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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OREGON

Basic data for thermal springs and wells
as recorded in GEOTHERM

By

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Open-File Report 83-435

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

Menlo Park, California

May 1983

MASTER

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JSW

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INTRODUCTION

GEO THERM, a computerized information system now off-line, 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 Oregon 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 presented 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 Oregon. Each index is sorted by different variables to assist the user in locating geothermal records describing specific sites.

Appendix A (p. 218-224) 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 ($^{\circ}\text{C}$). 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. 225-331) is sorted by township, range, and section. Also given are name of source, GEOTHERM record identifier, and temperature (°C). Records missing items used for sorting will be listed first.

Appendix C (p. 332-339) 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 a blank in the same position as zero will be given first.

GEOTHERM SAMPLE FILE

GEOTHERM sample file contains 346 records for Oregon (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 Oregon available as of December, 1981. However, no claim is made for completeness, and published sources have probably been missed. About 28 % of the records in this list contains information which was unpublished at the time of data entry. A critically evaluated and corrected list of over 2000 records for the United States was extracted from the sample file and issued as a reference document for the national low-temperature geothermal resource assessment (Reed and others, 1983). This, along with a list of geothermal springs by Berry, and others, 1980, may be useful to some users.

GEO THERM BIBLIOGRAPHY

A bibliography is given in Appendix D (p. 340-342). 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 GEO THERM record are also described in greater detail in Appendix D and are listed ahead of published sources.

ACKNOWLEDGMENTS

Contributions and support to GEO THERM 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 Oregon were prepared by the staff of either the Oregon Department of Geology and Mineral Industries (DOGAMI) 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, GEO THERM: 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 geothermal resources of the United States--1978: U.S. Geological Survey Circular 790, 163 p.
- Reed, M. J., ed., 1983, Assessment of low-temperature geothermal resources of the United States--1982: U.S. Geological Survey Circular 892.
- Reed, M. J., Mariner, R. H., Brook, C. A., and Sorey, M. L., 1983, Selected data for low-temperature (less than 90°C) geothermal systems in the United States; reference data for U.S. Geological Survey Circular 892: U.S. Geological Survey Open-File Report 83-250, 129 p.
- Swanson, J. R., 1977, GEO THERM data file: Geothermal Resources Council Transactions, v. 1, p. 285.

TABLE 1

State of Oregon: 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.

UTM: The UTM Easting label was omitted. However, if the UTM Easting figure is present in the record, it will be found directly below the UTM Northing label.

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

L = less than

G = greater than

E = estimated

T = trace (no numeric value reported)

N = not detected (not followed by number)

Q = qualified (other data in qualification field)

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

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

RECORD 00001

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CITY OF HUNTINGTON WELL
 LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY... UNITED STATES 145 045E 18 LAT/LONG... 44-21.0 N 117-16.2 W
 STATE... OREGON
 COUNTY... BAKER
 GEOLOGIC PROVINCE... 32
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)... 24.
 WELL DEPTH (M)... 150.
 DISCHARGE... L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY... MARINER, R. & BROOK, C.
 REFERENCE... PRICE, 1967

RECORD 00002

GEOTHERM FILE ID: 0015444

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... FISHER HOT SPRING
 WELL/SPRING NUMBER... 075/38E-109A
 LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY... UNITED STATES 075 038E 10 NE OF NW LAT/LONG... 44-58.48 N 118-02.61 W
 STATE... OREGON UTM ZONE... +11
 COUNTY... BAKER NORTHING... 4980449.
 GEOLOGIC PROVINCE... 32 417718.
 M&P REFERENCE... ROCK CREEK 1:24000, CANYON CITY 1:250000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... 1972/06/14 BROOKS, HOWARD
 SAMPLE NUMBER... 2125 ORE STATE BOARD OF HEALTH
 TEMPERATURE (C)... 37.0
 DISCHARGE... 1893. L/MIN
 WATER ANALYSIS
 DATE/ANALYST... 1972/07/18 ROSE, ALLAN W.
 P... 0 9.8
 SPECIFIC CONDUCTANCE... 197.
 ALKALINITY... 68. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 143.
 ANALYSIS IN MG/L
 AG... CO3... LI... 1.0
 AL... 0.07 CR... MG... L 0.1
 AS... L 0.005 CS... MN... L 0.03
 H... 2.0 F... 0.4 NA... 40.
 HE... FE(TOT)... L 0.03 NB... 5102.. 39.
 CA... 1.4 S04.. 12.
 CL... 1.8
 CO... K... N
 QUALIFICATION FIELD... PH MEASURED IN LAB.
 REFERENCE AND IDENTIFICATION
 COMPILED BY... BOWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 06
 REFERENCE... *DOGAMI

RECORD 00003

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015427

NAME OF SAMPLE SOURCE... KROPP HOT SPRING
WELL/SPRING NUMBER... 06S/39E-25HDLOCATION
COUNTRY... UNITED STATES TOWNSHIP-RANGE 06S 039E 25 SE OF NW
STATE... OREGON
COUNTY... BAKER
GEOLOGIC PROVINCE... 29
MAP REFERENCE... NORTH POWDER 1124000, GRANGEVILLE 11250000COORDINATESLAT/LONG... 45-00.8 N 117-53.1 W
UTM ZONE... +11
NORTHING... 4984595.
430263.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR... JOHNSON, SID
SAMPLE NUMBER... 2202
TEMPERATURE (C)... 43.0
DISCHARGE... 19. L/MIN

WATER ANALYSIS

DATE/ANALYST... 1972/11/16 HOSE, ALAN W.
P... 0 7.3
SPECIFIC CONDUCTANCE... 445.
ALKALINITY... 43. AS CaCO3
TOTAL DISSOLVED SOLIDS... 392.
CHARGE IMBALANCE (% DIFF)... 7.4

ANALYSIS IN MG/L

AG...	CO3...	LI...	L 0.1		
AL... 0.04	CR...	MG...	0.1		
AS... L 0.005	CS...	MN... L	0.03		
B...	F... 1.19	NA...	93.	SI02..	58.
BE...	FE(TOT)... L 0.03	NB...		S04..	31.6
BT...	GA...	NH4..	0.15		
CA... 1.1					
CL... 80.8					
CO...	K... 1.5				

ISOTOPES (0/001)

QUALIFICATION FIELD... PH MEASURED IN LAB.

REFERENCE AND IDENTIFICATION

COMPILED BY... ROWEN, RICHARD G.
COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
COMPILER CROSS INDEX... 05
REFERENCE... *DOGAMI

RECORD 00004

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0001701

NAME OF SAMPLE SOURCE... NELSON SPRING

LOCATION
COUNTRY... UNITED STATES TOWNSHIP-RANGE 12S 043E 02
STATE... OREGON
COUNTY... BAKER
GEOLOGIC PROVINCE... 32COORDINATES

LAT/LONG... 44-33.0 N 117-24.0 W

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)... 27.
DISCHARGE... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY... MANINER, R. & BROOK, C.
REFERENCE... WAGNER, 1959

RECORD 00005

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0002206

NAME OF SAMPLE SOURCE... RADIUM HOT SPRINGS

WARNING NUMBER..... 17A

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 07S 039E 28 NE

LAT/LONG... 44-55.82 N 117-56.36 W

STATE..... OREGON

UTM ZONE... +11

COUNTY..... BAKER

NORTHING... 4975423.

GEOLOGIC PROVINCE..

425874.

MAP REFERENCE..... HAINES 1124000

OTHER LOCALITY INFORMATION: 1 MI. NORTH OF HAINES

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1955/05/01

TEMPERATURE (C)..... 57.2

DISCHARGE..... 871. L/MIN

PERTINENT LITHOLOGY..... JURASSIC OR CRETACEOUS QUARTZ DIORITE

WATER ANALYSIS

PH..... 9.7

SPECIFIC CONDUCTANCE..... 290.

TOTAL DISSOLVED SOLIDS... 244.

CHARGE IMBALANCE (% DIFF)... 1.6

ANALYSIS IN PPM

ISOTOPES (0/00)

AG....	CO3....	47.				
AL.... N	CR....		MG... N			
AS....	CS....		MN... N			
R....	F....	1.0	NA... 63.	SI02.. 80.		
HF....	FE(TOT). N		NB... 31.	S04... 31.		
CA.... 1.0	HCO3....	5.	NU3... 0.2			
CA+MG.	HG....		PB... 0.	U.... L 0.0001		
CD....	H2S....		PO4... N			
CL.... 17.						
CO....	K....	2.0				

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 01

REFERENCE..... SCOTT AND BARKER, 1962

RECORD 00006

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0000709

NAME OF SAMPLE SOURCE... RADIUM HOT SPRINGS

WARNING NUMBER..... 17A

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 07S 039E 28 NE

LAT/LONG... 44-55.82 N 117-56.36 W

STATE..... OREGON

UTM ZONE... +11

COUNTY..... BAKER

NORTHING... 4975423.

GEOLOGIC PROVINCE.. 32

425874.

MAP REFERENCE..... HAINES 1124000, BAKER 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 HAINES GROUP

TEMPERATURE (C)..... 58.

DISCHARGE..... 1100. L/MIN

WATER TREATMENT..... PRESSURE - FILTERED THROUGH A .45 MICROMETRE MEMBRANE, METAL ANALYSES ACIDIFIED, DILUTED.

PERCENT LITHOLOGY..... ALLUVIUM, QUARTZ DIORITE, BASALT
 WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 9.56

SPECIFIC CONDUCTANCE..... 290.

CHARGE IMBALANCE (% DIFF)... 16.3

ANALYSIS IN MG/L

AG.... L 0.02	CO3.... 21.	LI.... 0.01	S....	ISOTOPES (0/00)	
AL....	CR....	MG.... 0.1	SB.... L 0.2	DEL D OF WATER.....	-138.3
AS.... L 0.01	CS.... L 0.1	MN.... L 0.02		DEL O (18) OF WATER...	-17.85
AI.... L 0.1	CU.... L 0.01				
R.... 0.42	F..... 1.3	NA.... 58.	SI02. 78.		
RA.... L 0.1					
HF.... L 0.1	FE(TOT). L 0.02	NB....	S04.. 34.		
HI....	GA.....	NH4..	SR.... L 0.05		
HR.... 0.01					
CA.... 1.5	HCO3.... 70.				
CA.MG.	HG.... 0.0005	PB... L 0.06			
CD.... L 0.01	H2S....	PO4.. 0.092			
CL.... 17.	I..... 0.007				
CO.... L 0.05	K..... 1.1	RB... L 0.02			

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 01

REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975

RECORD 00007

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... SAMO SPRING

WELL/SPRING NUMBER..... 09S/40E-160A

WARNING NUMBER..... 178

GEOTHERM FILE ID: 0015420

LOCATION

COUNTRY..... UNITED STATES 09S 040E 16 NE OF SE

STATE..... OREGON

COUNTY..... BAKER

GEOLOGIC PROVINCE.. 32

MAP REFERENCE..... BAKER 1124000, BAKER 1125000

COORDINATES

LAT/LONG... 44-46.76 N 117-48.65 W

UTM ZONE... 11

NORTHING... 4958540.

435847.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTION..... 1977/02/11 MULL, DONALD A.

SAMPLE NUMBER..... WS-77-022

TEMPERATURE (C)..... 27.0

WATER ANALYSIS

DATE/ANALYST..... 1977/04/27 BANERJEE, KALA C.

PH..... 0 d.1

SPECIFIC CONDUCTANCE..... 891.

ALKALINITY..... 425. AS CaCO3

TOTAL DISSOLVED SOLIDS... 595.

CHARGE IMBALANCE (% DIFF)... 0.5

ANALYSIS IN MG/L

AG....	CO3....	LI.... 0.06	ISOTOPES (0/00)	
AL.... 0.43	CR....	MG.... 6.		
AS.... L 0.005	CS....	MN.... 0.05		
R.... 1.6	F..... 1.2	NA.... 171.	SI02. 68.	
HF....	FE(TOT). L 0.1	NB....	S04.. 0.7	

HI..... GA..... NH4.. 0.5
 CA.... 16. H2S..... P04.. 0.09
 CD.... CL.... 16. K..... 12.
 CO.....

QUALIFICATION FIELD..... PH MEASURED IN LAB.

REFERENCE AND IDENTIFICATION

COMPILED BY..... ROWEN, RICHARD G.
 COMPILED AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 02
 REFERENCE..... *DOGAMI

RECORD 00008

 GEOTHERM_SAMPLE_FILE

GEOTHERM FILE ID: 0015469

NAME OF SAMPLE SOURCE... ACID-SULFATE SPRING ON MT. HOOD
 NARRA..... MT. HOOD
 WARNING NUMBER..... 01

LOCATION

TOWNSHIP-RANGE
 02S 00E 29

COORDINATES

LAT/LONG... 45-22.3 N 121-41.8 W
 UTM ZONE... +10
 NORTHING... 5024848.
 602059.

COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... CLACKAMAS
 GEOLOGIC PROVINCE.. CASCADES
 MAP REFERENCE..... MT. HOOD SOUTH 112400

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/06/25 HODGSON, L.

WATER ANALYSIS

DATE/ANALYST..... BARNES GROUP

PH..... 3.8
 SPECIFIC CONDUCTANCE..... 227.

ANALYSIS IN MG/L

AG....	CO3....	LI... L	0.01		
AL....	CR....	MG... L	2.8		
H....	F....	NA... L	5.4	S102..	19.
HF....	FE(TOT).	NB... L		S04..	77.

ISOTOPES (0/001)

CA.... 13.
 CL.... L 1.
 CO..... K..... 0.2

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 01
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00009

 GEOTHERM_SAMPLE_FILE

GEOTHERM FILE ID: 0000697

NAME OF SAMPLE SOURCE... AUSTIN HOT SPRINGS (CAREY)
 NARRA..... CAREY HOT SPRINGS
 WARNING NUMBER..... 04

LOCATION

TOWNSHIP-RANGE

SW OF NW

COORDINATES

LAT/LONG... 45-01.30 N 122-00.50 W
 UTM ZONE... +10
 NORTHING... 4985618.
 578131.

COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... CLACKAMAS
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... FISH CREEK MTN. 112500, VANCOUVER 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP
 TEMPERATURE (C)..... 86.0
 DISCHARGE..... 950. L/MIN
 WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE - MEMBRANE FILTER, METAL ANALYSES ACIDIFIED
 WITH NITRIC ACID, DILUTED
 DEPOSITS OR ALTERATION.... TRAVERTINE
 PERTINENT LITHOLOGY..... OLIVINE BASALT, BASALTIC ANDESITE, PYROXENE ANDESITE

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 7.63
 SPECIFIC CONDUCTANCE..... 1720.
 CHARGE IMBALANCE (% DIFF)... 6.5

ANALYSIS IN MG/L

AG.... L 0.02	CO ₃ L 1.	LI.... 0.4	S....
AL....	CR....	MG.... 0.1	SR.... L 0.2
AS.... 0.59	CS.... L 0.1	MN.... L 0.02	SC....
AU.... L 0.1	CU.... L 0.01		
B.... 2.6	F.... 1.4	NA.... 300.	SI02. 81.
BA.... L 0.1			
BF.... L 0.1	FE (TOT). L 0.02	NB....	S04.. 140.
BI....	GA....	NH4..	SR... 0.33
BR.... 2.			
CA.... 35.	HCO ₃ 56.		
CA.MG.	HG.... 0.0002	PB... L 0.06	
CD.... L 0.01	H ₂ S....	PO4.. 0.061	
CL.... 430.	I.... 0.03		
CO.... L 0.05	K.... 7.1	RB... 0.03	

ISOTOPES (0/00)

DEL D OF WATER..... -94.5
 DEL O(18) OF WATER... -12.22
 DEL O(18) OF S04..... -2.41

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 03
 REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00010

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0015422

NAME OF SAMPLE SOURCE... RAGHY HOT SPRINGS
 WELL/SPRING NUMBER..... 075/05E-268B
 WARING NUMBER..... 05

LOCATION

COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... CLACKAMAS
 GEOLOGIC PROVINCE..

TOWNSHIP-RANGE

075 005E 26 NW OF SW NW

COORDINATES

LAT/LONG... 44-56.15 N 122-10.35 W
 UTM ZONE... +10
 NORTHING... 4975938.
 565294.

MAP REFERENCE..... BATTLE AX 1162500, SALEM 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1970/03/02 BOWEN, RICHARD
 SAMPLE NUMBER..... 1659
 TEMPERATURE (C)..... 57.2
 DISCHARGE..... 151. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1970/04/01 HOSE, A. W.
 PH..... 9.7
 SPECIFIC CONDUCTANCE..... 290.
 ALKALITY..... 56. AS CaCO₃

TOTAL DISSOLVED SOLIDS... 240.
 CHARGE IMBALANCE (% DIFF)... 10.6
 ANALYSIS IN MG/L

AG....		CO3....	36.	MG...	0.1		
AL....	0.2	CR....		NA...	54.	SI02.	82.
H....	0.6	F....	0.68				
HA....		FE+3 L	0.02	NB...		SO4..	31.
HE....		FE(TOT).		NH4.. L	0.01		
HI....		GA....		PO4..	0.06		
CA....	3.7	H2S....					
CD....							
CL....	15.						
CO....		K.....	0.8				

ISOTOPES (0/00)

QUALIFICATION FIELD..... PH MEASURED IN LAB.
 REFERENCE AND IDENTIFICATION

COMPILED BY..... ROWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 04
 REFERENCE..... *DUGAMI

RECORD 0001

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015451

NAME OF SAMPLE SOURCE... BAGBY HOT SPRINGS
 WASHING NUMBER..... 05

LOCATION

COUNTRY.....	UNITED STATES	TOWNSHIP-RANGE	07S 00SE 26	NW OF SW NW
STATE.....	OREGON			
COUNTY.....	CLACKAMAS			
GEOLOGIC PROVINCE..	30			

COORDINATES

LAT/LONG...	44-56.15 N 122-10.35 W
UTM ZONE...	+10
NORTHING...	4975938.
	565294.

MAP REFERENCE..... BATTLE AX 1:62500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1977/09/18 MARINER, R. H. AND EVANS, W. C.
 TEMPERATURE (C)..... 58.

WATER TREATMENT..... FILTERED, ACIDIFIED, SILICA DILUTED, AND ALKALINITY DETERMINED IN THE FIELD

WATER ANALYSIS

DATE/ANALYST..... 1978/01/00 BARNES GROUP
 P..... 9.37 AT(C) 58.
 ALKALINITY..... 69. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 2.3

ANALYSIS IN MG/L

AG....		CO3....		LI...	0.02		
AL....		CR....		MG...	L 0.05		
H....	0.07	F....	0.66	NA...	53.	SI02.	74.
HA....		FE(TOT).		NB...		SO4..	42.
CA....	3.3	HCO3....	69.				
CL....	14.						
CO....		K.....	0.74				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 04
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00012

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015446

NAME OF SAMPLE SOURCE... GEOTHERMAL GRADIENT TEST NEAR AUSTIN HOT SPRINGS

WELL/SPRING NUMBER..... 065/07E-21C0

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 065 007E 21 SE OF SW
 STATE..... OREGON
 COUNTY..... CLACKAMAS
 GEOLOGIC PROVINCE.. 30
 MAP REFERENCE..... HIGH ROCK 1162500, THE DALLES 1125000

LAT/LONG... 45-01.65 N 121-57.80 W
 UTM ZONE... +10
 NORTHING... 4986311.
 581669.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/08/13 BOWEN, RICHARD G.
 SAMPLE NUMBER..... WS 76-226
 POINT OF COLLECTION.. OPEN HOLE PUMP TEST ZONES 120-130,400-450 FT
 TEMPERATURE (C)..... 35.6

WATER ANALYSIS

DATE/ANALYST..... 1976/10/19 JOHNSON, ELLEN M.
 PH..... 0 7.6
 SPECIFIC CONDUCTANCE..... 282.
 ALKALINITY..... 133. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 795.
 CHARGE IMBALANCE (% DIFF)... 7.5

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....	CO3....	LI...	0.01		
AL.... L 0.05	CR.....	MG...	2.6		
AS.... 0.07					
H.... 0.42	F..... 0.71	NA...	48.	SI02.	36.
RE....	FE(TOT). 18.	NB...		504..	0.6
HI....	GA.....	NH4...	0.11		
CA.... 12.	HCO3....	NO3...	0.38		
CD....	H2S....	PO4...	0.02		
CL.... 2.					
CO....	K..... 2.8				

QUALIFICATION FIELD..... PH MEASURED IN LAB.

REFERENCE AND IDENTIFICATION

COMPILED BY..... BOWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 05
 REFERENCE..... *DOGAMI

RECORD 00013

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015472

NAME OF SAMPLE SOURCE... MT. HOOD FUMARoles

WELL/SPRING NUMBER..... MT. HOOD

WELL NUMBER..... 01

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 025 009E 29
 STATE..... OREGON
 COUNTY..... CLACKAMAS
 GEOLOGIC PROVINCE.. CASCADES
 MAP REFERENCE..... MT. HOOD SOUTH 1124000

LAT/LONG... 45-22.3 N 121-41.8 W
 UTM ZONE... +10
 NORTHING... 5024848.
 602059.

OTHER LOCALITY INFORMATION: VENT ON NE BANK OF, AND 10 FT FROM BOTTOM OF, SHALLOW RAVINE ADJACENT TO AND EAST OF CRATER ROCK

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1951/00/00
 SAMPLE NUMBER..... 1
 TEMPERATURE (C)..... 89.4

OTHER SAMPLE INFORMATION.. SAME LOCATION AS SAMPLE 5 IN AYERS AND CRESWELL AND SAMPLE 2 IN PHILLIPS, 1935

GAS ANALYSIS

DATE/ANALYST..... 1951/00/00

ANALYSIS IN VOLUME %

CH4..	0.0010	H2S..	0.102
C2H6..		N2...	0.041
CO2..	2.2	O2...	0.0040
H2...	0.096		

ISOTOPES (00/01)

OTHER ANALYTICAL DATA... 97.5% H2O, 0.007% INERT GASES

REFERENCE AND IDENTIFICATION

COMPILER CROSS INDEX... NEH-964
 REFERENCE..... AYERS AND CRESWELL, 1951

RECORD 00014

GEOTHERM SAMPLE TITLE

GEOTHERM FILE ID: 0015473

NAME OF SAMPLE SOURCE... MT. HOOD FUMARULES

KORRA..... MT. HOOD

WARNING NUMBER..... 01

LOCATION

TOWNSHIP=RANGE

COORDINATES

COUNTRY..... UNITED STATES 025 009E 29

LAT/LONG... 45-22.3 N 121-41.8 W

STATE..... OREGON

UTM ZONE... +10

COUNTY..... CLACKAMAS

NORTHING... 5024848.

GEOLOGIC PROVINCE.. CASCADES

602059.

MAP REFERENCE..... MT. HOOD SOUTH 1:24000

OTHER LOCALITY INFORMATION: VENT ON NE BANK OF, AND 10 FT FROM BOTTOM OF, SHALLOW RAVINE ADJACENT TO AND EAST OF

CRATER ROCK

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1951/00/00

SAMPLE NUMBER..... 5

OTHER SAMPLE INFORMATION.. SAME LOCATION AS SAMPLE 1 IN AYERS AND CRESWELL AND SAMPLE 2 IN PHILLIPS, 1935

GAS ANALYSIS

DATE/ANALYST..... 1951/00/00

ANALYSIS IN VOLUME %

CH4..	0.0014	H2S..	0.102
C2H6..		N2...	0.044
CO2..	2.1	O2...	0.0038
H2...	0.097		

ISOTOPES (00/01)

OTHER ANALYTICAL DATA... 97.6% H2O, 0.006% INERT GASES.

REFERENCE AND IDENTIFICATION

COMPILER BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... NEH-966
 REFERENCE..... AYERS AND CRESWELL, 1951

RECORD 00015

GEOTHERM SAMPLE TITLE

GEOTHERM FILE ID: 0015474

NAME OF SAMPLE SOURCE... MT. HOOD FUMARULES

KORRA..... MT. HOOD

WARNING NUMBER..... 01

LOCATION

TOWNSHIP=RANGE

COORDINATES

COUNTRY..... UNITED STATES 02S 009E 29 LAT/LONG... 45-22.3 N 121-41.8 W
 STATE..... OREGON UTM ZONE... +10
 COUNTY..... CLACKAMAS NORTHING... 5024848.
 GEOLOGIC PROVINCE.. CASCADES 602059.
 MAP REFERENCE..... MT. HOOD SOUTH 1124000
 OTHER LOCALITY INFORMATION: SMALL OPENING IN AREA OF HOT ROCKS AT BASE OF CHUTE. AREA IS WEST OF SNOW RIDGE CALLED

MOGBACK

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1951/00/00
 SAMPLE NUMBER..... 2
 TEMPERATURE (C)..... 91.1

GAS ANALYSIS

DATE/ANALYST..... 1951/00/00

ANALYSIS IN VOLUME %

CH ₄ ..	0.0011	H ₂ S..	0.045
CO ₂ ..	1.8	O ₂ ..	0.0067
H ₂ ..	0.080		

ISOTOPES (00/01)OTHER ANALYTICAL DATA... 98% H₂O, 0.049% N₂ AND INERT GASES

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... NEH-967
 REFERENCE..... AYERS AND CRESWELL, 1951

RECORD 00016

 GEOTHERM SAMPLE TITLE

GEOTHERM FILE ID: 0015937

NAME OF SAMPLE SOURCE... MT. HOOD FUMARoles
 AREA..... MT. HOOD
 WARING NUMBER..... 01

LOCATION

TOWNSHIP=RANGE

COORDINATES

COUNTRY..... UNITED STATES 02S 009E 29
 STATE..... OREGON
 COUNTY..... CLACKAMAS
 GEOLOGIC PROVINCE.. CASCADES
 MAP REFERENCE..... MT. HOOD SOUTH 1124000

LAT/LONG... 45-22.3 N 121-41.8 W
 UTM ZONE... +10
 NORTHING... 5024848.
 602059.

OTHER LOCALITY INFORMATION: LARGE FISSURE IN EAST SIDE OF NORTH RIDGE OF CRATER ROCK, ABOUT 15-20 BELOW SUMMIT OF RIDGE

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1951/00/00
 SAMPLE NUMBER..... 4
 TEMPERATURE (C)..... 86.1

OTHER SAMPLE INFORMATION.. SAME AS SAMPLE 3 IN PHILLIPS, 1935

GAS ANALYSIS

DATE/ANALYST..... 1951/00/00

GAS/WATER RATIO.. 0.0.7

ANALYSIS IN VOLUME %

CH ₄ ..		H ₂ S..	N
C ₂ H ₆ ..		N ₂ ..	9.8
CO ₂ ..	17.	O ₂ ..	2.5

ISOTOPES (00/01)OTHER ANALYTICAL DATA... 70% H₂O, 0.13% INERT GASES

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... NEH-968
 REFERENCE..... AYERS AND CRESWELL, 1951

RECORD 00017

GEOTHERM FILE 101 0015950

GEOTHERM SAMPLE FILENAME OF SAMPLE SOURCE... MT. HOOD FUMARoles
KARA..... MT. HOOD
WELPING NUMBER..... 01

LOCATION

COUNTRY..... UNITED STATES
STATE..... OREGON
COUNTY..... CLACKAMAS
GEOLOGIC PROVINCE.. CASCADES
MAP REFERENCE..... MT. HOOD SOUTH 1124000TOWNSHIP-RANGE
02S 009E 29

COORDINATES

LAT/LONG... 45-22.3 N 121-41.8 W
UTM ZONE... +10
NORTHING... 5024848.
602059.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1935/00/00
SAMPLE NUMBER..... 3TEMPERATURE (C)..... 71.1
OTHER SAMPLE INFORMATION.. SAME LOCATION AS SAMPLE 4 IN AYERS AND CRESWELL, 1951

GAS ANALYSIS

DATE/ANALYST..... 1935/00/00

ANALYSIS IN VOLUME %

ISOTOPES (00/0)

CH4.. N2S.. N
C2H6.. N2... 79.
CO2.. 0.68 O2... 20.
H2... 0.58OTHER ANALYTICAL DATA... PRACTICALLY ALL THE WATER CONDENSED IN THE COLLECTING TUBE AND DRAINED BACK INTO THE FUMAROLE.
REFERENCE AND IDENTIFICATIONCOMPILED BY..... MARINER, R. H.
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
COMPILER CROSS INDEX... NEH-969
REFERENCE..... PHILLIPS, 1936

RECORD 00018

GEOTHERM FILE 101 0015951

GEOTHERM SAMPLE FILENAME OF SAMPLE SOURCE... MT. HOOD FUMARoles
KARA..... MT. HOOD
WELPING NUMBER..... 01

LOCATION

COUNTRY..... UNITED STATES
STATE..... OREGON
COUNTY..... CLACKAMAS
GEOLOGIC PROVINCE.. CASCADES
MAP REFERENCE..... MT. HOOD SOUTH 1124000TOWNSHIP-RANGE
02S 009E 29

COORDINATES

LAT/LONG... 45-22.3 N 121-41.8 W
UTM ZONE... +10
NORTHING... 5024848.
602059.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1935/00/00
SAMPLE NUMBER..... 2TEMPERATURE (C)..... 89.4
OTHER SAMPLE INFORMATION.. SAME LOCATION AS SAMPLES 1 & 5 IN AYERS AND CRESWELL, 1951

GAS ANALYSIS

DATE/ANALYST..... 1935/00/00

ANALYSIS IN VOLUME %

ISOTOPES (00/0)

CH4.. N2S.. 0.024
C2H6.. N2... 0.057
CO2.. 1.3 O2... 0.0017
H2... I

OTHER ANALYTICAL DATA... 98.6% H₂O 0.0007% INERT GASES
 REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... NEH-970
 REFERENCE..... PHILLIPS, 1936

RECORD 00019

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015952

NAME OF SAMPLE SOURCE... MT. HOOD FUMARoles
 KGRA..... MT. HOOD
 WORKING NUMBER..... 01

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 02S 009E 29
 STATE..... OREGON
 COUNTY..... CLACKAMAS
 GEOLOGIC PROVINCE.. CASCADES
 MAP REFERENCE..... MT. HOOD SOUTH 112400

COORDINATES
 LAT/LONG... 45-22.3 N 121-41.8 W
 UTM ZONE... +10
 NORTHING... 5024848.
 602059.

OTHER LOCALITY INFORMATION: LARGE VENT 400-500 FT UP-SLOPE FROM REMAINS OF OLD STONE SHELTER AND NE OF IT.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1951/00/00
 SAMPLE NUMBER..... 3
 TEMPERATURE (C)..... 89.4

DEPOSITS OR ALTERATION... CRYSTALLINE SULFUR OCCURS AT THE VENT.

OTHER SAMPLE INFORMATION.. SAME AS SAMPLE 6 IN AYERS AND CRESWELL AND SAMPLE 1 IN PHILLIPS, 1935

GAS ANALYSIS

DATE/ANALYST..... 1951/00/00
 GAS/WATER RATIO.. 0 0.984

ANALYSIS IN VOLUME%

CH ₄ ..	0.00063	H ₂ S..	0.176
C ₂ H ₆ ..		N ₂ ..	0.032
CO ₂ ..	1.4	O ₂ ..	0.0036
H ₂ ..	0.0045		

ISOTOPES (OOZOL)

OTHER ANALYTICAL DATA... 98.4% H₂O 0.0002% INERT GASES

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... NEH-962
 REFERENCE..... AYERS AND CRESWELL, 1951

RECORD 00020

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015471

NAME OF SAMPLE SOURCE... MT. HOOD FUMARoles
 KGRA..... MT. HOOD
 WORKING NUMBER..... 01

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 02S 009E 29
 STATE..... OREGON
 COUNTY..... CLACKAMAS
 GEOLOGIC PROVINCE.. CASCADES
 MAP REFERENCE..... MT. HOOD SOUTH 112400

COORDINATES
 LAT/LONG... 45-22.3 N 121-41.8 W
 UTM ZONE... +10
 NORTHING... 5024848.
 602059.

OTHER LOCALITY INFORMATION: LARGE VENT 400-500 FT UP-SLOPE FROM REMAINS OF OLD STONE SHELTER AND NE OF IT

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1951/00/00

SAMPLE NUMBER..... 6
 DEPOSITS OR ALTERATION... CRYSTALLINE SULFUR OCCURS AT THE VENT
 OTHER SAMPLE INFORMATION.. SAME LOCATION AS SAMPLE 3 IN AYERS AND CRESWELL AND SAMPLE 1 IN PHILLIPS, 1935
 GAS ANALYSIS

DATE/ANALYST..... 1951/00/00
 ANALYSIS IN VOLUME %

CH4..	0.00057	H2S..	0.181
C2H6..		N2...	0.035
CO2..	1.5	O2...	0.0043
H2...	0.0042		

ISOTOPES (00/01)

OTHER ANALYTICAL DATA... 98.3% H2O, 0.0004% INERT GASES
 REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... NEH-963
 REFERENCE..... AYERS AND CRESWELL, 1951

RECORD 00021

 GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015470

NAME OF SAMPLE SOURCE... MT. HOOD FUMARoles
 AREA..... MT. HOOD
 WELL/SPRING NUMBER..... 01

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 025 09E 29
 STATE..... OREGON
 COUNTY..... CLACKAMAS
 GEOLOGIC PROVINCE.. CASCADES
 MAP REFERENCE..... MT. HOOD SOUTH 1124000

LAT/LONG... 45-22.3 N 121-41.8 W
 UTM ZONE... +10
 NORTHING... 5024848.
 602059.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1935/00/00
 SAMPLE NUMBER..... 1
 TEMPERATURE (C)..... 89.4

OTHER SAMPLE INFORMATION.. LOCATION SAME AS SAMPLES 3 & 6 IN AYERS AND CRESWELL, 1951

GAS ANALYSIS

DATE/ANALYST..... 1935/00/00
 ANALYSIS IN VOLUME %

CH4..	0.0011	H2S..	0.038
C2H6..		N2...	0.116
CO2..	1.1	O2...	0.011
H2...	0.0033		

ISOTOPES (00/01)

OTHER ANALYTICAL DATA... 98.7% H2O, 0.0014% INERT GASES
 REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... NEH-965
 REFERENCE..... PHILLIPS, 1936

RECORD 00022

 GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015421

NAME OF SAMPLE SOURCE... SWIM WARM SPRINGS
 WELL/SPRING NUMBER..... 03S/8.5E-24CA
 WELL NUMBER..... 02

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 03S 008.5E24 NE OF SW

LAT/LONG... 45-17.7 N 121-44.3 W

STATE..... OREGON
 COUNTY..... CLACKAMAS
 GEOLOGIC PROVINCE... 30
 MAP REFERENCE..... MT. HOOD SOUTH 1124000, THE DALLES 1125000
 OTHER LOCALITY INFORMATION: EAST SIDE OLD SWIMMING POOL
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/12/02 HOWEN, RICHARD G.
 SAMPLE NUMBER..... WS-76-276
 TEMPERATURE (C)..... 26.0
 DISCHARGE..... 7.8 L/MIN
 WATER TREATMENT..... 2 LITER SAMPLES COLLECTED, 1 ACIDIFIED WITH HCL, 1 RAW WATER NON-FILTERED

UTM ZONE... +10
 NORTHING... 5016279.
 598930.

WATER ANALYSIS

DATE/ANALYST..... 1977/01/20 BANERJEE, KALA C
 PH..... 7.3 AT(C) 26.
 SPECIFIC CONDUCTANCE..... 1300.
 ALKALINITY..... 179. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 988.
 CHARGE IMBALANCE (% DIFF)... 6.1

ANALYSIS IN MG/L

AG.....	CO3.....	LI... 0.13			
AL... L 0.02	CR.....	MG... 48.	SB...	DEL 0(18) OF WATER... -14.01	
AS... L 0.005	CS.....	MN... L 0.05	SC...	DEL 0(18) OF SO4..... 1.52	
H..... 0.32	F..... 0.23	NA... 136.	SI02... 72.		
HF.....	FE(TOT). L 0.05	NB...	SO4... 205.		
HI.....	GA.....	NH4... 0.05			
CA... 60.	HCO3.....	NO3... L 0.02			
CD.....	H2S..... T	PO4... 0.09			
CL... 161.					
CO.....	K..... 11.7				

ISOTOPES (0/00)

OTHER ANALYTICAL DATA... H2S DETECTABLE

REFERENCE AND IDENTIFICATION

COMPILED BY..... ROWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 02
 REFERENCE..... *OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

RECORD 00023

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0001702

NAME OF SAMPLE SOURCE... CAMP CREEK
 LOCATION

TOWNSHIP-RANGE

COORDINATES

LAT/LONG... 44-00.6 N 120-09.0 W

COUNTRY..... UNITED STATES

STATE..... OREGON

COUNTY..... CROOK

GEOLOGIC PROVINCE... 32

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 23.

DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.

REFERENCE..... RUSSELL, 1905

RECORD 00024

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0003017

NAME OF SAMPLE SOURCE... CHAUCK WELLS

WELL/SPRING NUMBER..... 16S-14E-003-DAA
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE 16S 014E 03 NE OF NE SE
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... CROOK
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... POWELL BUTTES, ORE. 1124000

COORDINATES
 LAT/LONG... 44-12.73 N 121-01.02 W

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1980/12/03 PETROS, JOHN R.
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 24.3
 DISCHARGE..... 30. L/MIN

WATER ANALYSIS
 DATE/ANALYST..... / / KRONEMAN, RUTH
 PH..... 8.05 AT(C) 24.
 SPECIFIC CONDUCTANCE..... 350.
 TOTAL DISSOLVED SOLIDS... 140.

ANALYSIS IN PPM

AG... L 0.050	CO3... LI... L 0.050	SB... L 0.750
AL... L 0.625	CR... L 0.050	MG... 1.0
AS... L 0.625	CS... MN... L 0.250	
AU... L 0.1	CU... L 0.063	MO... L 1.3
R... L 0.125	F... 0.6	NA... 56.
RA... L 0.625	FE+3... NA+K.	SI02. 10.
RE... L 0.005	FE(TOT). 0.25	SN... L 0.125
RI... L 2.5	GA... NH... S04.. 20.	SR... 0.06
RR... GE... NH4.. N	NI... L 0.125	
CA... 14.	HCO3... NO3.. TI... L 0.125	
CA+MG.	HG... PB... L 0.250	U... L 6.3
CD... L 0.063	H2S... PO4.. L 2.0	V... L 1.3
CL... 10.	I... RA... W... L 0.125	ZN... L 0.125
CO... L 0.025	K... L 2.5	

ISOTOPES 10/2001

REFERENCE AND IDENTIFICATION
 COMPILED BY..... PETROS, JOHN R.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN HOUSE STUDY. DOE CONTRACT DE-FC07-79ET-27220.

RECORD 00025

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... DEADMAN SPRINGS
 WELL/SPRING NUMBER..... 16S-15E-016-CC

GEOTHERM FILE ID: 0003007

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE 16S 015E 16 SW OF SW
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... CROOK
 GEOLOGIC PROVINCE.. HIGH LAVA PLAINS
 MAP REFERENCE..... POWELL BUTTES, ORE. 1162500

COORDINATES
 LAT/LONG... 44-10.045N 120-56.020W

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/09/18 BROWN, DAVID E.
 POINT OF COLLECTION.. SPRING ORIFICE
 TEMPERATURE (C)..... 13.

WATER ANALYSIS
 DATE/ANALYST..... 1980/10/11 BANERJEE, KALA C.
 PH..... 6.6 AT(C) 13.
 SPECIFIC CONDUCTANCE..... 145.

ALKALINITY..... 60. AS CACO3
 TOTAL DISSOLVED SOLIDS... 134.
 CHARGE IMBALANCE (% DIFF)... 28.6
 ANALYSIS IN MG/L

AG....		CO3....		LI... L	0.01		
AL....	0.13	CR....		MG... L	5.9		
AS....	L 0.005	CS....		MN... L	0.05		
R....	0.18	F....	0.2	NA... L	10.	SI02.	52.
HE....		FE(TOT)..	0.06	NB...		S04..	31.
HI....		GA....		NH4..	0.07		
CA....	11.	HCO3....		NO3..	0.02		
CA+MG.		HG....	L 0.001	PO4..	0.8		
CO....		H2S....					
CL....	5.4						
CO....		K....	1.3				

ISOTOPES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... PETROS, JOHN R.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGMAI IN HOUSE STUDY. DOE CONTRACT DE-FC07-79ET-27220.

RECORD 00026

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003021

NAME OF SAMPLE SOURCE... E. MECKER WELL
 WELL/SPRING NUMBER..... 16S-14E-010-AAA

LOCATION

COUNTRY..... UNITED STATES 16S 014E 10 NE OF NE NE
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... CROOK
 GEOLOGIC PROVINCE.. 32

COORDINATES

LAT/LONG... 44-11.42 N 121-01.65 W

MSP REFERENCE..... POWELL BUTTES, ORE. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/12/03 PETROS, JOHN R.
 POINT OF COLLECTION.. HOUSE TAP
 TEMPERATURE (C)..... 24.9
 DISCHARGE..... 45. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/12/ KRONEMAN, RUTH
 PH..... 7.3 AT(C) 25.
 SPECIFIC CONDUCTANCE..... 400.
 TOTAL DISSOLVED SOLIDS... 196.

ANALYSIS IN PPM

AG....	L 0.050	CO3....		LI... L	0.06		
AL....	L 0.625	CR....	L 0.050	MG... L	6.0	SB... L	0.750
AS....	L 0.625	CS....		MN... L	0.250		
AU....	L 0.1	CU....	L 0.063	MO... L	1.3		
R....	L 0.125	F....	1.7	NA... L	49.	SI02.	24.
RA....	0.8	FE+3....		NA+K.		SN... L	0.125
HE....	L 0.005	FE(TOT)..	0.11	NH...		S04..	30.
HI....	L 2.5	GA....		NH4..	N	SR... L	0.12
RR....		GE....		NI... L	0.125		
CA....	18.	HCO3....		NO3..		TI... L	0.125
CA+MG.		HG....		PB... L	0.250	U.... L	6.3
CO....	L 0.063	H2S....		PO4.. L	2.0	V.... L	1.3
CL....	9.0	I....		RA...		W.... L	0.125
CO....	L 0.025	K....	L 2.5	ZN... L			2.2

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETROS, JOHN R.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGMAI IN HOUSE STUDY. DOE CONTRACT DE-FC07-79ET-27220.

RECORD 00027

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0003018

NAME OF SAMPLE SOURCE... JACKSON WELL
 WELL/SPRING NUMBER..... 16S-14E-016-DAA

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 16S 014E 16 NE OF NE SE LAT/LONG... 44-11.1 N 121-02.9 W
 STATE..... OREGON B&M: WILLAMETTE
 COUNTY..... CROOK
 GEOLOGIC PROVINCE.. 32

MAP REFERENCE..... POWELL BUTTES, ORE. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/12/01 BROWN, D.E. AND PETROS, J.R.
 POINT OF COLLECTION.. WEILHEAD
 TEMPERATURE (C)..... 27. AT (M).. 131.
 DISCHARGE..... 3.8 L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/ / KRONEMAN, RUTH
 P..... 7.8 AT(C) 28.
 SPECIFIC CONDUCTANCE..... 340.
 TOTAL DISSOLVED SOLIDS... 154.

ANALYSIS IN PPM

ISOTOPES (0/00)

AG... L 0.050	CO3... ..	LI... L 0.050		
AL... L 0.625	CR... L 0.050	MG... 6.0	SB... L 0.750	
AS... L 0.625	CS... ..	MN... L 0.250		
AU... L 0.1	CU... 1.1	MO... L 1.3		
B... L 0.125	F... 2.7	NA... 31.	SI02. 26.	
BA... L 0.625	FE+3... ..	NA+K... ..	SN... L 0.125	
BE... L 0.005	FE(TQT)... L 0.025	NB... ..	S04... 24.	
BI... L 2.5	GA... ..	NH4... T	SR... 0.12	
BR... ..	GE... ..	NI... L 0.125		
CA... 2).	HCO3... ..	NO3... ..	TI... L 0.125	
CA+MG... ..	HG... ..	PB... L 0.250	U... L 6.3	
CD... L 0.063	H2S... ..	PO4... L 2.0	V... L 1.3	
CL... 13.	I... ..	RA... ..	W... L 0.125	
CO... L 0.025	K... 3.0		ZN... 4.4	

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETROS, JOHN R.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGMAI IN HOUSE STUDY. DOE CONTRACT DE-FC07-79ET-27220.

RECORD 00028

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0003014

NAME OF SAMPLE SOURCE... PH-1 DOGAMI DRILL HOLE
 WELL/SPRING NUMBER..... 16S-14E-016-AAB

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 16S 014E 016 NW OF NE NE LAT/LONG... 44-09.022N 121-03.013W
 STATE..... OREGON B&M: WILLAMETTE
 COUNTY..... CROOK
 GEOLOGIC PROVINCE.. 32

M-P REFERENCE..... POWELL BUTTES, ORE. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/12/ MCLEAN, GARY
 TEMPERATURE (C)..... 32.5
 DISCHARGE..... 95. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/12/ KRONEMAN, RUTH
 PH..... 8.75 AT(C) 33.
 TOTAL DISSOLVED SOLIDS... 286.

ANALYSIS IN PPM

AG.... L 0.050	CO3.....	LI... L 0.050			
AL.... 1.6	CR..... L 0.050	MG... 3.0	SB... L 0.750		
AS.... L 0.625	CS.....	MN... L 0.250			
AU.... L 0.1	CU..... L 0.063	MO... L 1.3			
H.... L 0.125	F..... 0.4	NA... 43.	SI02. 46.		
RA.... L 0.625	FE+3... 2.1	NA+K.	SN... L 0.125		
HF.... L 0.005	FE(TQT). 2.1	NB...	SO4.. 40.		
HI.... L 2.5	GA.....	NH4.. 2.3	SR... 0.03		
HR....	GE.....	NI... L 0.125			
CA.... 7.0	HCO3...	NO3..	TI... 0.3		
CA+MG.	HG.....	PB... 0.250	U.... L 6.3		
CD.... L 0.063	H2S.....	PO4.. L 2.0	V.... L 1.3		
CL.... 10.	I.....	RA... 6.0	W.... L 0.125		
CO.... L 0.025	K.....		ZN... 1.0		

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETROS, JOHN R.
 COMPILER AFFILIATION... DOGMAI
 REFERENCE..... *DOGMAI IN HOUSE STUDY. DOE CONTRACT DE-FC07-79ET-2722U.

