38-29.12 N 105-54.60 W WELLSVILLE WARM SPRING	FREMONT	0073222	33.0

MONTROSE 1:250,000

38-38.23 N 106-04.28 W BROWN'S CANON WARM SPRING	CHAFFEE	0073228	25.0
38-37.83 N 106-04.17 W BROWN'S GROTTO WARM SPRING	CHAFFEE	0073229	23.0
38-50.10 N 106-49.57 W CEMENT CREEK WARM SPRING	GUNNISON	0073013	25.0
38-50.10 N 106-49.57 W CEMENT CREEK WARM SPRING	GUNNISON	0073012	25.
38-50.10 N 106-49.57 W CEMENT CREEK WARM SPRING	GUNNISON	0073011	26.0
38-50.10 N 106-49.57 W CEMENT CREEK WARM SPRING	GUNNISON	0073014	26.0
38-48.80 N 106-13.35 W COTTONWOOD HOT SPRING	CHAFFEE	0073018	58.0
38-48.67 N 106-13.33 W COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SP	CHAFFEE	0073020	52.0
38-48.67 N 106-13.33 W COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	CHAFFEE	0073019	54.0
38-48.67 N 106-13.33 W COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	CHAFFEE	0073022	53.0
38-48.67 N 106-13.33 W COTTONWOOD HOT SPRING AREA: JUMP STEADY HOT SPR	CHAFFEE	0073021	53.0
38-48.70 N 106-13.42 W COTTONWOOD HOT SPRINGS WELL	CHAFFEE	0015730	50.
38-48.67 N 106-13.35 W COTTONWOOD HOT SPRINGS: MERRIFIELD HOT WATER WE	CHAFFEE	0073236	46.
38-48.70 N 106-13.50 W COTTONWOOD SPRINGS	CHAFFEE	0000407	57.0
38-43.95 N 106-10.10 W HORTENSE WELL	CHAFFEE	0015731	84.
38-31.02 N 106-31.00 W LOWER WAUNITA HOT SPRINGS	GUNNISON	0073220	62.0
38-31.03 N 106-30.93 W LOWER WAUNITA HOT SPRINGS: SPRING A	GUNNISON	0073215	70.0
38-31.00 N 106-30.92 W LOWER WAUNITA HOT SPRINGS: SPRING B	GUNNISON	0073218	70.0
38-31.00 N 106-30.92 W LOWER WAUNITA HOT SPRINGS: SPRING B	GUNNISON	0073217	70.0
38-31.00 N 106-30.92 W LOWER WAUNITA HOT SPRINGS: SPRING B	GUNNISON	0073219	70.0
38-30.45 N 106-30.92 W LOWER WAUNITA HOT SPRINGS: SPRING C	GUNNISON	0073216	70.0
38-43.90 N 106-10.20 W MT PRINCETON HOT SPRINGS	CHAFFEE	0000409	54.0
38-43.97 N 106-10.45 W MT. PRINCETON HOT SPRINGS AREA - HORTENSE HOT W	CHAFFEE	0015213	82.0
38-43.98 N 106-10.43 W MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	CHAFFEE	0073104	83.0
38-43.98 N 106-10.43 W MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	CHAFFEE	0073103	83.0
38-43.98 N 106-10.43 W MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT SP	CHAFFEE	0073102	82.0
38-43.97 N 106-10.45 W MT. PRINCETON HOT SPRINGS AREA: HORTENSE HOT WA	CHAFFEE	0073105	82.0
38-43.40 N 106-10.63 W MT. PRINCETON HOT SPRINGS AREA: WOOLMINGTON HOT	CHAFFEE	0073106	39.0
38-43.97 N 106-10.42 W MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATE	CHAFFEE	0073108	72.0
38-44.00 N 106-10.00 W MT. PRINCETON HOT SPRINGS AREA: WRIGHT HOT WATE	CHAFFEE	0073107	67.0
38-43.95 N 106-10.45 W MT. PRINCETON HOT SPRINGS AREA: YOUNG LIFE HOT	CHAFFEE	0073101	66.0
38-43.97 N 106-09.65 W MT. PRINCETON HOT SPRINGS: SPRING E	CHAFFEE	0073100	50.0
38-43.97 N 106-09.67 W MT. PRINCETON HOT SPRINGS: SPRING A	CHAFFEE	0073096	56.0
38-43.97 N 106-09.67 W MT. PRINCETON HOT SPRINGS: SPRING A	CHAFFEE	0073095	54.0
38-43.97 N 106-09.67 W MT. PRINCETON HOT SPRINGS: SPRING A	CHAFFEE	0073094	54.0
38-43.97 N 106-09.67 W MT. PRINCETON HOT SPRINGS: SPRING A	CHAFFEE	0073093	54.0
38-43.97 N 106-09.68 W MT. PRINCETON HOT SPRINGS: SPRING B	CHAFFEE	0073098	54.0
38-43.97 N 106-09.65 W MT. PRINCETON HOT SPRINGS: SPRING D	CHAFFEE	0073099	44.0
38-43.97 N 106-09.72 W MT. PRINCETON HOT SPRINGS: SPRING F	CHAFFEE	0073097	49.0
38-29.82 N 106-04.60 W PONCHA HOT SPRING: SPRING B	CHAFFEE	0073147	66.0
38-29.80 N 106-04.60 W PONCHA HOT SPRINGS	CHAFFEE	0015732	71.
38-29.90 N 106-04.50 W PONCHA HOT SPRINGS	CHAFFEE	0000411	66.1
38-29.82 N 106-04.62 W PONCHA HOT SPRINGS: SPRING A	CHAFFEE	0073146	50.0
38-29.82 N 106-04.62 W PONCHA HOT SPRINGS: SPRING A	CHAFFEE	0073145	70.0
38-29.82 N 106-04.62 W PONCHA HOT SPRINGS: SPRING A	CHAFFEE	0073144	70.0
38-29.82 N 106-04.62 W PONCHA HOT SPRINGS: SPRING A	CHAFFEE	0073143	71.0
38-29.83 N 106-04.52 W PONCHA HOT SPRINGS: SPRING C	CHAFFEE	0073151	62.0
38-29.83 N 106-04.52 W PONCHA HOT SPRINGS: SPRING C	CHAFFEE	0073150	63.0
38-29.83 N 106-04.52 W PONCHA HOT SPRINGS: SPRING C	CHAFFEE	0073149	62.0
38-29.83 N 106-04.52 W PONCHA HOT SPRINGS: SPRING C	CHAFFEE	0073148	63.0
38-29.83 N 106-04.53 W PONCHA HOT SPRINGS: SPRING D	CHAFFEE	0073152	56.0
38-29.83 N 106-04.53 W PONCHA HOT SPRINGS: SPRING E	CHAFFEE	0073153	60.0