RECORD 00029

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003033

NAME OF SAMPLE SOURCE... SAMPALUESI WELL
 WELL/SPRING NUMBER..... 15S-15E-029-ABA

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 15S 01E 29 NE OF NW NE
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... CROOK
 GEOLOGIC PROVINCE... 32

COORDINATES

LAT/LONG... 44-14.80 N 120-57.17 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/12/05 PETROS, JOHN R.
 POINT OF COLLECTION.. WEILHEAD
 TEMPERATURE (C)..... 21.6
 DISCHARGE..... 15. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/ / KRONEMAN, RUTH.
 PH..... 7.6 AT(C) 22.
 SPECIFIC CONDUCTANCE..... 440.
 TOTAL DISSOLVED SOLIDS... 268.

ANALYSIS IN PPM

AG.... L 0.050	CO3.....	LI... L 0.050			
AL.... L 0.625	CR..... L 0.050	MG... 6.0	SH... L 0.75		
AS.... L 0.625	CS.....	MN... L 0.25			
AU.... L 0.1	CU..... L 0.063	MO... L 1.3			
H.... L 0.125	F..... 1.1	NA... 49.	SI02. 27.		
RA.... L 0.625	FE+3... 2.1	NA+K.	SN... L 0.125		

ISOTOPES (0/00)

HE.... L 0.005	FE(TOT) L 0.025	NB...	S04.. 25.
HI.... L 2.5	GA.....	NH4.. N	SR... 0.24
HR....	GE.....	NI... L 0.125	
CA... 24.	HCO3....	NO3..	TI... L 0.125
CA+MG.	HG.....	PB... L 0.250	U.... L 6.3
CI.... L 0.063	H2S.....	PO4.. L 2.0	V.... L 1.3
CL.... 17.	I.....	RA...	W.... L 0.125
CO... L 0.025	K..... L 2.5		ZN... 0.6

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETROS, JOHN R.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGMAI IN HOUSE STUDY. DOE CONTRACT DE-FC07-79ET-27220.

RECORD 00030

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0003016

NAME OF SAMPLE SOURCE... T. BEARDY WELL
 WELL/SRING NUMBER..... 16S-14E-015-ACD

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 16S 014E 15 NE OF NW NE LAT/LONG... 44-11.23 N 121-02.05 W
 STATE..... OREGON B&M; WILLAMETTE
 COUNTY..... CROOK
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... POWELL BUTTES, ORE. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/12/03 PETROS, JOHN R.
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 24.5
 DISCHARGE..... 45. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/ / KRONEMAN, RUTH
 P1..... 7.1 AT(C) 25.
 SPECIFIC CONDUCTANCE... 260.
 TOTAL DISSOLVED SOLIDS... 142.

ANALYSIS IN PPM

ISOTOPES (0/001)

AG.... L 0.050	CO3.....	LI... 0.07	
AL.... L 0.625	CR..... L 0.050	MG... 5.0	SB... L 0.750
AS.... L 0.625	CS.....	MN... L 0.250	
AU.... L 0.1	CU..... L 0.063	MO... L 1.3	
H.... L 0.125	F..... 0.4	NA... 37.	SI02. 32.
HA.... 1.7	FE+3....	NA+K.	SN... L 0.125
HF.... L 0.005	FE(TOT). 0.43	NB...	S04.. 31.
HI.... L 2.5	GA.....	NH4.. N	SR... 0.12
HR....	GE.....	NI... L 0.125	
CA.... 23.	HCO3....	NO3..	TI... L 0.125
CA+MG.	HG.....	PB... L 0.250	U.... L 6.3
CI.... L 0.063	H2S.....	PO4.. L 2.0	V.... L 0.125
CL.... 9.0	I.....	RA...	W.... L 0.125
CO... L 0.025	K..... L 2.5		ZN... 2.6

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETROS, JOHN R.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGMAI IN HOUSE STUDY. DOE CONTRACT DE-FC07-79ET-27220.

RECORD 00031

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001605

NAME OF SAMPLE SOURCE... T. U. MARSHALL WELL
 WELL/SPRING NUMBER... 165-14E-021-ARB
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 165 014E 21 NW OF NW NE
 COUNTY..... CROOK B&M: WILLAMETTE
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... POWELL BUTTES, ORE. 1124000

COORDINATES

LAT/LONG... 44-10.73 N 121-03.30 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/12/03 PETROS, JOHN R.
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 13.3

WATER ANALYSIS

DATE/ANALYST..... 1980/00/00 KRONEMAN, RUTH.
 P1..... 7.8 AT(C) 33.
 SPECIFIC CONDUCTANCE..... 250.
 TOTAL DISSOLVED SOLIDS... 120.

ANALYSIS IN PPM

AG.... L 0.050	CO3.....	LI... L 0.050		
AL.... L 0.625	CH..... L 0.050	MG... 1.0	SB... L 0.75	
AS.... L 0.625	CS.....	MN... L 0.250		
AU.... L 0.1	CU..... L 0.063	MO... L 1.3		
B.... L 0.125	F..... 0.4	NA... 33.	SI02. 22.	
BA....	FE+3....	NA+K.	SN... L 0.125	
BF.... L 0.005	FE(TOT). 0.03	NB...	S04.. 18.	
BT.... L 2.5	GA.....	NH4..	SR... 0.02	
BR....	GE.....	NI... L 0.125		
CA.... 6.0	HCO3....	NO3..	TI... L 0.125	
CA+MG.	MG.....	PB... L 0.250	U.... L 6.3	
CD.... L 0.063	H2S.....	PO4.. L 2.0	V.... L 1.3	
CL.... 13.	I.....	RA...	W.... L 0.125	
CO.... L 0.025	K..... L 2.5		ZN... 0.7	

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETROS, JOHN R.
 COMPILER AFFILIATION... DUGAMI
 REFERENCE..... *DUGMAI IN HOUSE STUDY. DOE CONTRACT DE-FC07-79ET-27220.

RECORD 00032

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001703

NAME OF SAMPLE SOURCE... (UNNAMED) SPRING ON S. FORK CROOKED RIVER
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 175 022E
 COUNTY..... CROOK
 GEOLOGIC PROVINCE.. 32

COORDINATES

LAT/LONG... 44-04.2 N 120-02.4 W

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 31.
 DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MAHNER, R. & BRUOK, C.
 REFERENCE..... RUSSELL, 1905

RECORD 00033

GEOTHERM FILE ID: 0003015

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... WEIGAND WELL
WELL/SPRING NUMBER..... 155-14E-033-00A

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 155 014E 33 NE OF SE SE LAT/LONG... 44-15.5 N 121-03.0 W
STATE..... OREGON 86M: WILLAMETTE
COUNTY..... CROOK

GEOLOGIC PROVINCE.. 32
MAP REFERENCE..... POWELL BUTTES, ORE. 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/12/05 PETROS, JOHN R.
POINT OF COLLECTION.. WELLHEAD
TEMPERATURE (C)..... 24.

WATER ANALYSIS

DATE/ANALYST..... 1980/ / KRONEMAN, RUTH
PH..... 7.75 AT(C) 24.
SPECIFIC CONDUCTANCE.... 280.
TOTAL DISSOLVED SOLIDS... 196.

ANALYSIS IN PPM

ISOTOPES (0/00)

AG.... L 0.050	CO3.....	LI... L 0.050		
AL.... L 0.625	CR..... L 0.050	MG... 9.0	SB... L 0.75	
AS.... L 0.625	CS.....	MN... L 0.250		
AU.... L 0.1	CU..... L 0.063	MO... L 1.3		
H..... 0.2	F..... 0.4	NA... 21.	SI02. 31.	
HA.... L 0.625	FE+3....	NA+K. L 0.125	SN... L 0.125	
HE.... L 0.005	FE(TQT). L 0.025	NB... L 0.125	SO4.. 10.	
HI.... L 2.5	GA.....	NH4.. N	SR... 0.06	
HR....	GE.....	NI... L 0.125		
CA.... 12.	HCO3....	NO3.. L 0.125	TI... L 0.125	
CA+MG.	HG.....	PB... L 0.250	U.... L 6.3	
CD.... L 0.063	H2S....	PO4.. L 1.9	V.... L 1.3	
CL.... 6.0	I.....	RA... L 0.125	W.... L 0.125	
CO.... L 0.025	K..... L 2.5		ZN... 0.3	

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETROS, JOHN R.
COMPILER AFFILIATION... DOGAMI
REFERENCE..... *DOGMAI IN HOUSE STUDY. DOE CONTRACT DE-FC07-79ET-27220.

RECORD 00034

GEOTHERM FILE ID: 0003009

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... DECKER WELL NO. 2
WELL/SPRING NUMBER..... 205-16E-024-CCC

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 205 016E 24 SW OF SW SW LAT/LONG... 43-48.026N 120-45.053W
STATE..... OREGON 86M: WILLAMETTE
COUNTY..... DESCHUTES

GEOLOGIC PROVINCE.. 32
MAP REFERENCE..... MILLICAN S.E., ORE. 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/12/02 BROWN, D.E., PETROS, J.R.
POINT OF COLLECTION.. WELLHEAD
TEMPERATURE (C)..... 25.1

WATER ANALYSIS

DATE/ANALYST..... 1980/ / KRONEMAN, RUTH
 PH..... 7.35 AT(C) 25.
 SPECIFIC CONDUCTANCE.... 300.
 TOTAL DISSOLVED SOLIDS... 178.

ANALYSIS IN PPM

AG.... L 0.050	CO3.....	LI... L 0.050	
AL.... L 0.625	CR..... L 0.050	MG... 12.	SB... L 0.750
AS.... L 0.625	CS.....	MN... L 0.25	
AU.... L 0.1	CU..... 0.063	MO... L 1.3	
H..... L 0.125	F..... 0.3	NA... 19.	SI02. 41.
HA.... L 0.625	FE+3....	NA+K.	SN... L 0.125
HF.... L 0.005	FE(TQT). L 0.025	NB...	SO4.. 11.
HI.... L 2.5	GA.....	NH4.. T	SR... 0.11
HR....	GF.....	NI... L 0.125	
CA.... 16.	HCO3....	NO3..	TI... L 0.125
CA+MG.	HG.....	PB... L 0.250	U.... L 6.3
CO.... L 0.063	H2S....	PO4.. L 2.0	V.... L 1.3
CL.... 8.0	I.....	RA...	W.... L 0.125
CO.... L 0.025	K..... 5.0		ZN... 0.2

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETROS, JOHN R.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGMAI IN HOUSE STUDY, DOE CONTRACT DE-FC07-79ET-27220.

RECORD 00035

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0000/81

NAME OF SAMPLE SOURCE... FAST LAKE HOT SPRINGS

WATER NUMBER..... 33

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 21S 01E 29 SW

STATE..... OREGON

COUNTY..... DESCHUTES

GEOLOGIC PROVINCE..

MAP REFERENCE..... NEWBERRY CHATER 1:125000, CRESCENT 1:250000

COORDINATES

LAT/LONG... 43-43.1 N 121-12.2 W

UTM ZONE... +10

NORTHING... 4841942.

644731.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1973/00/00 BARNES GROUP

TEMPERATURE (C)..... 62.0

WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE MEMBRANE FILTER, METAL ANALYSES ACIDIFIED,

DILUTED.

WATER ANALYSIS

DATE/ANALYST..... 1973/00/00 BARNES GROUP

PH..... 6.49

SPECIFIC CONDUCTANCE.... 396.

ALKALINITY..... 184.

AS HCO3

CHARGE IMBALANCE (% DIFF)... 10.3

ANALYSIS IN MG/L

AG.... L 0.02	CO3.....	LI... 0.01	S....	
AL....	CR.....	MG... 16.	SB... L 0.2	
AS....	CS..... L 0.1	MN... 0.1		
AU.... L 0.1	CU..... 0.01			
H..... 0.93	F..... 0.2	NA... 32.	SI02. 36.	
HA.... L 0.1				
HF.... L 0.1	FE(TQT). L 0.02	NB...	SO4.. 58.	
HI....	GA.....	NH4..	SR... 0.14	

ISOTOPES (0/00)

DEL D OF WATER..... -70.2

DEL O(18) OF WATER... -9.42

CA.... 38. HCO3... 184.
 CA+MG. HG..... 0.0003 PB... L 0.06
 CO.... L 0.01
 CL.... 0.4
 CO.... L 0.05 K..... 3.8 RB... L 0.02
GAS ANALYSIS
 ANALYSIS IN VOLUME %
 CH4... 9.
 C2H6... N2... 30.
 CO2... 56.

ISOIOPES (00/0)

OTHER ANALYTICAL DATA... O2, AR=6.
REFERENCE AND IDENTIFICATION
 COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... NEH-974
 REFERENCE..... MARINER AND OTHERS, 1975

RECORD 00036

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015453

NAME OF SAMPLE SOURCE... FAST LAKE HOT SPRINGS
 KARRA..... NEWBERRY CALDERA
 WARING NUMBER..... 33

LOCATIONTOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 21S 013E 29 SW
 STATE..... OREGON
 COUNTY..... DESCHUTES
 GEOLOGIC PROVINCE..

LAT/LONG... 43-43.1 N 121-12.2 W
 UTM ZONE... 10
 NORTHING... 4841942.
 644731.

MAP REFERENCE..... NEWBERRY CRATER 1:125000, CRESCENT 1:250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/20 MARINER, R. H. AND EVANS, W. C.
 POINT OF COLLECTION.. SPRING NEAR EAST END OF GROUP, BENEATH CLIFF
 TEMPERATURE (C)..... 49.
 PERTINENT LITHOLOGY..... LAPILLI TUFF
 OTHER SAMPLE INFORMATION.. SPRINGS APPEAR TO BE DROWNED GAS VENTS WHICH ISSUE ALONG THE SOUTH SHORE OF EAST LAKE I
 ... MAP LISTED ABOVE IS OUT OF PRINT.

WATER ANALYSIS

DATE/ANALYST..... 1975/09/00 BARNES GROUP
 PH..... 6.42 AT(C) 49.
 SPECIFIC CONDUCTANCE..... 767.
 ALKALINITY..... 547. AS HCO3

ISOIOPES (00/00)

ANALYSIS IN MG/L
 AG.... CO3... LI... 0.04
 AL.... 0.008 CH... MG... 34.
 AS.... CS... L 0.1 MN... 0.9
 AU.... CU... L 0.01
 B.... F... 0.16 NA... 53. S102. 199.
 BF.... FE(TOT). 0.66 NB... S04.. 28.
 BI.... GA... NH4... 0 1.3
 BR.... GF... NI... L 0.02
 CA.... 70. HCO3... 547.
 CA+MG. HG... PB... L 0.1
 CD.... H2S... L 0.5
 CE.... 1.7
 CO.... L 0.05 K..... RB... 0.03 ZN... L 0.01
GAS ANALYSIS

DATE/ANALYST..... 1977/12/00 EVANS, W. C.

ANALYSIS IN VOLUME %

CH4... 2.9

C2H6...

CO2... 91.

N2... 5.1

O2... 0.9

ISOTOPES (00/01)

OTHER ANALYTICAL DATA... GAS SAMPLES COLLECTED IN "GAS TIGHT" SYRINGES.

QUALIFICATION FIELD... NH4 RECALCULATED FROM N

REFERENCE AND IDENTIFICATION

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

COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 01

REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00037

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... EAST LAKE HOT SPRINGS

KGRA..... NEWBERRY CALDERA

WSPRING NUMBER..... 13

GEOTHERM FILE ID: 0015452

LOCATION

COUNTRY..... UNITED STATES

STATE..... OREGON

COUNTY..... DESCHUTES

GEOLOGIC PROVINCE..

MAP REFERENCE..... NEWBERRY CRATER 11125000, CRESCENT 11250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1977/07/28 MARINER, R. H. AND EVANS, W. C.

OTHER SAMPLE INFORMATION.. FIVE VENTS ACROSS THE COMPLEX (EAST TO WEST) WERE SAMPLED. THE COMPOSITIONS VARY WITH DISCHARGE RATE, NOT RELATIVE POSITION. HIGH DISCHARGE RATE VENTS ARE PREDOMINANTLY CO2! CH4 AND N2 INCREASE AS DISCHARGE RATES DECREASE.

GAS ANALYSIS

DATE/ANALYST..... 1977/09/00 EVANS, W. C.

ANALYSIS IN VOLUME %

AR... HG...

CH4... 2.0

C2H6... L 0.05

CO2... 96.

N2... L 0.01

HE... L 0.02

ISOTOPES (00/01)

DEL C(13) OF CO2..... -6.35

OTHER ANALYTICAL DATA... O2, AR+N2=2.72! SAMPLES COLLECTED IN EVACUATED TUBES.

REFERENCE AND IDENTIFICATION

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

COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 01

REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00038

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... PAULINA HOT SPRINGS

KGRA..... NEWHENRY

WSPRING NUMBER..... 12

GEOTHERM FILE ID: 0015947

LOCATION

COUNTRY..... UNITED STATES

STATE..... OREGON

COUNTY..... DESCHUTES

COORDINATES

LAT/LONG... 43-43.75 N 121-15.125 W

UTM ZONE... +10

NORTHING... 4842243.

600677.
 GEOLOGIC PROVINCE..
 HJP REFERENCE..... NEWBERRY CRATER 1125000, CRESCENT 1125000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... MARINER, R. H., AND EVANS, W. C.

GAS ANALYSIS
 DATE/ANALYST..... 1977/12/00 EVANS, W.C.
 ANALYSIS

AR...		HG...	
CH4..	5.4	H2S..	
C2H6. L	0.05		
CO2..	71.		
H2... L	0.01		
HE...	0.02		

ISOTOPES (00/01)
 DEL C(13) OF CO2..... -8.70
 SEL C(13) OF CH4..... -52.7

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 02
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00039

 GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015454

NAME OF SAMPLE SOURCE... PAULINA HOT SPRINGS
 KGRA..... NEWBERRY CALDERA
 WABING NUMBER..... 32

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE 21S 012E 26 NE
 STATE..... OREGON
 COUNTY..... DESCHUTES

COORDINATES
 LAT/LONG... 43-43.75 N 121-15.125W
 UTM ZONE... 10
 NORTHING... 4842243.
 600677.

GEOLOGIC PROVINCE..
 HJP REFERENCE..... NEWBERRY CRATER 1125000, CRESCENT 1125000
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1977/07/28 MARINER, R. H. AND EVANS, W. C.
 OTHER SAMPLE INFORMATION.. SPRINGS ISSUE AT EDGE OF PAULINA LAKE AND APPEAR TO BE DROWNED GAS VENTS. CHEMICAL
 COMPOSITIONS ARE USELESS FOR GEOTHERMAL CALCULATIONS BECAUSE OF THE GLASSY MATERIAL THE SPRINGS ISSUE FROM.

WATER ANALYSIS

DATE/ANALYST..... 1977/12/00 BARNES GROUP
 PH..... 6.82 AT(C) 30.
 ALKALINITY..... 856. AS HCO3

ANALYSIS IN MG/L

AG....		CO3....		LI...	0.22
AL....		CR....		MG...	60.
AS....		CS.... L	0.1		
H....	0.87	F....	0.57	NA...	140.
HE....		FE(TOT).		NB...	504.. L 1.
CA....	56.	HCO3....	856.		
CL....	6.0				
CO....		K.....	17.	RB...	0.04

ISOTOPES (02/00)

GAS ANALYSIS

DATE/ANALYST..... 1977/12/00 BARNES GROUP
 ANALYSIS IN VOLUME %

AR...	0.09		
CH4..	0.55		
C2H6. L	0.05	N2...	4.7
CO2..	93.	O2...	0.03
H2... L	0.01		

ISOTOPES (00/01)

HE... L 0.02
 OTHER ANALYTICAL DATA... SAMPLES FOR GAS ANALYSIS COLLECTED IN "AIR TIGHT" SYRINGES.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 02
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00040

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015455

NAME OF SAMPLE SOURCE... WARM WELL AT LITTLE CRATER CAMPGROUND

KWA..... NEWHENRY CALDERA

LOCATION

TOWNSHIP=RANGE

COORDINATES

COUNTRY..... UNITED STATES 21S 012E 36 NW

LAT/LONG... 43-42.9 N 121-14.5 W

STATE..... OREGON

UTM ZONE... +10

COUNTY..... DESCHUTES

NORTHING... 4841506.

GEOLOGIC PROVINCE..

641651.

M.P. REFERENCE..... NEWBERRY CRATER 11125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/20 MARINER, R. H. AND EVANS, W. C.

TEMPERATURE (C)..... 35.5

WATER ANALYSIS

DATE/ANALYST..... 1975/10/00 BARNES GROUP

P.H..... 6.46 AT (C) 36.

SPECIFIC CONDUCTANCE..... 900.

ALKALINITY..... 679. AS HCO3

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....		CO3....		LI... 0.12	
AL.... 0.002		CR....		MG... 48.	
AS....		CS.... L 0.1		MN... 0.25	
AU....		CU.... L 0.01			
H.... 2.5		F.... 0.6		NA... 83.	S102. 161.
HE....		FE (TOT) 4.		NB... 504..	L 1.
HI....		GA....		NH4... 0 0.53	
CA.... 54.		HCO3... 679.			
CA+MG.		HG..... L 0.0001			
CL.... 5.1					
CO.... L 0.05		K..... 10.		RB... 0.02	

QUALIFICATION FIELD... NH4 RECALCULATED FROM N

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 02
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00041

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015456

NAME OF SAMPLE SOURCE... UMPQUA HOT SPRINGS

WELLING NUMBER..... 24

LOCATION

TOWNSHIP=RANGE

COORDINATES

COUNTRY..... UNITED STATES 26S 004E 20 SW OF NE

LAT/LONG... 43-17.70 N 122-21.917W

STATE..... OREGON

UTM ZONE... +10

COUNTY..... DOUGLAS

NORTHING... 4794657.

GEOLOGIC PROVINCE.. CASCADES

632632.

MAP REFERENCE..... TOKETEE FALLS 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1977/09/18 MARINER, R. H. AND EVANS, W. C.
 TEMPERATURE (C)..... 46.5
 WATER TREATMENT..... FIELD FILTRATION, ACIDIFICATION, SILICA DILUTION, ALKALINITY DETERMINATION
 DEPOSITS OR ALTERATION.... TRAVERTINE

WATER ANALYSIS

DATE/ANALYST..... 1978/01/00 BARNES GROUP
 PH..... 6.37 AT(C) 47.
 SPECIFIC CONDUCTANCE..... 11300.
 ALKALINITY..... 1380. AS HCO3
 CHARGE IMBALANCE (% DIFF).... 1.0

ANALYSIS IN MG/L

AG.....	CO3.....	LI....	2.4		
AL.... L 0.002	CR.....	MG....	41.		
AS.....	CS.....		0.2		
AU.....	CU..... L 0.01				
H..... 41.	F.....	NA....	2400.	SI02.	90.
HE.....	FE(TOT).....	NB....		504..	190.
HR.....	GE.....	NI.... L 0.02			
CA..... 340.	HCO3.....		1380.		
CA-MG.	HG..... L 0.0001	PB... L 0.1			
CD.... L 0.01	H2S..... L 1.				
CL.... 3500.					
CO.... L 0.02	K.....	RB... 0.16		ZN... 0.02	

ISOTOPES (10/00)

GAS ANALYSIS

DATE/ANALYST..... 1978/01/00 BARNES GROUP
 ANALYSIS IN VOLUME %

AR... L 0.02			
CH4.. L 0.005			
C2H6..	N2... 0.49		
CO2.. 99.	O2... 0.04		
H2... L 0.01			
HE... L 0.02			

ISOTOPES (10/01)

OTHER ANALYTICAL DATA... GAS SAMPLE COLLECTED IN AN EVACUATED TUBE.
 REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 01
 REFERENCE..... MARINER AND OTHERS, 1978

RECORD 00042

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015949

NAME OF SAMPLE SOURCE... UMPQUA HOT SPRINGS
 WELL/SPRING NUMBER..... 26S/4E-20AC
 WELPING NUMBER..... 24
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE SW OF NE
 STATE..... OREGON 26S 004E 20
 COUNTY..... DOUGLAS
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 43-17.67 N 122-21.917W
 UTM ZONE... +10
 NUTTING... 4794657.
 632632.

MAP REFERENCE..... TOKETEE FALLS 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1978/06/27 BOWEN, KICCIO
 SAMPLE NUMBER..... WS 7A-116, ORE. DEPT. ENV. QUAL.

POINT OF COLLECTION.. NORTHERNMOST ORIFICE
 TEMPERATURE (C)..... 46.
 DISCHARGE..... 38.
 DEPOSITS OR ALTERATION.... LARGE TRAVERTINE TERRACE
 WATER ANALYSIS
 DATE/ANALYST..... 1978/08/01 BANERJEE, K. C.
 PH..... 6.2
 SPECIFIC CONDUCTANCE..... 10920.
 ALKALINITY..... 1120. AS HCO3
 TOTAL DISSOLVED SOLIDS... 7445.
 CHARGE IMBALANCE (% DIFF)... 4.1

ANALYSIS IN MG/L

AG....		CO3....		LI...	2.4		
AL....	2.2	CR.....		MG...	42.		
AS....	5.8						
B....	41.	F.....	1.2	NA...	2150.	SI02..	96.
BE....		FE(TOT)..	6.2	NH...		S04..	139.
BI....		GA.....		NH4..	0.78		
CA....	428.	HCO3....	1120.	P04..	0.005		
CD....		H2S.....					
CL....	3340.						
CO....		K.....	62.				

ISOTOPES (0/00)

OTHER ANALYTICAL DATA... CO2 PRESENT, MINOR H2S
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... ROWEN, R. G.
 COMPILER AFFILIATION... OREGON DEPT. OF GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 01
 REFERENCE..... *DOGAMI

RECORD 00043

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0000719

NAME OF SAMPLE SOURCE... BLUE MOUNTAIN HOT SPRINGS
 WARING NUMBER..... 16
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE 14S 034E 13 S/2
 STATE..... OREGON
 COUNTY..... GRANT
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... PRAIRIE CITY 1162500; CANYON CITY 1125000

COORDINATES

LAT/LONG... 44-21.30 N 118-34.40 W
 UTM ZONE... +11
 NORTHING... 4912290.
 374610.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP
 TEMPERATURE (C)..... 58.0
 DISCHARGE..... 250. L/MIN
 WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE MEMBRANE FILTER, METAL ANALYSES ACIDIFIED
 WITH NITRIC ACID, DILUTED
 DEPOSITS OR ALTERATION... TRAVERTINE
 PERTINENT LITHOLOGY..... MIOCENE AND PLEISTOCENE ANDESITE FLOWS
 OTHER SAMPLE INFORMATION.. MIXED WATERS.

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP
 PH..... 7.96
 SPECIFIC CONDUCTANCE..... 610.
 CHARGE IMBALANCE (% DIFF)... 4.9

ANALYSIS IN MG/L

AG....	L 0.02	CO3....	3.	LI...	0.07	S....	
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ISOTOPES (0/00)

DEL D OF WATER..... -126.6

AL....	CR.....	MG... 0.2	SB... L 0.2	DEL O(18) OF WATER... -16.13
AS.... L 0.01	CS..... L 0.1	MN... L 0.02		
AU.... L 0.1	CU..... L 0.01			
H..... 1.6	F..... 11.	NA... 140.	SI02. 47.	
HA.... L 0.1				
HF.... L 0.1	FE(TOT). L 0.02	NB... 504.. 11.		
RI....	GA.....	NM4.. SR... L 0.05		
HR.... 0.04				
CA.... 2.2	HCO3... 323.			
CA+MG.	HG..... 0.0004	PB... L 0.06		
CD.... L 0.01	H2S.....	PO4.. 0.12		
CL.... 15.	I..... 0.01			
CO.... L 0.05	K..... 3.3	RB... L 0.02		

REFERENCE AND IDENTIFICATION
 COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 04
 REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975

RECORD 00044

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... BRISBOIS RANCH SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES 175 027E 13,24,25
 STATE..... OREGON
 COUNTY..... GRANT
 GEOLOGIC PROVINCE.. 32
 OTHER LOCALITY INFORMATION: SPRINGS OCCUR ALONG 3 MILE ZONE.
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 72.
 DISCHARGE..... L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WAGNER, 1959

COORDINATES
 LAT/LONG... 44-05.4 N 119-25.2 W

RECORD 00044
 GEOTHERM FILE ID: 0001704

RECORD 00045

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... JOAQUIN MILLER RESORT
 WELL/SPRING NUMBER..... 15S/31E-11DC
 WARING NUMBER..... 15
 LOCATION
 COUNTRY..... UNITED STATES 155 031E 11 SW OF SE
 STATE..... OREGON
 COUNTY..... GRANT
 GEOLOGIC PROVINCE.. 32
 MIP REFERENCE..... CANYON MTN. 1124000, JOHN DAY 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1978/07/20 MORGAN, D. AND BLACK, G.
 SAMPLE NUMBER..... WS 78-129
 POINT OF COLLECTION.. ORIFICE ADJACENT TO CREEK
 TEMPERATURE (C)..... 40.
 DISCHARGE..... 38. L/MIN
 OTHER SAMPLE INFORMATION.. 5 ORIFICES 4X5 FT WOOD LINED BOXES SUNK APPROXIMATELY 6 FT INTO THE GROUND. OWNER: T BAR RANCH

COORDINATES
 LAT/LONG... 44-16.81 N 118-57.36 W
 UTM ZONE... 11
 NORTHING... 4904635.
 343914.

RECORD 00045
 GEOTHERM FILE ID: 0015948

WATER ANALYSIS

DATE/ANALYST..... 1978/08/03 BANERJEE, K. C.
 P4..... 7.1 AT (C) 40.
 SPECIFIC CONDUCTANCE..... 2194.
 TOTAL DISSOLVED SOLIDS... 1461.
 CHARGE IMBALANCE (% DIFF)... 128.7

ANALYSIS IN MG/L

AG....		CO3.....		LI... 0.25			
AL.... 0.08		CR.....		MG... 12.			
AS.... 0.005		CS.....		MN... 1.8			
R..... 13.		F..... 7.1		NA... 500.			
HE....		FE(TOT) 0.1		NB... 504.. 1.6			
AI....		GA.....		NH4... 2.0			
CA.... 45.		HCO3... 103.		NO3... 0.02			
CO....		H2S.....		PO4... 0.006			
CL.... 121.							
CO....		K..... 11.					

ISOTOPES (0/00)

OTHER ANALYTICAL DATA... DISTINCT H2S ODOR

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, J. F.
 COMPILER AFFILIATION... OREGON DEPT. OF GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 05
 REFERENCE..... *DOGAMI

RECORD 00046

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0001705

NAME OF SAMPLE SOURCE... LIMELKILN SPRING

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 14S 03E 10
 STATE..... OREGON
 COUNTY..... GRANT
 GEOLOGIC PROVINCE... 32

COORDINATES

LAT/LONG... 44-22.5 N 118-43.8 W

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 21.

DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WAGNER, 1959

RECORD 00047

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0000715

NAME OF SAMPLE SOURCE... RITTER HOT SPRINGS

WATER NUMBER..... 13

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 08S 03E 08 NW OF NW
 STATE..... OREGON
 COUNTY..... GRANT
 GEOLOGIC PROVINCE... 32

COORDINATES

LAT/LONG... 44-53.60 N 119-08.50 W
 UTM ZONE... +11
 NORTHING... 4973115.
 330886.

MAP REFERENCE..... RITTER 1162500, CANYON CITY 11250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1973/00/00 BARNES GROUP

TEMPERATURE (C)..... 41.0

DISCHARGE..... 130. L/MIN

WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE - MEMBRANE FILTER, METAL ANALYSES ACIDIFIED

WITH NITRIC ACID, DILUTED
 DEPOSITS OR ALTERATION.... NO DEPOSITS.
 PERTINENT LITHOLOGY..... MIOCENE AND PLEISTOCENE BASALT FLOWS

WATER ANALYSIS

DATE/ANALYST..... 1973/00/00 BARNES GROUP

PH..... 9.68

SPECIFIC CONDUCTANCE..... 319.

CHARGE IMBALANCE (% DIFF)... 9.9

ANALYSIS IN MG/L

AG.... L 0.02	CO3..... 28.	LI.... 0.01	S....
AL....	CR.....	MG.... L 0.05	SB.... L 0.2
AS....	CS..... L 0.1	MN.... L 0.02	
AU.... L 0.1	CU..... 0.01		
R.... 2.6	F..... 4.0	NA.... 72.	SI02. 70.
HA.... L 0.1			
HE.... L 0.1	FE(TOT). L 0.02	NB....	S04.. 9.
HI....	GA.....	NH4..	SR.... L 0.05
CA.... 1.4	HCO3..... 86.		
CA-MG.	HG..... 0.0005	PH.... L 0.06	
CD.... L 0.01			
CL.... 29.			
CO.... L 0.05	K..... 0.82	RB.... L 0.02	

ISOTOPES (0/00)

DEL D OF WATER..... -119.
 DEL O(18) OF WATER... -14.83

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 01

REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975

RECORD 00048

GEOHEM SAMPLE FILE

GEOHEM FILE ID: 0000693

NAME OF SAMPLE SOURCE... WEBERG HOT SPRING

LOCATION..... TOWNSHIP=RANGE

COUNTRY..... UNITED STATES 18S 026E 18

STATE..... OREGON

COUNTY..... GRANT

GEOLOGIC PROVINCE..

MAP REFERENCE..... CANYON CITY 1:250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP

TEMPERATURE (C)..... 46.0

DISCHARGE..... 40. L/MIN

WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE - MEMBRANE FILTER, METAL ANALYSES ACIDIFIED

WITH NITRIC ACID, DILUTED

DEPOSITS OR ALTERATION... TRAVERTINE

PERTINENT LITHOLOGY..... ARKOSIC SANDSTONE

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 6.53

SPECIFIC CONDUCTANCE..... 2570.

CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

AG.... L 0.02	CO3..... 1.	LI.... 0.7	S....
AL....	CR.....	MG.... 7.8	SB.... L 0.2
AS.... 0.04	CS..... L 0.1	MN.... 0.06	
AU.... L 0.1	CU..... 0.18		

ISOTOPES (0/00)

DEL D OF WATER..... -122.1
 DEL O(18) OF WATER... -15.14

H.....	15.	F.....	3.9	NA...	610.	SI02.	82.
HA.... L	0.1						
HE.... L	0.1	FE(TOT).	0.24	NB...		S04..	13.
HI....		GA.....		NH4..		SR...	2.1
HR....	0.1						
CA....	3H.	HC03....	1710.				
CA.MG.		HG.....	0.0003	PB... L	0.06		
CO.... L	0.01	H2S.....		PO4..	0.12		
CL....	50.	I.....	0.1				
CO.... L	0.05	K.....	36.	RB...	0.09		

GAS ANALYSIS

ANALYSIS IN VOLUME %

CH4.. 2.
C2H6.
CO2.. 95.

N2... 1.

ISOTOPES (00/01)

OTHER ANALYTICAL DATA... O2, AR=1.0

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... NEH-975
 REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975

RECORD 00049

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000681

NAME OF SAMPLE SOURCE... ALVORD HOT SPRINGS

KIRA..... ALVORD

WELLING NUMBER..... 68

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 34S 034E 32 NE OF NW SE

STATE..... OREGON

COUNTY..... HARNEY

GEOLOGIC PROVINCE..

MAP REFERENCE..... ALVORD HOT SPRINGS 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP

TEMPERATURE (C)..... 76.0

DISCHARGE..... 500 L/MIN

WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE MEMBRANE FILTER, METAL ANALYSES ACIDIFIED WITH NITRIC ACID, DILUTED

DEPOSITS OR ALTERATION... SINTER, TRAVERTINE

PERTINENT LITHOLOGY..... MIOCENE RHYODACITE, ANDESITE, AND BASALT

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 6.73

SPECIFIC CONDUCTANCE..... 4590.

ALKALINITY..... 1196.

CHARGE IMBALANCE (% DIFF)... 4.5

ANALYSIS IN MG/L

AG.... L	0.02	CO3....	1.	LI...	2.1	S....	
AL....	0.003	CH.....		HG...	2.2	SB... L	0.2
AS....	0.04	CS.....	0.2	MN...	0.02	SC...	
AU.... L	0.1	CU.....	0.05				
H.....	30.	F.....	10.	NA...	960.	SI02.	120.
HA.... L	0.1						
HE.... L	0.1	FE(TOT).	0.12	NB...		S04..	220.

ISOTOPES (0/00)

DEL O OF WATER..... -123.6
 DEL O(18) OF WATER... -13.23
 DEL O(18) OF S04..... -6.05

HI.... GA..... NH4.. 0.9 SR... 0.92
 HR.... 2. MC03... 1196.
 CA.... 13. HG..... 0.0001 PB... L 0.06
 CA+MG. M2S..... 0.43
 CD.... L 0.01 I..... 0.09
 CL.... 780. K..... 69. RB... 0.33
 CO.... L 0.05

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 23
 REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00050

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015429

NAME OF SAMPLE SOURCE... ALVORD HOT SPRINGS
 KGRA..... ALVORD
 WARING NUMBER..... 68

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 34S 034E 32 NE OF NW SE
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE..
 M.P. REFERENCE..... ALVORD HOT SPRINGS 1124000
 OTHER LOCALITY INFORMATION: EAST SIDE OF ROAD 9 MILES NORTH OF ANDREWS
 LAT/LONG... 42-32.66 N 118-31.66 W
 UTM ZONE... +11
 NORTHING... 4711132.
 374561.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1955/11/09
 SAMPLE NUMBER..... 1009
 TEMPERATURE (C)..... 82.2

WATER ANALYSIS

DATE/ANALYST..... 1955/11/09 HARRIS, JOHN
 P4..... 7.3
 SPECIFIC CONDUCTANCE... 4490.
 TOTAL DISSOLVED SOLIDS... 2910.
 CHARGE IMBALANCE (% DIFF)... 2.0

ANALYSIS IN PPM

ISOTOPES (0/001)

AL....	CR.....	MG... 1.0			
AS....	CS.....	MN... N			
H.... 28.	F..... 7.2	NA... 1040.	SI02. 135.		
HE....	FE(TOT). 0.09	NB... 504..	211.		
CA.... 13.	MC03... 1250.	NO3.. 1.1			
CA+MG.	HG.....	PB... U.... 0.0001			
CD....	M2S.....	P04.. 4.5			
CL.... 760.					
CO....	K..... 66.				

OTHER ANALYTICAL DATA... CHEMICAL-BETA-GAMMA(UUCURIES/L); RA=140.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 23
 REFERENCE..... *DOGAMI

RECORD 00051

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015461

NAME OF SAMPLE SOURCE... ALVORD HOT SPRINGS
 KGRA..... ALVORD
 MAPPING NUMBER..... 68
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 34S 034E 32 NE OF NW SE
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MAP REFERENCE..... ALVORD HOT SPRINGS 1124000
COORDINATES
 LAT/LONG... 42-32.66 N 118-31.66 W
 UTM ZONE... +11
 NORTHING... 4711132.
 374561.

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/09/09 MARINER, R. H. AND EVANS, W. C.
 TEMPERATURE (C)..... 78.5
 WATER TREATMENT..... FIELD FILTRATION, ACIDIFICATION, SILICA DILUTION, AND ALKALINITY DETERMINATION.

WATER ANALYSIS
 DATE/ANALYST..... 1977/01/00 BARNES GROUP
 P.H..... 6.89 AT(C) 79.
 SPECIFIC CONDUCTANCE..... 4070.
 ALKALINITY..... 1230. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 0.1
ANALYSIS IN MG/L
 AG.... CO3... LI... 1.9
 AL.... CR... MG... 2.2
 AS.... CS... 0.1
 H.... 36. F... 11. NA... 1000. SI02. 128.
 HF.... FE(TOT). NB... S04.. 180.
 HI.... GA... NH4.. L 0.5
 CA.... 12. HCO3... 1230.
 CD.... H2S... L 1.
 CL.... 770.
 CO.... K... 63. RB... 0.24

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 23
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00052

GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... ALVORD HOT SPRINGS
 KGRA..... ALVORD
 MAPPING NUMBER..... 68
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 34S 034E 32 NE OF NW SE
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MAP REFERENCE..... ALVORD HOT SPRINGS 1124000
COORDINATES
 LAT/LONG... 42-32.66 N 118-31.66 W
 UTM ZONE... +11
 NORTHING... 4711132.
 374561.

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/09/09 MARINER, R. H. AND EVANS, W. C.
 TEMPERATURE (C)..... 78.5
 WATER TREATMENT..... FIELD FILTRATION, ACIDIFICATION, SILICA DILUTION, AND ALKALINITY DETERMINATION.

WATER ANALYSIS
 DATE/ANALYST..... 1977/01/00 BARNES GROUP
 P.H..... 6.90 AT(C) 79.
 SPECIFIC CONDUCTANCE..... 4100.

GEOTHERM FILE ID: 0015460

AI KAI INITY..... 1225. AS HCO3

CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

AG....		CO3.....		LI...	1.9			
AL....		CR.....		MG...	2.1			
AS....		CS.....	0.1					
H....	35.	F.....	9.6	NA...	990.	5102..	129.	
HE....		FE(TOT)		NB...		504..	180.	
CA....	12.	HCO3.....	1225.					
CD....		H2S.....	L 1.					
CL....	770.							
CO....		K.....	64.					

ISOTOPIES (U/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 73
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00053

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0001680

NAME OF SAMPLE SOURCE... BAKER SPRING

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 24S 030E 24

STATE..... OREGON

COUNTY..... HARNEY

GEOLOGIC PROVINCE... 32

COORDINATES

LAT/LONG... 43-29.4 N 119-06.0 W

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 21.

DISCHARGE..... 190. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... PIPER AND OTHERS, 1939

RECORD 00054

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003060

NAME OF SAMPLE SOURCE... BARNYARD SPRING

WELL/SPRING NUMBER..... 27S-29E-6-AAA

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 27S 029E 06 NE OF NE NE

STATE..... OREGON 86M WILLAMETTE

COUNTY..... HARNEY

GEOLOGIC PROVINCE... 32

MAP REFERENCE..... BURNS, ORE. 1:250,000

OTHER LOCALITY INFORMATION: BURNS A.M.S.

COORDINATES

LAT/LONG... 43-15.051N 119-14.020W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID AND MCLEAN, GARY

SAMPLE NUMBER..... WSA0-113

POINT OF COLLECTION.. MAIN ORIFICE

TEMPERATURE (C)..... 22.0

AIR TEMP (C)..... 10.

DISCHARGE..... 76. L/MIN

DEPOSITS OR ALTERATION... SLIGHT SINTER

PERTINENT LITHOLOGY..... RHYOLITIC ASH FLOW TUFF.

WATER ANALYSIS

DATE/ANALYST..... 1980/06/25 BANERJEE, KALA C.
 PH..... 8.1
 SPECIFIC CONDUCTANCE..... 285.
 ALKALINITY..... 112. AS CAC03
 TOTAL DISSOLVED SOLIDS... 237.
 CHARGE IMBALANCE (% DIFF)... 5.6

ANALYSIS IN MG/L

AG.....	CO3.....	LI... L 0.1		
AL... L 0.1	CR.....	MG... 2.7		
AS... 0.035	CS.....	MN... L 0.05		
B..... 0.64	F..... 0.6	NA... 52.	SI02.. 62.	
HF.....	FE(TOT) L 0.05	NB... 504..	11.3	
HI.....	GA.....	NH4... 0.05		
CA... 8.0	H2S.....	PO4.. 0.034		
CD.....				
CL... 23.5	K..... 4.3			

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... BROWN AND OTHERS, 1980A

RECORD 00055

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0001696

NAME OF SAMPLE SOURCE... BASQUE SPRING

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 26S 029E 31

LAT/LONG... 43-16.2 N 119-17.1 W

STATE..... OREGON

COUNTY..... HARNEY

GEOLOGIC PROVINCE... 32

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 23.

DISCHARGE..... 6800. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.

REFERENCE..... PIPER AND OTHERS, 1939

RECORD 00056

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0003068

NAME OF SAMPLE SOURCE... BATHTUB SPRING

WELL/SPRING NUMBR..... 27S-29.5E-02B-CAC

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 27S 29.5E 28 SW OF NE SW

LAT/LONG... 43-11.80 N 119-06.45 W

STATE..... OREGON 86M: WILLAMETTE

COUNTY..... HARNEY

GEOLOGIC PROVINCE... 32

MSP REFERENCE..... BURNS, ONE. 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/10/10 BROWN, DAVID E.

TEMPERATURE (C)..... 51.1

OTHER SAMPLE INFORMATION.. STRONG H2S ODOR.

WATER ANALYSIS

DATE/ANALYST..... 1980/12/ KRONEMAN, RUTH

PH..... 6.87 AT(C) 51.

SPECIFIC CONDUCTANCE..... 3900.
 TOTAL DISSOLVED SOLIDS... 2096.
 ANALYSIS IN PPM

AG.... L 0.054	CO3.....	LI... 0.87	
AL.... L 0.680	CR..... L 0.054	MG... 13.	SR... L 0.816
AS.... 1.0	CS.....	MN... L 0.272	
AU.... L 0.104	CU..... L 0.068	MO... L 1.4	
R.... 13.	F.....	NA... 682.	SI02. 87.
RA.... L 0.680	FE+3.....	NA+K.	SN... L 0.136
RE.... L 0.005	FE(TQT). 0.14	NH...	S04.. 50.
RI.... L 2.7	GA.....	NH4.. 1.1	SR... 0.25
RR....	GE.....	NI... L 0.136	
CA.... 37.	HCO3.....	NO3..	TI... L 0.136
CA+MG.	HG.....	PB... L 0.272	U.... L 6.8
CD.... L 0.06A	H2S.....	PO4..	V.... L 1.4
CL.... 848.	I.....	RA...	W.... L 0.136
CO.... L 0.027	K..... 32.		ZN... 0.2

ISOTOPIES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00057

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015441

NAME OF SAMPLE SOURCE... CITY OF HINES WELL
 LOCATION TOWNSHIP=RANGE COORDINATES
 COUNTRY..... UNITED STATES 23S 030E 23 NE OF SE SW LAT/LONG... 43-33.57 N 119-05.31 W
 STATE..... OREGON UTM ZONE... +11
 COUNTY..... HARNEY NORTHING... 4824853.
 GEOLOGIC PROVINCE.. 331316.
 MAP REFERENCE..... BURNS 1124000. BURNS 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1968/07/24 HANSON, BILL
 SAMPLE NUMBER..... PNW 16607
 TEMPERATURE (C)..... 17.0
 WELL DEPTH (M)..... 105.
 DISCHARGE..... 2555.
 WATER TREATMENT..... YIELD 675 GPM

WATER ANALYSIS
 PH..... 7.8 AT(C) 17.
 SPECIFIC CONDUCTANCE..... 289.
 TOTAL DISSOLVED SOLIDS... 221.
 CHARGE IMBALANCE (% DIFF)... 1.8

ANALYSIS IN MG/L

AG....	CO3..... N		
AL....	CR.....	MG... 5.7	
R.... 0.53	F..... 0.5	NA... 35.	SI02. 60.
RE....	FE(TQT). 0.05	NH... 18.	S04.. 18.
CA.... 15.	HCO3..... 128.	NO3.. 3.8	
CL.... 13.			
CO....	K..... 6.9		

ISOTOPIES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 46

REFERENCE..... LEONARD, 1970

RECORD 00058

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0001684

NAME OF SAMPLE SOURCE... CITY OF MINES WELL
 LOCATION TOWNSHIP=RANGE

COORDINATES

LAT/LONG... 43-32.4 N 119-06.6 W

COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... HARNEY

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 17.
 DISCHARGE..... 2555. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.

RECORD 00059

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003046

NAME OF SAMPLE SOURCE... CRANE HOT SPRING
 WELL/SPRING NUMBER..... 245-33E-034-CAA

LOCATION TOWNSHIP=RANGE

COORDINATES

LAT/LONG... 43-26.45 N 118-38.30 W

COUNTRY..... UNITED STATES 24S 03E 34 NE OF NE SW
 STATE..... OREGON B&M: WILLAMETTE

COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. HARNEY BASIN

MAP REFERENCE..... CRANE, ORE. 1162500

OTHER LOCALITY INFORMATION: BURNS A.M.S.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID AND MCLEAN, GARY

SAMPLE NUMBER..... WS80-117

POINT OF COLLECTION.. POOL OVERLYING SPRING

TEMPERATURE (C)..... 76.0

DISCHARGE..... 95. L/MIN

DEPOSITS OR ALTERATION.... MINOR SINTER.

PERTINENT LITHOLOGY..... PALAGONITE TUFF RING AND BASALT.

WATER ANALYSIS

DATE/ANALYST..... 1980/06/26 BANJEREE KALA C.

PH..... 8.2

SPECIFIC CONDUCTANCE..... 750.

ALKALINITY..... 169. AS CaCO3

TOTAL DISSOLVED SOLIDS... 564.

CHARGE IMBALANCE (% DIFF)... 9.3

ANALYSIS IN MG/L

AG....		CO3....	LI....	0.1		
AL....	0.1	CR....	MG....	0.1		
AS....	0.145	CS....	MN....	L 0.05		
H....	8.7	F....	NA....	160.	SI02.	93.
HF....		FE(TOT). L	NB....		S04..	78.
CA....	3.6					
CD....		H2S.....	PO4..	0.050		
CL....	88.					
CO....		K.....				

ISOTOPES (U/D/L)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.

COMPILER AFFILIATION... DOGAMI

REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00060

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015938

NAME OF SAMPLE SOURCE... CRANE HOT SPRINGS

WARRING NUMBER..... 53

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 24S 033E 34 NE OF NE SW

LAT/LONG... 43-26.45 N 118-38.30 W

STATE..... OREGON

UTM ZONE... +11

COUNTY..... HARNEY

NORTHING... 4810859.

GEOLOGIC PROVINCE..

367416.

MAP REFERENCE..... CRANE 1162500, BURNS 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1931/08/30

TEMPERATURE (C)..... 49.

WATER ANALYSIS

ANALYSIS IN PPM

ISOTOPES (O/00)

AG.....	CO3.....	22.	NA+K..	171.		
HA.....	FE+3.....		NB... ..	504..	80.	
HE.....	FE(TOT)..		NO3..	1.4		
CA.....	2.	HC03....	173.			
CL.....	82.					

REFERENCE AND IDENTIFICATION

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

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 09

REFERENCE..... PIPER AND OTHERS, 1939

RECORD 00061

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015435

NAME OF SAMPLE SOURCE... CRANE HOT SPRINGS

WARRING NUMBER..... 53

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 24S 033E 34 NE OF NE SW

LAT/LONG... 43-26.45 N 118-38.30 W

STATE..... OREGON

UTM ZONE... +11

COUNTY..... HARNEY

NORTHING... 4810859.

GEOLOGIC PROVINCE..

367416.

MAP REFERENCE..... CRANE 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1948/09/12 HANSON, W. B.

SAMPLE NUMBER..... USGS PNW 16830

TEMPERATURE (C)..... 80.0

WATER ANALYSIS

PH.....	8.3	AT(C)	80.			
SPECIFIC CONDUCTANCE.....	814.					
TOTAL DISSOLVED SOLIDS... ..	536.					
CHARGE IMBALANCE (% DIFF)... ..	1.9					

ANALYSIS IN MG/L

ISOTOPES (O/00)

AG.....	CO3.....	6.	MG... ..	0.2		
AL.....	CR.....		NA... ..	170.	5102.	80.
H.....	6.2	F.....	9.3	NB... ..	504..	81.
HF.....		FE(TOT)..	0.02	NO3..	N	
CA.....	3.8	HC03....	199.			
CL.....	78.					

CO..... K..... 3.6
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 09
 REFERENCE..... LEONARD, 1970

RECUMD 00062

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000727

NAME OF SAMPLE SOURCE... CRANE HOT SPRINGS
 WELPING NUMBER..... 53
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE COORDINATES
 STATE..... OREGON 24S.033E 34 NE OF NE SW LAT/LONG... 43-26.45 N 118-38.30 W
 COUNTY..... MARNEY UTM ZONE... +11
 GEOLOGIC PROVINCE... NORTHING... 4810859.
 MAP REFERENCE..... CRANE 1:62500, BURNS 1:250000
 367416.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1972/00/00 BARNES GROUP
 TEMPERATURE (C)..... 78.0
 DISCHARGE..... 550. L/MIN
 WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE MEMBRANE FILTER, METAL ANALYSES ACIDIFIED
 WITH NITRIC ACID, DILUTED
 PERTINENT LITHOLOGY..... AUGITE ANDESITE

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP
 P.H..... 8.1
 SPECIFIC CONDUCTANCE..... 810.
 ALKALINITY..... 202.
 CHARGE IMBALANCE (% DIFF)... 0.3

ANALYSIS IN MG/L

AG.... L 0.02	CO ₃ 3.	LI... 0.09	S....	ISOTOPES (0/00)	
AL.... 0.022	CR.....	MG... 0.1	SB... L 0.2	DEL D OF WATER.....	-133.5
AS.... 0.09	CS.... L 0.1	MN... L 0.02		DEL O(18) OF WATER...	-16.17
AU.... L 0.1	CU.... 0.01				
B.... 7.9	F..... 9.0	NA... 170.	SI02. 8J.		
BA.... L 0.1	FE (TOT). L 0.02	NB... 3.2	SO4.. 86.		
BF.... L 0.1	GA.....	NH4.. 3.2	SR... 0.06		
BI....					
BR.... 0.1	HCO ₃ 202.				
CA.... 3.7	HG.... 0.0005	PB... L 0.06			
CA+MG.	H ₂ S....	PU4.. 0.09			
CD.... L 0.01	I.... 0.02				
CE.... 79.	K..... 3.9	RB... 0.03			
CO.... L 0.05					

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 09
 REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975

RECUMD 00063

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003053

NAME OF SAMPLE SOURCE... DEVELOPMENT WELL

KGRA..... BURNS BUTTE
 WELL/SPRING NUMBER..... 235-30E-035-ABD
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 235 030E 35 SE OF NW NE
 COUNTY..... HARNEY B&M WILLAMETTE
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... BURNS, ORE. 1124000 AND 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1980/10/13 BROWN, DAVID E.
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 26.5 AT (M)..... 30.

COORDINATES
 LAT/LONG... 43-32.33 N 119-05.02 W

WATER ANALYSIS
 DATE/ANALYST..... 1980/12/ KRONEMAN, RUTH
 PH..... 8.33 AT (C) 27.
 SPECIFIC CONDUCTANCE..... 230.
 TOTAL DISSOLVED SOLIDS... 178.

ANALYSIS IN PPM

AG.... L 0.054	CO3.....	LI... L 0.054		
AL.... L 0.680	CR..... L 0.054	MG... 2.0	SB... L 0.816	
AS.... L 0.680	CS.....	MN... L 0.272		
AU.... L 0.109	CU..... L 0.068	MO... L 1.4		
H.... 0.5	F..... 0.5	NA... 32.	SI02. 45.	
HA.... L 0.680	FE+3....	NA+K.	SN... 0.6	
HE.... L 0.005	FE(TOT). L 0.027	NB...	S04.. 13.	
HI.... 2.7	GA.....	NH4.. T	SR... 0.03	
HR....	GE.....	NI... L 0.136		
CA.... 8.0	HCO3....	N03..	TI... L 0.136	
CA+MG.	HG.....	PB... L 0.272	U.... L 6.8	
CD.... L 0.068	H2S....	PO4..	V.... L 1.4	
CL.... 8.0	I.....	RA...	W.... L 0.136	
CO.... L 0.027	K..... 4.0		ZN... 0.6	

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00064

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... DOG MOUNTAIN OIL TEST WELL
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 255 030E 24
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 60.
 DISCHARGE..... L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, H. & BROOK, C.
 REFERENCE..... VAN USTRAND, 1938

GEOTHERM FILE ID: 0001682

COORDINATES
 LAT/LONG... 43-23.4 N 119-04.2 W

RECORD 00065

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0003043

NAME OF SAMPLE SOURCE... DUNN RANCH ARTESIAN WELL NO. 1
 WELL/SPRING NUMBER..... 265-30E-033-000
 LOCATION
 COUNTRY..... UNITED STATES 26S 03UE 33 SE OF SE SE
 STATE..... OREGON 8&M1 WILLAMETTE
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... DOG MTN., ORE. 1162500
 OTHER LOCALITY INFORMATION: BURNS A.M.S.

COORDINATES
 LAT/LONG... 43-15.06 N 119-14.019W

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID AND MCLEAN, GARY
 SAMPLE NUMBER..... WSA0-125
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 26.
 DISCHARGE..... 756. L/MIN
 DEPOSITS OR ALTERATION... CONSIDERABLE SINTER ON WELL CASING.
 PERTINENT LITHOLOGY..... VALLEY ALLUVIUM.
 OTHER SAMPLE INFORMATION.. STRONG MINERAL ODOR.

WATER ANALYSIS
 DATE/ANALYST..... 1980/06/26 BANJEREE, KALA C.
 PH..... 9.7
 SPECIFIC CONDUCTANCE..... 1095.
 ALKALINITY..... 457. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 747.
 ANALYSIS IN MG/L

ISOTOPES (0/00)

AG.....	CO3.....	LI... L 0.1		
AL... L 0.1	CR.....	MG... L 0.1		
AS... 0.086	CS.....	MN... L 0.05		
R... 2.8	F... 9.0	NA... 238.	5102.	120.
HE.....	FE(TOT). L 0.05	NB... 504..	26.	
HI.....	GA.....	NH4.. 2.3		
CA... L 0.1				
CO.....	H2S.....	PO4.. 0.030		
CL... 69.				
CO.....	K... 1.5			

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00066

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003070

NAME OF SAMPLE SOURCE... EAGLES NEST SPRING NO. 1
 WELL/SPRING NUMBER..... 275-29.5E-025-AA0
 LOCATION
 COUNTRY..... UNITED STATES 27S 29.5E 25 SE OF NE NE
 STATE..... OREGON 8&M1 WILLAMETTE
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... BURNS, ORE. 1125000

COORDINATES
 LAT/LONG... 43-12.38 N 119-03.45 W

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1980/10/10 BROWN, DAVID E.
 POINT OF COLLECTION.. LARGEST SPRING ORIFICE
 TEMPERATURE (C)..... 41.7
 DISCHARGE..... 19. L/MIN

DEPOSITS OR ALTERATION... GRAYISH SILICA DEPOSIT.
 OTHER SAMPLE INFORMATION.. SAMPLED LARGEST OF FIVE SPRINGS.
 WATER ANALYSIS

DATE/ANALYST..... 1980/11/00 KRONEMAN, RUTH
 PH..... 7.12 AT(C) 42.
 SPECIFIC CONDUCTANCE..... 4750.
 TOTAL DISSOLVED SOLIDS... 3110.

ANALYSIS IN PPM

AG.... L 0.054	CO3.... L 0.054	LI.... 0.69		
AL.... L 0.068	CR.....	MG.... 15.	SB... L 0.816	
AS.... 1.0	CS.....	MN... L 0.272		
AU.... L 0.109	CU..... L 0.068	MO... L 1.4		
B..... 17.	F..... 2.1	NA... 1207.	SI02. 55.	
BA....	FE+3....	NA+K.	SN... L 0.136	
BE.... L 0.005	FE(TOT). L 0.027	NB...	S04.. 320.	
BI....	GA.....	NH4.. 5.6	SR... 0.3	
BR....	GE.....	NI... L 0.136		
CA.... 30.	HCO3....	NO3..	TI... L 0.136	
CA+MG.	HG.....	PB... 0.272	U.... L 6.8	
CD.... L 0.068	H2S.....	PO4..	V.... L 1.4	
CL.... 466.	I.....	RA... W.... L 0.136		
CO.... L 0.027	K..... 14.			

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00067

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003067

NAME OF SAMPLE SOURCE... EAGLES NEST SPRING NO. 2
 WELL/SPRING NUMBER..... 275-29.5E-024-ADA

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 27S 29.5E 24 NE OF SE NE
 STATE..... OREGON B&M: WILLAMETTE
 COUNTY..... HARNFY

LAT/LONG... 43-12.80 N 119-03.62 W

GEOLOGIC PROVINCE.. HARNFY BASIN

MAP REFERENCE..... BURNS, ORE. 1:250000

OTHER LOCALITY INFORMATION: BURNS A.M.S.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/10/10 BROWN, DAVID E.
 POINT OF COLLECTION.. LARGEST SPRING ORIFICE.
 TEMPERATURE (C)..... 28.1

DISCHARGE..... 19. L/MIN

DEPOSITS OR ALTERATION... GRAY SILICA.

OTHER SAMPLE INFORMATION.. STRONG H2S ODOR, SAMPLE TAKEN FROM SPRING WITH LARGEST FLOW IN GRO UP OF 10 OR MORE SPRINGS.

WATER ANALYSIS

DATE/ANALYST..... 1980/11/00 KRONEMAN, RUTH
 PH..... 9.18 AT(C) 28.
 SPECIFIC CONDUCTANCE..... 1150.
 TOTAL DISSOLVED SOLIDS... 632.

ANALYSIS IN PPM

AG.... L 0.054	CO3....	LI.... 0.07		
AL.... L 0.680	CR..... L 0.054	MG... L 0.544	SH... L 0.816	
AS.... L 0.680	CS.....	MN... L 0.272		

ISOTOPES (0/00)

AU.... L 0.109	CU..... L 0.068	MO... L 1.4	SI02.. 35.
R..... 3.1	F..... 7.2	NA... 240.	SN... L 0.136
HA....	FE+3....	NA+K..	S04... 23.
HE.... L 0.005	FE(TOT).. L 0.027	NB... 125.	SR... 0.02
HI.... L 2.7	GE.....	NI... L 0.136	
HR....			
CA.... 1.0	HG.....	PB... L 0.272	U.... L 6.8
CA+MG..	H2S.....	PO4... L 1.4	V.... L 1.4
CD.... L 0.068	I.....	RA... L 0.136	W.... L 0.136
CL.... 8.0	K..... L 2.7		ZN... L 0.136
CO.... L 0.027			

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI(1)

RECORD 00068

GEO THERM FILE ID# 0003054

GEO THERM SAMPLE FILE

NAME OF SAMPLE SOURCE... FISCHER WELL
 KARIA..... BURNS HUTTE
 WELL/SPRING NUMBER..... 24S-30E-002-DAB

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE NW OF NE SE
 STATE..... OREGON 24S 030E 02
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32

COORDINATES

LAT/LONG... 43-31.32 N 119-05.00 W

MAP REFERENCE..... BURNS, ORE. 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/10/13 BROWN, DAVID E.
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 25.5 AT (M).. 30.
 DISCHARGE..... 76. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/12/ KRONEMAN, RUTH
 PH..... 8.43 AT(C) 26.
 SPECIFIC CONDUCTANCE..... 210.
 TOTAL DISSOLVED SOLIDS... 140.

ANALYSIS IN PPM

AG.... L 0.054	CO3.....	LI... L 0.054	SH... L 0.816
AL.... L 0.680	CH..... L 0.054	HG... 1.0	
AS.... L 0.680	CS.....	MN... L 0.272	
AU.... L 0.109	CU..... L 0.068	MO... L 1.4	
R..... 0.6	F..... 0.6	NA... 30.	SI02.. 37.
HA.... L 0.680	FE+3....	NA+K..	SN... L 0.136
RE.... L 0.005	FE(TOT).. L 0.027	NB... 15.	S04... 15.
HI.... L 2.7	GA.....	NH4... T	SR... 0.02
HR....	GE.....	NI... L 0.136	
CA.... 7.0	HCO3....	NO3... L 0.136	TI... L 0.136
CA+MG..	HG.....	PB... L 6.8	U.... L 6.8
CD.... L 0.068	H2S.....	PO4... L 1.4	V.... L 1.4
CL.... 8.0	I.....	RA... L 0.136	W.... L 0.136
CO.... L 0.027	K..... 3.0		ZN... 1.5

ISOTOPIES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI

REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DUE CONTRACT DE-FC07-79ET27220.

RECORD 00069

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015437

NAME OF SAMPLE SOURCE... GOODMAN SPRING (HOTCHKISS)

WELL/SPRING NUMBER..... 528

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 23S 030E 35 SE OF SE SE
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32

LAT/LONG... 43-31.73 N 119-04.83 W
 UTM ZONE... +11
 NORTHING... 4821431.
 331877.

MAP REFERENCE..... BURNS 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1968/09/13 HANSON, W.B.

SAMPLE NUMBER..... PNW 16836 USGS

TEMPERATURE (C)..... 22.0

WATER ANALYSIS

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

PH..... 7.5

SPECIFIC CONDUCTANCE..... 210.

TOTAL DISSOLVED SOLIDS... 165.

CHARGE IMBALANCE (% DIFF)... 2.8

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....	CO3..... N				
AL....	CR.....	MG... 1.4			
B.... 0.23	F..... 0.6	NA... 35.	SI02. 46.		
BE....	FE(TOT).. 0.02	NB... 504..	16.		
CA.... 8.2	HCO3.... 92.	NO3.. 2.1			
CL.... 7.					

..... CU..... K..... 3.2

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.

COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES

COMPILER CROSS INDEX... 79

REFERENCE..... LEONARD, 1970

RECORD 00070

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003065

NAME OF SAMPLE SOURCE... HARNEY LAKE HOT SPRINGS

WELL/SPRING NUMBER..... 27S-29.5E-036-DDA

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 27S 29.5E 36 NE OF SE SE
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. HARNEY BASIN
 MAP REFERENCE..... BURNS, ORE. 11250.000

LAT/LONG... 43-10.6 N 119-03.6 W

OTHER LOCALITY INFORMATION: BURNS A.M.S.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1960/05/08 BROWN, DAVID AND MCLEAN, GARY

SAMPLE NUMBER..... #SR0-116

POINT OF COLLECTION.. HOTTEST ORIFICE

TEMPERATURE (C)..... 67.

DISCHARGE..... 378. L/MIN

DEPOSITS OR ALTERATION.... SINTER

PERTINENT LITHOLOGY..... TUFFACEOUS SEDIMENTS AND OLIVINE BASALT.
 OTHER SAMPLE INFORMATION... STRONG MINERAL ODOR.

WATER ANALYSIS

DATE/ANALYST..... 1980/06/25 BANERJEE, KALA C.
 PH..... 7.7
 SPECIFIC CONDUCTANCE..... 2700.
 ALKALINITY..... 493. AS CAC03
 TOTAL DISSOLVED SOLIDS... 1777.

ANALYSIS IN MG/L

AG....		CO3....		LI....	0.4		
AL....	0.62	CR....		MG....	2.1		
AS....		CS....		MN....	0.06		
R....	12.	F....	3.0	NA....	7 53.	SI02.	102.
RE....		FE(TOT).	0.56	NB....		S04..	119.
CA....	13.						
CD....		H2S....		PO4..	0.294		
CL....	62J.						
CO....		K....	12.				

ISOTOPES (U/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DUE CONTRACT DE-FC07-79ET27220.

RECORD 00071

GEOHERM SAMPLE TITLE

GEOHERM FILE ID: 0015436

NAME OF SAMPLE SOURCE... HARNEY VALLEY DEV CO. OIL TEST WELL

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 24S 03E 08 NW OF NE SE
 STATE..... OREGON
 COUNTY..... HARNEY

COORDINATES

LAT/LONG... 43-30.25 N 118-54.30 W
 UTM ZONE... 11
 NORTHING... 4818351.
 345996.

GEOLOGIC PROVINCE..

MAP REFERENCE..... HARNEY 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1968/09/12 LEONARD & HANSON
 SAMPLE NUMBER..... USGS PNW 16829
 TEMPERATURE (C)..... 46.0
 WELL DEPTH (M)..... 857.
 DISCHARGE..... 132. L/MIN

OTHER SAMPLE INFORMATION.. STRONG SULFUR ODOR

WATER ANALYSIS

PH..... 9.6 AT(C) 46.
 SPECIFIC CONDUCTANCE..... 602.
 TOTAL DISSOLVED SOLIDS... 396.
 CHARGE IMBALANCE (% DIFF)... 1.4

ANALYSIS IN MG/L

AG....		CO3....	84.	MG....	0.2		
AL....		CR....		NA....	135.	SI02.	72.
H....	4.1	F....	12.	NB....		S04..	29.
RE....		FE(TOT).	0.2				
CA....	0.8	HCO3....	94.	NO3..	0.2		
CL....	11.						
CO....		K....	1.6				

ISOTOPES (U/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES

COMPTLER CROSS INDEX... 05
REFERENCE..... LEONARD, 1970

RECORD 00072

GEOTHERM FILE ID: 0003045

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... HARNEY VALLEY DEV. CO. OIL WELL
WELL/SPRING NUMBER..... 24S-32E-008-DAB
LOCATION

COORDINATES

COUNTRY..... UNITED STATES 24S 032E 08 NW OF SE SE
STATE..... OREGON B&M WILLAMETTE
COUNTY..... HARNEY
GEOLOGIC PROVINCE.. HARNEY BASIN
MAP REFERENCE..... HARNEY ORE. 1162500
OTHER LOCALITY INFORMATION: BURNS A.M.S.

LAT/LONG... 43-30.25 N 118-54.30 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID AND MCLEAN GARY
SAMPLE NUMBER..... WSA0-118
POINT OF COLLECTION.. WELLHEAD
TEMPERATURE (C)..... 50.
WELL DEPTH (M)..... 857.
GRADIENT (C/KM)..... N

DISCHARGE..... 95. L/MIN
DEPOSITS OR ALTERATION... SLIGHT SINTER ON WELL CASING.
PERTINENT LITHOLOGY..... VALLEY ALLUVIUM.

OTHER SAMPLE INFORMATION.. OWNER CLAIMS TEMPERATURE REACHES 65 DEGREES C DURING DRY SUMMER MONTHS.

WATER ANALYSIS

DATE/ANALYST..... 1980/06/25 BANJEREE, KALA C.
PH..... 9.9
SPECIFIC CONDUCTANCE..... 540.
ALKALINITY..... 252. AS CaCO3
TOTAL DISSOLVED SOLIDS... 416.
CHARGE IMBALANCE (B DIFF)... 9.4

ANALYSIS IN MG/L

AG....		CO3....		LI... L 0.1			
AL....	0.16	CR....		MG... L 0.1			
AS....	0.015	CS....		MN... L 0.05			
H....	4.9	F....	1.2	NA... 119.	S102..	92.	
HF....		FE(TOT). L	0.05	NB... 504..		9.7	
HI....		GA.....		NH4..			
CA....	0.1						
CD....		H2S.....		PO4..			0.010
CL....	21.						
CO....		K.....	0.8				

ISOTOPES (0/00)

OTHER ANALYTICAL DATA... OWNERS ANALYSIS PERFORMED BY OREGON STATE UNIVERSITY INDICATES CA MG = 0.05MG/L; NA = 5.55
MG/L; HCO3 = 5.01 MG/L; B = 4.17 PPM.

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
COMPTLER AFFILIATION... HOGAMI
REFERENCE..... HOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00073

GEOTHERM FILE ID: 0015439

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... HINES LUMBER CO. WELL
LOCATION

COORDINATES

COUNTRY..... UNITED STATES 23S 030E 35 SE OF NE NE LAT/LONG... 43-32.34 N 119-04.80 W
 STATE..... OREGON UTM ZONE... 11
 COUNTY..... HARNEY NORTHING... 4822559.
 GEOLOGIC PROVINCE.. 32 331945.
 MAP REFERENCE..... BURNS 1124000, BURNS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1968/07/24 HANSON, BILL
 SAMPLE NUMBER..... USGS PNW 16606
 POINT OF COLLECTION.. SURFACE
 TEMPERATURE (C)..... 25.0
 WELL DEPTH (M)..... 61.
 DISCHARGE..... 6624.

WATER ANALYSIS

P1..... 7.8 AT(C) 25.
 SPECIFIC CONDUCTANCE..... 222.
 TOTAL DISSOLVED SOLIDS... 180.
 CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

AG.....		CO3..... N				
AL.....		CR.....	MG... 2.			
B..... 0.38		F..... 0.5	NA... 33.	SI02. 55.		
HE.....		FE(TQT). 0.02	NB... 504..	14.		
CA..... 11.		HCO3..... 105.	NO3... 1.5			
CL..... 7.						
CO.....		K..... 4.				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 45
 REFERENCE..... LEONARD, 1970

RECORD 00074

 GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0003057

NAME OF SAMPLE SOURCE... HINES MILL NO. 2
 KGRA..... BURNS BUTTE
 WELL/SPRING NUMBER..... 23S-30E-026-DAD

LOCATION

TOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 23S 030E 26 SE OF NE SE LAT/LONG... 43-32.82 N 119-04.80 W
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. HARNEY BASIN
 MAP REFERENCE..... BURNS, ORE. 1124000 AND 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/10/13 BROWN, DAVID E.
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 27.8 AT (M).. 30.
 DEPOSITS OR ALTERATION... WHITE DEPOSITS ON PIPE.
 OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.

WATER ANALYSIS

DATE/ANALYST..... 1980/ / KRONEMAN, RUTH
 P1..... 8.18 AT(C) 28.
 SPECIFIC CONDUCTANCE..... 240.
 TOTAL DISSOLVED SOLIDS... 172.

ANALYSIS IN PPM

AG..... L 0.054 CO3..... LI... L 0.054

ISOTOPES (0/00)

AI..... L 0.680	CR..... L 0.054	MG... 2.0	SB... L 0.816
AS..... L 0.680	CS.....	MN... L 0.272	
AU..... L 0.109	CU..... L 0.068	MO... L 1.4	
H..... 0.3	F..... 0.5	NA... 26.	SI02. 42.
HA..... L 0.68	FE+3.....	NA+K..	SN... L 0.136
RE..... L 0.005	FE(TOT), L 0.027	NB...	S04... 10.
RI..... L 2.7	GA.....	NH4... T	SR... 0.04
RR.....	GE.....	NI... L 0.136	
CA..... 9.0	HCO3.....	NO3... L 0.136	TI... L 0.136
CA+MG..	HG.....	PB... L 0.272	U.... L 6.8
CD..... L 0.068	H2S.....	PO4... L 0.272	V.... L 1.4
CL..... 9.0	I.....	RA...	W.... L 0.136
CO..... L 0.027	K..... 4.0		ZN... 0.9

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00075

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003056

NAME OF SAMPLE SOURCE... MINES MILL WELL NO. 1
 AREA..... BURNS BUTTE
 WELL/SPRING NUMBER..... 23S-30E-35-AAA

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 23S 030E 35 NE OF NE NE LAT/LONG... 43-33.43 N 119-04.85 W
 STATE..... OREGON B&M: WILLAMETTE
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32

MAP REFERENCE..... BURNS, ORE. 1:24000 AND 1:62500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/10/09 BROWN, DAVID E.
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 28.5
 DISCHARGE..... 1890. L/MIN
 DEPOSITS OR ALTERATION... WHITE DEPOSIT ON PIPES.
 OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.

WATER ANALYSIS

DATE/ANALYST..... 1980/12/ KRONEMAN, RUTH
 PH..... 7.9 AT(C) 29.
 SPECIFIC CONDUCTANCE..... 280.
 TOTAL DISSOLVED SOLIDS... 180.

ANALYSIS IN PPM

ISOTOPIES (0/00)

AG..... L 0.054	CO3.....	LI... L 0.054	SB... L 0.816
AI..... L 0.680	CH..... L 0.054	MG... 2.0	
AS..... L 0.680	CS.....	MN... L 0.272	
AU..... L 0.109	CU..... L 0.068	MO... L 1.4	
H..... 0.3	F..... 0.6	NA... 29.	SI02. 45.
HA..... L 0.68	FE+3.....	NA+K..	SN... L 0.136
HF..... L 0.005	FE(TOT), L 0.027	NB...	S04... 12.
RI..... L 2.7	GA.....	NH4... T	SR... 0.04
RR.....	GE.....	NI... 0.136	
CA..... 10.	HCO3.....	NO3... L 0.136	TI... L 0.136
CA+MG..	HG.....	PB... L 0.272	U.... L 6.8
CD..... L 0.068	H2S.....	PO4... L 0.272	V.... L 1.4
CL..... 8.0	I.....	RA...	W.... L 0.136

CO... L 0.027 K... 4.0 ZN... L 0.136
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... ARON, DAVID E.
 COMPILER AFFILIATION... HOGAMI
 REFERENCE..... HOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00076

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... HOGHOUSE HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... 3J
 TOWNSHIP-RANGE
 31S 032E 13
 COORDINATES
 LAT/LONG... 42-53.7 N 118-53.7 W
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 27.
 DISCHARGE..... 6800. L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... PIPER AND OTHERS, 1939

GEOTHERM FILE ID: 0001679

RECORD 00077

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... HOT BORAX LAKE
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE...
 TOWNSHIP-RANGE
 37S 033E 14 NW OF SW
 COORDINATES
 LAT/LONG... 42-19.60 N 118-36.17 W
 UTM ZONE... +11
 NORTHING... 4687077.
 367933.
 M&P REFERENCE..... BORAX LAKE 1124000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1972/00/00 BARNES GROUP
 TEMPERATURE (C)..... 36.0
 DISCHARGE..... 7500.
 WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE - MEMBRANE FILTER, METAL ANALYSES ACIDIFIED
 WITH NITRIC ACID, DILUTED
 DEPOSITS OR ALTERATION... SINTER
 PERTINENT LITHOLOGY..... ALLUVIUM, ANDESITE AND BASALT
 WATER ANALYSIS
 DATE/ANALYST..... 1972/00/00 BARNES GROUP
 PH..... 7.28
 SPECIFIC CONDUCTANCE..... 2410.
 CHARGE IMBALANCE (% DIFF)... 1.5
 ANALYSIS IN MG/L
 AG... L 0.02 CO3... L 1. LI... 0.65 S...
 AL... CH... MG... 0.3 SB... L 0.2
 AS... 0.01 CS... 0.1 MN... 0.03 SC...
 AU... L 0.1 CU... 0.03
 H... 17. F... 9.0 NA... 500. SI02. 190.
 HA... L 0.1
 HF... L 0.1 FE(TOT). L 0.02 NB... 350.
 HT... GA... NH4... 0.42

GEOTHERM FILE ID: 0000782

ISOTOPIES (0/00)

DEL D OF WATER..... -115.8
 DEL O(18) OF WATER... -11.57
 DEL O(18) OF SU4..... -7.95

RP.... 2.
 CA.... 16. HCO3.... 420.
 CA+MG. HG.... 0.0004 PH... L 0.06
 CD.... L 0.01 H2S.... P04.. 0.89
 CL.... 300. I.... 0.2
 CO.... L 0.05 K.... 31. RB... 0.23

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 24
 REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00078

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0002208

NAME OF SAMPLE SOURCE... HOT BURAX LAKE
 KGRA..... ALVORD
 WARING NUMBER..... 70

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 37S 033E 14 NW OF SW
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... BORAX LAKE 1:24000

LAT/LONG... 42-19.60 N 118-36.17 W
 UTM ZONE... +11
 NORTHING... 4687077.
 367933.

OTHER LOCALITY INFORMATION: 5 MI. NORTHEAST OF FIELDS

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1953/09/03 HEWETT, D. F.
 SAMPLE NUMBER..... LAR NO. 1CC-46
 POINT OF COLLECTION.. WEST SIDE OF SPRINGS
 TEMPERATURE (C)..... R 29.4

WATER ANALYSIS

DATE/ANALYST..... 1953/09/25 BERMAN, S. AND KRAMER, H.
 P.I..... 7.7
 SPECIFIC CONDUCTANCE... 2227.
 TOTAL DISSOLVED SOLIDS... 1559.
 CHARGE IMBALANCE (% DIFF)... 0.4

ANALYSIS IN PPM

ISOTOPES (0/001)

AG....	CO3.... N	LI... L 1.5			
AL....	CR....	MG... N			
R.... 18.	F.... 8.	NA... 488.	SI02.. 184.		
HF....	FE(TQT).	NB... 504..	343.		
CA.... 17.	HCO3.... 424.	NO3.. 2.5			
CL.... 286.					
CO....	K.... 23.				

QUALIFICATION FIELD..... TEMP RANGE: 26.7-32.2 C

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 24
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00079

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0002211

NAME OF SAMPLE SOURCE... HOT BURAX LAKE
 KGRA..... ALVORD

WATERING NUMBER..... 70

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 37S 033E 14 NW OF SW
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE..

COORDINATES
 LAT/LONG... 42-19.60 N 118-36.17 W
 UTM ZONE... +11
 NORTHING... 4687077.
 367933.

MAP REFERENCE..... BORAX LAKE 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1961/06/28 VAN DENBURGH, A. S.
 TEMPERATURE (C)..... 31.1

OTHER SAMPLE INFORMATION.. LAKE IS 200-300 YD IN DIAMETER AND 1-2 FT DEEP. MAN-MADE DRAIN FLOWS 2 CFS.

WATER ANALYSIS

PH..... 7.8
 SPECIFIC CONDUCTANCE..... 2410.
 TOTAL DISSOLVED SOLIDS... 1680.
 CHARGE IMBALANCE (% DIFF)... 0.6

ANALYSIS IN PPM

AG....		CO3..... N					
AL....		CR.....		MG... 0.5			
H....	18.	F.....	9.7	NA... 516.	SI02.. 193.		
HF....		FE(TOT).		NB... 504..	367.		
CA....	16.	HCO3.....	450.				
CD....		H2S.....		PO4.. 2.2			
CL....	305.						
CO....		K.....	27.				

ISOLOPES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 24
 REFERENCE..... MARINEK AND OTHERS, 1980

RECORD 00080

GEOHEM SAMPLE FILE

GEOHEM FILE ID: 0015438

NAME OF SAMPLE SOURCE... HOTCHKISS WELL

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 24S 030E 01 SE OF NW NE
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE..

COORDINATES
 LAT/LONG... 43-31.42 N 119-03.83 W
 UTM ZONE... +11
 NORTHING... 4820823.
 333209.

MAP REFERENCE..... BURNS 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1968/09/11 LEONARD AND HANSON
 SAMPLE NUMBER..... USGS PNW 16835
 POINT OF COLLECTION.. SURFACE
 TEMPERATURE (C)..... 27.
 WELL DEPTH (M)..... 172.
 DISCHARGE..... 2271.

WATER ANALYSIS

PH..... 8.1 AT(C) 27.
 SPECIFIC CONDUCTANCE..... 194.
 TOTAL DISSOLVED SOLIDS... 155.
 CHARGE IMBALANCE (% DIFF)... 1.8

ANALYSIS IN MG/L

AG....		CO3..... N			
AL....		CR.....		MG... 1.4	

ISOLOPES (0/00)

R.....	0.06	F.....	0.5	NA...	31.	SI02.	46.
HF.....		FE(TQT).		NB...		S04..	12.
CA.....	8.8	HCO3.....	93.	NO3..	1.1		
CL.....	5.						
CO.....		K.....	2.9				

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 44
 REFERENCE..... LEONARD, 1970

RECORD 00081

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015940

NAME OF SAMPLE SOURCE... HOTCHKISS WELL

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	24S 030E 01	SE OF NW NE	LAT/LONG...	43-31.42 N 119-03.83 W
STATE.....	OREGON			UTM ZONE...	+11
COUNTY.....	HARNEY			NORTHING...	4820823.
GEOLOGIC PROVINCE..					333209.

MAP REFERENCE..... BURNS 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1931/08/26
 TEMPERATURE (C)..... 27.

WATER ANALYSIS

CHARGE IMBALANCE (% DIFF)... 0.6

ANALYSIS IN PPM

ISOTOPES (0/100)

AG....		CO3.....	N	MG...	1.7		
AL....		CR.....		NA...	30.	SI02.	51.
R.....		F.....		NB...		S04..	13.
HF.....		FE(TQT).	0.01	NO3..	1.2		
CA....	9.6	HCO3.....	95.				
CL....	5.2						
CO....		K.....	2.4				

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 44
 REFERENCE..... PIPEH AND OTHERS, 1939

RECORD 00082

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003050

NAME OF SAMPLE SOURCE... HOTCHKISS WELL

WELL/SPRING NUMBER..... 24S-30E-001-ACA

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	24S 030E 01	NE OF SW NE	LAT/LONG...	43-31.42 N 119-03.83 W
STATE.....	OREGON	B&M: WILLAMETTE			
COUNTY.....	HARNEY				
GEOLOGIC PROVINCE..	HARNEY BASIN				

MAP REFERENCE..... BURNS, ORE. 1:62500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/10/13 BROWN, DAVID E.
 POINT OF COLLECTION.. SEEP AT BASE OF CASING.
 TEMPERATURE (C)..... 33.
 DISCHARGE..... 19. L/MIN

DEPOSITS OR ALTERATION.... WHITE DEPOSITS.
 OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOOR.
 WATER ANALYSIS

DATE/ANALYST..... 1980/12/ KHONEMAN, RUTH
 PH..... 8.37 AT(C) 33.
 SPECIFIC CONDUCTANCE..... 220.
 TOTAL DISSOLVED SOLIDS... 166.

ANALYSIS IN PPM

AG.... L 0.054	CO3.....	LI... L 0.054		
AL.... L 0.680	CR..... L 0.054	MG... 2.0	SB... L 0.816	
AS.... L 0.680	CS.....	MN... L 0.272		
AU.... L 0.109	CU..... L 0.068	MO... L 1.4		
H..... 0.3	F..... 0.5	NA... 30.	SI02. 45.	
RA.... L 0.680	FE+3.....	NA+K.	SN... L 0.136	
RE.... L 0.005	FE(TOT). L 0.027	NB...	SO4.. 12.	
RI.... L 2.7	GA.....	NH4.. T	SR... 0.03	
RR....	GE.....	NI... L 0.136		
CA.... 10.	HCO3.....	NO3..	TI... L 0.136	
CA+MG.	MG.....	PB... L 0.272	U.... L 6.8	
CD.... L 0.068	H2S.....	PO4..	V.... L 1.4	
CL.... 7.0	I.....	RA...	W.... L 0.136	
CO.... L 0.027	K..... 3.0		ZN... 1.1	

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00083

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0001681

NAME OF SAMPLE SOURCE... HOWELL OIL TEST
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 26S 032E 05
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... 32

COORDINATES

LAT/LONG... 43-21.6 N 118-53.4 W

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 41.
 DISCHARGE..... 114. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... PIPER AND OTHERS, 1939

RECORD 00084

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0001697

NAME OF SAMPLE SOURCE... HUGHET SPRING
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 27S 029E 08
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... 32

COORDINATES

LAT/LONG... 43-15.0 N 119-15.6 W

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 20.
 DISCHARGE..... 22300. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... PIPER AND OTHERS, 1939

RECORD 00085

 GEOTHERM SAMPLE FILE..... ISLAND RANCH WELL
 GEOTHERM FILE ID: 0015434

LOCATION.....
 NAME OF SAMPLE SOURCE... ISLAND RANCH WELL
 TOWNSHIP-RANGE.....
 COUNTRY..... UNITED STATES 25S 03E 07 NW OF NE NW
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... 32
 COORDINATES
 LAT/LONG... 43-25.40 N 118-55.95 W
 UTM ZONE... +11
 NORTHING... 4809425.
 343565.

MAP REFERENCE..... LAMEN 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1969/08/12 LEONARD, A.
 SAMPLE NUMBER..... PNW 17450
 POINT OF COLLECTION.. SURFACE
 TEMPERATURE (C)..... 41.0
 WELL DEPTH (M)..... 410.
 DISCHARGE..... 11.

WATER ANALYSIS
 DATE/ANALYST..... USGS
 PH..... 9.3
 SPECIFIC CONDUCTANCE..... 1450.
 TOTAL DISSOLVED SOLIDS... 957.
 CHARGE IMBALANCE (% DIFF)... 1.9

ANALYSIS IN MG/L
 AG.... CO3.... 144.
 AL.... CR..... MG... 0.2
 AS.... N
 B.... F..... 19. NA... 386. SI02. 54.
 BE.... FE(TOT). NB... 504.. 8.
 CA.... 0.5 HCO3.... 674. NO3.. 0.1
 CL.... 9.
 CO.... K..... 4.4

ISOLINES (0/00)

REFERENCE AND IDENTIFICATION
 COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 08
 REFERENCE..... LEONARD, 1970

RECORD 00086

 GEOTHERM SAMPLE FILE..... JOHNSON SPRING
 GEOTHERM FILE ID: 0001698

LOCATION.....
 NAME OF SAMPLE SOURCE... JOHNSON SPRING
 TOWNSHIP-RANGE.....
 COUNTRY..... UNITED STATES 27S 029E 05
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... 32
 COORDINATES
 LAT/LONG... 43-15.6 N 119-16.8 W

SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 27.
 DISCHARGE..... 3400. L/MIN

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... PIPER AND OTHERS, 1939

RECORD 00087

GEOTHERM FILE ID: 0003042

GEOTHERM SAMPLE FILENAME OF SAMPLE SOURCE... LONG HOLLOW WELL
WELL/SPRING NUMBER..... 265-34E-008-B00

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 26S 034E 08 SE OF SE NW
STATE..... OREGON 8&M WILLAMETTE

LAT/LONG... 43-19.039N 118-33.015W

COUNTY..... HARNEY

GEOLOGIC PROVINCE.. 32

MAP REFERENCE..... CRANE, ORE. 1162500

OTHER LOCALITY INFORMATION: BURNS A.M.S.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID

SAMPLE NUMBER..... WSR0-119

POINT OF COLLECTION.. WELLHEAD

TEMPERATURE (C)..... 25.

WELL DEPTH (M)..... 135.

PERTINENT LITHOLOGY..... TUFFACEOUS SEDIMENTS AND RHYOLITIC ASH FLOW.

OTHER SAMPLE INFORMATION.. SLIGHT MINERAL ODOR.

WATER ANALYSIS

DATE/ANALYST..... 1980/06/26 BANJEREE, KALA C.

PH..... 7.8

SPECIFIC CONDUCTANCE..... 336.

ALKALINITY..... 105.

AS CaCO3

TOTAL DISSOLVED SOLIDS... 282.

CHARGE IMBALANCE (% DIFF)... 9.7

ANALYSIS IN MG/L

AG....		CO3....		LI... L	0.1		
AL....	0.38	CR....		MG... L	4.5		
AS....	0.016	CS....		MN... L	0.05		
R....	0.7	F....	0.3	NA... L	28.8	SI02..	76.
HF....		FE(TQT)..	0.2	NB... L		S04..	28.
RI....		GA....		NH4..	2.93		
CA....	24.6						
CO....		H2S....		P04..	0.084		
CL....	35.5						
CO....		K....	5.6				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.

COMPILER AFFILIATION... DOGAMI

REFERENCE..... BROWN AND OTHERS, 1980A

RECORD 00088

GEOTHERM FILE ID: 0001699

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... LYNCH SPRING

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 27S 030E 08

LAT/LONG... 43-15.0 N 119-01.5 W

STATE..... OREGON

COUNTY..... HARNEY

GEOLOGIC PROVINCE.. 32

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 18.

DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... PIPER AND OTHERS, 1939

RECORD 00089

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000679

NAME OF SAMPLE SOURCE... MICKEY SPRINGS

KGRH..... ALVORD

LOCATION

COUNTRY..... UNITED STATES

STATE..... OREGON

COUNTY..... HARNEY

GEOLOGIC PROVINCE..

M.P. REFERENCE..... ADEL 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP

TEMPERATURE (C)..... 73.0

DISCHARGE..... 100. L/MIN

WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE MEMBRANE FILTER, METAL ANALYSES ACIDIFIED WITH NITRIC ACID, DILUTED

DEPOSITS OR ALTERATION... SINTER

PERTINENT LITHOLOGY..... MIOCENE ANDESITIC TUFF-BRECCIA

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 8.05

SPECIFIC CONDUCTANCE..... 2490.

CHARGE IMBALANCE (% DIFF)... 1.6

ANALYSIS IN MG/L

AG.... L 0.02	CO3..... 11.	LI.... 1.1	S....		
AL.... 0.058	CR.....	MG.... 0.1	SB.... L 0.2		
AS.... 0.01	CS..... 0.1	MN.... L 0.02	SC....		
AU.... L 0.1	CU..... 0.05				
R.... 11.	F..... 16.	NA.... 550.	SI02. 200.		
RA.... L 0.1					
RF.... L 0.1	FE (TOT). L 0.02	NB....	S04.. 230.		
HI....	GA.....	NH4.. 0.39	SR.... 0.15		
HR.... 1.					
CA.... 0.9	HCO3'.... 774.				
CA+MG.	HG..... 0.0001	PB... L 0.06			
CD.... L 0.01	H2S.....	PO4.. 0.74			
CL.... 240.	I..... 0.09				
CO.... L 0.05	K..... 35.	RB.... 0.2			

ISOTOPES (O/001)

DEL D OF WATER.....	-124.3
DEL O(18) OF WATER...	-13.42
DEL O(18) OF SO4.....	-7.91

GAS ANALYSIS

ANALYSIS IN VOLUME %

CH4.. 1.	
C2H6.	N2... 60.
CO2.. 23.	