38-48.95 N 106-52.47 W RANGER WARM SPRING	GUNNISON	0073157	27.0
38-48.95 N 106-52.47 W RANGER WARM SPRING	GUNNISON	0073156	27.0
38-48.95 N 106-52.47 W RANGER WARM SPRING	GUNNISON	0073158	27.0
38-48.95 N 106-52.47 W RANGER WARM SPRING	GUNNISON	0073155	26.0
38-30.03 N 106-30.45 W WAUNITA HOT SPINNGS: SPRING C	GUNNISON	0073211	77.0
38-31.00 N 106-29.10 W WAUNITA HOT SPRINGS	GUNNISON	0000415	70.0
38-30.83 N 106-30.45 W WAUNITA HOT SPRINGS: SPRING A	GUNNISON	0073213	76.0
38-30.83 N 106-30.45 W WAUNITA HOT SPRINGS: SPRING B	GUNNISON	0073214	78.0
38-30.83 N 106-30.45 W WAUNITA HOT SPRINGS: SPRING C	GUNNISON	0073208	78.0
38-30.83 N 106-30.45 W WAUNITA HOT SPRINGS: SPRING C	GUNNISON	0073210	77.0
38-30.83 N 106-30.45 W WAUNITA HOT SPRINGS: SPRING C	GUNNISON	0073209	80.0
38-30.83 N 106-30.47 W WAUNITA HOT SPRINGS: SPRING D	GUNNISON	0073212	54.0
38-43.95 N 106-10.10 W YOUNG LIFE GROUP CAMP WELL	CHAFFEE	0015733	65.
38-16.50 N 107-05.90 W CEBOLLA HOT SPRINGS (POWDERHORN HOT SPRINGS)	GUNNISON	0000417	45.6
38-16.43 N 107-05.87 W CEBOLLA HOT SPRINGS: SPRING A	GUNNISON	0073006	41.0
38-16.43 N 107-05.87 W CEBOLLA HOT SPRINGS: SPRING A	GUNNISON	0073005	41.0
38-16.43 N 107-05.87 W CEBOLLA HOT SPRINGS: SPRING A	GUNNISON	0073008	38.0
38-16.43 N 107-05.87 W CEBOLLA HOT SPRINGS: SPRING A	GUNNISON	0073007	39.0
38-16.43 N 107-05.87 W CEBOLLA HOT SPRINGS: SPRING B	GUNNISON	0073009	38.0
38-16.43 N 107-05.90 W CEBOLLA HOT SPRINGS: SPRING C	GUNNISON	0073010	40.0
38-52.38 N 107-38.07 W COLONEL CHINN HOT WATER WELL	DELTA	0073016	42.0
38-07.98 N 107-44.02 W ORVIS HOT SPRING	OURAY	0073112	52.0
38-07.98 N 107-44.02 W ORVIS HOT SPRING	OURAY	0073111	52.0
38-07.98 N 107-44.02 W ORVIS HOT SPRING	OURAY	0073110	53.0
38-08.00 N 107-44.00 W ORVIS HOT SPRING (RIDGWAY HOT SPRING)	OURAY	0000419	57.5
38-01.00 N 107-40.68 W OURAY AREA: POOL SPRING	OURAY	0073119	69.0
38-01.00 N 107-40.68 W OURAY AREA: POOL SPRING	OURAY	0073118	67.0
38-01.25 N 107-40.05 W OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	OURAY	0073117	48.0
38-01.25 N 107-40.05 W OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	OURAY	0073116	30.0
38-01.25 N 107-40.05 W OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	OURAY	0073115	46.0
38-01.25 N 107-40.05 W OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	OURAY	0073114	30.0
38-01.25 N 107-40.05 W OURAY AREA: WESBADEN VAPOR CAVES AND MOTEL HOT	OURAY	0073113	53.0