ISOTOPES (00/01)

OTHER ANALYTICAL DATA... AR, O2=18.

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... NEM-980

REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00090

GEO THERM FILE 101 0015459

GEO THERM SAMPLE FILE

NAME OF SAMPLE SOURCE... MICKEY SPRINGS
KRA..... ALVORD

LOCATION TOWNSHIP-RANGE
COUNTRY..... UNITED STATES 33S 03SE 13

COORDINATES

LAT/LONG... 42-40.54 N 118-20.67 W
UTM ZONE... +11
NORTHING... 4725461
389833.

STATE..... OREGON
COUNTY..... HARNEY
GEOLOGIC PROVINCE... BASIN AND RANGE
MAP REFERENCE..... ADEL 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/09/09 MARINER, R. H. AND EVANS, W. C.
POINT OF COLLECTION.. FROM MORNING GLORY SHAPED POOL JUST BELOW ROAD IN UPPER PART OF COMPLEX
WATER TREATMENT..... FIELD ALKALINITY DETERMINATION; FILTERED (0.1UM); SILICA DILUTED; ACIDIFIED SAMPLE FOR GROUP II.

DEPOSITS OR ALTERATION... SINTER

OTHER SAMPLE INFORMATION.. TWO OTHER SAMPLES COLLECTED FROM COMPLEX ON SAME DAY

WATER ANALYSIS

DATE/ANALYST..... 1977/01/00 BARNES GROUP

SPECIFIC CONDUCTANCE... 2290.

ALKALINITY..... 836. AS HCO3

CHARGE IMBALANCE (% DIFF)... 2.9

ANALYSIS IN MG/L

AG....	CO3....	LI... 0.85			
AL....	CR....	MG... L 0.1			
AS....	CS.... L 0.1				
H.... 11.	F.... 17.	NA... 560.	SI02.. 200.		
HE....	FE(TOT)..	NB... 504..	220.		
CA.... 0.6	HCO3.... 836.				
CD....	H2S.... L 1.				
CL.... 245.					
CO....	K.... 32.	RU... 0.15			

ISOTOPES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
COMPILER CROSS INDEX... 22
REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00091

GEO THERM FILE 101 0015458

GEO THERM SAMPLE FILE

NAME OF SAMPLE SOURCE... MICKEY SPRINGS
KRA..... ALVORD

LOCATION TOWNSHIP-RANGE
COUNTRY..... UNITED STATES 33S 03SE 13

COORDINATES

LAT/LONG... 42-40.6 N 118-20.7 W
UTM ZONE... +11
NORTHING... 4725573.
389794.

STATE..... OREGON
COUNTY..... HARNEY
GEOLOGIC PROVINCE... BASIN AND RANGE
MAP REFERENCE..... ADEL 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/09/09 MARINER, R. H. AND EVANS, W. C.
POINT OF COLLECTION.. FROM GASSY POOL ON EAST END OF COMPLEX AT BASE OF SINTER CAP
TEMPERATURE (C)..... 80.
WATER TREATMENT..... FIELD ALKALINITY DETERMINATION; FILTERED; SILICA DILUTION.

DEPOSITS OR ALTERATION... SINTER
 OTHER SAMPLE INFORMATION... TWO OTHER SAMPLES COLLECTED FROM COMPLEX ON SAME DAY
 WATER ANALYSIS

DATE/ANALYST..... 1977/01/00 BARNES GROUP
 PH..... 8.31 AT(C) 85.
 SPECIFIC CONDUCTANCE..... 2220.
 ALKALINITY..... 814. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 2.8

ANALYSIS IN MG/L

AG.... CO3.... LI... 0.9
 AL.... 0.068 CR.... MG... 0.1
 AS.... CS.... L 0.1
 H.... 11. F.... 17. NA... 550. SI02. 214.
 HF.... FE(TOT). L 0.02 NB... 504.. 220.
 HI.... GA.... NH4.. L 0.5
 CA.... 1.0 HCO3.... 814.
 CH.... H2S.... L 1.
 CL.... 240.
 CO.... K.... 30. RB... 0.14

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 22
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00092

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015457

NAME OF SAMPLE SOURCE... MICKEY SPRINGS
 LOCALITY..... ALVORD

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 33S 03SE 13
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... BASIN AND RANGE
 MAP REFERENCE..... ADEL 11250000

LAT/LONG... 42-40.6 N 118-20.7 W
 UTM ZONE... +11
 NORTHING... 4725573.
 389794.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/09/09 MARINER, R.H., AND EVANS, W.C.
 TEMPERATURE (C)..... 86.

WATER TREATMENT..... FIELD FILTERED, FIELD ALKALINITY DETERMINATION, SILICA DILUTION, FIELD AMMONIA DETERMINATION

DEPOSITS OR ALTERATION... SINTER

WATER ANALYSIS

DATE/ANALYST..... 1977/01/00 BARNES GROUP
 PH..... 8.31 AT(C) 86.
 SPECIFIC CONDUCTANCE..... 2200.
 ALKALINITY..... 804. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 1.0

ANALYSIS IN MG/L

AG.... CO3.... LI... 0.9
 AL.... CR.... MG... L 1.
 AS.... CS.... 0.1
 H.... 11. F.... 16. NA... 550. SI02. 214.
 HF.... FE(TOT). NB... 504.. 210.
 HI.... GA.... NH4.. L 0.5
 CA.... 1.0 HCO3.... 804.

ISOTOPES (0/00)

CD.... H2S..... L 1.
 Cl.... 240.
 CO.... K..... 31. RB... 0.18

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, ROBERT H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 72
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00093

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015433

NAME OF SAMPLE SOURCE... MICKEY SPRINGS

.. KGRA..... ALVORD

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 33S 03SE 13
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE..

LAT/LONG... 42-40.6 N 118-20.7 W
 UTM ZONE... +11
 NORTING... 4725573.
 389794.

.. MJP REFERENCE..... ADEL 11250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1970/07/01 BOWEN, R. G.
 SAMPLE NUMBER..... 1711
 TEMPERATURE (C)..... 85.

WATER ANALYSIS

DATE/ANALYST..... 1970/07/31 AWH-OREGON DEPT OF QUALITY
 PH..... 8.5
 SPECIFIC CONDUCTANCE..... 2200.
 ALKALINITY..... 630.
 TOTAL DISSOLVED SOLIDS... 1748.
 CHARGE IMBALANCE (% DIFF)... 3.1

ANALYSIS IN MG/L

AG....	CO3....	LI... L 0.2		
AL.... L 0.01	CR....	MG... 1.2		
AS.... 2.5	CS....	MN... 0.02		
H.... 9.2	F..... 20.	NA... 478.	SI02. 167.	
RE....	FE(TOT) 0.06	NB... 504..	S04.. 205.	
RI....	GA....	NH4... 0.02		
CA.... 1.	HCO3....	NO3... 0.02		
CD....	H2S.....	PO4... 1.3		
CL.... 230.				

ISOLAPES (0/00)

.. CO.... K..... 20.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 72
 REFERENCE..... *DOGAMI

RECORD 00094

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015941

NAME OF SAMPLE SOURCE... MILLPOND SPRING

.. WAKING NUMBER..... 52

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 23S U30E 35 NE OF NE NE
 STATE..... OREGON

LAT/LONG... 43-32.43 N 119-04.86 W
 UTM ZONE... +11

COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... BURNS 1124000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1911/08/26
 TEMPERATURE (C)..... 26.

NORTHING... 4822727.
 331869.

WATER ANALYSIS
 ANALYSIS IN PPM

AG.....	CO3..... N				
HA.....	FE+3.....	NA+K.	37.		
HE.....	FE(TQT).....	NB...		504..	11.
CA..... 14.	HCO3..... 109.	NO3..	1.1		
CL..... 8.					

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 04
 REFERENCE..... PIPER AND OTHERS, 1939

RECORD 00095

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0001690

NAME OF SAMPLE SOURCE... NORTH OF VENATOR
 LOCATION TOWNSHIP-RANGE

COORDINATES

LAT/LONG... 43-23.4 N 118-18.9 W

COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 45.
 DISCHARGE..... 1135. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... ROWEN AND OTHERS, 1978

RECORD 00096

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015440

NAME OF SAMPLE SOURCE... O. J. THOMAS

LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 22S 032E 34 NE OF NE NE

COORDINATES

LAT/LONG... 43-37.65 N 118-51.75 W
 UTM ZONE... 11
 NORTHING... 4831971.
 349739.

STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE..

MAP REFERENCE..... HARNEY 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1968/09/13 HANSON, W. B.
 SAMPLE NUMBER..... USGS PNW 16831
 POINT OF COLLECTION.. SURFACE
 TEMPERATURE (C)..... 72.0
 WELL DEPTH (M)..... 305.
 DISCHARGE..... R 95.

OTHER SAMPLE INFORMATION.. WATER USED FOR GREENHOUSE

WATER ANALYSIS

PH..... 9.5 AT (C) 72.
 SPECIFIC CONDUCTANCE..... 716.

TOTAL DISSOLVED SOLIDS... 499.

CHARGE IMBALANCE (% DIFF)... 0.0

ANALYSIS IN MG/L

AG....		CO3....	92.				
AL....		CR....		MG...	0.2		
AS....	0.06						
H....	4.0	F....	2.8	NA...	157.	SI02.	89.
HE....		FE(TOT)..	0.03	NB...		S04...	89.
CA....	1.0	HCO3....	49.	NO3..	N		
CL....	38.						
CO....		K....	1.8				

ISOTOPES (0/00)

QUALIFICATION FIELD... FLOW RANGE: 76-114 LPM

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 02
 REFERENCE..... LEONARD, 1970

RECORD 00097

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003048

NAME OF SAMPLE SOURCE... O. J. THOMAS WELL

WELL/SPRING NUMBER..... 22S-32E-035-BBB

LOCATION

TOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 22S 03E 35 NW OF NW NW
 STATE..... OREGON B&M: WILLAMETTE
 COUNTY..... HARNEY

LAT/LONG... 43-37.65 N 118-51.74 W

GEOLOGIC PROVINCE.. 32

MAP REFERENCE..... HARNEY, ORE. 1162500

OTHER LOCALITY INFORMATION: BURNS A.M.S.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID

SAMPLE NUMBER..... NSAO-120

POINT OF COLLECTION.. WELL ORIFICE

TEMPERATURE (C)..... 72.

AMBIENT TEMP (C)..... 10.

WELL DEPTH (M)..... R 200.

DISCHARGE..... 2268. L/MIN

DEPOSITS OR ALTERATION... SOME SINTER ON PIPE OUTLET.

OTHER SAMPLE INFORMATION.. WATER PUMPED INTO SETTLING PONDS. WAS USED FOR GREENHOUSES. SLIGHT MINERAL ODDOR.

WATER ANALYSIS

DATE/ANALYST..... 1980/06/26 BANERJEE, KALA C.

PH..... 9.6

SPECIFIC CONDUCTANCE..... 622.

ALKALINITY..... 193. AS CaCO3

TOTAL DISSOLVED SOLIDS... 523.

CHARGE IMBALANCE (% DIFF)... 5.7

ANALYSIS IN MG/L

AG....		CO3....		LI...	0.1		
AL....	0.41	CR....		MG...	L 0.1		
AS....	0.063	CS....		MN...	L 0.05		
H....	6.7	F....	5.1	NA...	147.	SI02.	104.
HE....		FE(TOT)..	0.2	NH...		S04...	7b.
HI....		GA....		NH4..	1.		
CA....	0.3						
CO....		H2S.....		PO4..	0.027		

ISOTOPES (0/00)

CI.... 42. K..... 1.3
 CO.....
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... BROWN AND OTHERS, 1980B

RECORD 00098

GEOTHERM FILE ID: 0003061

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... NO STATION SPRING

WELL/SPRING NUMBER..... 265-28E-36-RDD

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 26S 028E 36 SE OF SE NW
 STATE..... OREGON B&M WILLAMETTE

LAT/LONG... 43-18.005N 119-19.003W

COUNTY..... HARNEY

GEOLOGIC PROVINCE.. 32

MAP REFERENCE..... BURNS, ORE. 11250,000

OTHER LOCALITY INFORMATION: BURNS A.M.S.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID AND MCLEAN, GARY

SAMPLE NUMBER..... W580-114

POINT OF COLLECTION.. MAIN ORIFICE

TEMPERATURE (C)..... 23.

AMBIENT TEMP (C)..... 10.

DISCHARGE..... 38. L/MIN

PERTINENT LITHOLOGY..... RHYOLITIC ASH FLOW TUFF.

WATER ANALYSIS

DATE/ANALYST..... 1980/06/25 BANERJEE, KALA C.

PH..... 8.0

SPECIFIC CONDUCTANCE..... 228.

ALKALINITY..... 85. AS CaCO3

TOTAL DISSOLVED SOLIDS... 186.

CHARGE IMBALANCE (% DIFF)... 1.5

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....	CO3....	LI... L 0.1		
AL.... L 0.05	CR....	MG... 3.9		
AS.... 0.019	CS....	MN... L 0.05		
R.... 0.45	F..... 0.2	NA... 31.	SI02. 68.	
HE....	FE(TOT). L 0.05	NB... 504.. 6.7		
CA.... 11.				
CI....	H2S.....	PO4.. 0.031		
CL.... 18.				

CO..... K..... 4.1

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.

COMPILER AFFILIATION... DOGAMI

REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00099

GEOTHERM FILE ID: 0003039

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... POTTERS SWAMP ART. WELL FIELD

WELL/SPRING NUMBER..... BURNS HUTTE

WELL/SPRING NUMBER..... 245-30E-011-ABA

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 24S 030E 11 NE OF NW NE LAT/LONG... 43-30.040N 119-05.009W
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... BURNS, ORE. 1162500
 OTHER LOCALITY INFORMATION: BURNS A.M.S.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID AND MCLEAN, GARY
 SAMPLE NUMBER..... WSA0-111
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 27.
 AMBIENT TEMP (C)..... 10.
 DISCHARGE..... 189. L/MIN
 DEPOSITS OR ALTERATION... SLIGHT SINTER
 PERTINENT LITHOLOGY..... VALLEY ALLUVIUM.
 OTHER SAMPLE INFORMATION.. SAMPLES LARGEST OF SIX ARTESIAN WELLS IN WELL FIELD USED TO FILL LARGE MAN-MADE LAKE.

WATER ANALYSIS

DATE/ANALYST..... 1980/06/25 BANERJEE, KALA C.
 PH..... 7.9
 SPECIFIC CONDUCTANCE..... 172.
 ALKALINITY..... 62. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 149.
 CHARGE IMBALANCE (± DIFF)... 3.2

ANALYSIS IN MG/L

AG....	CO3....	LI... L 0.1			
AL.... L 0.1	CR....	MG... 1.1			
AS.... 0.033	CS....	MN... L 0.05			
H.... 0.38	F.... 0.5	NA... 29.	SI02.. 54.		
RE....	FE(TOT). L 0.05	NB... 504..	S04.. 14.		
HI....	GA.....	NH4.. 0.03			
CA.... 7.7					
CO....	H2S.....	PO4.. 0.021			
CL.... 6.5					
CO....	K..... 2.3				

ISOPIRES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00100

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0003055

NAME OF SAMPLE SOURCE... POWERHOUSE WELL
 AREA..... BURNS BUTTE
 WELL/SPRING NUMBER..... 23S-30E-026-ADD

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 23S 030E 26 SE OF SE NE LAT/LONG... 43-33.03 N 119-04.77 W
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... BURNS, ORE. 1124000 AND 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/10/13 BROWN, DAVID E.
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 25. AT (M).. 30.
 DEPOSITS OR ALTERATION... GRAYISH DEPOSITS.

OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.

WATER ANALYSIS

DATE/ANALYST..... 1980/12/ KRONEMAN, RUTH
 PH..... 8.04 AT(C) 25.
 SPECIFIC CONDUCTANCE..... 225.
 TOTAL DISSOLVED SOLIDS... 210.

ANALYSIS IN PPM

AG.... L 0.054 CO3.....
 AL.... L 0.680 CR..... L 0.054
 AS.... L 0.680 CS.....
 AU.... L 0.109 CU..... L 0.068
 H..... 0.3 F..... 0.4
 RA.... L 0.680 FE+3.....
 HF.... L 0.005 FE(TOT). L 0.027
 HI.... L 2.7 GA.....
 CA.... 7.0 HCO3.....
 CA+MG. HG.....
 CD.... L 0.068 H2S.....
 CL.... 10. I.....
 CO.... L 0.027 K..... 3.0

ISOTOPES (0/00)

LI... L 0.054
 MG... 1.0 SB... L 0.816
 MN... L 0.272
 MO... L 1.4
 NA... 30. S102. 37.
 NA+K. SN... L 0.136
 NB... S04.. 14.
 NH4.. 0.3 SR... 0.02
 NO3.. TI... L 0.136
 PB... L 0.272 U... L 6.8
 PO4.. V... L 1.4
 RA... W... L 0.136
 ZN... 1.4

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00101

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0003040

NAME OF SAMPLE SOURCE... REST STOP WARM WELL

KARA..... BURNS BUTTE

WELL/SPRING NUMBER..... 23S-30E-036-CBB

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 23S 030E 36 NW OF NW SW

LAT/LONG... 43-31.060N 119-04.040W

STATE..... OREGON B&M WILLAMETTE

COUNTY..... HARNEY

GEOLOGIC PROVINCE.. J2

MAP REFERENCE..... BURNS, ORE. 1124000

OTHER LOCALITY INFORMATION: BURNS A.M.S.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID AND MCLEAN, GARY

SAMPLE NUMBER..... WSR0-109

POINT OF COLLECTION.. PIPE OUTLET

TEMPERATURE (C)..... 26.

AIR/TEMP (C)..... 10.

DEPOSITS OR ALTERATION... SLIGHT SINTER.

PERTINENT LITHOLOGY..... MAFIC VENT COMPLEX.

OTHER SAMPLE INFORMATION.. SLIGHT MINERAL ODOR.

WATER ANALYSIS

DATE/ANALYST..... 1980/06/25 BANJEREE, KALA C.

PH..... 8.0

SPECIFIC CONDUCTANCE..... 177.

ALKALINITY..... 73. AS CaCO3

TOTAL DISSOLVED SOLIDS... 156.

CHARGE IMBALANCE (% DIFF)... 2.2

ANALYSIS IN MG/L

AG.... CO3..... LI... L 0.1

ISOTOPES (0/00)

AL....	L 0.1	CR.....	MG...	1.3		
AS....	0.019	CS.....	MN...	L 0.05		
H.....	0.31	F.....	NA...	29.	SI02.	60.
HF....		FE(TQT) L	NB...	0.05	S04..	13.
HT....		GA.....	NH4..	0.05		
CA....	8.9	H2S.....	PO4..	0.044		
CD....		K.....				
CL....	6.1					
CO....						

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00102

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001685

NAME OF SAMPLE SOURCE... ROADLAND SPRING

LOCATION
 TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 24S 030E 11
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... 32

COORDINATES
 LAT/LONG... 43-29.4 N 119-07.2 W

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 22.
 DISCHARGE..... 1874. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... PIPEH AND OTHERS, 1939

RECORD 00103

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0003038

NAME OF SAMPLE SOURCE... SAGE HEN CREEK ART. WELL

WELL/SPRING NUMBER..... 24S-30E-24-8CB

LOCATION
 TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 24S 030E 24 NW OF SW NW
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... 32

COORDINATES
 LAT/LONG... 43-28.041N 119-04.024W

MAP REFERENCE..... DOG MTN., ORE. 1162500

OTHER LOCALITY INFORMATION: BURNS A.M.S.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID AND MCLEAN, GARY

SAMPLE NUMBER..... WSA0-110

POINT OF COLLECTION.. WELLHEAD

TEMPERATURE (C)..... 23.

AIR/INT TEMP (C)..... 10.

DISCHARGE..... 76. L/MIN

DEPOSITS OR ALTERATION... SINTER AND DARK GREEN ALGAE ON WELL CASING.

PERTINENT LITHOLOGY..... TUFFACEOUS SEDIMENTS AND BASALT.

OTHER SAMPLE INFORMATION.. SLIGHT MINERAL ODOR.

WATER ANALYSIS

DATE/ANALYST..... 1980/06/25 BANERJEE, KALA C.

PH..... 7.9

SPECIFIC CONDUCTANCE..... 151.

ALKALINITY..... 67. AS CAC03
 TOTAL DISSOLVED SOLIDS... 125.
 CHARGE IMBALANCE (% DIFF)... 12.2

ANALYSIS IN MG/L

AG....	CO3.....	LI... L 0.1	<u>ISOTOPES (0/00)</u>	
AL.... L 0.1	CR.....	MG... 0.5		
AS.... 0.030	CS.....	MN... L 0.05		
H.... L 0.2	F..... 0.5	NA... 25.6	S102.. 41.	
HF....	FE(TOT). L 0.05	NB... 504.. 11.8		
HI....	GA.....	NH4.. 0.03		
CA.... 6.4				
CD....	H2S.....	PO4.. 0.033		
CL.... 3.6				
CO....	K..... 1.6			

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... BROWN AND OTHERS, 1980A

RECORD 00104

GEOHERM SAMPLE FILE

GEOHERM FILE 101 0003037

NAME OF SAMPLE SOURCE... THOMPSON IRR. WELL
 WELL/SPRING NUMBER..... 26S-33E-13-ACC

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP=RANGE 26S 033E 13 SW OF SW NE
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... CRANF, ORE. 1162500

COORDINATES

LAT/LONG... 43-18.048N 118-35.019W

OTHER LOCALITY INFORMATION: BURNS A.M.S.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID AND MCLEAN, GARY
 SAMPLE NUMBER..... WSA0-123
 POINT OF COLLECTION.. END OF IRR. PIPE
 TEMPERATURE (C).... 24.
 WELL DEPTH (M)..... 110.

PERTINENT LITHOLOGY..... VALLEY ALLUVIUM.

OTHER SAMPLE INFORMATION.. SLIGHT MINERAL ODOR.

WATER ANALYSIS

DATE/ANALYST..... 1980/06/26 BANERJEE, KALA C.
 P..... 7.8
 SPECIFIC CONDUCTANCE..... 442.
 ALKALINITY..... 122.
 TOTAL DISSOLVED SOLIDS... 341.
 CHARGE IMBALANCE (% DIFF)... 4.1

ANALYSIS IN MG/L

AG....	CO3.....	LI... L 0.1	<u>ISOTOPES (0/00)</u>	
AL.... L 0.1	CR.....	MG... 4.9		
AS.... 0.024	CS.....	MN... L 0.05		
H.... 1.2	F..... 0.3	NA... 63.	S102.. 83.	
HF....	FE(TOT). L 0.05	NB... 504.. 45.		
HI....	GA.....	NH4.. 0.04		
CA.... 20.				
CD....	H2S.....	PO4.. 0.013		
CL.... 56.				

CO..... K..... 8.1
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... NOGAMI
 REFERENCE..... *NOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00105

GEOTHERM FILE ID: 0003058

 GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... TRAILER COURT WELL
 KGRA..... BURNS BUTTE
 WELL/SPRING NUMBER..... 23S-31E-036-BBC

LOCATION

COUNTRY.....	UNITED STATES	TOWNSHIP-RANGE	23S 031E 36	SW OF NW NW	COORDINATES	LAT/LONG... 43-32.38 N 119-04.68 W
STATE.....	OREGON		B&M WILLAMETTE			
COUNTY.....	HARNEY					
GEOLOGIC PROVINCE..	32					
MAP REFERENCE.....	HURNS, ORE. 1162500					

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1980/10/ BROWN, DAVID E.
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 26.5

WATER ANALYSIS
 DATE/ANALYST..... 1980/12/ KRONEMAN, RUTH
 PH..... 8.24 AT(C) 27.
 SPECIFIC CONDUCTANCE... 210.
 TOTAL DISSOLVED SOLIDS... 150.

ANALYSIS IN PPM

ANALYSIS IN PPM		ISOTOPES (O/001)	
AG.... L 0.054	CO3.....	LI... L 0.054	
AL.... L 0.680	CR..... L 0.054	MG... L 1.0	SB... L 0.816
AS.... L 0.680	CS.....	MN... L 0.272	
AU.... L 0.109	CU..... L 0.068	MO... L 1.4	
H..... 0.2	F..... 0.5	NA... 28.	SI02. 43.
HA.... L 0.680	FE+3... 0.027	NA+K.	SN... L 0.136
HF.... L 0.005	GA.....	NB... N	SO4.. N
HI.... 2.7	GE.....	NH4.. T	SR... 0.03
HR....	HCO3... 0.136	NI... 0.136	
CA.... 9.0	HCO3... 0.136	NO3.. L 0.136	TI... L 0.136
CA+MG.	HG.....	PB... L 0.272	U.... L 6.8
CD.... L 0.068	H2S... L 1.4	PO4.. L 0.136	V.... L 1.4
CL.... 6.0	I.....	RA... L 0.136	W.... L 0.136
CO.... L 0.027	K..... 3.0	ZN... 1.7	

REFERENCE AND IDENTIFICATION
 COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... NOGAMI
 REFERENCE..... *NOGAMI IN-HOUSE STUDIES. DOE CONTRACT DE-FC07-79ET27220.

RECORD 00106

GEOTHERM FILE ID: 0003062

 GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... UNAMED WARM SPRINGS
 WELL/SPRING NUMBER..... 24S-29E-31-CCA

LOCATION

COUNTRY.....	UNITED STATES	TOWNSHIP-RANGE	24S 029E 31	SW SW NE	COORDINATES	LAT/LONG... 43-17.008N 119-17.008W
STATE.....	OREGON		B&M WILLAMETTE			
COUNTY.....	HARNEY					

GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... BURNS, ORE. 11250000
 OTHER LOCALITY INFORMATION: BURNS A.M.S.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID & MCLEAN, GARY
 SAMPLE NUMBER..... WSA0-115
 POINT OF COLLECTION.. WARMEST ORIFICE
 TEMPERATURE (C)..... 71.
 AMBIENT TEMP (C)..... 10.
 DISCHARGE..... 95. L/MIN
 DEPOSITS OR ALTERATION... SLIGHT SINTER.
 PERTINENT LITHOLOGY..... RHYOLITIC ASH FLOW TUFF.
 OTHER SAMPLE INFORMATION.. SLIGHT MINERAL ODOR.
 WATER ANALYSIS
 DATE/ANALYST..... 1980/06/25 BANERJEE, KALA C.
 PH..... 8.0
 SPECIFIC CONDUCTANCE..... 275.
 ALKALINITY..... 105. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 233.
 CHARGE IMBALANCE (% DIFF)... 5.6

ANALYSIS IN MG/L

AG....	CO3....	LI... L 0.1			
AL.... L 0.1	CR....	MG... 5.5			
AS.... L 0.023	CS....	MN... L 0.05			
R.... 0.65	F..... 0.3	NA... 38.	SI02.. 80.		
RE....	FE(TOT). L 0.05	NB... 0.06	SO4.. 11.8		
HI....	GA.....	NH4.. 0.06			
CA.... 12.2					
CD....	H2S.....	PO4.. 0.032			
CL.... 23.5					
CO....	K..... 5.5				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION
 COMPILED BY..... BROWN, DAVID E.
 CONTRIBUTOR AFFILIATION... DOGAMI
 REFERENCE..... BROWN AND OTHERS, 1980A

RECORD 00107

GEOHEM SAMPLE FILE

GEOHEM FILE ID: 0001686

NAME OF SAMPLE SOURCE... INNAMED
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE 23S 03UE 36
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32

COORDINATES

LAT/LONG... 43-31.8 N 119-04.5 W

SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 25.
 DISCHARGE..... 135. L/MIN

REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... PIPEH AND OTHERS, 1939

RECORD 00108

GEOHEM SAMPLE FILE

GEOHEM FILE ID: 0001691

NAME OF SAMPLE SOURCE... INNAMED

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 26S 02BE 33
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... 31
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 20.
 DISCHARGE..... 38. L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... PIPER AND OTHERS, 1939

COORDINATES
 LAT/LONG... 42-16.5 N 119-22.5 W

RECORD 00109

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNNAMED
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 26S 027E 12
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... 32
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 20.
 DISCHARGE..... 170. L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

GEOTHERM FILE ID: 0001689

COORDINATES
 LAT/LONG... 43-20.4 N 119-26.1 W

RECORD 00110

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNNAMED
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 32S 032E 12
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... 31
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 32.
 DISCHARGE..... 1890. L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... PIPER AND OTHERS, 1939

GEOTHERM FILE ID: 0001688

COORDINATES
 LAT/LONG... 42-49.2 N 118-54.0 W

RECORD 00111

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNNAMED
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 38S 034E 22
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... 31
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 32.
 DISCHARGE..... 149. L/MIN

GEOTHERM FILE ID: 0001695

COORDINATES
 LAT/LONG... 42-16.2 N 118-41.4 W

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... ROWEN AND OTHERS, 1978

RECORD 00112

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001694

NAME OF SAMPLE SOURCE... UNNAMED
 LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 19S 026E 05
 STATE..... OREGON
 COUNTY..... HARNEY

LAT/LONG... 43-57.6 N 119-38.4 W

GEOLOGIC PROVINCE... 32

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 29.

DISCHARGE..... 38. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... ROWEN AND OTHERS, 1978

RECORD 00113

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001693

NAME OF SAMPLE SOURCE... UNNAMED
 LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 37S 036E 33
 STATE..... OREGON
 COUNTY..... HARNEY

LAT/LONG... 42-18.0 N 118-17.4 W

GEOLOGIC PROVINCE... 31

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 46.

DISCHARGE..... 38. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

RECORD 00114

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001692

NAME OF SAMPLE SOURCE... UNNAMED
 LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 38S 037E 24
 STATE..... OREGON
 COUNTY..... HARNEY

LAT/LONG... 42-15.6 N 118-18.6 W

GEOLOGIC PROVINCE... 31

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 38.

DISCHARGE..... 114. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

RECORD 00115

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001687

NAME OF SAMPLE SOURCE... UNNAMED

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 32S 032.5E05
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE... 31
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 28.
 DISCHARGE..... 378. L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... PIPER AND OTHERS, 1939

COORDINATES
 LAT/LONG... 42-50.0 N 118-52.2 W

RECORD 00116

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR HARNEY LAKE
 WELP NUMBER..... 64

GEOTHERM FILE ID: 0000729

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 27S 29.5E 36
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE..

COORDINATES
 LAT/LONG... 43-10.6 N 119-03.6 W
 UTM ZONE... +11
 NORTHING... 4782278.
 332568.

MAP REFERENCE..... CRANE 1162500, BURNS 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP
 TEMPERATURE (C)..... 68.0
 DISCHARGE..... 550. L/MIN
 WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE MEMBRANE FILTER, METAL ANALYSES ACIDIFIED
 WITH NITRIC ACID, DILUTED
 DEPOSITS OR ALTERATION... TRAVERTINE
 PERTINENT LITHOLOGY..... BASALTIC TUFF AND OLIVINE BASALT

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP
 PH..... 7.26
 SPECIFIC CONDUCTANCE..... 2970.
 CHARGE IMBALANCE (% DIFF)... 2.6

ANALYSIS IN MG/L

AG.... L 0.02	CO3..... 1.	LI.... 0.45	S....
AL.... 0.005	CR.....	MG.... 1.8	SB.... L 0.2
AS.... 0.6	CS..... L 0.1	MN.... 0.04	
AU.... L 0.1	CU..... 0.02	NA.... 630.	SI02. 92.
R.... 11.	F..... 3.3	NB....	S04.. 140.
HA.... L 0.1	FE(TQT).. 0.05	NH4.. 1.8	SR.... 0.11
HE.... L 0.1	GA.....		
HI....			
HR.... 29.			
CA.... 12.	HCO3..... 566.		
CA+MG.	MG..... 0.0001	PH.... L 0.06	
CO.... L 0.01	H2S.....	PO4.. 0.092	
CL.... 590.	I..... 0.2		
CO.... L 0.05	K..... 13.	RB.... 0.08	

ISOTOPIES (0/00)

DEL D OF WATER..... -128.5

GAS ANALYSIS

ANALYSIS IN VOLUME %

CH4.. 1.	
C2H6.	N2... 91.
CO2.. 9.	

ISOTOPIES (00/00)

OTHER ANALYTICAL DATA... 02, AR=1

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... NEH-977
 REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975

RECORD 00117

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015939

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR HARNEY LAKE

WATER NUMBER..... 64

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 27S 29.5E 36 NE OF SE

LAT/LONG... 43-10.6 N 119-03.6 W

STATE..... OREGON

UTM ZONE... +11

COUNTY..... HARNEY

NORTHING... 4782278.

GEOLOGIC PROVINCE..

332568.

MAP REFERENCE..... BURNS 11250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1931/08/21

SAMPLE NUMBER..... 361 IN PIPER AND OTHERS

TEMPERATURE (C)..... 59.

WATER ANALYSIS

CHARGE IMBALANCE (% DIFF)... 1.3

ANALYSIS IN PPM

ISOTOPES (0/00)

AG....	CO3....	N			
AL....	CR....		MG...	3.0	
H....	F....		NA...	622.	SI02. 92.
HE....	FE(TOT)...	0.03	NB...		SO4.. 140.
CA.... 13.	HCO3....	601.	NO3..	0.5	
CL.... 562.					
CO....	K....	12.			

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 15
 REFERENCE..... PIPER AND OTHERS, 1939

RECORD 00118

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015467

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR HOT BORAX LAKE

WATER NUMBER..... ALVORD

WATER NUMBER..... 69

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 37S 03E 14 NW OF NW

LAT/LONG... 42-19.82 N 118-36.16 W

STATE..... OREGON

UTM ZONE... +11

COUNTY..... HARNEY

NORTHING... 4687484.

GEOLOGIC PROVINCE.. BASIN AND RANGE

367954.

MAP REFERENCE..... BORAX LAKE 1124000

OTHER LOCALITY INFORMATION: SPRING LOCATED APPROXIMATELY 300M NW OF HOT LAKE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/09/09 MARINER, R. H. AND EVANS, W. C.

SAMPLE NUMBER..... GT 213 HM76

TEMPERATURE (C)..... 84.

WATER TREATMENT..... FILTERED (0.1UM), SILICA DILUTION, ACIDIFIED FOR METALS, FIELD ALKALINITY AND AMMONIA

DETERMINATION.
 DEPOSITS OR ALTERATION... SINTER
 OTHER SAMPLE INFORMATION... SINTER ARCH IN SAMPLED POOL.
 WATER ANALYSIS

DATE/ANALYST..... 1977/01/00 BARNES GROUP
 PH..... 7.48 AT(C) 84.
 SPECIFIC CONDUCTANCE..... 1890.
 ALKALINITY..... 386. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

AG....		CO3....		LI...	0.45				
AL....		CR....		MG...	0.2				
AS....		CS.....	0.1	NA...	440.	SI02.	164.		
H....	15.	F.....	7.5	NB...		304..	310.		
HF....		FE(TOT).		NH4..	L 0.5				
HI....		GA.....							
CA....	12.	HCO3....	386.						
CD....		H2S.....	L 1.						
CL....	250.								
CO....		K.....	25.	RB...	0.18				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 43
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00119

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015466

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR HOT BORAX LAKE
 KGRA..... ALVOHU
 WARING NUMBER..... 69

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	37S 033E 11	SW OF SW	LAT/LONG...	42-20.17 N 118-36.08 W
STATE.....	OREGON			UTM ZONE...	+11
COUNTY.....	MARNEY			NORTHING...	4688129.
GEOLOGIC PROVINCE..	BASIN AND RANGE				368076.
MAP REFERENCE.....	BORAX LAKE 1124000				

OTHER LOCALITY INFORMATION: SPRING ISSUES APPROXIMATELY 397M NW OF HOT LAKE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/09/09 MARINER, R. H. AND EVANS, W. C.
 SAMPLE NUMBER..... GT 212 RM76
 TEMPERATURE (C)..... 97.

DISCHARGE..... N

WATER TREATMENT..... FILTERED (0.1UM), SILICA DILUTION, ACIDIFIED FOR HEAVY METALS, ALKALINITY AND AMMONIA
 DATA IN THE FIELD.

OTHER SAMPLE INFORMATION.. POOL DISCHARGES Laterally BENEATH SILICA CAP.

WATER ANALYSIS

DATE/ANALYST..... 1977/01/00 BARNES GROUP
 PH..... 7.26 AT(C) 97.
 SPECIFIC CONDUCTANCE..... 1840.
 ALKALINITY..... 372. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 0.0

ANALYSIS IN MG/L

AG....		CO3....		LI...	0.45
AL....		CR.....		MG...	0.2

ISOTOPES (0/00)

AS....		CS.....	0.1	NA...	425.	SI02.	163.
R.....	14.	F.....	7.4	NB...		S04..	300.
HF.....		FE(TOT). L	0.02	NH4..	L 0.5		
RI.....		GA.....					
CA.....	12.	HCO3.....	372.				
CI).....		H2S..... L	1.				
CL.....	250.						
CO.....		K.....	24.	RB...	0.17		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 43
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00120

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015462

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR HOT BORAX LAKE
 KGRA..... ALVORD
 WORKING NUMBER..... 49

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	37S 03E 11	SW OF SW	LAT/LONG...	42-20.17 N 118-36.08 W
STATE.....	OREGON			UTM ZONE...	+11
COUNTY.....	HARNEY			NORTHING...	4688129.
GEOLOGIC PROVINCE..	BASIN AND RANGE				368076.
MAP REFERENCE.....	BORAX LAKE 112400				

OTHER LOCALITY INFORMATION: LARGE POOL AT THE NORTHWEST END OF THE MOUND LEADING AWAY FROM HOT LAKE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/09/09 MARINER, R. H. AND EVANS, W. C.
 SAMPLE NUMBER..... GT 215 RM76
 TEMPERATURE (C)..... 91.
 WATER TREATMENT..... FIELD ALKALINITY DETERMINATION, FILTERED (0.1UM), DILUTED FOR SILICA, ACIDIFIED FOR METALS.

DEPOSITS OR ALTERATION... SINTER
 OTHER SAMPLE INFORMATION.. LARGE POOL OF LOW DISCHARGE, MOST OF POOL AT 50 DEG. C; REPORTED TEMPERATURE (91 C) WAS MEASURED IN A GAS DISCHARGE VENT ON THE NORTHWEST SIDE OF THE POOL.

WATER ANALYSIS

DATE/ANALYST..... 1977/01/00 BARNES GROUP
 PH..... 7.94 AT(C) 46.
 SPECIFIC CONDUCTANCE.... 1990.
 ALKALINITY..... 434. AS HCO3

CHARGE IMBALANCE (% DIFF)... 0.9

ANALYSIS IN MG/L

ISOTOPES 10/001

AG....		CO3.....		LI...	0.5		
AL....		CR.....		MG...	0.3		
AS....		CS.....	0.2				
R.....	15.	F.....	7.5	NA...	460.	SI02.	189.
HF.....		FE(TOT).		NB...		S04..	320.
CA.....	15.	HCO3.....	434.				
CI).....		H2S..... L	1.				
CL.....	270.						
CO.....		K.....	29.	RB...	0.23		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 43

REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00121

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015465

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR HOT BORAX LAKE
 KGRA..... ALVORD
 WARING NUMBER..... 69

LOCATION

COUNTRY..... UNITED STATES	TOWNSHIP-RANGE	COORDINATES
STATE..... OREGON	37S 033E 14 NW OF NW	LAT/LONG... 42-19.82 N 118-36.16 W
COUNTY..... HARNEY		UTM ZONE... +11
GEOLOGIC PROVINCE... BASIN AND RANGE		NORTHING... 4687484.
MAP REFERENCE..... BORAX LAKE 1124000		367954.

OTHER LOCALITY INFORMATION: FENCED AREA AT THE NORTHWEST BASE OF THE MOUND AROUND HOT LAKE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/09/09 MARINER, R. H. AND EVANS, W. C.
 SAMPLE NUMBER..... GT 216 RM76
 POINT OF COLLECTION.. SMALL POOL AT SE END OF FENCED AREA
 TEMPERATURE (C)..... 86.
 WATER TREATMENT..... FIELD ALKALINITY DETERMINATION, FILTERED (0.1UM), SILICA DILUTION, ACIDIFIED FOR METALS.
 DEPOSITS OR ALTERATION... SINTER

WATER ANALYSIS

DATE/ANALYST..... 1977/01/00
 PH..... 8.67 AT(C) 34.
 SPECIFIC CONDUCTANCE..... 2040.
 ALKALINITY..... 423. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 2.0

ANALYSIS IN MG/L

AG....	CO3....	LI... 0.55			
AL....	CR....	MG... 0.3			
AS....	CS.... 0.1				
R.... 14.	F.... 7.7	NA... 450.	5102.	157.	
HE....	FE(TOT).	NB... 504..	300.		
CA.... 14.	HCO3... 423.				
CD....	H2S.... L 1.				
CL.... 250.					
CO....	K.... 26.	RB... 0.18			

ISOLINES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 43
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00122

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015464

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR HOT BORAX LAKE
 KGRA..... ALVORD
 WARING NUMBER..... 69

LOCATION

COUNTRY..... UNITED STATES	TOWNSHIP-RANGE	COORDINATES
STATE..... OREGON	37S 033E 14 NW OF NW	LAT/LONG... 42-19.82 N 118-36.16 W
COUNTY..... HARNEY		UTM ZONE... +11
GEOLOGIC PROVINCE... BASIN AND RANGE		NORTHING... 4687484.
MAP REFERENCE..... BORAX LAKE 1124000		367954.

OTHER LOCALITY INFORMATION: SPRING LOCATED APPROXIMATELY 200M NW OF HOT LAKE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/09/09 MARINER, R. H. AND EVANS, W. C.
 SAMPLE NUMBER..... GT 214 RM76
 TEMPERATURE (C)..... 90.5
 WATER TREATMENT..... FILTERED (0.1UM); SILICA DILUTION; ACIDIFIED FOR METALS; FIELD ALKALINITY DETERMINATION.
 DEPOSITS OR ALTERATION.... SINTER

WATER ANALYSIS

DATE/ANALYST..... 1977/01/00 BARNES GROUP
 PH..... 7.04 AT(C) 91.
 SPECIFIC CONDUCTANCE..... 1910.
 ALKALINITY..... 420. AS HCO3
 CHARGE IMBALANCE (% DIFF).... 0.6
 ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....	CO3.....	LI....	0.5		
AL....	CR.....	MG....	0.3		
AS....	CS..... 0.2				
R.... 15.	F..... 7.0	NA....	435.	SI02.	154.
RE....	FE(TOT).....	NB....		504..	300.
CA.... 15.	HCO3..... 420.				
CD....	H2S..... L 1.				
CL.... 250.					
CO....	K..... 26.	RB....	0.18		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 43
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00123

GEOHEM SAMPLE FILE

GEOHEM FILE ID: 0002219

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR HOT BORAX LAKE
 KGRA..... ALVORD
 WASHING NUMBER..... 69

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 37S 033E 11. 14
 STATE..... OREGON
 COUNTY..... HARNEY

LAT/LONG... 42-20.08 N 118-36.11 W
 UTM ZONE... +11
 NORTHING... 4687963.
 368032.

GEOLOGIC PROVINCE..
 MAP REFERENCE..... BORAX LAKE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1957/05/27 WHITE, DON
 SAMPLE NUMBER..... LAR NO. 35A
 POINT OF COLLECTION.. HOTTEST SPRING 1000 FT NNW OF HOT LAKE FROM LARGE TRAVERTINE CONE.
 TEMPERATURE (C)..... 87.0
 DISCHARGE..... 19. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1958/02/05 SCHUCH, J. P.
 PH..... 7.5
 SPECIFIC CONDUCTANCE..... 2190.
 TOTAL DISSOLVED SOLIDS... 1520.
 CHARGE IMBALANCE (% DIFF).... 8.9
 ANALYSIS IN PPM

ISOTOPES (0/001)

AG....	CO3..... N	LI....	N
AL.... N	CR.....	MG....	N

AS....	1.0	CS.....		MN....	0.1				
H.....	15.	F.....	6.5	NA....	426.	SI02.	160.		
NE....		FE(TOT) N		NH....		SO4..	328.		
RI....		GA.....		NH4..	0.69	SR... N			
BR....	1.8								
CA....	9.6	HCO3....	425.	NO3.. N		TI... N	0.02		
CD....		H2S....		PO4..	1.4				
CL....	265.	I.....	0.2						
CO....		K.....	29.						

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 43
 REFERENCE..... *USGS

RECORD 00124

GEOHERM SAMPLE TITLE

GEOHERM FILE ID: 0000683

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR HOT BORAX LAKE

KORA..... ALVORD

WARNING NUMBER..... 69

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 37S 03E 11 SW OF SW

STATE..... OREGON

COUNTY..... HARNEY

GEOLOGIC PROVINCE..

MAP REFERENCE..... BORAX LAKE 1124000, ADEL 11250000

LAT/LONG... 42-20.17 N 118-36.08 W
 UTM ZONE... +11
 NORTHING... 4688129.
 368076.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1973/06/00 BARNES GROUP

TEMPERATURE (C)..... 96.0

DISCHARGE..... 15. L/MIN

WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE MEMBRANE FILTER, METAL ANALYSES ACIDIFIED

WITH NITRIC ACID, DILUTED

PERTINENT LITHOLOGY..... ALLUVIUM AND BASALT

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 7.30

SPECIFIC CONDUCTANCE..... 2020.

CHARGE IMBALANCE (% DIFF).... 7.4

ANALYSIS IN MG/L

AG....	L 0.02	CO3....	4.	LI....	0.51	S....			
AL....	0.020	CR.....		MG....	0.3	SB... L 0.2			
AS....		CS.....	0.1	MN....	0.04	SC... L 0.2			
AU....	L 0.1	CU.....	0.01						
H.....	15.	F.....	7.2	NA... 450.		SI02.	160.		
HA....	L 0.1								
HF....	L 0.1	FE(TOT) L 0.02		NH....		SO4..	434.		
RI....		GA.....		NH4..	0.17	SR... 0.6			
CA....	14.	HCO3....	374.						
CA+MG.		HG.....	0.0008	Pb... L 0.06					
CD....	L 0.01	H2S....		PO4..	1.2				
CL....	250.								
CO....	L 0.05	K.....	28.	RB... 0.18					

ISOTOPES (0/00)

DEL D OF WATER..... -125.4
 DEL O(18) OF WATER... -14.36
 DEL O(18) OF SO4..... -8.58

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 43
 REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00125

GEOTHERM FILE ID: 0002210

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR HOT BORAX LAKE
 KGRA..... ALVORD
 WARING NUMBER..... 69

LOCATIONTOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 37S 033E 14 SW OF NW
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE..

LAT/LONG... 42-19.82 N 118-36.16 W
 UTM ZONE... +11
 NORTHING... 4687484.
 367954.

MAP REFERENCE..... BORAX LAKE 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1953/09/03 HEWETT, D. F.
 SAMPLE NUMBER..... LAB NO. 8742
 POINT OF COLLECTION.. MOST SOUTHERN OF NUMEROUS SPRINGS EXTENDING 2000 FT.
 TEMPERATURE (C)..... 79.4
 PERTINENT LITHOLOGY..... WATER-BEARING ZONE IS RECENT TUFA CONE

WATER ANALYSIS

DATE/ANALYST..... 1953/09/18 MARTIN, R. N.
 PH..... 8.1
 SPECIFIC CONDUCTANCE..... 2160.
 TOTAL DISSOLVED SOLIDS... 1520.
 CHARGE IMBALANCE (% DIFF)... 2.3

ANALYSIS IN PPMISOTOPES (0/00)

AG....	CO3..... N	LI... L 1.5			
AL....	CR.....	MG... 0.3			
B.... 14.	F..... 7.0	NA... 456.	SI02.	173.	
BE....	FE(TQT).	NB... 304..	S04..	339.	
CA.... 14.	HCO3.... 414.	NO3.. 1.3			
CL.... 270.					
CO....	K..... 30.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 43
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00126

GEOTHERM FILE ID: 0002209

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR HOT BORAX LAKE
 KGRA..... ALVORD
 WARING NUMBER..... 69

LOCATIONTOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 37S 033E 11 SW OF SW
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE..

LAT/LONG... 42-20.17 N 118-36.08 W
 UTM ZONE... +11
 NORTHING... 4688129.
 368876.

MAP REFERENCE..... BORAX LAKE 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1953/09/03 HEWETT, D. F.
 SAMPLE NUMBER..... LAB NO. 8743

POINT OF COLLECTION.. MOST NORTHERN OF NUMEROUS SPRINGS EXTENDING 2000 FT.
 TEMPERATURE (C)..... R 73.9
 DISCHARGE..... R 29.
 PERTINENT LITHOLOGY..... WATER-BEARING ZONE FROM RECENT TUFA CONE

WATER ANALYSIS

DATE/ANALYST..... 1953/09/18 MARTIN, R. N.
 PH..... 7.6
 SPECIFIC CONDUCTANCE..... 2050.
 TOTAL DISSOLVED SOLIDS..... 1440.
 CHARGE IMBALANCE (% DIFF).... 1.6
 ANALYSIS IN PPM

ISOTOPES (0/00)

AG....	CO3..... N	LI... L 1.5			
AL....	CH.....	MG... N			
H..... 12.	F..... 7.0	NA... 430.	SI02.	119.	
HF....	FE(TOT).	NB... 304..	319.		
CA.... 15.	HCO3.... 382.	NO3.. 1.2			
CL.... 255.					
CO....	K..... 27.				

QUALIFICATION FIELD..... FLOW RANGE: 19-38 LPM, TEMP RANGE: 71.1-76.7C

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 43
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00127

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015463

NAME OF SAMPLE SOURCE... INNAMED HOT SPRING NEAR HOT BORAX LAKE
 AREA..... ALVORD
 WARING NUMBER..... 69

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES	37S 033E 11. 14	LAT/LONG... 42-20.08 N 118-36.11 W
STATE..... OREGON		UTM ZONE... +11
COUNTY..... MAHNEY		NORTHING... 4687963.
GEOLOGIC PROVINCE.. BASIN AND RANGE		368032.
MAP REFERENCE..... BORAX LAKE 1124000		

OTHER LOCALITY INFORMATION: SPRING ISSUES ON MOUND 400M NW OF HOT LAKE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/09/09 MARINER, R. H. AND EVANS, W. C.
 SAMPLE NUMBER..... GT 211 RM76
 TEMPERATURE (C)..... 97.
 DISCHARGE..... N

WATER TREATMENT..... FIELD ALKALINITY AND AMMONIA DETERMINATION; FILTERED (0.1UM), ACIDIFIED FOR METALS,
 SILICA DILUTION.

DEPOSITS OR ALTERATION... SINTER

OTHER SAMPLE INFORMATION.. TEMPERATURE VARIES WITH GAS DISCHARGE RATE; SPRING DISCHARGES LATERALLY BENEATH SILICA
 CAP.

WATER ANALYSIS

DATE/ANALYST..... 1977/01/00 BARNES GROUP
 PH..... 7.36
 SPECIFIC CONDUCTANCE..... 1840.
 ALKALINITY..... 389. AS HCO3
 CHARGE IMBALANCE (% DIFF).... 1.0

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....	CO3.....	LI... 0.5			
--------	----------	-----------	--	--	--

AI....	0.028	CR.....		MG...	0.2		
AS....		CS.....	0.1	MN...	0.05		
R.....	14.	F.....	7.6	NA...	435.	SI02.	169.
HF....		FE(TQT). L	0.02	NB...		504..	300.
HI....		GA.....		NH4..	L 0.5		
CA....	13.	HCO3.....	389.				
CO....		H2S..... L	1.				
CL....	250.						
CO....		K.....	24.	RB...	0.17		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 43
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00128

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015428

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR TROUT CREEK (FLAGSTAFF BUTTE HOT SPRING)

WATER NUMBER..... 72

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 037E 16
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE..

LAT/LONG... 42-11.3 N 118-23.0 W
 UTM ZONE... 11
 NORTHING... 4671399.
 385770.

MAP REFERENCE..... ADEL 11250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1970/08/20 BOWEN, R. G.

SAMPLE NUMBER..... 1772

WATER ANALYSIS

DATE/ANALYST..... 1970/11/18 AWH OREGON DEPT. OF ENV. QUALITY

PH..... 8.3
 SPECIFIC CONDUCTANCE..... 1060.
 ALKALINITY..... 360.
 TOTAL DISSOLVED SOLIDS... 893.
 CHARGE IMBALANCE (% DIFF)... 35.3

ANALYSIS IN MG/L

ISOTOPE (O/001)

AG....		CO3.....		LI... L	0.5		
AL... L	0.01	CR.....		MG...	0.9		
AS....	0.036						
R.....	1.6	F.....	12.	NA...	230.	SI02.	79.
RA....		FE+3.....	0.09				
RF....		FE(TQT). L	0.03	NB...		504..	177.
CA....	18.	HCO3.....		NO3..	0.05		
CO....		H2S.....		PO4..	0.04		
CL....	226.						
CO....		K.....	25.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 27
 REFERENCE..... *DOGAMI

RECORD 00129

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000731

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING NEAR TROUT CREEK (FLAGSTAFF BUTTE HOT SPRING)
 HAWING NUMBER..... 72
 LOCATION
 COUNTRY..... UNITED STATES 39S 037E 16
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... ADEL 11250000
 COORDINATES
 LAT/LONG... 42-11.3 N 118-23.0 W
 UTM ZONE... +11
 NORTHING... 4671399.
 385770.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1972/00/00 BARNES GROUP
 TEMPERATURE (C)..... 52.0
 DISCHARGE..... 200. L/MIN
 WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE - MEMBRANE FILTER, METAL ANALYSES ACIDIFIED
 WITH NITRIC ACID, DILUTED
 PERTINENT LITHOLOGY..... ANDESITE, BASALT AND RHYOLITE
 WATER ANALYSIS
 DATE/ANALYST..... 1972/00/00 BARNES GROUP
 PH..... 6.77
 SPECIFIC CONDUCTANCE..... 1168.
 CHARGE IMBALANCE (% DIFF)... 2.0
 ANALYSIS IN MG/L
 AG.... L 0.02 CO3..... 1. LI... 0.68 S....
 AL.... 0.002 CR..... MG... 0.8 SB... L 0.2
 AS.... CS..... 0.1 MN... L 0.02 SC...
 AU.... L 0.1 CU..... 0.03 NA... 270. SI02. 105.
 H.... 0.89 F..... 13. NH... NH... 204.
 BA.... L 0.1 FE (TOT)... 0.08 NH4.. 0.026 SR... 0.3
 BE.... L 0.1 GA.....
 BI....
 CA.... 18. HCO3... 439. PB... L 0.06
 CA+MG. HG..... 0.0003 PO4.. 0.06
 CD.... L 0.01 H2S.....
 CL.... 24.
 CO.... L 0.05 K..... 11. RB... 0.1
 ISOIOPES (0/00)
 DEL D OF WATER..... -127.4
 DEL O(18) OF WATER... -16.17
 DEL O(18) OF S04..... -9.22
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 27
 REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00130

GEOHEM SAMPLE FILE

GEOHEM FILE ID: 0015942

NAME OF SAMPLE SOURCE... UNNAMED SPRING
 HAWING NUMBER..... 51A
 LOCATION
 COUNTRY..... UNITED STATES 22S 32.5E 14 NE OF SW
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... BUCHANAN 1124000
 COORDINATES
 LAT/LONG... 43-39.76 N 118-44.30 W
 UTM ZONE... +11
 NORTHING... 4835659.
 359838.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1931/09/02
 SAMPLE NUMBER..... 13 IN PIPER AND OTHERS
 TEMPERATURE (C)..... 22.
 WATER ANALYSIS

ANALYSIS IN PPM

AG....	CO3..... N				
HA....	FE+3.....	NA+K.	12.		
HF....	FE(TOT)..	NH....		S04..	4.
CA.... 16.	HCO3..... R6.	NO3..	1.0		
CL.... 1.9					

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 01
 REFERENCE..... PIPER AND OTHERS, 1939

RECORD 00131

GEOHERM SAMPLE FILE

GEOHERM FILE ID# 0003063

NAME OF SAMPLE SOURCE... UNNAMED WARM SPRING
 WELL/SPRING NUMBER..... 27S-29E-009-BBC

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	27S 029E 09	SW OF NW NW	LAT/LONG...	43-16.026N 119-15.020W
STATE.....	OREGON				
COUNTY.....	HARNEY				
GEOLOGIC PROVINCE..	32				
MAP REFERENCE.....	BURNS, ORE. 1:250,000				

B&M WILLAMETTE

OTHER LOCALITY INFORMATION: BURNS A.M.S.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID AND MCLEAN, GARY
 SAMPLE NUMBER..... WSI12-80
 POINT OF COLLECTION.. WARMEST ORIFICE
 TEMPERATURE (C)..... 21.
 AMBIENT TEMP (C)..... 10.
 DISCHARGE..... 756. L/MIN
 DEPOSITS OR ALTERATION... SLIGHT SINTER
 PERTINENT LITHOLOGY..... RHYOLITIC ASH FLOW TUFF.
 OTHER SAMPLE INFORMATION.. SLIGHT MINERAL ODOR.

WATER ANALYSIS

DATE/ANALYST..... 1980/06/25 BANERJEE, KALA C.
 P.H..... 7.9
 SPECIFIC CONDUCTANCE..... 297.
 ALKALINITY..... 103. AS CaCO3
 TOTAL SUSPENDED SOLIDS... 251.
 CHARGE IMBALANCE (% DIFF)... 6.1

ANALYSIS IN MG/L

AG....	CO3.....	LI... L 0.1			
AL.... L 0.1	CP.....	MG... 5.5			
AS.... 0.025	CS.....	MN... L 0.05			
R.... 0.01	F..... 0.4	NA... 36.8	SI02.	64.	
HF....	FE(TOT). L 0.05	NH... 0.04	S04..	12.9	
HT....	GA.....	NH4.. 0.04			
CA.... 13.1					
CD....	H2S.....	PO4.. 0.032			
CL.... 25.					
CO....	K..... 6.4				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DUGAMI
 REFERENCE..... BROWN AND OTHERS, 1980A

RECORD 00132

GEOTHERM FILE ID: 0003064

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... UNNAMED WARM SPRING IN HARNEY LAKE
 WELL/SPRING NUMBER..... 27S-29.5E-036-CAB
 LOCATION
 COUNTRY..... UNITED STATES 27S 29.5E 36 NW OF NE SW
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... BURNS, ORE. 11250.000

COORDINATES

LAT/LONG... 43-12.006N 119-04.027W

OTHER LOCALITY INFORMATION: BURNS A.M.S.
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/05/08 BROWN, DAVID AND MCLEAN, GARY
 SAMPLE NUMBER..... WSA0-126
 POINT OF COLLECTION.. WARMEST ORIFICE
 TEMPERATURE (C)..... 22.
 DISCHARGE..... 7.6 L/MIN
 DEPOSITS OR ALTERATION... SLIGHT SINTER
 PERTINENT LITHOLOGY..... EMINATING FROM LAKE SEDIMENTS

WATER ANALYSIS

DATE/ANALYST..... 1980/06/26 BANERJEE, KALA C.
 PH..... 8.7
 SPECIFIC CONDUCTANCE..... 9280.
 ALKALINITY..... 2000. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 10615.
 CHARGE IMBALANCE (% DIFF)... 17.7

ANALYSIS IN MG/L

AG....	CO3.....	LI... 1.0			
AL.... 125.	CR.....	MG... 3.3			
AS.... 1.7	CS.....	MN... 1.5			
H.... 53.	F..... 8.9	NA... 2220.	SI02. 90.		
HF....	FE(TOT). 70.	NH... 1.55	SO4.. 474.		
RI....	GA.....				
CA.... 1.5					
CO....	H2S.....	PO4.. 1.2			
CL.... 2400.					
CO....	K..... 68.				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... BROWN, DAVID E.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... BROWN AND OTHERS, 1980A

RECORD 00133

GEOTHERM FILE ID: 0015345

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... WARM SPRING NEAR VENATOR
 LOCATION
 COUNTRY..... UNITED STATES 25S 036E 16 NW OF SW SW
 STATE..... OREGON
 COUNTY..... HARNEY
 GEOLOGIC PROVINCE.. 32
 MAP REFERENCE..... BURNS 11250000

COORDINATES

LAT/LONG... 43-23.7 N 118-18.4 W
 UTM ZONE... +11
 NORTHING... 4805294.
 394177.

OTHER LOCALITY INFORMATION: 3 MILES NORTH OF VENATOR
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1977/06/08
 TEMPERATURE (C)..... 41.
 WATER ANALYSIS

PH..... 9.1
 SPECIFIC CONDUCTANCE..... 650.
 TOTAL DISSOLVED SOLIDS... 1360.
 CHARGE IMBALANCE (% DIFF)... 15.8

ANALYSIS IN MG/L

AG....		CO3.....	38.				
AL....		CR.....		MG....	0.1		
AS....	0.095	CS.....		MN....	N		
H....	2.2	F.....	1.1	NA....	100.	SI02..	0 370.
HE....		FE(TOT)..	0.03	NB....		S04..	51.
CA....	2.7	HCO3.....	57.				
CD....		H2S.....		PO4..	0.06		
CL....	79.						
CO....		K.....	1.0				

ISOTOPES (U/ML)

OTHER ANALYTICAL DATA... NO2+NO3=.24, PHOSPHATE+ORTHO AS P=.06
 QUALIFICATION FIELD..... SI02 ANALYSIS MADE ON SAMPLE 10 ML WELL WATER, 50 ML DEMINERALIZED WATER

REFERENCE AND IDENTIFICATION

COMPILED BY..... HOWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 10
 REFERENCE..... GONTHIER AND OTHERS, 1977

RECORD 00134

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001683

NAME OF SAMPLE SOURCE... WARM SPRINGS RESERVOIR
 LOCATION TOWNSHIP-RANGE

COORDINATES

LAT/LONG... 43-39.0 N 118-15.6 W

COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... HARNEY

GEOLOGIC PROVINCE... 32

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 62.
 DISCHARGE..... 340. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... ROWEN AND OTHERS, 1978

RECORD 00135

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015971

NAME OF SAMPLE SOURCE... PARKDALE GRADIENT HOLE
 WELL/SPRING NUMBER..... 1S-10E-9-BC
 LOCATION TOWNSHIP-RANGE

COORDINATES

LAT/LONG... 45-29.75 N 121-33.5 W

COUNTRY..... UNITED STATES 01S 01E 09 SW OF NW
 STATE..... OREGON
 COUNTY..... HOOD RIVER
 GEOLOGIC PROVINCE... 30

MAP REFERENCE..... UOG RIVER 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1978/11/29 BLACK, GEHALD
 SAMPLE NUMBER..... WS78-314
 TEMPERATURE (C)..... 24. AT (M).. 50.

AMBIENT TEMP (C)..... 1.
 DISCHARGE..... 127. L/MIN
 WATER ANALYSIS
 DATE/ANALYST..... 1979/12/29 BANERJEE, KALA C.
 PH..... 8.4 AT(C) 24.
 SPECIFIC CONDUCTANCE..... 557.
 ALKALINITY..... 190. AS CAC03
 CHARGE IMBALANCE (% DIFF)... 1.2
 ANALYSIS IN MG/L

ISOTOPES (U/00)

AG....		CO3....		LI....	0.05		
AL....	1.1	CR....		MG....	2.9		
AS....	0.0053	CS....		MN....	0.02		
AU....		CU....	L 0.05				
R....	3.0	F....	0.8	NA....	94.	SI02..	80.
RF....		FE(TQT)..	7.9	NB....		S04..	10.
CA....	11.	HCO3....		NO3..	0.03		
CD....		H2S....		PO4..	0.099		
CL....	37.						
CO....		K....	17.				

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES, DOE GRANT NO. AC06-77-ET-2

RECORD 00136

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015344

NAME OF SAMPLE SOURCE... JACKSON HOT SPRING
 WORKING NUMBER..... 25

LOCATION
 COUNTRY..... UNITED STATES 38S 001E 48 SW
 STATE..... OREGON
 COUNTY..... JACKSON
 GEOLOGIC PROVINCE... 30

COORDINATES
 LAT/LONG... 42-13.30 N 122-44.65 W
 UTM ZONE... +10
 NORTHING... 4674206.
 521114.

MSP REFERENCE..... ASHLAND 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1952/04/22
 TEMPERATURE (C)..... 35.0

WATER ANALYSIS

DATE/ANALYST..... 1952/00/00
 PH..... 9.3 AT(C) 35.
 SPECIFIC CONDUCTANCE..... 460.
 TOTAL DISSOLVED SOLIDS... 318.
 CHARGE IMBALANCE (% DIFF)... 3.1

ANALYSIS IN PPMISOTOPES (U/00)

AG....		CO3....	36.				
AL....		CR....		MG....	1.4		
R....	2.9	F....	2.0	NA....	95.	SI02..	65.
RF....		FE(TQT)..	0.07	NB....		S04..	26.
CA....	2.8	HCO3....	11.	NO3..	0.2		
CL....	8v.						
CO....		K....	1.2				

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 01

REFERENCE..... ROHISON, 1972

RECORD 00137

GEOTHERM FILE ID: 0003005

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... ABE BUEHM

LOCATION

COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

TOWNSHIP-RANGE

40S 009E 28 NE OF SW NE
 B&M: WILLAMETTE

COORDINATES

LAT/LONG... 42-04.05 N 121-45.40 W
 UTM ZONE... +10
 NORTHING... 4657805.
 602865.

MAP REFERENCE..... KLAMATH FALLS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/11
 TEMPERATURE (C)..... 25.
 WELL DEPTH (M)..... 47.

WATER ANALYSIS

ANALYSIS IN MG/L

AL....	CR.....	MG....	SB....		
AS....	CS.....	MN....	SC....		
FE....	FE(TOT).	NB....	S04...	308.	

ISOTOPE (D/H₂O)

DEL O(18) OF WATER... -6.78
 DEL O(18) OF S04..... 15.42

REFERENCE AND IDENTIFICATION

COMPILED BY..... SWANSON, JAMES R.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 06
 REFERENCE..... NEHRING AND OTHERS, 1979

RECORD 00138

GEOTHERM FILE ID: 0015309

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... ABE BUEHM

LOCATION

COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

TOWNSHIP-RANGE

40S 009E 28 NE OF SW NE

COORDINATES

LAT/LONG... 42-04.05 N 121-45.40 W
 UTM ZONE... +10
 NORTHING... 4657805.
 602865.

MAP REFERENCE..... KLAMATH FALLS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/05/30 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 25.0
 WELL DEPTH (M)..... 47.

PERTINENT LITHOLOGY..... YONNA FM.

OTHER SAMPLE INFORMATION.. DOMESTIC USE

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 7.1
 SPECIFIC CONDUCTANCE..... 2700.
 CHARGE IMBALANCE (% DIFF)... 2.3

ANALYSIS IN MG/L

AG....	CO3.....	1.	LI....	0.16	S....	
AL....	CR.....		MG....	47.	SH....	
AS....	CS.....		MN....	2.4		
R....	FE.....	0.2	NA....	480.	S102.	100.
FE....	FE(TOT).	0.1	NB....		S04...	300.

ISOTOPE (D/H₂O)

DEL D OF WATER..... -73.2
 DEL O(18) OF WATER... -7.38

CA.... 180. HC03.... 1460.
 CL.... 170.
 CO.... K.... 18.

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 06
 REFERENCE..... SAMMEL, 1976

RECORD 00139

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015325

NAME OF SAMPLE SOURCE... ALFRED JACOBSEN
 KSPA..... NEAR KLAMATH FALLS

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 39S 009E 34 SW OF NE NE
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

COORDINATES

LAT/LONG... 42-07.65 N 121-44.40 W
 UTM ZONE... +10
 NORTHING... 4664407.
 604145.

MAP REFERENCE..... MERRILL 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/05/20 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 30.0
 WELL DEPTH (M)..... 47.

OTHER SAMPLE INFORMATION.. DOMESTIC USE

WATER ANALYSIS

DATE/ANALYST..... USGS
 PH..... 7.6
 SPECIFIC CONDUCTANCE..... 290.
 CHARGE IMBALANCE (% DIFF)... 6.6

ANALYSIS IN MG/L

AG....		CO3.... N					
AL....		CR....		MG...	2.4		
AS....	0.001	CS....		MN....	0.050		
B....	0.05	F....	0.1	NA....	49.	SI02..	65.
BE....		FE(TOT)..	0.12	NB....		S04..	13.
CA....	5.7	HC03....	160.				
CL....	7.9						

ISOTOPES (0/10)

CO.... K.... 12.

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00140

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015312

NAME OF SAMPLE SOURCE... ANNIE SPRING

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 31S 006E 19 SE OF SW NW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 30

COORDINATES

LAT/LONG... 42-52.35 N 122-10.10 W
 UTM ZONE... +10
 NORTHING... 4746777.
 567930.

MAP REFERENCE..... CHATHAM LAKE NATIONAL PARK AND VICINITY 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... VOEGTLY AND SAMMEL

TEMPERATURE (C)..... 25.0
 DISCHARGE..... 7571. L/MIN
 PERMITTENT LITHOLOGY..... BASALT

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 53.

ANALYSIS

AL..... CR..... MG... SB...
 REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

ISOTOPES (O/001)

DEL O(18) OF WATER... -14.40

RECORD 00141

 GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015338

NAME OF SAMPLE SOURCE... BILL HILL
 KGRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 40S 010E 26 NE OF SW NW
 STATE..... OREGON
 COUNTY..... KLAMATH

LAT/LONG... 42-03.55 N 121-36.00 W
 UTM ZONE... +10
 NORTHING... 4657067.
 615014.

GEOLOGIC PROVINCE... J1
 MAP REFERENCE..... MERRILL J162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/06/U6 VOEGTLY AND SAMMEL

TEMPERATURE (C)..... 20.0

WELL DEPTH (M)..... 250.

OTHER SAMPLE INFORMATION.. DOMESTIC AND STOCK USE

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 7.7

SPECIFIC CONDUCTANCE..... 245.

CHARGE IMBALANCE (% DIFF)... 1.3

ANALYSIS IN MG/L

AG.....	CO3..... N	MG... 13.		
AL.....	CR.....	MN... 0.030		
AS..... N	CS.....	NA... 19.	SI02.. 26.	
H..... 0.02	F..... N	NB... 19.	S04.. 6.4	
HE.....	FE(TOT).. 0.04			
CA..... 9.1	HCO3..... 140.			
CL..... 4.2				
CO.....	K..... 6.4			

ISOTOPES (O/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00142

 GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015327

NAME OF SAMPLE SOURCE... CLAUDE SHUCK
 KGRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 010E 08 SE OF NW SE
 STATE..... OREGON
 COUNTY..... KLAMATH

LAT/LONG... 42-11.35 N 121-39.00 W
 UTM ZONE... +10
 NORTHING... 4671430.

610375.

GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... MERRILL 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/05/30 VOGELTY AND SAMMEL
 TEMPERATURE (C)..... 24.
 WELL DEPTH (M)..... 123.
 OTHER SAMPLE INFORMATION.. DOMESTIC SUPPLY

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 8.2
 SPECIFIC CONDUCTANCE..... 220.
 CHARGE IMBALANCE (% DIFF).... 7.9

ANALYSIS IN MG/L

AG....	CO3.....	1.			
AL....	CH.....		MG...	4.1	
AS....	CS.....		MN...	0.010	
H....	F.....	0.2	NA...	25.	57.
HE....	FE(TOT)...	0.05	NB...	504..	15.
CA....	HCO3.....	110.			
CL....					
CO....	K.....	6.2			

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00143

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015337

NAME OF SAMPLE SOURCE... CLYDE DEHLINGER
 KORA..... KLAMATH FALLS
 LOCATION
 COUNTRY..... UNITED STATES 40S 010E 05 SW OF SE SE
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

COORDINATES

LAT/LONG... 42-06.75 N 121-39.65 W
 UTM ZONE... +10
 NORTHING... 4662921.
 610715.

MAP REFERENCE..... MERRILL 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/06/05 VOGELTY AND SAMMEL
 TEMPERATURE (C)..... 24.0
 WELL DEPTH (M)..... E 30.
 OTHER SAMPLE INFORMATION.. STOCK USE

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 7.9
 SPECIFIC CONDUCTANCE..... 240.
 CHARGE IMBALANCE (% DIFF).... 3.0

ANALYSIS IN MG/L

AG....	CO3.....	N			
AL....	CR.....		MG...	3.1	
AS....	CS.....		MN...	N	
H....	F.....	N	NA...	40.	72.
HE....	FE(TOT)...	0.02	NB...	504..	2.3
CA....	HCO3.....	150.			
CL....					
CO....	K.....	6.5			

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00144

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015336

NAME OF SAMPLE SOURCE... DAN O'CONNOR
 KORA..... KLAMATH FALLS

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE NW OF NE NW
 STATE..... OREGON 40S 009E 23
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

COORDINATES

LAT/LONG... 42-04.85 N 121-43.85 W
 UTM ZONE... +10
 NORTHING... 4659317.
 604980.

MAP REFERENCE..... MERRILL 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/05/07 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 24.0
 WELL DEPTH (M)..... 26.

OTHER SAMPLE INFORMATION.. STOCK USE

WATER ANALYSIS

PH..... 7.6
 SPECIFIC CONDUCTANCE..... 260.
 CHARGE IMBALANCE (% DIFF)... 2.3

ANALYSIS IN MG/L

AG....	CO3..... N				
AL....	CR.....	MG...	6.6		
R....	F.....	NA...	32.	SI02..	42.
RE....	FE(TOT).....	NB...		S04..	14.
CA.... 12.	HCO3..... 130.				
CL.... 9.1					
CO....	K..... 8.1				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 06
 REFERENCE..... SAMMEL, 1976

RECORD 00145

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015300

NAME OF SAMPLE SOURCE... EAGLE POINT SPRING

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE NE OF SW SE
 STATE..... OREGON 36S 007E 23
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

COORDINATES

LAT/LONG... 42-25.85 N 121-57.75 W
 UTM ZONE... +10
 NORTHING... 4697920.
 585344.

MAP REFERENCE..... MODOC POINT 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/08/22 GARDNER, MURRAY
 TEMPERATURE (C)..... 0 35.
 DISCHARGE..... 19. L/MIN

PERTINENT LITHOLOGY..... BASALT

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 8.3
 SPECIFIC CONDUCTANCE..... 0 305.
 ANALYSIS IN MG/L

AG....	CO3..... N	LI... 0	S....
AL....	CR.....	MG... L 0.1	SB...
H..... 0.140	F..... 0.75	NA... 62.	SI02. 0 38.
HE....	FE(TOT)..	NB... 5.7	S04.. L 2.
CA.... 0.6	HCO3.... 136.		
CL.... 16.			
CO....	K..... 5.7		

ISOTOPES (0/00)

DEL D OF WATER..... -109.7
 DEL O(18) OF WATER... -15.22

QUALIFICATION FIELD..... TEMPERATURE AND CONDUCTANCE MEASURED 1975/04/06; LI=L 0.20; SI02=78

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 01
 REFERENCE..... SAMMEL, 1976

RECORD 00146

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015305

NAME OF SAMPLE SOURCE... FALCON HEIGHTS SCHOOL

KGRA..... NEAR KLAMATH FALLS

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE SE OF NW SW
 STATE..... OREGON 39S 009E 34
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

COORDINATES

LAT/LONG... 42-07.80 N 121-45.10 W
 UTM ZONE... +10
 NORTHING... 4664750.
 603177.

MAP REFERENCE..... KLAMATH FALLS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/05/07 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 37.0
 WELL DEPTH (M)..... 320.
 DISCHARGE..... 322. L/MIN

PERTINENT LITHOLOGY..... YONNA FM.

OTHER SAMPLE INFORMATION.. IRRIGATION

WATER ANALYSIS

PH..... 7.8
 SPECIFIC CONDUCTANCE..... 350.
 CHARGE IMBALANCE (% DIFF)... 3.8
 ANALYSIS IN MG/L

AG....	CO3..... N	LI... 4.5	S....
AL....	CR.....	MG... 0.030	SB...
AS.... 0.003	CS.....	MN... 57.	SI02. 80.
H..... 0.1	F..... 0.2	NA... 57.	S04.. 24.
HE....	FE(TOT).. 0.19	NB... 7.1	
CA.... 7.7	HCO3.... 170.		
CL.... 8.9			
CO....	K..... 7.1		

ISOTOPES (0/00)

DEL D OF WATER..... -120.5
 DEL O(18) OF WATER... -15.69

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00147

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015343

NAME OF SAMPLE SOURCE... GEORGE CARTER
 KGRA..... KLAMATH FALLS
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 41S 010E 14 NE OF NW NW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... MERRILL 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/06/06 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 22.
 WELL DEPTH (M)..... 20.
 OTHER SAMPLE INFORMATION.. DOMESTIC USE

COORDINATES
 LAT/LONG... 42-00.55 N 121-36.90 W
 UTM ZONE... +10
 NORTHING... 4651508.
 614690.

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 8.2

SPECIFIC CONDUCTANCE..... 660.

CHARGE IMBALANCE (% DIFF)... 3.8

ANALYSIS IN MG/L

AG....		CO3..... N					
AL....		CR.....	MG...	2.3			
AS.... N		CS.....	MN...	0.020			
B.... 0.15		F..... N	NA...	99.	SI02..	41.	
BE....		FE(TQT)..	NB...		504..	95.	
CA.... 29.		HCO3.....					
CL.... 98.							
CO....		K.....					

ISOTOPES (O/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00148

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0015333

NAME OF SAMPLE SOURCE... GEORGE STACY CO.
 KGRA..... KLAMATH FALLS
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 39S 010E 32 SE OF NW NE
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... MERRILL 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/06/05 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 25.0
 WELL DEPTH (M)..... 279.
 OTHER SAMPLE INFORMATION.. INDUSTRIAL USE

COORDINATES
 LAT/LONG... 42-08.40 N 121-39.80 W
 UTM ZONE... +10
 NORTHING... 4665971.
 610461.

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 8.3

SPECIFIC CONDUCTANCE..... 170.

CHARGE IMBALANCE (% DIFF)... 2.2

ANALYSIS IN MG/L

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

ISOTOPES (O/001)

AL....		CR.....		MG...	2.0		
AS....	0.001	CS.....		MN...	0.010		
R.....	0.01	F.....	N	NA...	20.	SI02.	34.
HF....		FE(TQT).	0.04	NB...		504..	11.
CA....	13.	HCO3.....	94.				
CL....	2.0						
CO....		K.....	4.0				

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00149

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015320

NAME OF SAMPLE SOURCE... HOWARD HOLLIDAY
 KGRA..... NEAR KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	39S 00BE 13	NW OF NE SW	LAT/LONG...	42-10.55 N 121-49.70 W
STATE.....	OREGON			UTM ZONE...	+10
COUNTY.....	KLAMATH			NORTHING...	4669750.
GEOLOGIC PROVINCE..	31				596770.
MAP REFERENCE.....	KLAMATH FALLS 1162500				

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/05/22 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 25.0
 DISCHARGE..... 57. L/MIN

PERTINENT LITHOLOGY..... HASALT

OTHER SAMPLE INFORMATION.. NEWCOMB AND HART, 1958; TEMP=21.1; EST. FLOW=189 LPH; MEASUREMENTS MADE 1954

WATER ANALYSIS

DATE/ANALYST..... USGS

P4..... 7.9
 SPECIFIC CONDUCTANCE..... 220.
 CHARGE IMBALANCE (% DIFF)... 6.6

ANALYSIS IN MG/L

ISOTOPES (0/100)

AG....		CO3....	L 1.	LI...	0.02		
AL....		CR.....		MG...	3.1		
AS....	0.002	CS.....		MN...	N		
R.....	0.04	F.....	0.1	NA...	27.	SI02.	27.
RE....		FE(TQT).	0.08	NB...		504..	6.4
CA....	12.	HCO3.....	120.				
CL....	5.1						
CO....		K.....	2.9				

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 03
 REFERENCE..... SAMMEL, 1976

RECORD 00150

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015315

NAME OF SAMPLE SOURCE... J. E. FRIESEN
 KGRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	39S 009E 28	SW OF SE SW	LAT/LONG...	42-13.75 N 121-46.15 W
--------------	---------------	-------------	-------------	-------------	------------------------

STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 HSP REFERENCE..... KLAMATH FALLS 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1955/02/19
 TEMPERATURE (C)..... 73.0
 WELL DEPTH (M)..... 172.
 DISCHARGE..... E 151.
 OTHER SAMPLE INFORMATION.. USED FOR HEATING

UTM ZONE... +10
 NORTHING... 4675740.
 601572.

WATER ANALYSIS

DATE/ANALYST..... USGS
 PH..... 8.7
 SPECIFIC CONDUCTANCE..... 1230.
 TOTAL DISSOLVED SOLIDS... 881.
 CHARGE IMBALANCE (% DIFF)... 4.1

ANALYSIS IN PPM

AG....	CO3.....	8.			
AL....	CH.....		MG... N		
H..... 0.91	F.....	1.6	221.	5102.	87.
RE....	FE(TOT). N		NB...	504..	431.
CA.... 25.	HCO3....	32.	NO3... N		
CL.... 56.					
CO....	K.....	4.4			

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 02
 REFERENCE..... NEWCUMB AND HART, 1958

RECORD 00151

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015335

NAME OF SAMPLE SOURCE... J. K. O'NEIL
 KSA..... KLAMATH FALLS

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE SE OF NW NW
 STATE..... OREGON 39S 010E 34
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

COORDINATES
 LAT/LONG... 42-08.30 N 121-38.10 W
 UTM ZONE... +10
 NORTHING... 4665823.
 612805.

HSP REFERENCE..... MERRILL 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/05/04 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 73.0
 WELL DEPTH (M)..... 25.

OTHER SAMPLE INFORMATION.. STOCK USE

WATER ANALYSIS

DATE/ANALYST..... USGS
 PH..... 7.4
 SPECIFIC CONDUCTANCE..... 190.
 CHARGE IMBALANCE (% DIFF)... 8.0

ANALYSIS IN MG/L

AG....	CO3.....	1.			
AL....	CR.....		MG... 5.5		
R..... 0	F.....	0	26.	5102.	50.
HF....	FE(TOT).		NB...	504..	13.

ISOTOPES (0/00)

CA.... 6.1 HCO3.... 110.
 CL.... 2.8
 CO.... K..... 5.1

QUALIFICATION FIELD..... SAMPLE (1975/08/10): F=0.2, B=0.03, SP COND=205, PH=7.7, TEMP=24
 REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 24
 REFERENCE..... SAMMEL, 1976

RECORD 00152

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0015442

NAME OF SAMPLE SOURCE... J. K. O'NEIL
 KGRA..... KLAMATH FALLS
 WELL/SPRING NUMBER..... 39S/10W-34H8D

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 010E 34 NW OF NW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE..

LAT/LONG... 42-08.30 N 121-38.10 W
 UTM ZONE... +10
 NORTHING... 4665823.
 612805.

MAP REFERENCE..... MERRILL 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/03/01 O'NEIL, J. K.
 SAMPLE NUMBER..... OREGON STATE BOARD OF HEALTH 2070

WATER ANALYSIS

DATE/ANALYST..... 1972/03/16 AMH

PH..... 7.6

SPECIFIC CONDUCTANCE..... 222.

ALKALINITY..... 83. AS CaCO3

TOTAL DISSOLVED SOLIDS... 159.

CHARGE IMBALANCE (% DIFF)... 4.0

ANALYSIS IN MG/L

AL.... L 0.01	CR.....	MG...	5.2		
AS.... N	CS.....	MN...	0.02		
R....	F..... 0.2	NA...	22.	SI02..	45.
HF....	FE(TOT).. 0.02	NB...		S04..	8.5
CA.... 6.4	HCO3....	N03...	0.03		
CD....	H2S.....	P04...	0.02		
CL.... 2.5					

ISOTOPES (0/00)

CO.... K..... 5.4

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 24
 REFERENCE..... *UOGAMI

RECORD 00153

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0015310

NAME OF SAMPLE SOURCE... JACK LISKEY

KGRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 40S 009E 34 NE OF SW NE
 STATE..... OREGON
 COUNTY..... KLAMATH

LAT/LONG... 42-02.95 N 121-44.40 W
 UTM ZONE... +10
 NORTHING... 4655790.

604274.

GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... MERRILL 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/05/09 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 93.0
 WELL DEPTH (M)..... 86.
 DISCHARGE..... 17034. L/MIN
 PERTINENT LITHOLOGY..... YONNA FM.
 OTHER SAMPLE INFORMATION.. USE: IRRIGATION, STOCK

WATER ANALYSIS

DATE/ANALYST..... USGS
 PH..... 8.9
 SPECIFIC CONDUCTANCE..... 1030.
 CHARGE IMBALANCE (% DIFF)... 5.4

ANALYSIS IN MG/L

AG....	CO3.....	2.	LI....	0.08	S....		
AL....	CR.....		MG....	L 0.1	SB....		
AS....	CS.....		MN....		SC....		
H.....	0.65	F.....	1.5	NA....	200.	SI02.	90.
FE....		FE(TOT).		NB....		S04....	360.
CA....	15.	HCO3.....	48.				
CL....	59.						
CO....		K.....	4.0				

ISOTOPES (0/00)

DEL D OF WATER..... -116.6
 DEL O(18) OF WATER... -14.95
 DEL O(18) OF S04..... -2.13

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPUTER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPUTER CROSS INDEX... 06
 REFERENCE..... SAMMEL, 1976; NEHRING AND OTHERS, 1979

RECORD 00154

GEOTHERM FILE 101 0015311

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... JACK LISKEY
 LOCALITY..... KLAMATH FALLS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

TOWNSHIP-RANGE

41S 009E 02 NE OF NE NW

COORDINATES

LAT/LONG... 42-02.25 N 121-43.60 W
 UTM ZONE... +10
 NORTHING... 4654511.
 605396.

MAP REFERENCE..... MERRILL 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/05/09 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 72.0
 WELL DEPTH (M)..... 29.
 DISCHARGE..... 189. L/MIN
 PERTINENT LITHOLOGY..... YONNA FM.
 OTHER SAMPLE INFORMATION.. DOMESTIC AND STOCK USE

WATER ANALYSIS

DATE/ANALYST..... USGS
 PH..... 7.6
 SPECIFIC CONDUCTANCE..... 2400.
 CHARGE IMBALANCE (% DIFF)... 3.5

ANALYSIS IN MG/L

AG....	CO3.....	N	LI....	0	S....		
AL....	CR.....		MG....	16.	SH....		
H.....	0	F.....	0	NA....	580.	SI02.	100.

ISOTOPES (0/00)

DEL D OF WATER..... -87.2
 DEL O(18) OF WATER... -8.83

HE.... FE(TQT). 0.09 NB... S04.. 13.
 CA.... 35. HCU3.... 1550.
 CL.... 140.
 CO.... K..... 12.
REFERENCE AND IDENTIFICATION
 COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 06
 REFERENCE..... SAMMEL, 1976

RECORD 00155

GEOTHERM FILE ID: 0003004

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... JACK LISKEY
LOCATION

TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 41S 009E 02 NE OF NE NW
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

COORDINATES

LAT/LONG... 42-02.25 N 121-43.60 W
 UTM ZONE... +10
 NORTHING... 4654511.
 605396.

MJP REFERENCE..... MERRILL J162500
SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/08/11
 TEMPERATURE (C)..... 25.
 WELL DEPTH (M)..... 29.

WATER ANALYSIS

ANALYSIS IN MG/L

AL.... CR..... MG...
 AS.... CS..... MN...
 HE.... FE(TOT). NB...

ISOTOPES (D/001)

DEL O(18) OF WATER... -8.67
 DEL O(18) OF S04..... 8.69

CL.... 152.
REFERENCE AND IDENTIFICATION

COMPILED BY..... SWANSON, JAMES R.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 06
 REFERENCE..... NEHRING AND OTHERS, 1979

RECORD 00156

GEOTHERM FILE ID: 0015339

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... JACK O'CONNOR
LOCATION

TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 41S 009E 01 SW OF SW NE
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

COORDINATES

LAT/LONG... 42-02.00 N 121-42.95 W
 UTM ZONE... +10
 NORTHING... 4654061.
 606300.

MJP REFERENCE..... MERRILL J162500
SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/05/09 VOEGLTY AND SAMMEL
 TEMPERATURE (C)..... 38.0
 WELL DEPTH (M)..... G 183.

OTHER SAMPLE INFORMATION.. DOMESTIC AND STOCK USE
WATER ANALYSIS

DATE/ANALYST..... USGS
 P1..... 8.3
 SPECIFIC CONDUCTANCE..... 640.

CHARGE IMBALANCE (% DIFF)... 0.6

ANALYSIS IN MG/L

AG....		CO3.....	2.				
AL....		CR.....		MG...	0.6		
H.....	0	F.....	0	NA...	130.	SI02..	65.
HF....		FE(TOT)..		NB...		S04..	140.
CA....	7.5	HCO3.....	110.				
CL....	50.						
CO....		K.....	3.0				

ISOTOPES (0/00)

QUALIFICATION FIELD..... SAMPLE(1975/08/07): F=0.3,B=0.16,SP COND=660,PH=8.2,TEMP=40

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00157

GEOThERM SAMPLE FILE

GEOThERM FILE ID: 0015431

NAME OF SAMPLE SOURCE... KLAMATH ICE CO.

KGRA..... KLAMATH FALLS

WELL/SPRING NUMBER..... 7RS-9E-33HC

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	38S 009E 33	SW OF NW	LAT/LONG...	42-13.40 N 121-01.40 W
STATE.....	OREGON			UTM ZONE...	+10
COUNTY.....	KLAMATH			NORTHING...	4676251.
GEOLOGIC PROVINCE..	31				663137.

MAP REFERENCE..... KLAMATH FALLS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1936/04/02

TEMPERATURE (C)..... 51.7

WELL DEPTH (M)..... 335.

DISCHARGE..... 57.

WATER ANALYSIS

DATE/ANALYST..... 1936/00/00 CHARLTON LABORATORIES, PORTLAND, ORE.

PH..... 9.0 AT(C) 52.

TOTAL DISSOLVED SOLIDS... 784.

ANALYSIS IN PPM

H.....		F.....		NA...	70.
HE....		FE(TOT)..	N	NB...	380.
CL....	53.			SI02..	70.
				S04..	380.

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 23
 REFERENCE..... NEWCOMB AND HART, 1958

RECORD 00158

GEOThERM SAMPLE FILE

GEOThERM FILE ID: 0015331

NAME OF SAMPLE SOURCE... LEN DUBRY

KGRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	39S 01WE 28	NE OF NW SE	LAT/LONG...	42-08.90 N 121-38.65 W
STATE.....	OREGON			UTM ZONE...	+10
COUNTY.....	KLAMATH			NORTHING...	4666922.
GEOLOGIC PROVINCE..	31				612030.

MAP REFERENCE..... MERRILL 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/05/04 VOGTLY AND SAMMEL
 TEMPERATURE (C)..... 21.0
 WELL DEPTH (M)..... 187.

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 7.6
 SPECIFIC CONDUCTANCE..... 195.
 CHARGE IMBALANCE (% DIFF).... 7.4
 ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....	CO3.....	N			
AL....	CR.....		MG...	1.1	
H..... 0	F.....	U	NA...	32.	SI02. 65.
RE....	FE(TOT).		NB...		S04.. 14.
CA.... 5.7	HCO3.....	100.			
CL.... 3.4					
CO....	K.....	4.5			

QUALIFICATION FIELD..... SAMPLE(1975/08/08) F=0.2;B=0.03;SP COND=210;PH=7.7;TEMP=22

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00159

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015332

NAME OF SAMPLE SOURCE... LESTER BROOKSHIRE
 KGRA..... KLAMATH FALLS
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 39S 01OE 29
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

COORDINATES

LAT/LONG... 42-08.70 N 121-39.70 W
 UTM ZONE... +10
 NORTHING... 4666529.
 610590.

MAP REFERENCE..... MERRILL 1162500
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/05/04 VOGTLY AND SAMMEL
 TEMPERATURE (C)..... 25.0
 WELL DEPTH (M)..... 169.