MOAB 1:250,000

38-51.00 N 108-03.18 W LEMON HOT SPRING	SAN MIGUEL	0073084	33.0
38-51.00 N 108-03.18 W LEMON HOT SPRING	SAN MIGUEL	0073083	31.0
38-51.00 N 108-03.18 W LEMON HOT SPRING	SAN MIGUEL	0015208	33.0

DENVER 1:250,000

39-55.88 N 105-16.78 W ELDORADO SPRING: SPRING B	BOULDER	0073035	26.0
39-55.87 N 105-16.77 W ELDORADO SPRINGS: SPRING A	BOULDER	0073033	24.0
39-55.88 N 105-16.78 W ELDORADO SPRINGS: SPRING B	BOULDER	0073036	24.0
39-55.88 N 105-16.78 W ELDORADO SPRINGS: SPRING B	BOULDER	0073034	25.0
39-01.08 N 105-47.67 W HARTSEL HOT SPRING: SPRING A	PARK	0073058	52.0
39-01.08 N 105-47.65 W HARTSEL HOT SPRINGS: SPRING B	PARK	0073059	52.0
39-01.08 N 105-47.65 W HARTSEL HOT SPRINGS: SPRING B	PARK	0073062	45.0
39-01.08 N 105-47.65 W HARTSEL HOT SPRINGS: SPRING B	PARK	0073060	45.0
39-01.08 N 105-47.65 W HARTSEL HOT SPRINGS: SPRING B	PARK	0073061	45.0
39-44.33 N 105-30.72 W IDAHO HOT SPRING: SPRING A	CLEAR CREEK	0073072	45.0
39-44.37 N 105-30.72 W IDAHO HOT SPRINGS: LODGE HOT WATER WELL	CLEAR CREEK	0073078	46.0
39-44.33 N 105-30.72 W IDAHO HOT SPRINGS: SPRING A	CLEAR CREEK	0073074	40.0
39-44.33 N 105-30.72 W IDAHO HOT SPRINGS: SPRING A	CLEAR CREEK	0073073	40.0

39-44.33 N 105-30.72 W IDAHO HOT SPRINGS: SPRING A
 39-44.35 N 105-30.72 W IDAHO HOT SPRINGS: SPRING B
 39-44.32 N 105-30.72 W IDAHO HOT SPRINGS: SPRING C
 39-44.20 N 105-30.20 W IDAHO SPRINGS

CLEAR CREEK 0073075 40.0
 CLEAR CREEK 0073076 24.0
 CLEAR CREEK 0073077 20.0
 CLEAR CREEK 0000401 50.0

LEADVILLE 1:250,000

39-00.73 N 106-53.43 W CONUNDRUM HOT SPRING
 39-09.82 N 106-03.88 W RHODES WARM SPRING
 39-09.82 N 106-03.88 W RHODES WARM SPRING
 39-13.90 N 107-13.50 W AVALANCHE SPRINGS
 39-37.65 N 107-06.37 W DOTSERO WARM SPRINGS
 39-37.65 N 107-06.37 W DOTSERO WARM SPRINGS
 39-37.65 N 107-06.37 W DOTSERO WARM SPRINGS
 39-37.62 N 107-06.00 W DOTSERO WARM SPRINGS, SOUTH
 39-33.00 N 107-19.30 W GLENWOOD SPRINGS
 39-32.98 N 107-19.32 W GLENWOOD SPRINGS AREA: DRINKING SPRING
 39-32.98 N 107-19.32 W GLENWOOD SPRINGS AREA: DRINKING SPRING
 39-32.98 N 107-19.32 W GLENWOOD SPRINGS AREA: DRINKING SPRING
 39-32.98 N 107-19.32 W GLENWOOD SPRINGS AREA: DRINKING SPRING
 39-33.23 N 107-20.13 W GLENWOOD SPRINGS AREA: GRAVES SPRING
 39-33.27 N 107-18.85 W GLENWOOD SPRINGS AREA: RAILROAD SPRING
 39-33.27 N 107-18.85 W GLENWOOD SPRINGS AREA: RAILROAD SPRING
 39-32.97 N 107-19.17 W GLENWOOD SPRINGS AREA: SPRING A
 39-33.03 N 107-19.07 W GLENWOOD SPRINGS AREA: SPRING B
 39-33.03 N 107-19.07 W GLENWOOD SPRINGS AREA: SPRING B
 39-33.03 N 107-19.07 W GLENWOOD SPRINGS AREA: SPRING B
 39-33.03 N 107-19.07 W GLENWOOD SPRINGS AREA: SPRING B
 39-32.03 N 107-19.03 W GLENWOOD SPRINGS AREA: SPRING C
 39-33.08 N 107-19.00 W GLENWOOD SPRINGS AREA: SPRING D
 39-32.98 N 107-19.28 W GLENWOOD SPRINGS AREA: VAPOR CAYES, MENS HOT SP
 39-32.98 N 107-19.30 W GLENWOOD SPRINGS AREA: YAMPA (BIG) SPRINGS
 39-13.55 N 107-13.47 W PENNY HOT SPRING
 39-13.55 N 107-13.47 W PENNY HOT SPRINGS
 39-13.55 N 107-13.47 W PENNY HOT SPRINGS
 39-13.83 N 107-13.60 W PENNY HOT SPRINGS: GRANGES SPRING
 39-33.27 N 107-23.88 W SOUTH CANYON HOT SPRINGS: SPRING A
 39-33.27 N 107-23.88 W SOUTH CANYON HOT SPRINGS: SPRING A
 39-33.27 N 107-23.88 W SOUTH CANYON HOT SPRINGS: SPRING A
 39-33.27 N 107-23.88 W SOUTH CANYON HOT SPRINGS: SPRING A
 39-33.25 N 107-23.85 W SOUTH CANYON HOT SPRINGS: SPRING B

PITKIN 0073017 38.
 PARK 0073160 25.0
 PARK 0073159 24.0
 PITKIN 0000405 53.9
 EAGLE 0073028
 EAGLE 0073027 31.0
 EAGLE 0073026 31.0
 EAGLE 0073029 32.0
 GARFIELD 0000403 41.1
 GARFIELD 0073047 51.0
 GARFIELD 0073046 51.0
 GARFIELD 0073045 50.0
 GARFIELD 0073044 50.0
 GARFIELD 0073049 46.0
 GARFIELD 0073057 51.0
 GARFIELD 0073056 51.0
 GARFIELD 0073050 44.0
 GARFIELD 0073051 51.0
 GARFIELD 0073054 51.0
 GARFIELD 0073053 51.0
 GARFIELD 0073052 50.0
 GARFIELD 0073233 46.0
 GARFIELD 0073055 50.0
 GARFIELD 0073048 50.0
 GARFIELD 0073043 50.0
 PITKIN 0073132 46.0
 PITKIN 0073131 40.0
 PITKIN 0073133 45.0
 PITKIN 0073134 56.0
 GARFIELD 0073179 48.0
 GARFIELD 0073181 48.0
 SAGUACHE 0073180 48.0
 GARFIELD 0073182 47.0
 GARFIELD 0073183 48.0

GREELEY 1:250,000

40-05.80 N 105-14.27 W HAYSTACK BUTTE WARM WATER WELL

BOULDER 0073063 28.0

CRAIG 1:250,000

40-42.28 N 106-32.08 W BRANDS RANCH ARTESIAN WELL
 40-04.55 N 106-06.72 W HOT SULPHUR SPRINGS: SPRING A
 40-04.55 N 106-06.72 W HOT SULPHUR SPRINGS: SPRING A
 40-04.55 N 106-06.72 W HOT SULPHUR SPRINGS: SPRING A
 40-04.55 N 106-06.72 W HOT SULPHUR SPRINGS: SPRING A
 40-04.55 N 106-06.73 W HOT SULPHUR SPRINGS: SPRING B