OTHER SAMPLE INFORMATION.. STUCK USE

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 8.1
 SPECIFIC CONDUCTANCE..... 175.
 CHARGE IMBALANCE (% DIFF).... 3.7
 ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....	CO3.....	1.			
AL....	CR.....		MG...	2.0	
AS.... 0.002	CS.....		MN...	0.02	
H..... 0.004	F.....	0.1	NA...	21.	SI02. 35.
RE....	FE(TOT).	0.02	NB...		S04.. 10.
CA.... 13.	HCO3.....	95.			
CL.... 2.8					
CO....	K.....	3.4			

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00160

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015319

NAME OF SAMPLE SOURCE... LOIS MERRUYS
 KGRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 38S 009E 33 NW OF NW NW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... KLAMATH FALLS 1162500

LAT/LONG... 42-13.65 N 121-01.45 W
 UTM ZONE... +10
 NORTHING... 4676712.
 663057.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1954/12/22
 TEMPERATURE (C)..... 71.0
 WELL DEPTH (M)..... 161.

OTHER SAMPLE INFORMATION.. USED FOR HEATING WATER ANALYSIS

PH..... 8.5
 SPECIFIC CONDUCTANCE..... 1100.
 TOTAL DISSOLVED SOLIDS..... 812.
 CHARGE IMBALANCE (% DIFF).... 3.0

ANALYSIS IN PPM

ISOTOPES (0/100)

AG.....	CO3.....	4.				
AL.....	CR.....		MG... N			
R..... 0.74	F.....	1.4	NA... 207.	SI02..	83.	
HE.....	FE(TQT). N		NB... 504..	S04..	393.	
CA..... 22.	HCO3.....	43.	NO3... 0.2			
CL..... 50.						
CO.....	K.....	3.8				

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 02

REFERENCE..... NEWCOMB AND HART, 1958

RECORD 00161

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015322

NAME OF SAMPLE SOURCE... HAZAMA SCHOOL
 KGRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 009E 11 NE OF NW NW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... MERRILL 1162500

LAT/LONG... 42-11.85 N 121-43.90 W
 UTM ZONE... +10
 NORTHING... 4672270.
 604719.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 61.0
 WELL DEPTH (M)..... 296.

OTHER SAMPLE INFORMATION.. DOMESTIC USE WATER ANALYSIS

DATE/ANALYST..... OREGON STATE BOARD OF HEALTH
 PH..... 8.3

SPECIFIC CONDUCTANCE..... 0 895.
 CHARGE IMBALANCE (% DIFF)... 29.4
 ANALYSIS IN MG/L

AG....		CO3.....	N	MG...	1.0		
AL....		CR.....		NA...	246.	SI02.	92.
H.....		F.....	1.0	NB...		504..	256.
HE....		FE(TOT)..	0.09				
CA....	5.4	HCO3.....	120.				
CL....	35.						
CO....		K.....	6.0				

ISOTOPES (0/00)

QUALIFICATION FIELD..... SPECIFIC CONDUCTANCE MEASURED 1975/08/08: SI02=18,PH=8.9,TEMP=58

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 04
 REFERENCE..... SAMMEL, 1976

RECORD 00162

 GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015302

NAME OF SAMPLE SOURCE... MEDO-BELL DAIRY

LOCALITY..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 38S 009E 28 SW OF SW SW

LAT/LONG... 42-13.8 N 121-46.4 W

STATE..... OREGON

UTM ZONE... +10

COUNTY..... KLAMATH

NORTHING... 4675828.

GEOLOGIC PROVINCE.. 31

Easting... 601227.

M.P. REFERENCE..... KLAMATH FALLS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1955/01/24

TEMPERATURE (C)..... 81.0

WELL DEPTH (M)..... 233.

PERTINENT LITHOLOGY..... YONNA FM.

OTHER SAMPLE INFORMATION.. INDUSTRIAL USE

WATER ANALYSIS

PH..... 8.8

SPECIFIC CONDUCTANCE..... 1160.

TOTAL DISSOLVED SOLIDS... 833.

CHARGE IMBALANCE (% DIFF)... 2.3

ANALYSIS IN PPM

AG....		CO3.....	8.	MG...	N		
AL....		CR.....		NA...	213.	SI02.	81.
H.....	0.96	F.....	1.2	NB...		504..	403.
HE....		FE(TOT)..	0.04				
CA....	23.	HCO3.....	32.	NO3...	N		
CL....	54.						
CO....		K.....	4.2				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 02
 REFERENCE..... NEWCOMB AND HART, 1958

RECORD 00163

 GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0003001

NAME OF SAMPLE SOURCE... MEDO-BELL DAIRY
 KSPA..... KLAMATH FALLS
 LOCATION
 COUNTRY..... UNITED STATES 38S 009E 28 SW OF SW SW
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. J1
 MAP REFERENCE..... KLAMATH FALLS 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/07/08 SAMMEL, E.
 TEMPERATURE (C)..... 81.
 WELL DEPTH (M)..... 233.
 PERTINENT LITHOLOGY..... BASALT

COORDINATES
 LAT/LONG... 42-13.8 N 121-46.4 W
 UTM ZONE... +10
 NORTHING... 4675828.
 601227.

WATER ANALYSIS

ANALYSIS

AG....	CO3....	LI....	S....
AL....	CR....	MG....	SB....
AS....	CS....	MN....	SC....

ISOTOPES (0/00)

DEL D OF WATER.....	-119.4
DEL O(18) OF WATER...	-14.95
DEL O(18) OF SO4.....	-5.45

REFERENCE AND IDENTIFICATION

COMPILED BY..... SWANSON, JAMES R.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 02
 REFERENCE..... SAMMEL, 1976; NEHRING AND OTHERS, 1979

RECORD 00164

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015430

NAME OF SAMPLE SOURCE... MELVIN FEIGI
 KSPA..... NEAR KLAMATH FALLS
 LOCATION
 COUNTRY..... UNITED STATES 40S 011E 03 NE OF NE
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. J1
 MAP REFERENCE..... MERRILL 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1970/10/08
 SAMPLE NUMBER..... GSL-3 (USGS)
 TEMPERATURE (C)..... 31.0
 WELL DEPTH (M)..... 293.

COORDINATES

LAT/LONG... 42-08.20 N 121-30.10 W
 UTM ZONE... +10
 NORTHING... 4665823.
 623827.

WATER TREATMENT..... ACIDIFIED WITH 0.5 ML HNO3-160Z.

WATER ANALYSIS

pH..... 8.8 AT(C) 31.
 SPECIFIC CONDUCTANCE..... 273.
 TOTAL DISSOLVED SOLIDS... 270.
 CHARGE IMBALANCE (B DIFF)... 4.3

ANALYSIS IN MG/L

AG....	CO3....	21.			
AL....	CR....		MG... N	SB....	
R..... N	F.....	0.4	NA... 66.	SI02..	110.
RE....	FE(TOT)..	0.02	NB... 504..	S04... 5.8	
CA.... 1.2	HCO3....	110.	NO3.. 2.9		
CL.... 5.					
CO....	K.....	1.0			

ISOTOPES (0/00)

DEL O(18) OF WATER...	-16.80
-----------------------	--------

OTHER ANALYTICAL DATA... ISOTOPE FROM SAMMEL, 1976
 REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 16
 REFERENCE..... LEONARD AND HARRIS, 1974

RECORD 00165

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015306

NAME OF SAMPLE SOURCE... MELVIN MCCOLLUM
 KGRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 010E 07 NE OF NW NE
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

LAT/LONG... 42-11.50 N 121-41.05 W
 UTM ZONE... +10
 NORTHING... 4671681.
 608651.

MAP REFERENCE..... MERRILL 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/05/28 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 25.0
 WELL DEPTH (M)..... 68.
 DISCHARGE..... 379. L/MIN

PERTINENT LITHOLOGY..... YONNA FM.

OTHER SAMPLE INFORMATION.. USE: DOMESTIC AND IRRIGATION

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 7.5
 SPECIFIC CONDUCTANCE..... 300.
 CHARGE IMBALANCE (% DIFF)... 2.2

ANALYSIS IN MG/L

AG.....	CO3..... N	LI.....	S.....	ISOTOPES (0/00)	
AL.....	CR.....	MG..... 13.	SB.....	DEL D OF WATER.....	-113.2
AS..... 0.002	CS.....	MN..... 0.07	SI02.. 52.	DEL O(18) OF WATER...	-14.71
H..... 0.02	F..... 0.2	NA..... 20.	S04.. 53.		
RE.....	FE(TOT).. 1.4	NB.....			
CA..... 24.	HCO3..... 120.				
CL..... 3.1					
CO.....	K..... 4.0				

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00166

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015303

NAME OF SAMPLE SOURCE... MILLS SCHOOL
 KGRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 38S 009E 33 NE OF SW NE
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

LAT/LONG... 42-13.45 N 121-45.90 W
 UTM ZONE... +10
 NORTHING... 4675190.
 601924.

MAP REFERENCE..... KLAMATH FALLS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 89.0
 WELL DEPTH (M)..... 244.

DISCHARGE..... 38. L/MIN
 PERTINENT LITHOLOGY..... BASALT
 OTHER SAMPLE INFORMATION.. USED FOR HEATING
 WATER ANALYSIS

DATE/ANALYST..... OREGON STATE BOARD OF HEALTH

P..... 8.3
 SPECIFIC CONDUCTANCE..... 1200.
 CHARGE IMBALANCE (% DIFF)... 37.7

ANALYSIS IN MG/L

AG....	CO3.....	LI... 0	S....		
AL....	CR.....	MG... L 0.2	SB...		
AS....	CS.....	MN... 0.03	SC...		
H..... 0.96	F..... 1.2	NA... 370.	SI02.	78.	
RE....	FE(TOT).. 0.03	NB...	S04...	462.	
CA.... 27.	HCO3.... 46.				
CL.... 54.					
CO....	K..... 3.0				

ISOLOPES (0/00)

DEL D OF WATER..... -121.8
 DEL O(18) OF WATER... -14.83
 DEL O(18) OF SO4..... -4.94

QUALIFICATION FIELD..... CONDUCTANCE MEASURED 1975/08/07: LI=0.13,PH=8.2,TEMP=74

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 02
 REFERENCE..... SAMMEL, 1976; NEHRING AND OTHERS, 1979

RECORD 00167

 GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015334

NAME OF SAMPLE SOURCE... MONTE DEHLINGER

.. KSPA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 01OE 32 SE OF SW SW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

LAT/LONG... 42-07.60 N 121-40.40 W
 UTM ZONE... +10
 NORTHING... 4664478.
 609657.

MAP REFERENCE..... MERRILL 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/06/06 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 26.0
 WELL DEPTH (M)..... 45.

OTHER SAMPLE INFORMATION.. DOMESTIC USE

WATER ANALYSIS

DATE/ANALYST..... USGS
 P..... 7.6
 SPECIFIC CONDUCTANCE..... 260.
 CHARGE IMBALANCE (% DIFF)... 0.3

ANALYSIS IN MG/L

AG....	CO3..... N				
AL....	CR.....	MG... 11.			
AS.... 0.004	CS.....	MN... N			
H..... 0.02	F..... N	NA... 22.	SI02.	54.	
RE....	FE(TOT).. 0.02	NB...	S04...	7.1	
CA.... 17.	HCO3.... 160.				
CL.... 3.6					
CO....	K..... 6.7				

ISOLOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00168

GEOHEM FILE ID: 0015321

GEOHEM SAMPLE FILE

NAME OF SAMPLE SOURCE... MOYINA WATER CO.

KGRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 009E 01 NE OF SE NW

LAT/LONG... 42-12.60 N 121-42.45 W

STATE..... OREGON

UTM ZONE... +10

COUNTY..... KLAMATH

NORTHING... 4673687.

GEOLOGIC PROVINCE.. 31

606693.

MAP REFERENCE..... MERRILL 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1966/08/24

TEMPERATURE (C)..... 65.0

WELL DEPTH (M)..... 476.

OTHER SAMPLE INFORMATION.. DOMESTIC USE

WATER ANALYSIS

PH..... 7.4

SPECIFIC CONDUCTANCE..... 222.

ANALYSIS IN MG/L

ISOTOPES (0/100)

AL....	CR.....	MG...	2.3		
AS.... L 0.005	CS.....	MN.... L	0.05		
R.....	F.....	NA....	38.	SI02.	64.
RE.....	FE(TOT).	NB....		SO4..	5.6
CA.... 7.9					
CL.... 1.8					
CO....	K.....		5.0		

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 02

REFERENCE..... SAMMEL, 1976

RECORD 00169

GEOHEM FILE ID: 0015308

GEOHEM SAMPLE FILE

NAME OF SAMPLE SOURCE... O. H. OSORN

KGRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 40S 009E 27 NE OF SE SW

LAT/LONG... 42-03.30 N 121-44.70 W

STATE..... OREGON

UTM ZONE... +10

COUNTY..... KLAMATH

NORTHING... 4656431.

GEOLOGIC PROVINCE.. 31

603850.

MAP REFERENCE..... MERRILL 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/05/31 VOEGTLY AND SAMMEL

TEMPERATURE (C)..... 90.0

WELL DEPTH (M)..... 127.

DISCHARGE..... 1703. L/MIN

PERTINENT LITHOLOGY..... YONNA FM.

OTHER SAMPLE INFORMATION.. USE: STOCK

WATER ANALYSIS

DATE/ANALYST..... USGS

P.T..... 9.5
 SPECIFIC CONDUCTANCE..... 920.
 CHARGE IMBALANCE (% DIFF)... 10.8
 ANALYSIS IN MG/L

AG....	CO ₃	9.	LI....	S....	
AL....	CR....		MG... N	SB....	
AS.... 0.011	CS....		MN... N	SC....	
R.... 0.77	F....	1.5	NA... 190.	SI02..	90.
RF....	FE(TOT)..	0.26	NB....	SO4... 270.	
CA.... 15.	HCO ₃	37.			
CL.... 56.					
CO....	K....	4.1			

ISOTOPES (O/OW)

DEL D OF WATER.....	-117.0
DEL O(18) OF WATER...	-14.95
DEL O(18) OF SO ₄	-1.85

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 06
 REFERENCE..... SAMMEL, 1976; NEHRING AND OTHERS, 1979

RECORD 00170

GEOTHERM SAMPLE TITLE

GEOTHERM FILE 101 0015419

NAME OF SAMPLE SOURCE... O.I.T. NO. 5

LOCALITY..... KLAMATH FALLS

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 38S 009E 28 SW OF SW

COORDINATES
 LAT/LONG... 42-13.85 N 121-46.40 W
 UTM ZONE... +10
 NORTHING... 4675920.
 601225.

STATE..... OREGON

COUNTY..... KLAMATH

GEOLOGIC PROVINCE.. 31

M.P. REFERENCE..... KLAMATH FALLS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1967/00/00 PETERSON & GROM

SAMPLE NUMBER..... 1139 OREGON STATE BOARD OF HEALTH

TEMPERATURE (C)..... 89.0

WATER ANALYSIS

DATE/ANALYST..... ROSE, ALAN W., OREGON STATE BOARD OF HEALTH

P.T..... 8.6

SPECIFIC CONDUCTANCE..... 1000.

TOTAL DISSOLVED SOLIDS... 816.

CHARGE IMBALANCE (% DIFF)... 42.4

ANALYSIS IN MG/L

AG....	CO ₃	16.	MG... 1.0		
AL.... 0.03	CR....		MN... L 0.02		
AS.... 0.018	CS....		NA... 331.	SI02..	73.
R....	F....	1.1	NB... 331.	SO4... 384.	
RF....	FE(TOT)..	0.03	NH ₄ .. 0.54		
RI....	GA....		NO ₃ .. L 0.01		
CA.... 25.	HCO ₃	22.			
CL.... 48.					
CO....	K....	3.5			

ISOTOPES (O/OW)REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 02
 REFERENCE..... PETERSON AND GROM, 1967

RECORD 00171

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015301

NAME OF SAMPLE SOURCE... O.I.T. NO. 6
KORA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 385 009E 20 NW OF SW NE

LAT/LONG... 42-14.90 N 121-46.85 W

STATE..... OREGON

UTM ZONE... +10

COUNTY..... KLAMATH

NORTHING... 4677855.

GEOLOGIC PROVINCE.. J1

600578.

MAP REFERENCE..... KLAMATH FALLS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/08/24

TEMPERATURE (C)..... 88.0

WELL DEPTH (M)..... 550.

DISCHARGE..... 946. L/MIN

PERTINENT LITHOLOGY..... BASALT

OTHER SAMPLE INFORMATION.. USED FOR HEAT

WATER ANALYSIS

PH..... 8.2

CHARGE IMBALANCE (% DIFF)... 9.6

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....		CO3..... N	LI... 0		
AL....		CR.....	MG... L 0.1		
R.... 1.0		F..... 1.5	NA... 195.	SI02.. 31.	
RE....		FE(TOT)..	NB... 504..	400.	
CA.... 24.		HCO3..... 44.			
CL.... 58.					
CO....		K..... 3.9			

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 02

REFERENCE..... SAMMEL, 1976

RECORD 00172

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003006

NAME OF SAMPLE SOURCE... O.I.T. NO. 6
KORA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 385 009E 20 NW OF SW NE

LAT/LONG... 42-14.90 N 121-46.85 W

STATE..... OREGON

R&M: WILLAMETTE

COUNTY..... KLAMATH

UTM ZONE... +10

GEOLOGIC PROVINCE..

NORTHING... 4677855.

MAP REFERENCE..... KLAMATH FALLS 1162500

600578.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/03/31

TEMPERATURE (C)..... 79.

WELL DEPTH (M)..... 550.

WATER ANALYSIS

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....		CO3.....	LI... 0.12	S....	DEL D OF WATER..... -118.7
AL....		CR.....	MG... 0.1	SH... 14.99	DEL O(18) OF WATER... -14.99
AS....		CS.....	MN... 5.45	SC... 5.45	DEL O(18) OF SO4..... -5.45

B..... F..... NA... S102. 90.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... SWANSON, JAMES R.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 02
 REFERENCE..... SAMMEL, 1976; NEHRING AND OTHERS, 1979

RECORD 00173

GEOOTHERM FILE ID: 0015342

GEOOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... O'CONNOR LIVESTOCK CO.
 KARA..... KLAMATH FALLS
 LOCATION
 COUNTRY..... UNITED STATES 41S.010E 07 NE OF NW SE
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... MERRILL 1162500

COORDINATES

LAT/LONG... 42-01.00 N 121-41.00 W
 UTM ZONE... +10
 NORTHING... 4652252.
 609019.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/06/06 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 30.0
 WELL DEPTH (M)..... 235.
 OTHER SAMPLE INFORMATION.. USE: IRRIGATION; TEMP 27.9 AT 500' (1974/01/24)

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 7.8
 SPECIFIC CONDUCTANCE..... 1300.
 CHARGE IMBALANCE (% DIFF)... 1.9

ANALYSIS IN MG/L

AG.....	CO3.....	N			
AL.....	CR.....		MG...	6.4	
AS..... 0.001	CS.....		MN...	0.15	
R..... 0.69	F.....	N	NA...	210.	S102. 80.
HE.....	FE (TOT).....	0.04	NB...	504..	210.
CA..... 58.	HCO3.....	250.			
CL..... 160.					
CO.....	K.....	7.0			

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00174

GEOOTHERM FILE ID: 0000705

GEOOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... OLENE GAP HOT SPRINGS
 KARA..... KLAMATH FALLS
 WARING NUMBER..... 28
 LOCATION
 COUNTRY..... UNITED STATES 39S.010E 14 NW OF SW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... MERRILL 1162500, KLAMATH FALLS 1125000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1972/00/00 HARNES GROUP

COORDINATES

LAT/LONG... 42-10.45 N 121-36.90 W
 UTM ZONE... +10
 NORTHING... 4669829.
 614393.

TEMPERATURE (C)..... 74.0
 DISCHARGE..... 200. L/MIN
 WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE - MEMBRANE FILTER, METAL ANALYSES ACIDIFIED
 WITH NITRIC ACID, DILUTED
 PERTINENT LITHOLOGY..... BASALT AND ANDESITIC TUFF
 OTHER SAMPLE INFORMATION.. TEMP. HAS BEEN MEASURED AS HIGH AS 87

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 7.68

SPECIFIC CONDUCTANCE..... 1140.

CHARGE IMBALANCE (% DIFF)... 4.0

ANALYSIS IN MG/L

AG.... L 0.02	CO3..... L 1.	LI....	0.15	S....	
AL....	CR.....	MG....	0.2	SB....	L 0.2
AS.... 0.04	CS..... L 0.1	MN....	L 0.02	SC....	
AU.... L 0.1	CU..... 0.01	NA....	190.	SI02.	98.
B.... 1.0	F..... 1.2	NB....		S04..	400.
BA.... L 0.1	FE(TOT). L 0.02	NH4..		SR....	0.58
BE.... L 0.1	GA.....	NI....	0.05		
BI....	GE.....	PB....	L 0.06		
BR.... 0.08	HCO3.... 53.	PO4..	0.18		
CA.... 40.	HG.....	RB....	0.02		
CA+MG.	H2S....				
CD.... L 0.01	I..... 0.01				
CL.... 59.	K..... 7.2				
CO.... L 0.05					

ISOTOPES (0/00)

DEL D OF WATER..... -113.3

DEL O(18) OF WATER... -13.00

DEL O(18) OF S04..... 0

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 07

REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975

RECORD 00175

GEOHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... OLENE GAP HOT SPRINGS

WELLING NUMBER..... 28

LOCATION

COUNTRY..... UNITED STATES

STATE..... OREGON

COUNTY..... KLAMATH

GEOLOGIC PROVINCE..

MAP REFERENCE..... MERRILL 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1975/07/08

TEMPERATURE (C)..... 87.

WATER ANALYSIS

ANALYSIS IN MG/L

AG....	CO3.....	LI....		S....	
AL....	CR.....	MG....		SB....	
AS....	CS.....	MN....		SC....	
BE....	FE(TOT).	NB....		S04..	385.

ISOTOPES (0/00)

DEL D OF WATER..... -115.3

DEL O(18) OF WATER... -13.73

DEL O(18) OF S04..... -4.82

REFERENCE AND IDENTIFICATION

COMPILED BY..... SWANSON, JAMES R.

COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY

GEOHERM FILE ID: 0003003

COMPILER CROSS INDEX... 07
 REFERENCE..... SAMMEL, 1976; NEHRING AND OTHERS, 1979

RECORD 00176

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015443

NAME OF SAMPLE SOURCE... OLENE GAP HOT SPRINGS
 KGRA..... KLAMATH FALLS
 WARING NUMBER..... 28

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 010E 14 NW OF SW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... MERRILL 1162500

LAT/LONG... 42-10.45 N 121-36.90 W
 UTM ZONE... +10
 NORTHING... 4669829.
 614393.

OTHER LOCALITY INFORMATION: MAIN SPRING ORIFICE

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1967/00/00 PETERSON & GROH
 SAMPLE NUMBER..... 1176 OREGON STATE BOARD OF HEALTH
 TEMPERATURE (C)..... 73.9
 DISCHARGE..... 78. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1967/00/00 ROSE, ALAN W., OREGON STATE BOARD OF HEALTH
 PH..... 7.3
 SPECIFIC CONDUCTANCE..... 1000.
 TOTAL DISSOLVED SOLIDS... 812.
 CHARGE IMBALANCE (% DIFF)... 42.9

ANALYSIS IN MG/L

ISOTOPES (0/100)

AG....		CO ₃	N				
AL....	0.03	CR....		MG....	1.1		
AS....	0.027	CS....		MN....	0.06		
B....		F....	1.1	NA....	294.	SI02.	79.
BE....		FE(TOT)...	0.03	NB....		SO4...	346.
BT....		GA....		NH4...	0.55		
CA....	35.	HCO ₃	40.	NO3...	0.91		
CL....	58.						
CO....		K....	4.5				

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 07
 REFERENCE..... PETERSON AND GROH, 1967

RECORD 00177

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015316

NAME OF SAMPLE SOURCE... OREGON WATER CORP. (1)
 KGRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 38S 009E 32 SE OF SW NW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... KLAMATH FALLS 1162500

LAT/LONG... 42-13.30 N 121-47.45 W
 UTM ZONE... +10
 NORTHING... 4674802.
 599796.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1930/03/03

TEMPERATURE (C)..... 21.
 WELL DEPTH (M)..... 259.
 OTHER SAMPLE INFORMATION... PUBLIC SUPPLY; TEMP MEASURED IN 1975
 WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 200.

ANALYSIS IN MG/L

AG....	CO3..... N				
AL....	CR.....	MG...	4.		
H....	F.....	NA...	29.	S102.	46.
RE....	FE(TOT). L	NB...		S04...	N
CA.... 10.	HCO3..... 117.				
CL.... 8.					

ISOTOPES (0/00)

QUALIFICATION FIELD..... TEMP MEASURED BY SAMMEL (1975/08/08)
 REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 02
 REFERENCE..... SAMMEL, 1976

RECORD 00178

 GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015317

NAME OF SAMPLE SOURCE... OREGON WATER CORP.(2)

KRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	38S 009E 32	SE OF SW NW	LAT/LONG...	42-13.30 N 121-47.45 W
STATE.....	OREGON			UTM ZONE...	10
COUNTY.....	KLAMATH			NORTHING...	4674882.
GEOLOGIC PROVINCE..	31				599796.
MAP REFERENCE.....	KLAMATH FALLS 1162500				

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/09/00

TEMPERATURE (C)..... 21.0

WELL DEPTH (M)..... 133.

WATER ANALYSIS

DATE/ANALYST..... OREGON STATE BOARD OF HEALTH

PU..... 8.3

ANALYSIS IN MG/L

AL....	CR.....	MG...	6.8		
AS....	CS.....	MN... L	0.01		
H....	F..... 0.01	NA...	26.	S102.	24.
HF....	FE(TOT). 0.08	NB...		S04...	1.2
CA.... 11.					
CL.... 5.3					

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 02
 REFERENCE..... SAMMEL, 1976

RECORD 00179

 GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015318

NAME OF SAMPLE SOURCE... OREGON WATER CORP.(3)

KRA..... KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 38S 009E 32 SE OF SW NW LAT/LONG... 42-13.30 N 121-47.45 W
 STATE..... OREGON UTM ZONE... +10
 COUNTY..... KLAMATH NORTHING... 4674882.
 GEOLOGIC PROVINCE.. 599796.
 HSP REFERENCE..... KLAMATH FALLS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1971/09/00
 TEMPERATURE (C)..... 20.0
 WELL DEPTH (M)..... 191.

OTHER SAMPLE INFORMATION.. SAMPLE (1975/08/08): TEMP=22. SP COND=205

WATER ANALYSIS

DATE/ANALYST..... OREGON STATE BOARD OF HEALTH

P..... 8.4
 SPECIFIC CONDUCTANCE..... 0 205.

ANALYSIS IN MG/L

AL....	CR.....	MG...	5.8		
AS....	CS.....	MN... L	0.01		
H.....	F.....	NA...	26.	SI02.	25.
HF....	FE(TOT).	NB...	0.05	S04..	0.6
CA....					
CL....					

ISOTOPES (0/00)

QUALIFICATION FIELD..... CONDUCTANCE MEASURED 1975/08/08: TEMP=22.

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 02
 REFERENCE..... SAMMEL, 1976

RECORD 00180

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015326

NAME OF SAMPLE SOURCE... OREGON WATER CORP.(4)

KGRA..... KLAMATH FALLS

LOCATION

COUNTRY..... UNITED STATES 39S 010E 06 NW OF SE SW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 42-12.10 N 121-41.40 W
 UTM ZONE... +10
 NORTHING... 4672784.
 608152.

HSP REFERENCE..... MERRILL 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1970/08/27
 TEMPERATURE (C)..... 26.
 WELL DEPTH (M)..... 223.

WATER ANALYSIS

DATE/ANALYST..... OREGON STATE BOARD OF HEALTH

P..... 8.6

ANALYSIS IN MG/L

AL....	CR.....	MG...	5.8		
AS....	CS.....	MN... L	0.005		
H.....	F.....	NA...	36.	SI02.	63.
HF....	FE(TOT).	NB...	0.33	S04..	6.5
CA....					
CL....					

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

REFERENCE..... SAMMEL, 1976

RECORD 00181

GEOTHERM FILE ID: 0015341

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... POPE'S MEAT CO.
 KORA..... KLAMATH FALLS
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 41S 010E 03 NE OF NE NE
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... MERRILL 1162500

COORDINATES

LAT/LONG... 42-01.95 N 121-37.50 W
 UTM ZONE... +10
 NORTHING... 4654086.
 613821.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/06/06 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 22.0
 WELL DEPTH (M)..... 344.

OTHER SAMPLE INFORMATION.. COMMERCIAL USE

WATER ANALYSIS

DATE/ANALYST..... USGS
 P..... 8.5
 SPECIFIC CONDUCTANCE..... 190.
 CHARGE IMBALANCE (% DIFF)..... 1.2

ANALYSIS IN MG/L

AG.....	CO3.....	2.					
AL.....	CR.....		MG...	1.4			
AS..... N	CS.....		MN...	N			
H..... 0.02	F..... N		NA...	30.	SI02..	25.	
HE.....	FE(TOT).....	0.02	NB...		S04..	6.0	
CA..... 8.6	HCO3.....	100.					
CL..... 4.4							
CO.....	K.....	3.2					

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00182

GEOTHERM FILE ID: 0015328

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... RAY BIXLER
 KORA..... KLAMATH FALLS
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 39S 010E 10 SE OF SW NW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... MERRILL 1162500

COORDINATES

LAT/LONG... 42-11.55 N 121-37.95 W
 UTM ZONE... +10
 NORTHING... 4671841.
 612915.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/05/29 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 22.0
 WELL DEPTH (M)..... 140.

OTHER SAMPLE INFORMATION.. DOMESTIC AND STOCK USE

WATER ANALYSIS

DATE/ANALYST..... USGS
 P..... 7.8

SPECIFIC CONDUCTANCE..... 190.
 CHARGE IMBALANCE (% DIFF)... 1.9
 ANALYSIS IN MG/L

ISOTOPIES (0/00)

AG....	CO3.....	N	MG...	8.4		
AL....	CH.....		MN...	1.4		
AS.... 0.002	CS.....		NA...	16.	SI02.	49.
R.... 0.02	F.....	0.2	NB...		S04..	7.9
HE....	FE(TOT)..	0.16				
CA.... 12.	HCO3....	110.				
CL.... 1.9						
CO....	K.....	3.3				

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00183

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015432

NAME OF SAMPLE SOURCE... RAY SMITH WELL
 WELL/SPRING NUMBER..... 36S/11E-16BCB

LOCATIONTOWNSHIP-RANGECOORDINATES

COUNTRY.....	UNITED STATES	36S 01E 16	NW OF SW NW	LAT/LONG...	42-27.25 N 121-25.40 W
STATE.....	OREGON			UTM ZONE...	+10
COUNTY.....	KLAMATH			NORTHING...	4701194.
GEOLOGIC PROVINCE..	31				629648.

MAP REFERENCE..... BEATTY 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1970/10/08 USGS
 TEMPERATURE (C)..... 25.
 WELL DEPTH (M)..... 116.

WATER ANALYSIS

DATE/ANALYST..... 1970/00/00 USGS
 PH..... 8.4 AT(C) 25.
 SPECIFIC CONDUCTANCE..... 148.
 TOTAL DISSOLVED SOLIDS... 140.
 CHARGE IMBALANCE (% DIFF)... 0.8

ISOTOPIES (0/00)

AG....	CO3.....	11.	MG...	0.1		
AL....	CH.....		NA...	30.	SI02.	50.
H....	F.....	0.2	NB...		S04..	3.2
HE....	FE(TOT)..	0.03				
CA.... 3.8	HCO3....	64.	NO3..	0.3		
CL.... 2.5						
CO....	K.....	1.9				

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERSON, NORMAN V.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 22
 REFERENCE..... LEONARD AND HARRIS, 1974

RECORD 00184

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015330

NAME OF SAMPLE SOURCE... ROBERT LANGLEY
 WELLS..... KLAMATH FALLS

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE 395 010E 15 SW OF SW SE
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... MERRILL 1162500
 COORDINATES
 LAT/LONG... 42-10.75 N 121-37.90 W
 UTM ZONE... +10
 NORTHING... 4670362.
 613008.

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/05/04 VUEGTLY AND SAMMEL
 TEMPERATURE (C)..... 23.

OTHER SAMPLE INFORMATION.. DOMESTIC USE

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 7.4

SPECIFIC CONDUCTANCE..... 200.

CHARGE IMBALANCE (% DIFF)... 4.0

ANALYSIS IN MG/L

AG.... CO3..... 1.
 AL.... CR..... MG... 6.3
 H.... 0 F..... 0 NA... 22. SI02. 50.
 HF.... FE(TOT)... NB... S04.. 14.
 CA.... 10. HCO3.... 110.
 CL.... 2.6
 CO.... K..... 5.5

ISOTOPES (0/00)

QUALIFICATION FIELD..... SAMPLE(1975/08/10) F=0.1,B=0.020,SP COND=205,PH=7.8TEMP=24

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00185

GEOTHERM FILE 101 0015329

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... ROENICKE HOT SPRING

LOCALITY..... KLAMATH FALLS

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE 395 010E 14 NW OF SW SW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... MERRILL 1162500

COORDINATES
 LAT/LONG... 42-10.40 N 121-37.05 W
 UTM ZONE... +10
 NORTHING... 4669733.
 614188.

OTHER LOCALITY INFORMATION: SPRING OWNED BY L. JONES

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/10/11 GARDNER, MURRAY

TEMPERATURE (C)..... 0 65.0

PERTINENT LITHOLOGY..... THERMAL-ARTESIAN; YONNA FORMATION

WATER ANALYSIS

PH..... 8.2

SPECIFIC CONDUCTANCE..... 0 1300.

CHARGE IMBALANCE (% DIFF)... 3.2

ANALYSIS IN MG/L

AG.... CO3..... N
 AL.... CR..... MG... 0.1
 H.... 1.9 F..... 1.5 NA... 217. SI02. 48.
 HF.... FE(TOT)... NB... S04.. 430.
 CA.... 35. HCO3.... 50.
 CL.... 65.

ISOTOPES (0/00)

CO..... K..... S.0
 QUALIFICATION FIELD..... TEMP. AND SP COND MEASURED 1974/03/09
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 08
 REFERENCE..... SAMMEL, 1976

RECORD 00186

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015314

NAME OF SAMPLE SOURCE... S. AND C. KILGORE
 LOCATION
 COUNTRY..... UNITED STATES 40S.014E 16 NE OF NW NE
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... GERBER RESERVOIR 1162500
 COORDINATES
 LAT/LONG... 42-06.40 N 121-03.80 W
 UTM ZONE... +10
 NORTHING... 4663221.
 660130.
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 20.0
 WELL DEPTH (M)..... 130.
 DISCHARGE..... 6624. L/MIN
 PERTINENT LITHOLOGY..... BASALT
 WATER ANALYSIS
 SPECIFIC CONDUCTANCE..... 230.
 ANALYSIS
 AL..... CR..... MG... SB...
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976
 ISOTOPES (0/00)
 DEL 0(18) OF WATER... -16.00

RECORD 00187

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015340

NAME OF SAMPLE SOURCE... TOWN OF MERRILL
 LOCATION
 COUNTRY..... UNITED STATES 41S 010E 02 SE OF SE SE
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... MERRILL 1162500
 COORDINATES
 LAT/LONG... 42-01.50 N 121-36.00 W
 UTM ZONE... +10
 NORTHING... 4653286.
 615904.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1955/02/18
 TEMPERATURE (C)..... 21.0
 WELL DEPTH (M)..... 732.
 OTHER SAMPLE INFORMATION.. PUBLIC SUPPLY
 WATER ANALYSIS
 P..... 8.3
 SPECIFIC CONDUCTANCE..... 316.
 TOTAL DISSOLVED SOLIDS... 214.
 CHARGE IMBALANCE (% DIFF)... 5.3
 ANALYSIS IN PPM
 AL..... CR..... MG... 4.3
 AS..... 0.01
 ISOTOPES (0/00)

R..... 0.01 F..... 0.1 NA... 44. S102. 38.
 RE..... FE(TOT). 0.12 NB... S04.. 21.
 CA..... 11. HC03.... 114. NO3.. N
 CL..... 27.
 CO..... K..... 3.8

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... NEWCOMB AND HART, 1958

RECORD 00188

GEOtherm SAMPLE FILE

GEOtherm FILE ID: 0015323

NAME OF SAMPLE SOURCE... U.S. AIR FORCE(1),
 KGRA..... NEAR KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

SW OF SW NW

COORDINATES

COUNTRY..... UNITED STATES 39S 009E 34 SW OF SW NW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... KLAMATH FALLS 1162500

LAT/LONG... 42-08.05 N 121-45.25 W
 UTM ZONE... +10
 NORTHING... 4665210.
 602964.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/10/17 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... U 31.0
 WELL DEPTH (M)..... 152.

OTHER SAMPLE INFORMATION.. PUBLIC SUPPLY

WATER ANALYSIS

PH..... U 7.0
 SPECIFIC CONDUCTANCE..... U 240.
 CHARGE IMBALANCE (% DIFF)... 4.5
 ANALYSIS IN MG/L

ISOTOPES (0/00)

AG..... CO3..... N
 AL..... CR..... MG... 1.2
 AS..... CS..... MN... L 0.01
 R..... F..... 0.3 NA... 47. S102. 53.
 RE..... FE(TOT). 0.04 NB... S04.. 8.
 CA..... 3.8 HC03.... 128.
 CL..... 6.0
 CO..... K..... 9.0

QUALIFICATION FIELD..... TEMP, COND, PH MEASURED 1973/12/12

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00189

GEOtherm SAMPLE FILE

GEOtherm FILE ID: 0015324

NAME OF SAMPLE SOURCE... U.S. AIR FORCE(2)
 KGRA..... NEAR KLAMATH FALLS

LOCATION

TOWNSHIP-RANGE

SW OF SW NW

COORDINATES

COUNTRY..... UNITED STATES 39S 009E 34 SW OF SW NW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... KLAMATH FALLS 1162500

LAT/LONG... 42-08.10 N 121-45.35 W
 UTM ZONE... +10
 NORTHING... 4665301.
 602925.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/10/17 VOEGTLY AND SAMMEL
 TEMPERATURE (C)..... 0 30.
 WELL DEPTH (M)..... 120.
 OTHER SAMPLE INFORMATION.. PUBLIC SUPPLY

WATER ANALYSIS

DATE/ANALYST..... USGS
 SPECIFIC CONDUCTANCE..... 0 255.
 CHARGE IMBALANCE (% DIFF).... 0.8
 ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....	CO3.....	"	MG...	2.3		
AL....	CR.....		MN...	L 0.01		
AS....	CS.....		NA...	48.	SI02.	51.
H....	F.....	0.2	NB...		504..	9.
HE....	FE(TOT)...	0.03				
CA....	HCO3.....	145.				
CL....						
CO....	K.....	8.5				

QUALIFICATION FIELD..... TEMP AND SP COND MEASURED 1973/12/12
 REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00190

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015304

NAME OF SAMPLE SOURCE... WEYERHAUSER WELL NO. 4
 AREA..... NEAR KLAMATH FALLS

LOCATION

TOWNSHIP=RANGECOORDINATES

COUNTRY..... UNITED STATES 39S 009E 18 NW OF NW SW
 STATE..... OREGON
 COUNTY..... KLAMATH
 GEOLOGIC PROVINCE.. 31

LAT/LONG... 42-10.70 N 121-48.10 W
 UTM ZONE... +10
 NORTHING... 4670058.
 598969.

MAP REFERENCE..... KLAMATH FALLS 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/08/22
 TEMPERATURE (C)..... 22.
 WELL DEPTH (M)..... 166.
 DISCHARGE..... 4637. L/MIN
 PERTINENT LITHOLOGY..... BASALT
 OTHER SAMPLE INFORMATION.. INDUSTRIAL USE

WATER ANALYSIS

DATE/ANALYST..... GARDNER, MURRAY
 P.I..... 0 8.3
 SPECIFIC CONDUCTANCE..... 0 200.
 CHARGE IMBALANCE (% DIFF).... 4.8
 ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....	CO3.....	4.5	LI...	S....	DEL D OF WATER.....	-109.1
AL....	CR.....		MG...	SB...	DEL O(18) OF WATER...	-14.60
H....	F.....	0.11	NA...	32.		
HE....	FE(TOT)...		NB...			
CA....	HCO3.....	115.				
CL....						
CO....	K.....	3.3				

QUALIFICATION FIELD..... SP COND AND PH MEASURED BY SAMMEL (1973/10/16)

REFERENCE AND IDENTIFICATION

COMPILED BY..... TESHIN, VICTOR
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... SAMMEL, 1976

RECORD 00191

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001721

NAME OF SAMPLE SOURCE... ADEL WELL
 LOCATION

TOWNSHIP-RANGE
 39S 024E 23

COORDINATES

LAT/LONG... 42-10.8 N 119-52.8 W

COUNTRY..... UNITED STATES

STATE..... OREGON

COUNTY..... LAKE

GEOLOGIC PROVINCE... 3)

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 71.

DISCHARGE..... 40. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

RECORD 00192

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0002215

NAME OF SAMPLE SOURCE... ANA RIVER SPRING

WELPING NUMBER..... 17

LOCATION

TOWNSHIP-RANGE
 30S 017E 06

COORDINATES

LAT/LONG... 42-59.8 N 120-45.3 W

COUNTRY..... UNITED STATES

STATE..... OREGON

COUNTY..... LAKE

GEOLOGIC PROVINCE..

MAP REFERENCE..... KLAMATH FALLS 11250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1948/12/00

TEMPERATURE (C)..... 18.9

DISCHARGE..... 170339 L/MIN

PERTINENT LITHOLOGY..... FROM FAULTED(?) QUATERNARY LAKE DEPOSITS

WATER ANALYSIS

DATE/ANALYST..... USGS

PH..... 8.4

TOTAL DISSOLVED SOLIDS... 161.

CHARGE IMBALANCE (% DIFF)... 0.3

ANALYSIS IN PPM

				ISOTOPIES (0/00)	
AL....		CR....		MG...	3.1
HA....	0.5	F.....	0.2	NA....	39.
HE....		FE(TOT)...	0.16	NB....	504..
CA....	5.2	HCO3....	108.	NO3..	0.1
CL....	13.				
CO....		K.....	3.2		

OTHER ANALYTICAL DATA... FE (TOTAL) RECORDED AS .34 WHEN COLLECTED

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 05
 REFERENCE..... TRAUGER, 1950

RECORD 00193

GEOTHERM FILE ID: 0002216

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... ANTELOPE HOT SPRINGS
WELL/SPRING NUMBER..... 4HA

LOCATION
COUNTRY..... UNITED STATES TOWNSHIP-RANGE 35S 026E 32 NE OF NW
STATE..... OREGON

COORDINATES
LAT/LONG... 42-29.97 N 119-41.48 W
UTM ZONE... +11
NORTHING... 4708534.
278848.

COUNTY..... LAKE
GEOLOGIC PROVINCE.. J1
MAP REFERENCE..... WARNER PEAK 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1948/08/10
TEMPERATURE (C)..... 40.0
DISCHARGE..... 114. L/MIN
PERTINENT LITHOLOGY..... VALLEY ALLUVIUM

WATER ANALYSIS

DATE/ANALYST..... USGS
P.H..... 8.3
SPECIFIC CONDUCTANCE..... 876.
TOTAL DISSOLVED SOLIDS..... 695.
CHARGE IMBALANCE (% DIFF)... 0.0
ANALYSIS IN PPM

ISOTOPES (0/00)

AL....	CR.....	MG... 2.5		
H.... 1.5	F..... 3.6	NA... 191.	SI02. 168.	
HF....	FE(TOT). 0.02	NB... 57.	S04.. 57.	
CA.... 10.	HCO3.... 376.	NO3.. 0.2		
CL.... 64.				
CO....	K..... 13.			

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
COMPILER CROSS INDEX... 28
REFERENCE..... TRAUGER, 1950

RECORD 00194

GEOTHERM FILE ID: 0015954

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... ANTONE SPRINGS
WELL/SPRING NUMBER..... 785-20E-6-AA

LOCATION
COUNTRY..... UNITED STATES TOWNSHIP-RANGE 38S 020E 06 NE OF NE
STATE..... OREGON

COORDINATES
LAT/LONG... 42-18.52 N 120-23.78 W

COUNTY..... LAKE
GEOLOGIC PROVINCE.. BASIN AND RANGE
MAP REFERENCE..... BIG BALDY 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/27 PETERSON, NORMAN V.
SAMPLE NUMBER..... W579-225
POINT OF COLLECTION.. ORIFICE
TEMPERATURE (C)..... 22.5
AMBIENT TEMP (C)..... 16.

WATER ANALYSIS

DATE/ANALYST..... 1979/09/04 BANERJEE, KALA C.
PH..... 8.2 AT(C) 23.

SPECIFIC CONDUCTANCE..... 16.9
 ALKALINITY..... 86.
 TOTAL DISSOLVED SOLIDS..... 130.
 CHANGE IMBALANCE (% DIFF).... 4.7

AS CAC03

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG.....	CO3.....	LI... L	0.05		
AL.... L 0.1	CR.....	MG... L	7.7		
AS.... L 0.005	CS.....	MN... L	0.05		
H.....	F..... L 0.1	NA... L	12.	5102.	46.
HE.....	FE(TOT) 0.06	NB... L		504..	2.0
CA.... 12.	H2S.....	PO4..	0.0036		
CL.... 0.6	K.....				
CO....					

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00195

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015976

NAME OF SAMPLE SOURCE... BARRY RANCH HOT SPRINGS
 AREA..... LAKEVIEW
 WELL/SPRING NUMBER..... 39S/20E/27/DC

LOCATION

TOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 39S 020E 27 NW OF SE LAT/LONG... 42-09.35 N 120-20.67 W
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE

MAP REFERENCE..... LAKEVIEW NE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/13 PETERSON, NORMAN V.
 SAMPLE NUMBER..... W579-200
 POINT OF COLLECTION.. ORIFICE OF NORTHERNMOST SPRING.
 TEMPERATURE (C)..... 92.5
 AMBIENT TEMP (C)..... 17.
 DISCHARGE..... 38.

OTHER SAMPLE INFORMATION.. H2S 000R.

WATER ANALYSIS

DATE/ANALYST..... 1979/08/21 BANERJEE, KALA C.
 PH..... 7.7 AT (C) 93.
 SPECIFIC CONDUCTANCE..... 1382.
 ALKALINITY..... 167. AS CAC03
 TOTAL DISSOLVED SOLIDS... 965.
 CHANGE IMBALANCE (% DIFF).... 3.0

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG.....	CO3.....	LI... L	0.18		
AL.... 0.34	CH.....	MG... L	0.08		
AS.... 0.101	CS.....	MN... L	0.05		
H.....	F..... 5.6	NA... L	268.	5102.	77.
HA.....	FE+3... 0.15	NB... L		504..	224.
HE.....	FE(TOT).....	PO4..	0.031		
CA.... 8.8	H2S.....				
CL.... 158.					

CO..... K..... 9.6
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00196

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0002217

NAME OF SAMPLE SOURCE... BARRY RANCH HOT SPRINGS (GUS ALLEN)
 KGRA..... LAKEVIEW
 WARNING NUMBER..... 47

LOCATIONTOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 39S 020E 27 NW OF SE
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE..

LAT/LONG... 42-09.35 N 120-20.67 W
 UTM ZONE... +10
 NORTHING... 4670278.
 719399.

MAP REFERENCE..... LAKEVIEW NE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1968/05/22
 TEMPERATURE (C)..... 85.0
 DISCHARGE..... 189. L/MIN
 PERTINENT LITHOLOGY..... FROM TERTIARY LAVA NEAR FAULT SCARP

WATER ANALYSIS

DATE/ANALYST..... USGS
 P.H..... 7.3
 SPECIFIC CONDUCTANCE..... 1320.
 TOTAL DISSOLVED SOLIDS... 905.
 CHARGE IMBALANCE (% DIFF)... 0.9

ANALYSIS IN PPM

<u>ISOTOPES (0/00)</u>					
AL....	CR.....	MG...	1.4		
H..... 9.9	F.....	NA...	268.	SI02.	140.
HE....	FE(TOT)..	NB...		SO4..	223.
CA.... 8.5	HCO3....	NO3..	0.3		
CL.... 146.					

CO..... K..... 8.8

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 75
 REFERENCE..... TRAUGER, 1950

RECORD 00197

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000780

NAME OF SAMPLE SOURCE... BARRY RANCH HOT SPRINGS (GUS ALLEN)
 KGRA..... LAKEVIEW
 WARNING NUMBER..... 47

LOCATIONTOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 39S 020E 27 NW OF SE
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE..

LAT/LONG... 42-09.35 N 120-20.67 W
 UTM ZONE... +10
 NORTHING... 4670278.
 719399.

MAP REFERENCE..... LAKEVIEW NE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 HARNES GROUP

TEMPERATURE (C)..... 88.0
 DISCHARGE..... 200. L/MIN
 WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE MEMBRANE FILTER, METAL ANALYSES ACIDIFIED
 WITH NITRIC ACID, DILUTED
 DEPOSITS OR ALTERATION..... SINTER, TRAVERTINE
 PERTINENT LITHOLOGY..... ANDESITE, ANDESITE TUFF-BRECCIA, RHYOLITE
 OTHER SAMPLE INFORMATION.. MIXED WATERS

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP
 PH..... 7.76
 SPECIFIC CONDUCTANCE..... 1370.
 CHARGE IMBALANCE (% DIFF).... 7.2

ANALYSIS IN MG/L

AG.... L 0.02	CO3..... 2.	LI... 0.15	S....	ISOTOPES (0/00)	
AL.... 0.014	CR.....	MG... 0.1	SB... L 0.2	DEL D OF WATER.....	-119.4
AS.... 0.07	CS..... L 0.1	MN... L 0.02		DEL O(18) OF WATER...	-13.72
AU.... L 0.1	CU..... L 0.01				
H.... 11.	F..... 5.4	NA... 280.	SI02. 130.		
HA.... L 0.1					
HE.... L 0.1	FE(TQT). L 0.02	NB... 1.8	S04.. 240.		
HI....	GA.....	NH4... 1.8	SR... 0.17		
HR.... 1.					
CA.... 8.8	HCO3..... 232.				
CA+MG.	HG..... 0.0017	PB... L 0.06			
CD.... L 0.01	H2S.....	PO4.. 0.18			
CL.... 170.	I..... 0.1				
CO.... L 0.05	K..... 9.0	RB... 0.04			

GAS ANALYSIS

ANALYSIS IN VOLUME %
 CH4... 42.
 C2H6..
 CO2... 2.

ISOTOPES (00/01)

N2... 54.

OTHER ANALYTICAL DATA... O2, AR=2

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... NEM-978
 REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975

RECORD 00198

GEOHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... BEAN HOT SPRING

GEOHERM FILE ID: 0001716

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 37S 02OE 11
 COUNTY..... LAKE
 GEOLOGIC PROVINCE... J1

COORDINATES

LAT/LONG... 42-23.4 N 120-19.4 W

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 20.
 DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... TRAUGER, 1950

RECORD 00199

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0015955

NAME OF SAMPLE SOURCE... CHAMBERS RANCH IRRIGATION WELL
WELL/SPRING NUMBER..... 745-20E-22-CA

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 38S 020E 22 NE OF SW
STATE..... OREGON
COUNTY..... LAKE
GEOLOGIC PROVINCE.. BASIN AND RANGE
MAP REFERENCE..... CROOKED CREEK VALLEY 1124000

LAT/LONG... 42-45. N 120-20.66 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/27 PETERSON, NORMAN V.
SAMPLE NUMBER..... W579-227
POINT OF COLLECTION.. 100 FEET FROM WELLHEAD.
TEMPERATURE (C)..... 28.5
AMBIENT TEMP (C)..... 16.

WATER ANALYSIS

DATE/ANALYST..... 1979/04/09 BANERJEE, KALA C.
PH..... 8.3 AT(C) 29.
SPECIFIC CONDUCTANCE..... 663.
ALKALINITY..... 338. AS CaCO3
TOTAL DISSOLVED SOLIDS... 432.
CHARGE IMBALANCE (% DIFF)... 0.6.

ANALYSIS IN MG/L

AG.....	CO3.....	LI... L	0.05		
AL... L	0.1	CR.....	MG... L	1.7	
AS.....	0.026	CS.....	MN... L	0.05	
B.....	0.007	F.....	0.5	SI02..	54.
HE.....	FE(TOT). L	0.05	NB... L	504..	14.
CA.....	7.2				
CD.....		H2S.....	PO4..	0.039	
CL.....	2.6				
CO.....		K.....	1.5		

ISOTOPES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00200

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0015963

NAME OF SAMPLE SOURCE... COLVERT SPRING
WELL/SPRING NUMBER..... 375-20E-16-CCA

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 37S 020E 16 SW OF SW NE
STATE..... OREGON
COUNTY..... LAKE
GEOLOGIC PROVINCE.. BASIN AND RANGE
MAP REFERENCE..... CROOKED CREEK VALLEY 1124000

LAT/LONG... 42-21.44 N 120-21.51 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/08/24 PETERSON, NORMAN V.
SAMPLE NUMBER..... W579-274
POINT OF COLLECTION.. OFFICE
TEMPERATURE (C)..... 16.

AMBIENT TEMP (C)..... 12.
 WATER ANALYSIS
 DATE/ANALYST..... 1979/10/10 BANERJEE, KALA C.
 PH..... 7.4 AT(C) 16.
 SPECIFIC CONDUCTANCE..... 110.
 ALKALINITY..... 44. AS CAC03
 CHARGE IMBALANCE (% DIFF).... 24.5
 ANALYSIS IN MG/L

ISOLOPES (0/001)

AG....	CO3.....	LI... L	0.01		
AL.... 0.47	CR.....	MG... L	2.6		
AS.... L 0.005	CS.....	MN... L	0.02		
R.....	F..... L	NA... L	10.	SI02..	58.
HE....	FE(TOT)..	NB... L	0.21	S04..	1.4
CA.... 9.8	H2S.....	PO4..	0.111		
CL.... 1.3	K.....				
CO....					

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIU, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00201

GEOHERM SAMPLE FILE

GEOHERM FILE ID# 0002223

NAME OF SAMPLE SOURCE... CRUMP SPRING
 KIPRA..... CRUMP GEYSER
 WARNING NUMBER..... 49C

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 38S 024E 34 SW OF SW
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE..

COORDINATES
 LAT/LONG... 42-13.60 N 119-52.87 W
 UTM ZONE... +11
 NORTHING... 4678745.
 262345.

MAP REFERENCE AND CONDITIONS

MAP REFERENCE..... ADEL 1124000
 DATE/COLLECTOR..... 1948/09/16 TRAUGER, F. D.
 TEMPERATURE (C)..... 40.0
 DISCHARGE..... 19.

PERTINENT LITHOLOGY LAKE TERRACE SEDIMENTS

WATER ANALYSIS
 DATE/ANALYST..... SINGLETON, E. L.
 PH..... 8.7
 SPECIFIC CONDUCTANCE..... 935.
 TOTAL DISSOLVED SOLIDS... 662.
 CHARGE IMBALANCE (% DIFF).... 0.2

ISOLOPES (0/001)

AG....	CO3..... N				
AL....	CR.....	MG... L	2.		
R..... 7.3	F.....	NA... L	175.	SI02..	125.
HE....	FE(TOT)..	NB... L	0.04	S04..	116.
CA.... 18.	HC03....	NO3..	130.		
CL.... 150.			1.5		
CO....	K.....				

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 33
 REFERENCE..... TRAUGER, 1950

RECORD 00202

GEOTHERM FILE ID: 0000691

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... CRUMP SPRING
 KWRA..... CRUMP GEYSER
 WARING NUMBER..... 49C

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 38S 024E 34 SW OF SW

LAT/LONG... 42-13.60 N 119-52.87 W

STATE..... OREGON

UTM ZONE... 11

COUNTY..... LAKE

NORTHING... 4678745.

GEOLOGIC PROVINCE..

262345.

MAP REFERENCE..... ADEL 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP

TEMPERATURE (C)..... 78.0

DISCHARGE..... 200.

WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE MEMBRANE FILTER, METAL ANALYSES ACIDIFIED WITH NITRIC ACID, DILUTED

DEPOSITS OR ALTERATION.... SINTER; TRAVERTINE

PERTINENT LITHOLOGY..... ALLUVIUM AND OLIVINE BASALT

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 7.26

SPECIFIC CONDUCTANCE..... 1490.

CHARGE IMBALANCE (% DIFF)... 2.5

ANALYSIS IN MG/L

AG.... L 0.02	CO3.... L 1.	LI.... 0.4	S....	<u>ISOTOPES (0/00)</u>	
AL.... 0.017	CR....	MG.... 0.2	SB.... L 0.2	DEL D OF WATER.....	-115.5
AS.... 0.46	CS.... 0.1	MN.... 0.03	SC....	DEL O(18) OF WATER...	-13.28
AU.... L 0.1	CU.... L 0.01	NA.... 280.	SI02.. 180.	DEL O(18) OF S04.....	-4.71
R.... 14.	F..... 4.9	NB....	S04.. 200.		
RA.... L 0.1	FE(TOT). L 0.02	NH4... 0.6	SR.... 0.12		
RF.... L 0.1	GA.....	PB... L 0.06			
RI....	HC03.... 153.	PO4... 0.58			
RR.... 0.4	MG.... 0.0004				
CA.... 16.	H2S....				
CA+MG.	I..... 0.1				
CI.... L 0.01	K..... 11.	RB... 0.07			
CL.... 240.					
CO.... L 0.05					

GAS ANALYSIS

ANALYSIS IN VOLUME %

CH4... 6.	N2... 75.
C2H6.	
CO2... 14.	

ISOTOPES (00/00)

OTHER ANALYTICAL DATA... O2, AR=5

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... NEM-979

REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00203

GEOTHERM FILE ID: 0002221

GEOTHERM SAMPLE FILENAME OF SAMPLE SOURCE... CRUMP WELL (1)
KSHA..... CRUMP GEYSER

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP=RANGE 38S 024E 34 SW OF SW
STATE..... OREGON
COUNTY..... LAKE
GEOLOGIC PROVINCE..
MAP REFERENCE..... ADEL 1124000

COORDINATES

LAT/LONG... 42-13.59 N 119-52.87 W
UTM ZONE... +11
NORTHING... 4678731.
262220.OTHER LOCALITY INFORMATION: 4 MI. NORTH OF ADEL
SAMPLE DESCRIPTION AND CONDITIONSDATE/COLLECTOR..... 1959/07/26 WALKER, G.
POINT OF COLLECTION.. AT SURFACE, IN POLY. DISH PAN
TEMPERATURE (C)..... 99.0
DISCHARGE..... 1785. L/MINOTHER SAMPLE INFORMATION.. CLEAR JET IS 150-200 FT. HIGH AS OF SEPT. 15, 1959. 4 FT. OF 18IN. CASING AT TOP. DEPTH
OF WELL: 1684 FT., 15 FT. OF 20 IN. CASING AT SURFACE; SAMPLE TAKEN OF CONTINUOUS GEYSER.

WATER ANALYSIS

DATE/ANALYST..... 1959/11/03 DENBURGH, ROGERS

PH..... 8.7
SPECIFIC CONDUCTANCE..... 1580.
TOTAL DISSOLVED SOLIDS... 1130.
CHARGE IMBALANCE (% DIFF)... 3.8

ANALYSIS IN PPM

AG....	CO3.....	36.	LI....	0.39		
AL....	CR.....		MG....	0.5		
AS....	CS.....		MN....	N		
R....	F.....	5.2	NA....	298.	SI02.	169.
RE....	FE(TQT)...	0.15	NB....		S04..	209.
RI....	GA.....		NH4..	N	SR...	0.31
HR....						
CA....	HCO3.....	70.	NO3..	1.0		
CD....	H2S.....	0.3	PO4..	1.4		
CL....	I.....	0.1				
CO....	K.....	12.				

ISOTOPIES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
COMPILER CROSS INDEX... 33
REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00204

GEOTHERM FILE ID: 0002220

GEOTHERM SAMPLE FILENAME OF SAMPLE SOURCE... CRUMP WELL (2)
KSHA..... CRUMP GEYSER

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP=RANGE 38S 024E 34 SW OF SW
STATE..... OREGON
COUNTY..... LAKE
GEOLOGIC PROVINCE..
MAP REFERENCE..... ADEL 1124000

COORDINATES

LAT/LONG... 42-13.59 N 119-52.87 W
UTM ZONE... +11
NORTHING... 4678731.
262220.

OTHER LOCALITY INFORMATION: 120 FT. NORTH OF WELL DRILLED 1958-1959

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1960/09/23 WHITE, DON AND SIGVALDASON, G.
 TEMPERATURE (C)..... 48.0
 OTHER SAMPLE INFORMATION.. WELL ERUPTS PERIODICALLY AS GEYSER

WATER ANALYSIS

DATE/ANALYST..... 1961/03/01 WHITEHEAD, H. C.

PH..... 8.1
 SPECIFIC CONDUCTANCE..... 1460.

ANALYSIS IN PPM

AG....		CO3.....		LI....	0.33
R.....	13.	F.....		NA...	281.
CL....	248.				

ISOTOPES (0/00)

CO.....
 K..... | 10. |

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 33
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00205

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015956

NAME OF SAMPLE SOURCE... DON LINDSEY WELL

KGRA..... LAKEVIEW

WELL/SPRING NUMBER..... 385-20E-33-AB

LOCATION

COUNTRY..... UNITED STATES
 TOWNSHIP-RANGE | 38S 020E 33 | NW OF NE |

STATE..... OREGON

COUNTY..... LAKE

GEOLOGIC PROVINCE... BASIN AND RANGE

MAP REFERENCE..... LAKEVIEW NE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/27 PETERSON, NORMAN V.

SAMPLE NUMBER..... W579-229

POINT OF COLLECTION.. AT PUMP

TEMPERATURE (C)..... 48.

AMBIENT TEMP (C)..... 16.

WATER ANALYSIS

DATE/ANALYST..... 1979/09/04 BANERJEE, KALA C.

PH..... 7.8
 AT(C) | 48. |

SPECIFIC CONDUCTANCE..... 788.

ALKALINITY..... 72.
 AS | CACO3 |

TOTAL DISSOLVED SOLIDS... 556.

CHARGE IMBALANCE (% DIFF)... 1.8

ANALYSIS IN MG/L

AG....		CO3.....		LI....	0.05
AL....	L 0.1	CR.....		MG...	0.62
AS....	0.047	CS.....		MN... L	0.05
H.....		F.....	2.2	NA...	140.
RE....		FE(TOT).	0.62	NB...	5102. 60. 504.. 215.
CA....	22.				
CO....		H2S.....		PO4..	0.004
CL....	50.				
CU....		K.....	2.4		

ISOTOPES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIU, JOSEPH F.

COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00206

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015966

NAME OF SAMPLE SOURCE... E. McDONALD HOT WELL
 AREA..... LAKEVIEW
 WELL/SPRING NUMBER..... 38S-20E-33-CDD
 LOCATION

COUNTRY..... UNITED STATES	38S 020E 33	SE OF SE SW	COORDINATES
STATE..... OREGON			LAT/LONG... 42-14.500N 120-21.967W
COUNTY..... LAKE			
GEOLOGIC PROVINCE.. BASIN AND RANGE			
MAP REFERENCE..... LAKEVIEW NE 1124000			

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/09/26 PETERSON, NORMAN V. AND RICCIO, JOSEPH F.
 SAMPLE NUMBER..... WS79-297
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 94.
 AMBIENT TEMP (C).... 17.

WATER ANALYSIS

DATE/ANALYST..... 1979/11/05 BANERJEE, KALA C.
 PH..... 8.2 AT (C) 94.
 SPECIFIC CONDUCTANCE..... 1137.
 ALKALINITY..... 60. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 803.
 CHARGE IMBALANCE (% DIFF)... 12.5

ANALYSIS IN MG/L

ISOTOPE (D/00)

AG....	CO3.....	LI....	0.14		
AL.... 0.07	CR.....	MG....	0.06		
AS.... 0.19	CS.....	MN.... L	0.02		
H.... 7.1	F..... 4.3	NA....	195.	SI02.	123.
HF....	FE(TOT) L	0.05		S04..	169.
CA.... 13.	HCO3.....	NO3.. L	0.02		
CD....	H2S.....	PO4..	0.022		
CL.... 118.					
CO....	K..... 8.7				

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00207

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015953

NAME OF SAMPLE SOURCE... EVERETT McDONALD HOT SPRING
 AREA..... LAKEVIEW
 WELL/SPRING NUMBER..... 38S-20E-33-DC
 LOCATION

COUNTRY..... UNITED STATES	38S 020E 33	SE OF SW	COORDINATES
STATE..... OREGON			LAT/LONG... 42-14.500N 120-21.968W
COUNTY..... LAKE			
GEOLOGIC PROVINCE.. BASIN AND RANGE			
MAP REFERENCE..... LAKEVIEW NE 1124000			

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/27 PETERSON, NORMAN V.
 SAMPLE NUMBER..... WS79-219
 POINT OF COLLECTION.. ORIFICE
 TEMPERATURE (C)..... 77.5
 AMBIENT TEMP (C)..... 18.
 DISCHARGE..... L 38. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1979/09/04 BANERJEE, KALA C.
 PH..... 8.6 AT (C) 78.
 SPECIFIC CONDUCTANCE..... 1152.
 ALKALINITY..... 50. AS CAC03
 TOTAL DISSOLVED SOLIDS... 841.
 CHARGE IMBALANCE (% DIFF)... 15.2

ANALYSIS IN MG/L

AG....		CO3.....		LI... 0.13				
AL.... 0.29		CR.....		MG... 0.07				
AS.... 0.133		CS.....		MN... L 0.05				
H.... 8.0		F.....	4.7	NA... 207.	SI02..	66.		
HE....		FE(TOT)..	0.07	NB... 504..	S04..	338.		
CA.... 14.		M25.....		PO4.. 0.062				
CD....								
CL.... 118.								
CO....		K.....	9.4					

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00208

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000717

NAME OF SAMPLE SOURCE... FISHER HOT SPRINGS
 MGRA..... CRUMP GEYSER
 WARPING NUMBER..... 49A

LOCATION

COUNTRY..... UNITED STATES 38S 025E 10 NW OF NW NW
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 42-17.84 N 119-46.55 W
 UTM ZONE... 11
 NORTHING... 4686308.
 271170.

MSP REFERENCE..... CRUMP LAKE 1:24000; ADEL 1:250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP

TEMPERATURE (C)..... 68.0

DISCHARGE..... 70. L/MIN

WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE - MEMBRANE FILTER, METAL ANALYSES ACIDIFIED WITH NITRIC ACID, DILUTED

DEPOSITS OR ALTERATION... TRAVERTINE

PERTINENT LITHOLOGY..... QUATERNARY ALLUVIUM AND MIOCENE-PLIOCENE OLIVINE BASALT

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 7.93

SPECIFIC CONDUCTANCE..... 513.

CHARGE IMBALANCE (% DIFF)... 0.6

ANALYSIS IN MG/L

AG.... L 0.02	CO3..... 1.	LI... 0.04	S....	
AL.... 0.011	CR.....	MG... 1.0	SB... L 0.2	

ISOTOPES (0/00)

DEL D OF WATER..... -117.0

AS.... 0.1	CS.... L 0.1	MN... L 0.02			
AIU.... L 0.1	CU.... L 0.01				
H.... 2.2	F.... 3.5	NA... 92.	S102.	77.	
HE.... L 0.1	FE(TOT) L 0.02	NB... 0.18	S04..	59.	
HI....	GA.....		SR... 0.05		
HR.... 0.4					
CA.... 8.4	HCO3'... 105.				
CA+MG.	HG.... L 0.0001	PB... L 0.06			
CO.... L 0.01	H2S....	PO4.. 0.18			
CL.... 56.	I.... 0.03				
CO.... L 0.05	K.... 7.9	RB... 0.02			

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 32
 REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975

RECORD 00209

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001718

NAME OF SAMPLE SOURCE... GLASS BUTTE MERCURY MINE WELL

LOCATION

COORDINATES

LAT/LONG... 43-32.4 N 119-55.8 W

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 23S 023E 27

STATE..... OREGON

COUNTY..... LAKE

GEOLOGIC PROVINCE... 32

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 48.

WELL DEPTH (M)..... 221.

DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.

REFERENCE..... ROWEN AND OTHERS, 1978

RECORD 00210

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001719

NAME OF SAMPLE SOURCE... HALLINAN SPRINGS

LOCATION

COORDINATES

LAT/LONG... 42-04.8 N 119-54.6 W

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 40S 024E 30

STATE..... OREGON

COUNTY..... LAKE

GEOLOGIC PROVINCE... 31

OTHER LOCALITY INFORMATION: FOUR CLOSELY SET ORIFICES

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 71.

DISCHARGE..... 90. L/MIN

OTHER SAMPLE INFORMATION... H2S ORDER

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.

REFERENCE..... TRAUGER, 1950

RECORD 00211

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015993

NAME OF SAMPLE SOURCE... HAMMERSLY CANYON NO. 1 GRADIENT HOLE

WELL/SPRING NUMBER..... 19S-20E-3-BDB
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE COORDINATES
 STATE..... OREGON 39S 020E 03 NW OF SE NW LAT/LONG... 42-13.12 N 120-20.89 W
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MJP REFERENCE..... LAKEVIEW NE 1124000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/11/08 PETERSON, NORMAN V. AND RICCIO, JOSEPH F.
 SAMPLE NUMBER..... WS79-340
 POINT OF COLLECTION.. WEILHEAD
 TEMPERATURE (C)..... 50. AT (M).. 49.
 AMBIENT TEMP (C)..... 10.
 WELL DEPTH (M)..... 90.
 GRADIENT (C/KM)..... 200.
 DISCHARGE..... 38. L/MIN

WATER ANALYSIS
 DATE/ANALYST..... 1980/02/28 BANERJEE, KALA C.
 PH..... 8.3 AT (C) 50.
 SPECIFIC CONDUCTANCE..... 1046.
 ALKALINITY..... 69. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 982.
 CHARGE IMBALANCE (% DIFF)... 5.4

ANALYSIS IN MG/L
 AG.... CO3.... LI... 0.1
 AL.... 9.0 CR.... MG... 3.4
 AS.... 0.11 CS.... MN... 0.55
 R.... 7.2 F.... 4.0 NA... 181. S102. 72.
 HF.... FE(TOT). 44. NB... 504.. 207.
 CA.... 22. H2S.... PO4.. 0.022
 CO.... CL.... 108.
 CO.... K.... 6.8

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION
 COMPILED BY..... RICCIO, JOSEPH F.
 COMPILED AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00212

 GEOTHERM SAMPLE FILE GEOTHERM FILE ID: 0015984
 NAME OF SAMPLE SOURCE... HAMMEKSLY CANYON NO. 1 GRADIENT HOLE
 WELL/SPRING NUMBER..... 19S-20E-3-BDB
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE COORDINATES
 STATE..... OREGON 39S 020E 03 NW OF SE NW LAT/LONG... 42-13.12 N 120-20.89 W
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MJP REFERENCE..... LAKEVIEW NE 1124000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/11/08 PETERSON, NORMAN V. AND RICCIO, JOSEPH F.
 SAMPLE NUMBER..... WS79-341
 POINT OF COLLECTION.. WEILHEAD
 TEMPERATURE (C)..... 71. AT (M).. 67.
 AMBIENT TEMP (C)..... 9.
 WELL DEPTH (M)..... 90.

GRADIENT (C/KM)..... 200.
 DISCHARGE..... 189. L/MIN
 WATER ANALYSIS
 DATE/ANALYST..... 1980/02/28 BANERJEE, KALA C.
 PH..... 8.8 AT(C) 71.
 SPECIFIC CONDUCTANCE..... 1113.
 ALKALINITY..... 94. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 2400.
 CHARGE IMBALANCE (% DIFF)... 37.0

ANALYSIS IN MG/L

AG.....		CO3.....		LI... 0.12			
AL..... 70.		CR.....		MG... 34.			
AS..... 0.179		CS.....		MN... 2.3			
H..... 6.8		F..... 3.7		NA... 200.	SI02. 94.		
HE.....		FE(TOT). 32.		NB... 200.	S04.. 200.		
CA..... 41.							
CO.....		H2S.....		PO4.. 0.056			
CL..... 114.							
CO.....		K..... 7.5					

ISOTOPES (D/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OOGAMI

RECORD 00213

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001725

NAME OF SAMPLE SOURCE... HART MTN. HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 36S 026E 07
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE... 31

COORDINATES

LAT/LONG... 42-28.2 N 119-42.0 W

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

RECORD 00214

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001720

NAME OF SAMPLE SOURCE... HOUSTON WELL
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 40S 024E 27
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE... 31

COORDINATES

LAT/LONG... 42-04.8 N 119-51.6 W

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 71.
 DISCHARGE..... 75. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

RECORD 00215

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015985

NAME OF SAMPLE SOURCE... HUNTER HOT SPRING SOUTHWEST
 KGRA..... LAKEVIEW
 WELL/SPRING NUMBER..... 39S-20E-04-HCA

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE NE OF SW NW
 STATE..... OREGON 39S 020E 04
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN & RANGE
 MAP REFERENCE..... LAKEVIEW NORTHEAST 1124000

COORDINATES
 LAT/LONG... 42-12.9 N 120-22.4 W

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/12/04 PETERSON, NORMAN V.
 SAMPLE NUMBER..... WS 79-358
 POINT OF COLLECTION.. SPRING ORIFICE
 TEMPERATURE (C)..... 87.
 AMBIENT TEMP (C)..... 9.
 DISCHARGE..... L 38. L/MIN

WATER ANALYSIS
 DATE/ANALYST..... 1980/04/11 BANERJEE, KALA C.
 PH..... 8.2 AT(C) 87.
 SPECIFIC CONDUCTANCE..... 883.
 ALKALINITY..... 71. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 683.
 CHARGE IMBALANCE (% DIFF)... 8.4

ANALYSIS IN MG/L
 AG.... CO3.... LI... 0.11
 AL.... 0.06 CR.... MG... 0.08
 AS.... 0.066 CS.... MN... L 0.02
 R.... 5.9 F.... 3.3 NA... 174. SI02. 81.
 HE.... FE(TOT). L 0.06 NB... 504.. 102.
 CA.... 13. H2S.... PO4.. 0.027
 CO.... K.... 5.5
 CL.... 97.

ISOTOPES (u/100)REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIU, JOSEPH F.
 COMPILER AFFILIATION... DEPT. OF GEOLOGY AND MINERAL INDUSTRIES, OREGON
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00216

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015962

NAME OF SAMPLE SOURCE... HUNTER WELL
 WELL/SPRING NUMBER..... 39S-20E-33-DC

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE SW OF SE
 STATE..... OREGON 39S 020E 33
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MAP REFERENCE..... LAKEVIEW NE 1124000

COORDINATES
 LAT/LONG... 42-08.10 N 120-21.30 W

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/08/24 PETERSON, NORMAN V.
 SAMPLE NUMBER..... WS79-272
 POINT OF COLLECTION.. TOP OF CASING.
 TEMPERATURE (C)..... 95.
 AMBIENT TEMP (C)..... 16.

WATER ANALYSIS

DATE/ANALYST..... 1979/10/10 BANERJEE, KALA C.
 PH..... 8.7 AT(C) 95.
 SPECIFIC CONDUCTANCE..... 1120.
 ALKALINITY..... 60. AS CAC03
 TOTAL DISSOLVED SOLIDS..... 852.
 CHARGE IMBALANCE (% DIFF).... 5.2

ANALYSIS IN MG/L

AG.... 0.34	CO3.....	LI.... 0.13			
AL....	CR.....	MG.... 0.12			
AS.... 0.116	CS.....	MN.... L 0.02			
H....	F..... 4.3	NA.... 192.	SI02.	168.	
HE....	FE(TOT). 0.09	NH....	SO4..	187.	
CA.... 13.	H2S.....	PO4.. 0.015			
CD....					
CL.... 123.					
CO....	K..... 9.1				

ISOTOPES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES; UNPUBLISHED DATA

RECORD 00217

GEO THERM SAMPLE TITLE

NAME OF SAMPLE SOURCE... HUNTERS HOT SPRINGS
 KGRA..... LAKEVIEW
 WELL/SPRING NUMBER..... 39S-20E-4-8A

GEO THERM FILE ID: 0015978

LOCATION

COUNTRY..... UNITED STATES 39S 020E 04 NE OF NW
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MAP REFERENCE..... LAKEVIEW NE 1124000

COORDINATES

LAT/LONG... 42-13.28 N 120-22.08 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/27 PETERSON, NORMAN V.
 SAMPLE NUMBER..... WS79-220
 POINT OF COLLECTION.. URIFICE
 TEMPERATURE (C)..... 95.
 AMBIENT TEMP (C)..... 17.

OTHER SAMPLE INFORMATION.. SAMPLE TAKEN IN BATHHOUSE. SLIGHT H2S ODOOR.

WATER ANALYSIS

DATE/ANALYST..... 1979/09/04 BANERJEE, KALA C.
 PH..... 7.9 AT(C) 95.
 SPECIFIC CONDUCTANCE..... 1101.
 ALKALINITY..... 60. AS CAC03
 TOTAL DISSOLVED SOLIDS..... 805.
 CHARGE IMBALANCE (% DIFF).... 15.0

ANALYSIS IN MG/L

AG....	CO3.....	LI.... 0.12			
AL.... 0.11	CR.....	MG.... 0.07			
AS.... 0.162	CS.....	MN.... L 0.05			
H.... 0.007	F..... 4.8	NA.... 197.	SI02.	66.	
HE....	FE(TOT). L 0.05	NH....	SO4..	307.	
CA.... 14.	HCO3.....	NO3.. 103.			
CD....	H2S.....	PO4.. 0.044			
CL.... 115.					

ISOTOPES (0/00)

CO..... K..... 9.8
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *DOGAMI

RECORD 00218

GEOHERM FILE ID: 0015969

GEOHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... HUNTERS HOT SPRINGS
 KGRA..... LAKEVIEW
 WELL/SPRING NUMBER..... 39S-20E-4-BA

LOCATION
 COUNTRY..... UNITED STATES 39S.020E 04 NE OF NW
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MAP REFERENCE..... LAKEVIEW NE 1124000

COORDINATES
 LAT/LONG... 42-13.28 N 120-22.08 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/27 PETERSON, NORMAN V.
 SAMPLE NUMBER..... WS79-221
 POINT OF COLLECTION.. ORIFICE
 TEMPERATURE (C)..... 94.
 AMBIENT TEMP (C)..... 17.

OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.

WATER ANALYSIS

DATE/ANALYST..... 1979/09/04 BANERJEE, KALA C.
 P..... 8.6 AT(C) 94.
 SPECIFIC CONDUCTANCE..... 1114.
 ALKALINITY..... 51. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 807.
 CHARGE IMBALANCE (% DIFF)... 6.9

ANALYSIS IN MG/L

AG....		CO3.....	LI....	0.13		
AL....	0.1	CR.....	MG....	0.03		
AS....	0.151	CS.....	MN....	L 0.05		
B....	0.0075	F.....	NA....	206.	SI02.	60.
BE....		FE(TOT). L	NB....	0.05	S04..	289.
CA....	12.	HCO3.....	NO3..	96.		
CD....		H2S.....	PO4..	0.043		
CL....	115.					

ISOTOPES (0/00)

CO..... K..... 9.8
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES; UNPUBLISHED DATA

RECORD 00219

GEOHERM FILE ID: 0015970

GEOHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... HUNTERS HOT SPRINGS
 KGRA..... LAKEVIEW
 WELL/SPRING NUMBER..... 39S-20E-4-BA

LOCATION
 COUNTRY..... UNITED STATES 39S 020E 04 NE OF NW
 STATE..... OREGON

COORDINATES
 LAT/LONG... 42-13.28 N 120-22.08 W

COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MAP REFERENCE..... LAKEVIEW NE 1124000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/07/27 PETERSON, NORMAN V.
 SAMPLE NUMBER..... WS79-223
 POINT OF COLLECTION.. ORIFICE
 TEMPERATURE (C)..... 88.
 AMBIENT TEMP (C)..... 17.

WATER ANALYSIS

DATE/ANALYST..... 1979/09/04 BANERJEE, KALA C.
 PH..... 8.8 AT(C) 88.
 SPECIFIC CONDUCTANCE..... 1114.
 ALKALINITY..... 52. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 424.
 CHARGE IMBALANCE (% DIFF)... 9.8

ANALYSIS IN MG/L

AG.....	CO3.....	LI.....	0.13		
AL.... L 0.1	CR.....	MG.....	0.05		
AS.... 0.161	CS.....	MN.... L 0.005			
R..... 0.0075	F..... 4.3	NA.... 201.	SI02.. 54.		
RF.....	FE(TOT).. L 0.005	NB....	504.. 291.		
CA.... 13.	HCO3.....	NO3.. 106.			
CD....	M2S.....	PO4.. 0.033			
CL.... 118.					

ISOTOPIES (0/00)

CO..... K..... 9.5

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00220

GEOOTHERM SAMPLE FILE

GEOOTHERM FILE ID: 0002226

NAME OF SAMPLE SOURCE... HUNTERS HOT SPRINGS (LAKEVIEW)
 GRA..... LAKEVIEW
 WELPING NUMBER..... 45

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 020E 04 NE OF NW
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE..
 LAT/LONG... 42-13.32 N 120-22.09 W
 UTM ZONE... +10
 NORTHING... 4677565.
 717216.

MAP REFERENCE..... LAKEVIEW NE 1124000, KLAMATH FALLS 11250000

OTHER LOCALITY INFORMATION: 2 MI. NORTH OF LAKEVIEW, ORE. 30 OR MORE FT. NORTHWEST OF BATHHOUSE

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1957/10/29 FETH, J. AND ROGERS, S. M.
 SAMPLE NUMBER..... LAM 534
 TEMPERATURE (C)..... 86.0

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

PERTINENT LITHOLOGY..... LAVAS AND LAKE BEDS IN AREA

WATER ANALYSIS

DATE/ANALYST..... 1958/02/17 SCHUCH, J. P.
 PH..... 8.4
 SPECIFIC CONDUCTANCE..... 1140.
 TOTAL DISSOLVED SOLIDS... 821.
 CHARGE IMBALANCE (% DIFF)... 3.1

ANALYSIS IN PPM

AG....		CO3....	5.					
AL....	N	CR....		MG...	2.4			
AS....		CS....		MN...	N			
AU....		CU....	N					
H....	7.1	F....	4.5	NA...	208.	SI02..	140.	
HF....		FE(TOT)..	0.01	NB...		S04...	258.	
CA....	8.0	HCO3....	64.	NO3...	0.3			
CA.MG.		HG....		PB...	N			
CL....	120.							
CO....		K....	10.					ZN... N

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 73
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00221

GEOHEM SAMPLE FILE

GEOHEM FILE ID: 0002228

NAME OF SAMPLE SOURCE... HUNTERS HOT SPRINGS (LAKEVIEW)

KARA..... LAKEVIEW

WELLING NUMBER..... 45

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 020E 04 NE OF NW

STATE..... OREGON

COUNTY..... LAKE

GEOLOGIC PROVINCE..

MAP REFERENCE..... LAKEVIEW NE 1124000, KLAMATH FALLS 1125000

OTHER LOCALITY INFORMATION: 2 MI. NORTH OF LAKEVIEW, ORE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1956/10/18 BAILEY, E. H.

SAMPLE NUMBER..... LAM 145

TEMPERATURE (C)..... 98.0

DISCHARGE..... G 19. L/MIN

WATER ANALYSIS

DATE/ANALYST..... ROBERSON, C. E.

PH..... 8.3

SPECIFIC CONDUCTANCE..... 1110.

CHARGE IMBALANCE (% DIFF)... 0.3

ANALYSIS IN PPM

AG....		CO3....	6.	LI...	0.2			
AL....		CR....		MG...	N			
H....	7.2	F....		NA...	209.	SI02..	146.	
HF....		FE(TOT)..		NB...		S04...	265.	
HI....		GA....		NH4...		SR...	0.5	
CA....	12.	HCO3....	62.	NO3...	7.2			
CL....	116.							
CO....		K....	9.5					

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 73
 REFERENCE..... MARINER AND OTHERS, 1980

RECUMD 00222

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000689

NAME OF SAMPLE SOURCE... HUNTERS HOT SPRINGS (LAKEVIEW)
 KGRA..... LAKEVIEW
 WELL/SRING NUMBER..... 45

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 020E 04 NE OF NW
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE..

LAT/LONG... 42-13.32 N 120-22.09 W
 UTM ZONE... +10
 NORTHING... 4677565.
 717216.

NAD REFERENCE..... LAKEVIEW NE 1124000, KLAMATH FALLS 11250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP
 TEMPERATURE (C)..... 96.0
 DISCHARGE..... 2300. L/MIN
 WATER TREATMENT..... PRESSURE FILTERED THROUGH A .45 MICROMETRE - MEMBRANE FILTER, METAL ANALYSES ACIDIFIED
 WITH NITRIC ACID, DILUTED
 DEPOSITS OR ALTERATION... TRAVERTINE, SINTER
 PERTINENT LITHOLOGY..... ALLUVIUM, ANDESITE AND ANDESITIC TUFF-BRECCIA

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP
 PH..... 7.77
 SPECIFIC CONDUCTANCE..... 1120.
 CHARGE IMBALANCE (% DIFF)... 2.8

ANALYSIS IN MG/L

AG.... L 0.02	CO3.... L 1.	LI.... 0.15	S....
AL.... 0.034	CH....	MG.... L 0.1	SB.... L 0.2
AS.... 0.06	CS.... L 0.1	MN.... L 0.02	SC....
AU.... L 0.1	CU.... L 0.01	MO....	SE.... 0.008
H.... 6.9	F.... 4.4	NA.... 210.	SI02.. 140.
HA.... L 0.1			
HE.... L 0.1	FE(TQT). L 0.02	NB....	S04.. 260.
HI....	GA.....	NH4.. 0.31	SR.... 0.32
HR.... 0.4			
CA.... 13.	HCO3.... 79.		
CA+MG.	HG.... 0.0004	PB... L 0.06	
CI)... L 0.01	H2S....	PO4.. 0.25	
CL.... 120.	I.... 0.08		
CO... L 0.05	K.... 8.5	RB... 0.04	

ISOTOPES (0/001)

DEL D OF WATER..... -119.0
 DEL O(18) OF WATER... -14.32
 DEL O(18) OF S04..... -3.69

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 23
 REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECUMD 00223

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015965

NAME OF SAMPLE SOURCE... INGLETON WELL
 KGRA..... LAKEVIEW
 WELL/SRING NUMBER..... 39S-20E-4-AAH

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 020E 04 NW OF NE NE
 STATE..... OREGON

LAT/LONG... 42-13.20 N 120-21.57 W

COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MAP REFERENCE..... LAKEVIEW NE 1124000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/09/26 PETERSON, NORMAN V. AND RICCIO, JOSEPH F.
 SAMPLE NUMBER..... WS79-298
 POINT OF COLLECTION.. WEILHEAD
 TEMPERATURE (C)..... 23.
 AMBIENT TEMP (C)..... 16.
 DISCHARGE..... 76. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1979/11/05 BANERJEE, KALA C.
 PH..... 7.7 AT(C) 23.
 SPECIFIC CONDUCTANCE..... 345.
 ALKALINITY..... 138. AS CAC03
 TOTAL DISSOLVED SOLIDS... 403.
 CHARGE IMBALANCE (% DIFF)... 17.9

ANALYSIS IN MG/L

ISOTOPIES (0/000)

AG.....		CO3.....		LI... 0.01			
AL..... 13.		CR.....		MG... 8.3			
AS..... 0.013		CS.....		MN... 0.18			
H..... 0.36		F..... 0.3		NA... 22.	SI02. 34.		
RE.....		FE(TOT). 6.2		NR... 0.74	S04.. 12.		
CA..... 40.		HCO3.....		NO3.. 0.033			
Cl.....		H2S.....					
CL..... 48.							
CO.....		K..... 0.9					

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *DOGAMI

RECORD 00224

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015959

NAME OF SAMPLE SOURCE... LAKEVIEW CITY WELL NO. 3
 AREA..... LAKEVIEW
 WELL/SPRING NUMBER..... 39S-20E-16-AB

LOCATION

TOWNSHIP=RANGECOORDINATES

COUNTRY..... UNITED STATES 39S 020E 16 NE OF NW
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MAP REFERENCE..... LAKEVIEW NE 1124000

LAT/LONG... 42-11.333N 120-21.130W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/12 PETERSON, NORMAN V.
 SAMPLE NUMBER..... WS79-197
 POINT OF COLLECTION.. AT PUMP
 TEMPERATURE (C)..... 16.5
 AMBIENT TEMP (C)..... 14.
 DEPOSITS OR ALTERATION... NONE

WATER ANALYSIS

DATE/ANALYST..... 1979/08/21 BANERJEE, KALA C.
 PH..... 8.0 AT(C) 17.
 SPECIFIC CONDUCTANCE..... 286.
 ALKALINITY..... 114. AS CAC03

TOTAL DISSOLVED SOLIDS... 236.

ANALYSIS IN MG/L

AG....		CO3....		LI...	0.05			
AL....	0.1	CR....		MG...	0.83			
AS....	0.005	CS....		MN...	0.06			
H....	1.5	F....	1.4	NA...	56.			
RE....		FE(TOT)..	0.11	NB...		S04..	4.9	
CD....		H2S....		PO4..	0.437			
CL....	11.							
CO....	2.8	K....	2.6					

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIU, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00225

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015958

NAME OF SAMPLE SOURCE... LAKEVIEW CITY WELL NO. 4

KGRA..... LAKEVIEW

WELL/SPRING NUMBER..... 39S-20E-16-AA

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 020E 16 NE OF NE

LAT/LONG... 42-11.333N 120-21.139W

STATE..... OREGON

COUNTY..... LAKE

GEOLOGIC PROVINCE.. BASIN AND RANGE

MAP REFERENCE..... LAKEVIEW NE 112400

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/12 PETERSON, NORMAN V.

SAMPLE NUMBER..... WS79-196

POINT OF COLLECTION.. AT PUMP.

TEMPERATURE (C)..... 19.5

AMBIENT TEMP (C)..... 16.

DEPOSITS OR ALTERATION.... NONE

WATER ANALYSIS

DATE/ANALYST..... 1979/08/21 BANERJEE, KALA C.

PH..... 7.8 AT(C) 20.

SPECIFIC CONDUCTANCE..... 358.

ALKALINITY..... 144. AS CaCO3

TOTAL DISSOLVED SOLIDS... 273.