JACKSON 0073227 42.0
 GRAND 0073066 44.0
 GRAND 0073065 44.0
 GRAND 0073064 44.0
 GRAND 0073067 44.0
 GRAND 0073068 41.0

40-04.55 N 106-06.75 W HOT SULPHUR SPRINGS: SPRING C	GRAND	0073070	40.0
40-04.55 N 106-06.75 W HOT SULPHUR SPRINGS: SPRING C	GRAND	0073069	40.0
40-04.53 N 106-06.75 W HOT SULPHUR SPRINGS: SPRING D	GRAND	0073071	40.0
40-33.58 N 106-50.98 W ROUTT HOT SPRING: SPRING B	ROUTT	0073171	62.0
40-33.60 N 106-51.00 W ROUTT HOT SPRINGS	ROUTT	0000397	64.4
40-33.57 N 106-51.00 W ROUTT HOT SPRINGS: SPRING A	ROUTT	0073169	64.0
40-33.57 N 106-51.00 W ROUTT HOT SPRINGS: SPRING A	ROUTT	0073168	64.0
40-33.57 N 106-51.00 W ROUTT HOT SPRINGS: SPRING A	ROUTT	0073170	64.0
40-33.57 N 106-51.00 W ROUTT HOT SPRINGS: SPRING A	ROUTT	0073167	64.0
40-33.57 N 106-50.98 W ROUTT HOT SPRINGS: SPRING C	ROUTT	0073172	54.0
40-33.57 N 106-50.97 W ROUTT HOT SPRINGS: SPRING D	ROUTT	0073173	51.0
40-29.10 N 106-50.30 W STEAMBOAT SPRINGS	ROUTT	0000399	24.0
40-28.97 N 106-49.62 W STEAMBOAT SPRINGS AREA: HEART HOT SPRING	ROUTT	0073185	39.0
40-29.30 N 106-50.45 W STEAMBOAT SPRINGS AREA: STEAMBOAT SPRING	ROUTT	0073187	26.0
40-29.03 N 106-50.38 W STEAMBOAT SPRINGS AREA: SULPHUR CAVE SPRING	ROUTT	0073186	20.0
40-30.10 N 107-33.07 W CRAIG WARM WATER WELL	MOFFAT	0073024	39.0
40-28.02 N 107-57.17 W JUNIPER HOT SPRINGS	MOFFAT	0073079	38.0
40-28.02 N 107-57.17 W JUNIPER HOT SPRINGS	MOFFAT	0073082	36.0
40-28.02 N 107-57.17 W JUNIPER HOT SPRINGS	MOFFAT	0073081	37.0
40-28.02 N 107-57.17 W JUNIPER HOT SPRINGS	MOFFAT	0073080	33.0

APPENDIX D

Sources for the records in the GEOTHERM sample file for Colorado. Each reference is preceded by its abbreviated form (called CODE) used in the sample file (Table 1). Entries in this computer-generated appendix are sorted by CODE.

CODE = BARRETT AND PEARL, 1976

BARRETT, J. K. AND PEARL, R. H., 1976, HYDROGEOLOGICAL DATA OF THERMAL SPRINGS AND WELLS IN COLORADO: COLORADO GEOLOGICAL SURVEY INFORMATION SERIES NO. 6, 124 P.

CODE = GEORGE AND OTHERS, 1920

GEORGE, R. D., CURTIS, H. A., LESTER, O. C., CROOK, J. K., AND YEO, J. B., 1920, MINERAL WATERS OF COLORADO: COLORADO GEOLOGICAL SURVEY, BULLETIN 11, 470 P.

CODE = MALLORY AND BARNETT, 1973

MALLORY, E. C., JR., AND BARNETT, P. R., 1973, CHEMICAL AND SPECTROCHEMICAL ANALYSES OF SELECTED GROUND WATER IN COLORADO: U. S. GEOLOGICAL SURVEY OPEN-FILE REPORT, 47 P.

CODE = O'CONNELL AND KAUFMAN, 1976

O'CONNELL, M. F., AND KAUFMAN, R. F., 1976, RADIOACTIVITY ASSOCIATED WITH GEOTHERMAL WATERS IN THE WESTERN UNITED STATES: U. S. ENVIRONMENTAL PROTECTION AGENCY TECHNICAL NOTE ORP/LV-75-8A, 25 P.