CHARGE IMBALANCE (% DIFF)... 1.7

ANALYSIS IN MG/L

AG....		CO3....		LI...	0.05			
AL....	0.1	CR....		MG...	1.9			
AS....	0.005	CS....		MN...	0.11			
H....	1.7	F....	1.1	NA...	68.	S102.	78.	
RE....		FE(TOT)..	0.13	NB...		S04..	3.0	
CA....	5.8			PO4..	0.46			
CD....		H2S....						
CL....	19.							
CO....		K....	2.5					

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIU, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *HOGAMI

RECORD 00226

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015957

NAME OF SAMPLE SOURCE... LAKEVIEW CITY WELL NO. 5
 KGRA..... LAKEVIEW
 WELL/SPRING NUMBER..... 39S-20E-15-BA

LOCATION
 COUNTRY..... UNITED STATES 39S 020E 15 NW OF NE
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE... BASIN AND RANGE
 MAP REFERENCE..... LAKEVIEW NE 1124000

COORDINATES
 LAT/LONG... 42-11.333N 120-20.266W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/12 PETERSON, NORMAN V.
 SAMPLE NUMBER..... MS79-195
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 37.5
 AMBIENT TEMP (C)..... 18.
 WATER TREATMENT..... NONE
 DEPOSITS OR ALTERATION... NONE
 PERTINENT LITHOLOGY..... VOLCANIC

WATER ANALYSIS

DATE/ANALYST..... 1979/08/21 BANERJEE, KALA C.
 PH..... 8.5 AT (C) 38.
 SPECIFIC CONDUCTANCE..... 448.
 ALKALINITY..... 80. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 298.
 CHARGE IMBALANCE (% DIFF)... 4.5

ANALYSIS IN MG/L

AG....		CO3....		LI....	0.05		
AL....	0.1	CR....		MG....	0.38		
AS....	0.012	CS....		MN....	0.05		
H....	4.1	F....	1.7	NA....	80.	SI02.	32.
HE....		FE(TOT)..	0.05	NB....		S04..	77.
CA....	8.5						
CD....		M2S.....		PO4..	0.004		
CL....	30.						
CO....		K.....	0.6				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00227

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015960

NAME OF SAMPLE SOURCE... LAKEVIEW CITY WELL NO. 7
 KGRA..... LAKEVIEW
 WELL/SPRING NUMBER..... 39S-20E-16-BA

LOCATION
 COUNTRY..... UNITED STATES 39S 020E 16 NW OF NW
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE... BASIN AND RANGE
 MAP REFERENCE..... LAKEVIEW NE 1124000

COORDINATES
 LAT/LONG... 42-11.333N 120-21.463W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/12 PETERSON, NORMAN V.
 SAMPLE NUMBER..... WS79-198
 POINT OF COLLECTION.. AT PUMP
 TEMPERATURE (C)..... 16.
 AMBIENT TEMP (C)..... 12.
 DEPOSITS OR ALTERATION.... NONE

WATER ANALYSIS

DATE/ANALYST..... 1979/08/21 BANERJEE, KALA C.
 PH..... 7.9 AT(C) 16.
 SPECIFIC CONDUCTANCE..... 280.
 ALKALINITY..... 92. AS CAC03
 TOTAL DISSOLVED SOLIDS... 216.
 CHARGE IMBALANCE (% DIFF)... 0.8

ANALYSIS IN MG/L

AG....		CO3....		LI....	0.05		
AL....	0.1	CR....		MG....	0.57		
AS....	0.006	CS....		MN....	0.07		
R....		F....	1.2	NA....	54.	SI02.	69.
RE....		FE(TOT).	0.14	NB....		S04..	9.8
CA....	2.4						
CD....		H2S.....		PO4..	0.6		
CL....	16.						
CO....		K.....	2.2				

ISOTOPES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIU, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00228

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015964

NAME OF SAMPLE SOURCE... IEDFOND WELL
 WELL/SPRING NUMBER..... 41S-21E-18-88B

LOCATIONTOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 41S 021E 18 NW OF NW NW
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MAP REFERENCE..... CRANE CREEK 1124000

LAT/LONG... 42-01.08 N 120-17.67 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/08/24 PETERSON, NORMAN V.
 SAMPLE NUMBER..... WS79-273
 POINT OF COLLECTION.. TOP OF CASING
 TEMPERATURE (C)..... 21.
 AMBIENT TEMP (C)..... 17.

WATER ANALYSIS

DATE/ANALYST..... 1979/10/10 BANERJEE, KALA C.
 PH..... 8.9 AT(C) 21.
 SPECIFIC CONDUCTANCE..... 292.
 ALKALINITY..... 50. AS CAC03
 TOTAL DISSOLVED SOLIDS... 213.
 CHARGE IMBALANCE (% DIFF)... 87.4

ANALYSIS IN MG/L

AG....		CO3....		LI....	0.02
AL....	0.06	CR....		MG....	0.26

ISOTOPES (0/00)

AS....	0.005	CS.....		MN...	L 0.02		
H.....		F.....	0.1	NA...	66.	SI02.	18.
HF.....		FE(TOT).	0.12	NB...		S04..	6.6
CA....	1.6						
CD....		H2S.....		PO4..	0.003		
CL....	1.1						
CO....		K.....	0.8				

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00229

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0015977

NAME OF SAMPLE SOURCE... LEITHEAD (JOYLAND PLUNGE) HOT SPRING
 AREA..... LAKEVIEW
 WELL/SPRING NUMBER..... 39S-20E-27-8A

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 39S 020E 27 NW OF NE LAT/LONG... 42-09.708N 120-20.608W
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MAP REFERENCE..... LAKEVIEW NE 112400

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/13 PETERSON, NORMAN V.
 SAMPLE NUMBER..... W579-201
 POINT OF COLLECTION.. OVERFLOW FROM ORIFICE.
 TEMPERATURE (C)..... 70.
 AMBIENT TEMP (C)..... 17.
 DISCHARGE..... 189. L/MIN
 OTHER SAMPLE INFORMATION.. SLIGHT H2S ODOR.

WATER ANALYSIS

DATE/ANALYST..... 1979/08/21 BANERJEE, KALA C.
 PH..... 8.1 AT(C) 70.
 SPECIFIC CONDUCTANCE..... 819.
 ALKALINITY..... 63. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 552.
 CHARGE IMBALANCE (% DIFF)... 8.1

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....		CO3.....		LI...	L 0.05		
AL....	L 0.1	CR.....		MG...	0.1		
AS....	L 0.005	CS.....		MN...	L 0.05		
R.....		F.....	3.4	NA...	139.	SI02.	74.
RF.....		FE(TOT).	L 0.05	NB...		S04..	157.
CA....	14.						
CD....		H2S.....		PO4..	0.004		
CL....	56.						
CO....		K.....	2.6				

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00230

GEOTHERM FILE ID: 0002224

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... LEITHEAD (JOYLAND PLUNGE) HOT SPRING
 KGRA..... LAKEVIEW
 HARING NUMBER..... 46

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 39S 02UE 27 NW OF NE
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 42-09.708N 120-20.608W
 UTM ZONE... +10
 NORTHING... 4670948.
 719474.

MAP REFERENCE..... LAKEVIEW NE 1124000
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1948/06/23
 TEMPERATURE (C)..... 69.4
 DISCHARGE..... 186. L/MIN

PERTINENT LITHOLOGY..... FROM TERTIARY VOLCANIC ROCKS NEAR FAULT SCARP. FLOWS FROM TALUS OF SCARP

WATER ANALYSIS

DATE/ANALYST..... USGS
 P..... 7.7
 SPECIFIC CONDUCTANCE..... 813.
 TOTAL DISSOLVED SOLIDS... 531.
 CHARGE IMBALANCE (% DIFF)... 0.6

ANALYSIS IN PPM

AL.....	CR.....	MG...	0.4		
H..... 7.0	F..... 3.1	NA...	152.	S102.	66.
HE.....	FE(TOT). 0.06	NB...		S04..	152.
CA..... 15.	HCO3.... 84.	NO3..	0.2		
CL..... 99.					
CO.....	K..... 2.2				

ISOTOPES (Q/00)

OTHER ANALYTICAL DATA... H2S ODOOR PRESENT

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 24
 REFERENCE..... TRAUGER, 1950

RECORD 00231

GEOTHERM FILE ID: 0001712

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... LOST CABIN

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 30S 017E 25
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE... 3)

COORDINATES

LAT/LONG... 42-55.2 N 120-39.0 W

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 20.
 DISCHARGE..... 175. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... TRAUGER, 1950

RECORD 00232

GEOHERM SAMPLE FILE

GEOHERM FILE 101 0001723

NAME OF SAMPLE SOURCE... MOSS 1 WELL

LOCATION

COUNTRY.....	UNITED STATES	TOWNSHIP-RANGE	COORDINATES
STATE.....	OREGON	38S 024E 03	LAT/LONG... 42-19.2 N 119-52.7 W
COUNTY.....	LAKE		
GEOLOGIC PROVINCE..	31		

OTHER LOCALITY INFORMATION: WELL USED FOR IRRIGATION

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 22.
DISCHARGE..... 1890. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
REFERENCE..... TRAUGER, 1950

RECORD 00233

GEOHERM SAMPLE FILE

GEOHERM FILE 101 0001722

NAME OF SAMPLE SOURCE... MOSS 2 WELL

LOCATION

COUNTRY.....	UNITED STATES	TOWNSHIP-RANGE	COORDINATES
STATE.....	OREGON	38S 024E 10	LAT/LONG... 42-17.4 N 119-52.8 W
COUNTY.....	LAKE		
GEOLOGIC PROVINCE..	31		

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 28.
DISCHARGE..... 115. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
REFERENCE..... TRAUGER, 1950

RECORD 00234

GEOHERM SAMPLE FILE

GEOHERM FILE 101 0001715

NAME OF SAMPLE SOURCE... PARDON

LOCATION

COUNTRY.....	UNITED STATES	TOWNSHIP-RANGE	COORDINATES
STATE.....	OREGON	30S 016E 35	LAT/LONG... 42-56.4 N 120-47.4 W
COUNTY.....	LAKE		
GEOLOGIC PROVINCE..	31		

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 24.
DISCHARGE..... 150. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
REFERENCE..... TRAUGER, 1950

RECORD 00235

GEOHERM SAMPLE FILE

GEOHERM FILE 101 0015967

NAME OF SAMPLE SOURCE... ROBBIE WELL

WELL/SPRING NUMBER..... 395-20E-4-BAA

LOCATION

TOWNSHIP-RANGE	COORDINATES
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COUNTRY..... UNITED STATES 39S 020E 04 NW OF NE NE LAT/LONG... 42-10.43 N 120-22.47 W
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE
 MAP REFERENCE..... LAKEVIEW NE 1124000
SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/08/09 PETERSON, NORMAN V.
 SAMPLE NUMBER..... WS79-257
 POINT OF COLLECTION.. TAP
 TEMPERATURE (C)..... 80.
 AMBIENT TEMP (C)..... 16.

WATER ANALYSIS
 DATE/ANALYST..... 1979/10/10 BANERJEE, KALA C.
 PH..... 8.1 AT(C) 80.
 SPECIFIC CONDUCTANCE..... 932.
 ALKALINITY..... 66. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 705.
 CHARGE IMBALANCE (% DIFF)... 9.7

ANALYSIS IN MG/L

AG....		CO3....		LI....	0.1		
AL....	0.1	CH....		MG....	0.49		
AS....	0.072	CS....		MN....	L 0.02		
H....		F....	3.7	NA....	163.	SI02.	126.
HE....		FE(TOT). L	0.05	NB....		S04..	227.
CA....	19.	H2S....		PO4..	0.015		
CD....							
CL....	99.						
CO....		K....	5.9				

ISOTOPES (U/200)**REFERENCE AND IDENTIFICATION**

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00236

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015961

NAME OF SAMPLE SOURCE... ROCKFORD (OLD DETER) RANCH
 WELL/SPRING NUMBER..... 40S-20E-1-CC

LOCATION**TOWNSHIP-RANGE****COORDINATES**

COUNTRY..... UNITED STATES 40S 020E 01 SW OF SW LAT/LONG... 42-06.350N 120-17.327W
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. BASIN AND RANGE

MAP REFERENCE..... CRANE CREEK 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/07/13 PETERSON, NORMAN V.
 SAMPLE NUMBER..... WS79-199
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 77.
 AMBIENT TEMP (C)..... 18.
 DISCHARGE..... 7571. L/MIN
 WATER TREATMENT..... NONE
 DEPOSITS OR ALTERATION... NONE
 OTHER SAMPLE INFORMATION.. WELL FLOWING FROM 8 INCH DIAMETER PIPE.

WATER ANALYSIS

DATE/ANALYST..... 1979/08/21 BANERJEE, KALA C.

P..... 8.3 AT(C) 77.
 SPECIFIC CONDUCTANCE..... 1152.
 ALKALINITY..... 326. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 813.
 CHARGE IMBALANCE (% DIFF)... 5.2

ANALYSIS IN MG/L

AG....		CO3.....		LI....	0.22		
AL....	L 0.1	CR.....		MG....	0.15		
AS....	L 0.005	CS.....		MN....	L 0.05		
H.....		F.....	3.7	NA....	238.	SI02..	74.
HE....		FE(TOT)..	L 0.05	NB....		S04..	75.
CA....	4.2						
CO....		H2S.....		PO4..	0.021		
CL....	112.						
CO....		K.....	9.6				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00237

GEOHERM SAMPLE TITLE

GEOHERM FILE ID: 0002229

NAME OF SAMPLE SOURCE... SUMMER LAKE HOT SPRING (WOODWARD)
 KGRA..... SUMMER LAKE HOT SPRING
 WELPING NUMBER..... 42

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	33S 017E 12	NE OF NE	LAT/LONG...	42-43.53 N 120-38.75 W
STATE.....	OREGON			UTM ZONE...	+10
COUNTY.....	LAKE			NORTHING...	4732806.
GEOLOGIC PROVINCE..					692746.

MAP REFERENCE..... SLIDE MTN. 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1948/10/08 TRAUGER, F.D.
 TEMPERATURE (C)..... 46.7
 DISCHARGE..... 79. L/MIN
 DEPOSITS OR ALTERATION... SILICEOUS SINTER
 PERTINENT LITHOLOGY..... FROM PLEISTOCENE TERRACE DEPOSITS NEAR MAJOR FAULT SCARP
 OTHER SAMPLE INFORMATION.. WATER USED FOR IRRIGATION, GASSY SPRING.

WATER ANALYSIS

USGS

DATE/ANALYST.....
 P..... 8.5
 SPECIFIC CONDUCTANCE..... 1760.
 TOTAL DISSOLVED SOLIDS... 1120.
 CHARGE IMBALANCE (% DIFF)... 6.1

ANALYSIS IN PPM

ISOTOPES (0/00)

AL....		CR.....		MG....	0.4		
R.....	1.0	F.....	2.2	NA....	399.	SI02..	96.
RE....		FE(TOT)..	0.03	NB....		S04..	111.
CA....	1.4	HCO3....	374.	NO3..	0.1		
CL....	285.						
CO....		K.....	6.8				

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 14

REFERENCE..... TRAUGER, 1950

RECORD 00238

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0000707

NAME OF SAMPLE SOURCE... SUMMER LAKE HOT SPRING (WOODWARD)
 KGRA..... SUMMER LAKE HOT SPRING
 WARING NUMBER..... 42

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 33S 017E 12 NE OF NE
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE..

LAT/LONG... 42-43.53 N 120-38.75 W
 UTM ZONE... +10
 NORTHING... 4732806.
 692746.

MAP REFERENCE..... SLIDE MTN. 1:24000, KLAMATH FALLS 1:250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP

TEMPERATURE (C)..... 43.0

DISCHARGE..... 75. L/MIN

WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED.

DEPOSITS OR ALTERATION... THAVERTINE

PERTINENT LITHOLOGY..... ALLUVIUM, ANDESITE, AND ANDESITIC TUFF-BRECCIA

OTHER SAMPLE INFORMATION.. MIXED WATERS

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 8.43

SPECIFIC CONDUCTANCE..... 1790.

CHARGE IMBALANCE (% DIFF)... 1.7

ANALYSIS IN MG/L

AG.... L 0.02	CO3.... 10.	LI.... 0.15	S....
AL....	CR....	MG.... 0.1	SB.... L 0.2
AS.... 0.02	CS.... L 0.1	MN.... L 0.02	SC....
AU.... L 0.1	CU.... 0.02		
B.... 6.9	F.... 2.2	NA.... 390.	SI02. 94.
HA.... L 0.1			
HE.... L 0.1	FE (TQT). L 0.02	NH....	S04.. 120.
HI....	GA.....	NH4..	SR... 0.07
HR.... 1.			
CA.... 2.1	HCO3.... 406.		
CA+MG.	HG....	PB... L 0.06	
CD.... L 0.01	H2S.....	P04.. 0.18	
CL.... 280.			
CO.... L 0.05	K..... 4.6	RB... L 0.02	

ISOTOPES (0/00)

DEL D OF WATER..... -115.0
 DEL O(18) OF WATER... -13.32
 DEL O(18) OF S04..... -4.00

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILED AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILED CROSS INDEX... 14

REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00239

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0001713

NAME OF SAMPLE SOURCE... U.S. SOIL CONSERVATION SERVICE WELL

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 33S 018E 15
 STATE..... OREGON
 COUNTY..... LAKE

LAT/LONG... 42-42.6 N 120-34.5 W

GEOLOGIC PROVINCE... 3)
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 32.
 WELL DEPTH (M)..... R 36.
 DISCHARGE..... L/MIN
 QUALIFICATION FIELD..... RANGE OF DEPTH IS 30. - 41.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... NEWCOMB AND HART, 1958

RECORD 00240

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UNNAMED
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... LAKE
 TOWNSHIP-RANGE
 34S 02E 30
 COORDINATES
 LAT/LONG... 42-36.0 N 120-10.2 W
 GEOLOGIC PROVINCE... 3)
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 27.
 DISCHARGE..... 115. L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

RECORD 00241

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... UPPER BARRY NO. 1
 WELL/SPRING NUMBER..... 39S-20E-27-08B
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE... BASIN & RANGE
 TOWNSHIP-RANGE
 39S 020E 27 NW OF NW SE
 COORDINATES
 LAT/LONG... 42-09.4 N 120-20.38 W
 MAP REFERENCE..... LAKEVIEW NORTHEAST 1124000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/12/20 MCLEAN, G
 SAMPLE NUMBER..... WS 79-373
 TEMPERATURE (C)..... 63. AT (M).. 70.
 WELL DEPTH (M)..... 73.
 DISCHARGE..... 380. L/MIN
 WATER ANALYSIS
 DATE/ANALYST..... 1980/04/11 BANERJEE, KALA C.
 PH..... 8.7 AT (C) 63.
 SPECIFIC CONDUCTANCE..... 847.
 ALKALINITY..... 103. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 647.
 CHARGE IMBALANCE (% DIFF)... 9.6
 ANALYSIS IN MG/L
 AG.... CO3.... LI... 0.06
 AL.... 1.2 CH.... MG... 0.38
 AS.... 0.115 CS.... MN... 0.24
 H.... 8.2 F.... 3.4 NA... 149. SI02. 52.
 HE.... FE(TOT). 20. NB... S04.. 106.

ISOLIPES (0200)

CA.... 11.
 CD.... H2S..... PU4.. 0.025
 CL.... 122.
 CO.... K..... 3.8

REFERENCE AND IDENTIFICATION
 COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... DEPT. OF GEOLOGY AND MINERAL INDUSTRIES, OREGON
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00242

 GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... UPPER ROCK CREEK
 LOCATION
 COUNTRY..... UNITED STATES 355 026E 16
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. 31
 OTHER LOCALITY INFORMATION: SEVERAL ORIFICES
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 46.
 DISCHARGE..... 190. L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

 GEOTHERM FILE ID: 0001724
 COORDINATES
 LAT/LONG... 42-32.4 N 119-39.6 W

RECORD 00243

 GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... WHITE ROCK RANCH HOT SPRING
 LOCATION
 COUNTRY..... UNITED STATES 365 020E 26
 STATE..... OREGON
 COUNTY..... LAKE
 GEOLOGIC PROVINCE.. 31
 OTHER LOCALITY INFORMATION: TWO MAJOR ORIFICES
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 20.
 DISCHARGE..... L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

 GEOTHERM FILE ID: 0001717
 COORDINATES
 LAT/LONG... 42-20.4 N 120-19.5 W

RECORD 00244

 GEOTHERM_SAMPLE_FILE
 NAME OF SAMPLE SOURCE... BELKNAP HOT SPRINGS
 KGRA..... NEAR BELKNAP-FOLEY HOT SPRINGS
 WORKING NUMBER..... 18
 LOCATION
 COUNTRY..... UNITED STATES 165 006E 11 NE
 STATE..... OREGON
 COUNTY..... LANE
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... MCKENZIE BRIDGE 1162500, SALEM 1125000
 SAMPLE DESCRIPTION AND CONDITIONS

 GEOTHERM FILE ID: 0000703
 COORDINATES
 LAT/LONG... 44-11.65 N 122-02.90 W
 UTM ZONE... +10
 NORTHING... 4893663.
 576052.

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP
 TEMPERATURE (C)..... 71.0
 DISCHARGE..... 300. L/MIN
 WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED.
 PERTINENT LITHOLOGY..... PLIOCENE-HOLOCENE BASIC VOLCANIC FLOWS AND PYROCLASTIC ROCKS

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 7.62
 SPECIFIC CONDUCTANCE..... 4300.
 CHARGE IMBALANCE (% DIFF).... 0.2

ANALYSIS IN MG/L

AG.... L 0.02	CO3.... L 1.	LI.... 0.95	S....
AL....	CR....	MG.... 0.2	SB.... L 0.2
AS.... 0.35	CS.... L 0.1	MN.... 0.02	SC....
AU.... L 0.1	CU.... 0.01		
H.... 6.4	F.... 1.2	NA.... 690.	SI02. 96.
HE.... L 0.1	FE(TOT). 0.02	NB....	S04.. 170.
HI....	GA....	NH4..	SR... 1.4
HR.... 33.			
CA.... 210.	HCO3.... 17.		
CA-MG.	HG.... L 0.0001	PB... L 0.06	
CD.... L 0.01	H2S....	PO4.. 0.21	
CL.... 1300.	I.... 0.2		
CO.... L 0.05	K.... 15.	RB... 0.05	

ISOTOPES (0/00)

DEL D OF WATER..... -95.8
 DEL O(18) OF WATER... -11.74
 DEL O(18) OF S04..... 0.35

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 01
 REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00245

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0002230

NAME OF SAMPLE SOURCE... BELKNAP HOT SPRINGS
 KGRA..... NEAR BELKNAP-FOLEY HOT SPRINGS
 WARING NUMBER..... 18

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP=RANGE 16S 06E 11 NE
 STATE..... OREGON
 COUNTY..... LANE
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 44-11.65 N 122-02.90 W
 UTM ZONE... +10
 NORTHING... 4893663.
 576052.

M&P REFERENCE..... MCKENZIE BRIDGE 1162500
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1903/00/00
 TEMPERATURE (C)..... 86.7
 DISCHARGE..... 284. L/MIN
 PERTINENT LITHOLOGY..... LATE TERTIARY LAVA
 OTHER SAMPLE INFORMATION.. GASSY SPRINGS.

WATER ANALYSIS

TOTAL DISSOLVED SOLIDS... 2506.

ANALYSIS IN PPM

AL....	CR....	MG.... 0 13.	
AS....	CS....	MN... T	
H....	F....	NA... 0 364.	SI02. 81.
HE....	FE(TOT).	NB... 0 168.	
CA.... 0 455.			

ISOTOPES (0/00)

CL.... U 1343.
 CO.... K..... U 69.
 OTHER ANALYTICAL DATA... CHEMISTRY RECALCULATED; REPORTED:
 FE2O3=AL2O3=3,CACL2=1066,9,CASO4=238,6,MGCL2=49,8,NACL=925,KCL=131.8 PPM
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 01
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00246

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0015423

NAME OF SAMPLE SOURCE... RIGELOW HOT SPRINGS
 WELL/SPRING NUMBER..... 155/6E-268A

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE NE OF NW
 STATE..... OREGON
 COUNTY..... LANE
 GEOLOGIC PROVINCE.. 30

COORDINATES
 LAT/LONG... 44-14.35 N 122-03.50 W
 UTM ZONE... +10
 NORTHING... 4898652.
 575196.

MAP REFERENCE..... MCKENZIE BRIDGE 1162500, SALEM 1125000
 OTHER LOCALITY INFORMATION: AT EDGE OF RIVER 50 M BELOW BRIDGE AT CONFLUENCE OF MCKENZIE RIVER AND DEER CREEK

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/03/08 BOWEN, RICHARD G.
 SAMPLE NUMBER..... WS 76-053
 TEMPERATURE (C)..... 61.0
 DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1976/06/25 JOHNSON, ELLEN M.
 PH..... 7.8 AT (C) 61.
 SPECIFIC CONDUCTANCE..... 3800.
 TOTAL DISSOLVED SOLIDS... 2566.

ISOTOPIES (0/00)

AG....	CO3....	LI... 1.1			
AL.... L 0.05	CR....	MG... 1.			
AS.... 0.11	CS....	MN... L 0.005			
R.... 6.5	F..... 1.4	NA... 540.	S102.	69.	
HF....	FE(TOT). 0.1	NB... 504..	S04..	102.	
HI....	GA.....	NH4... 0.39			
CA.... 188.					
CD....	H2S.....	P04.. 0.32			
CL.... 1148.					

CO.... K..... U 17.

REFERENCE AND IDENTIFICATION

COMPILED BY..... BOWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 08
 REFERENCE..... *DOGAMI

RECORD 00247

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0000787

NAME OF SAMPLE SOURCE... COUGAR RESERVOIR HOT SPRINGS (RIDER)
 WELLS NUMBER..... 20

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE 20

COORDINATES
 LAT/LONG... 44-04.95 N 122-14.00 W

STAT..... OREGON
 COUNTY..... LANE
 GEOLOGIC PROVINCE.. 3a
 MAP REFERENCE..... MCKENZIE BRIDGE 1162500, SALEM 11250000

UTM ZONE... +10
 NORTHING... 4881105.
 561383.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1973/00/00 BARNES GROUP
 TEMPERATURE (C)..... 44.0
 DISCHARGE..... 200. L/MIN
 WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED
 PERTINENT LITHOLOGY..... ANDESITE, BASALT, AND BASIC TUFF-BRECCIA

WATER ANALYSIS

DATE/ANALYST..... 1973/00/00 BARNES GROUP
 P..... 7.76
 SPECIFIC CONDUCTANCE..... 2890.
 CHARGE IMBALANCE (% DIFF)... 2.0

ANALYSIS IN MG/L

AG.... L 0.02	CO ₃ L 1.	LI.... 0.52	S....	ISOTOPES (0/00)	
AL....	CR....	MG.... 0.1	SB.... L 0.2	DEL D OF WATER.....	-92.5
AS....	CS.... L 0.1	MN.... L 0.02		DEL O(18) OF WATER...	-11.97
AU.... L 0.1	CU.... L 0.01				
R.... 5.1	F.... 0.8	NA.... 392.	SI02. 50.		
RA.... L 0.1					
RF.... L 0.1	FE(TOT). L 0.02	NB....	S04.. 260.		
RI....	GA....	NH4..	SR... 2.0		
CA.... 225.	HCO ₃ 19.				
CA+MG.	HG.... 0.0005	PB... L 0.06			
CD.... L 0.01					
CL.... 788.					
CO.... L 0.05	K.... 6.3	RB... 0.03			

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 03
 REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975

RECORD 00248

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015426

NAME OF SAMPLE SOURCE... COUGAR RESERVOIR HUT SPRINGS (RIDER)
 WELL/SPRING NUMBER..... 175/5E-208B

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP=RANGE 175 005E 20 NW OF NW
 STATE..... OREGON
 COUNTY..... LANE
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 44-04.95 N 122-14.00 W
 UTM ZONE... +10
 NORTHING... 4881105.
 561383.

MAP REFERENCE..... MCKENZIE BRIDGE 1162500, SALEM 11250000

OTHER LOCALITY INFORMATION: UPPER SPRING

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/03/08 BOWEN, R.
 SAMPLE NUMBER..... WS-76 UKE DEPT ENVIRONMENTAL QUALITY
 TEMPERATURE (C)..... 42.0
 DISCHARGE..... 114. L/MIN

OTHER SAMPLE INFORMATION.. SEVERAL WARM SPRINGS IN CREEK .

WATER ANALYSIS

DATE/ANALYST..... 1976/06/28 JOHNSON, ELLEN M.
 P..... 0 8.2

SPECIFIC CONDUCTANCE..... 2660.
 ALKALINITY..... 15. AS CAC03
 TOTAL DISSOLVED SOLIDS.... 1763.
 CHARGE IMBALANCE (% DIFF)... 1.0

ANALYSIS IN MG/L

AG....	CO3.....	LI... 0.64		
AL.... L 0.05	CR.....	MG... 0.2		
AS.... 0.1	CS.....	MN... L 0.05		
R.... 6.2	F..... 0.87	NA... 320.	SI02.	47.
HE....	FE(TOT). 0.1	NB... 304..	504..	185.
HI....	GA.....	NH4.. 0.12		
CA.... 196.		PO4.. 0.08		
CD....	H2S.....			
CL.... 69J.				
CO....	K..... 6.8			

ISOTOPES (0/00)

QUALIFICATION FIELD..... PH MEASURED IN LAB.

REFERENCE AND IDENTIFICATION

COMPILED BY..... BOWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 03
 REFERENCE..... *DOGAMI

RECORD 00249

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015424

NAME OF SAMPLE SOURCE... FOLEY SPRINGS
 AREA..... BELKNAP-FOLEY HOT SPRINGS
 WELL/SPRING NUMBER..... 165/6E-288B
 WSPRING NUMBER..... 19

LOCATION

TOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 165 006E 28 NW OF NW
 STATE..... OREGON
 COUNTY..... LANE
 GEOLOGIC PROVINCE.. 30

LAT/LONG... 44-09.20 N 122-05.85 W
 UTM ZONE... +10
 NORTHING... 4889083.
 572173.

MAP REFERENCE..... MCKENZIE BRIDGE 1162500, SALEM 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/03/08 BOWEN, RICHARD
 SAMPLE NUMBER..... WS 76-055
 TEMPERATURE (C)..... 80.6
 DISCHARGE..... 227. L/MIN
 DEPOSITS OR ALTERATION... SILICEOUS SINTER

WATER ANALYSIS

DATE/ANALYST..... 1976/06/28 JOHNSON, E.M., ORE DEPT ENV QUALITY
 PH..... 8. AT (C) 80.
 SPECIFIC CONDUCTANCE..... 4800.
 ALKALINITY..... 13. AS CAC03
 TOTAL DISSOLVED SOLIDS... 3333.
 CHARGE IMBALANCE (% DIFF)... 5.8

ISOTOPES (0/00)

AG....	CO3.....	LI... 0.96		
AL.... L 0.01	CR.....	MG... 0.8		
AS.... 0.21				
R.... 10.	F..... 0.81	NA... 475.	SI02.	60.
HE....	FE(TOT). L 0.05	NB... 504..	504..	550.
HI....	GA.....	NH4.. L 0.01		
CA.... 494.				

CD.... H2S..... P04.. 0.06
 CL.... 1304.
 CO.... K..... 11.2
REFERENCE AND IDENTIFICATION
 COMPILED BY..... BOWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 02
 REFERENCE..... *DOGAMI

RECORD 00250

GEO THERM FILE ID: 0015973

GEO THERM SAMPLE FILE

NAME OF SAMPLE SOURCE... FRISSEL ROAD SPRING
 KGRA..... BELKNAP-FOLEY
 WELL/SPRING NUMBER..... 16S-6E-2-CD

LOCATION**TOWNSHIP-RANGE****COORDINATES**

COUNTRY..... UNITED STATES 16S 006E 02 SE OF SW
 STATE..... OREGON
 COUNTY..... LANE
 GEOLOGIC PROVINCE.. WESTERN CASCADES
 MAP REFERENCE..... MCKENZIE BRIDGE 1162500

LAT/LONG... 44-12.06 N 122-03. W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/08/08 BROWN, DAVID
 SAMPLE NUMBER..... WS79-270
 POINT OF COLLECTION.. ORIFICE
 TEMPERATURE (C)..... 18.
 AMBIENT TEMP (C)..... 16.

WATER ANALYSIS

DATE/ANALYST..... 1979/09/28 BANERJEE, KALA C.
 PH..... 6.3 AT(C) 18.
 SPECIFIC CONDUCTANCE... 151.
 ALKALINITY..... 10. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 41.
 CHARGE IMBALANCE (% DIFF)... 22.1

ANALYSIS IN MG/L

AG....	CO3....	LI... L 0.01		
AL... L 0.1	CR....	MG... 0.88		
AS... L 0.005	CS....	MN... 0.02		
H.... 0.09	F..... L 0.1	NA... 1.7	SI02. 14.	
RE....	FE(TQT). L 0.05	NB... 0.07	SO4.. 0.5	
CA.... 2.6	HCO3....	NO3.. 0.07		
CD....	H2S.....	P04.. 0.004		
CL.... 0.6				

ISOTOPES (U/D0)

CO.... K..... 0.3

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00251

GEO THERM FILE ID: 0015968

GEO THERM SAMPLE FILE

NAME OF SAMPLE SOURCE... KITSON HOT SPRING
 KGRA..... MCCREDIE HOT SPRINGS
 WELL/SPRING NUMBER..... 22S-4E-6-AD

LOCATION**TOWNSHIP-RANGE****COORDINATES**

COUNTRY..... UNITED STATES 22S 004E 06 SE OF NE LAT/LONG... 43-41.35 N 122-22.32 W
 STATE..... OREGON
 COUNTY..... LANE
 GEOLOGIC PROVINCE... WESTERN CASCADES
 MAP REFERENCE..... OAKRIDGE 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/08/08 WOLLER, NEIL
 SAMPLE NUMBER..... WS79-279
 POINT OF COLLECTION.. PIPE LEADING FROM ORIFICE.
 TEMPERATURE (C)..... 44.
 AMBIENT TEMP (C)..... 17.

WATER ANALYSIS
 DATE/ANALYST..... 1979/10/02 BANERJEE, KALA C.
 PH..... 7.5
 SPECIFIC CONDUCTANCE..... 10500.
 ALKALINITY..... 18. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 6500.
 CHARGE IMBALANCE (% DIFF)... 1.3

ANALYSIS IN MG/L

AG.....		CO3.....		LI... 2.0			
AL..... 0.14		CH.....		HG... 1.5			
AS..... 0.125		CS.....		MN... 0.12			
R.....		F..... 2.6		NA... 1370.	SI02. 49.		
HE.....		FE(TOT)... 0.05		NB... 504..	149.		
CA..... 720.		HCO3.....		NO3.. L 0.02			
CD.....		H2S.....		PO4.. 0.081			
CL..... 3340.							
CO.....		K..... 25.					

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIU, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... #UOGAMI

HECUMD 00252

GEOHERM SAMPLE FILE

GEOHERM FILE IUI 0015468

NAME OF SAMPLE SOURCE... KITSUN SPRINGS
 KARA..... NEAR MCCREDIE HOT SPRINGS
 WARING NUMBER..... 23

LOCATION

TOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 22S 004E 06 NE
 STATE..... OREGON
 COUNTY..... LANE
 GEOLOGIC PROVINCE... 30
 MAP REFERENCE..... OAKRIDGE 1162500

LAT/LONG... 43-41.35 N 122-22.50 W
 UTM ZONE... +10
 NORTHING... 4837324.
 550371.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1978/05/11 MARINER, R. H. AND EVANS, W. C.
 POINT OF COLLECTION.. INFLOW PIPE TO SWIMMING POOL
 TEMPERATURE (C)..... 43.

WATER TREATMENT..... FIELD FILTERED, ACIDIFIED, SILICA DILUTION, AND ALKALINITY DETERMINED ON A COOLED SAMPLE.

WATER ANALYSIS

DATE/ANALYST..... 1978/07/00 BARNES GROUP
 PH..... 7.31 AT(C) 43.
 SPECIFIC CONDUCTANCE..... 10100.
 ALKALINITY..... 24. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 0.4

ANALYSIS IN MG/L

AG....		CO3.....		LI...	2.0				
AL....	0.002	CR.....		HG...	1.6				
AS....		CS.....	0.1	MN...	0.15				
AU....		CU.....	L 0.01						
H.....	22.	F.....	2.4	NA...	1500.	SI02.	45.		
HE....		FE(TQT).	L 0.04	NB...		504..	210.		
HR....		GE.....		NI...	L 0.02				
CA....	710.	HCO3....	24.						
CA+MG.		HG.....	L 0.0001	PB...	L 0.1				
CD....	L 0.01	H2S.....	L 0.5						
CL....	3450.								
CO....	L 0.02	K.....	26.	RB...	0.1	ZN...	L 0.01		

ISOTOPIES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 06
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00253

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0002232

NAME OF SAMPLE SOURCE... KITSON SPRINGS
 AREA..... NEAR MCCREDIE HOT SPRINGS
 WARING NUMBER..... 23

LOCATION

TOWNSHIP-RANGE

COUNTRY..... UNITED STATES 22S 004E 06
 STATE..... OREGON
 COUNTY..... LANE
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 43-41.35 N 122-22.50 W
 UTM ZONE... +10
 NORTHING... 4837324.
 550371.

MAP REFERENCE..... OAKRIDGE 1162500

OTHER LOCALITY INFORMATION: 7 MI. SOUTHEAST OF OAKRIDGE, ORE.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1958/03/30 FETH, J.
 SAMPLE NUMBER..... LAB# 668
 TEMPERATURE (C)..... 44.4
 DISCHARGE..... 66. L/MIN

PERTINENT LITHOLOGY..... FLOW FROM FISSURE IN BASALT

WATER ANALYSIS

DATE/ANALYST..... 1958/09/30 SCHUCH, J. P.
 PH..... 7.4
 SPECIFIC CONDUCTANCE..... 10500.
 TOTAL DISSOLVED SOLIDS... 6340.
 CHARGE IMBALANCE (% DIFF)... 0.5

ANALYSIS IN PPM

AG....		CO3..... N		LI...	1.8				
AL....	0.27	CR.....		HG...	5.7				
AS....	N	CS.....		MN...	N				
H.....	25.	F.....	2.8	NA...	1450.	SI02.	47.		
HE....		FE(TQT).	0.01	NB...		504..	197.		
HR....		GA.....		NH4..	0.5				
CA....	6.6								
CA....	726.	HCO3....	27.	NO3..	2.7				
CD....		H2S..... N		PO4..	0.54				
CL....	3420.	I.....	0.9						
CO....		K.....	28.						

ISOTOPIES (0/00)

OTHER ANALYTICAL DATA... NO2=.02 PPM
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 06
 REFERENCE..... MADISON, 1966

RECORD 00254

GEO THERM FILE ID: 0015975

GEO THERM SAMPLE TITLE

NAME OF SAMPLE SOURCE... MCCREDIE HOT SPRING NO. 2
 KWRA..... MCCREDIE HOT SPRINGS
 WELL/SPRING NUMBER..... 215-4E-36-8C

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 21S 004E 36 SW OF NW LAT/LONG... 43-42.6 N 122-17.3 W
 STATE..... OREGON
 COUNTY..... LANE
 GEOLOGIC PROVINCE.. WESTERN CASCADES
 MAP REFERENCE..... OAKRIDGE 1162500

OTHER LOCALITY INFORMATION: SPRING LOCATED ON SOUTH SIDE OF SALT CREEK.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/08/08 WOLLER, NEIL AND GEST, DON
 SAMPLE NUMBER..... WS79-276
 POINT OF COLLECTION.. WIER BOX
 TEMPERATURE (C)..... 62.
 AMBIENT TEMP (C)..... 18.

WATER ANALYSIS

DATE/ANALYST..... 1979/10/02 BANERJEE, KALA C.
 PH..... 7.2 AT (C) 62.
 SPECIFIC CONDUCTANCE..... 6750.
 ALKALINITY..... 16. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 4200.
 CHARGE IMBALANCE (% DIFF)... 1.8

ISOTOPES (D/001)

ANALYSIS IN MG/L					
AG....		CO3....		LI....	1.5
AL....	0.47	CR....		MG....	2.4
AS....	0.108	CS....		MN....	0.13
B....	9.9	F....	2.3	NA....	885.
BE....		FE(TOT)..	0.43	NB....	
CA....	456.	HCO3....		NO3....	0.02
CD....		H2S....		PO4..	0.06
CL....	2030.				
CO....		K....	22.		

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIU, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00255

GEO THERM FILE ID: 0015425

GEO THERM SAMPLE TITLE

NAME OF SAMPLE SOURCE... MCCREDIE SPRINGS
 KWRA..... MCCREDIE HOT SPRINGS
 WELL/SPRING NUMBER..... 215/4E-364C
 SPRING NUMBER..... 22

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 215 004E 36 SW OF NW LAT/LONG... 43-42.35 N 122-17.20 W
 STATE..... OREGON UTM ZONE... +10
 COUNTY..... LANE NORTHING... 4839233.
 GEOLOGIC PROVINCE.. 557474.
 M.P. REFERENCE..... OAKRIDGE 1162500, ROSEBERG 1125000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1976/03/10 BOWEN, R.
 SAMPLE NUMBER..... WS 76-062 ORE DEPT ENV QUAL
 TEMPERATURE (C)..... 71.0
 DISCHARGE..... 76. L/MIN
 WATER ANALYSIS
 DATE/ANALYST..... 1976/06/28 JOHNSON, ELLEN M., OREGON DEPT. ENV. QUAL.
 PH..... 7.4 AT (C) 71.
 SPECIFIC CONDUCTANCE..... 6770.
 ALKALINITY..... 16. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 4420.
 ANALYSIS IN MG/L ISOTOPES (0/00)
 AG..... CO3..... LI... 2.0
 AL..... CR..... MG... 0.9
 AS..... 0.08 CS..... MN... 0.05
 H..... 18. F..... 2.7 NA... 910. SiO2. 65.
 HF..... FE(TQT). 0.1
 HI..... GA..... NH4.. 0.21
 CA..... 500. HG..... PB... L 0.05
 CA+MG. H2S..... PO4.. 0.11
 CD.....
 CL..... 2232.
 CO..... K..... 28.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... BOWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 05
 REFERENCE..... *DOGAMI

RECORD 00256

 GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0000783

NAME OF SAMPLE SOURCE... MCCREDIE SPRINGS
 KWRA..... MCCREDIE HOT SPRINGS
 WERING NUMBER..... 72
 LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY..... UNITED STATES 215 004E 36 SW OF NW LAT/LONG... 43-42.35 N 122-17.20 W
 STATE..... OREGON UTM ZONE... +10
 COUNTY..... LANE NORTHING... 4839233.
 GEOLOGIC PROVINCE.. 30 557474.
 M.P. REFERENCE..... OAKRIDGE 1162500, ROSEBERG 1125000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/00/00 BARNES GROUP
 TEMPERATURE (C)..... 73.
 WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED
 WATER ANALYSIS
 DATE/ANALYST..... 1974/00/00 BARNES GROUP
 PH..... 7.29
 SPECIFIC CONDUCTANCE..... 6730.
 ALKALINITY..... 21. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 0.3

ANALYSIS IN MG/L

AG.... L 0.02	CO3....	LI....	1.4	S....	
AL.... 0.010	CH....	MG....	0.9	SB....	L 0.2
AS....	CS.... 0.1	MN....	0.1		
AU.... L 0.1	CU.... 0.02				
H.... 18.	F.... 2.7	NA....	1000.	SI02.	79.
RA.... L 0.1					
RE.... L 0.1	FE (TOT)...	NB....	0.02	SO4..	240.
HI....	GA....	NH4..	0.26		
CA.... 460.	HCO3.... 21.				
CA+MG.	HG....	PB....	L 0.06		
CD.... L 0.01	H2S....	PO4..	0.61		
CL.... 2200.					
CO.... L 0.05	K.... 22.	RB....	0.11		

ISOTOPE (0/00)
DEL O OF WATER..... -94.0

GAS ANALYSIS

ANALYSIS IN VOLUME %

CH4.. L 1.	
C2H6.	N2... 98.
CO2.. L 1.	

ISOTOPE (00/00)

OTHER ANALYTICAL DATA... 02;AR=1

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... NEM-973
 REFERENCE..... MARINER AND OTHERS, 1975

RECORD 00257

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015401

NAME OF SAMPLE SOURCE... WALL CREEK WARM SPRINGS
 WELL/SPRING NUMBER..... 20S/4E-268C
 WELL NUMBER..... 71

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 20S 004E 26 SW OF NW
 STATE..... OREGON
 COUNTY..... LANE
 GEOLOGIC PROVINCE.. 30
 MAP REFERENCE..... SARDINE BUTTE 1162500, ROSEBERG 1125000

COORDINATES

LAT/LONG... 43-48.45 N 122-18.55 W
 UTM ZONE... +10
 NORTHING... 4850509.
 555567.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/03/10 BOWEN, RICHARD G.
 SAMPLE NUMBER..... 4576-064 ORE. DEPT. ENV. QUAL.
 TEMPERATURE (C)..... 41.0
 DISCHARGE..... 11. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 76/06/28 JOHNSON, ELLEN M., ORE. DEPT. ENV. QUAL.
 PH..... 7.2
 SPECIFIC CONDUCTANCE..... 2340.
 ALKALINITY..... 34.
 TOTAL DISSOLVED SOLIDS... 1461.
 CHARGE IMBALANCE (% DIFF)... 3.1

ISOTOPE (0/00)

ANALYSIS IN MG/L

AG....	CO3....	LI....	0.57		
AL.... L 0.05	CH....	MG....	1.		
AS.... 0.07	CS....	MN....	L 0.05		
R.... 6.6	F.... 4.1	NA....	315.	SI02.	63.
RA....	FE+3.... 0.05				

HF.... FE(TOT). NH... S04.. 108.
 HI.... GA..... NH4... 0.1
 CA.... 130. H2S..... P04.. 0.16
 CD.... 602. K..... 11.
 CO....

QUALIFICATION FIELD..... PH MEASURED IN LAB.

REFERENCE AND IDENTIFICATION

COMPILED BY..... ROWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 04
 REFERENCE..... *DUGAMI

RECORD 00258

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015974

NAME OF SAMPLE SOURCE... WALL CREEK WARM SPRINGS

WELL/SPRING NUMBER..... 20S-4E-26-8C

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 20S 004E 26 SW OF NW

LAT/LONG... 43-48.5 N 122-18.2 W

STATE..... OREGON

COUNTY..... LANE

GEOLOGIC PROVINCE.. WESTERN CASCADES

MAP REFERENCE..... SARDINE BUTTE 1162500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/08/08 WOLLER, NEIL

SAMPLE NUMBER..... WS79-277

POINT OF COLLECTION.. ORIFICE

TEMPERATURE (C)..... 40.

AMBIENT TEMP (C)..... 18.

WATER ANALYSIS

DATE/ANALYST..... 1979/10/02 BANERJEE, KALA C.

PH..... 7.6 AT(C) 40.

SPECIFIC CONDUCTANCE..... 2288.

ALKALINITY..... 35. AS CaCO3

TOTAL DISSOLVED SOLIDS... 1500.

CHARGE IMBALANCE (% DIFF)... 10.7

ANALYSIS IN MG/L

AG....	COJ....	LI...	0.43		
AL.... 0.52	CR....	MG...	0.53		
AS.... 0.076	CS....	MN...	0.04		
B....	F..... 4.0	NA...	299.	S102.	73.
HF....	FE(TOT). 0.32	NH...		S04..	160.
CA.... 114.	HCO3....	NO3.. L	0.02		
CD....	H2S.....	P04..	0.022		
CO.... 600.	K..... 8.5				

ISOLOPES 10/001

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *DUGAMI

RECORD 00259

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015412

NAME OF SAMPLE SOURCE... ALKALI FLAT GRADIENT WELL

WELL/SPRING NUMBER..... 17S/45E-8AA
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 17S 045E 08 NE OF NE
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE..

COORDINATES
 LAT/LONG... 44-06.60 N 117-13.60 W
 UTM ZONE... 11
 NORTHING... 4883899.
 481860.

MSP REFERENCE..... MOORES HOLLOW 1162500, BOISE 11250000

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1975/05/08 HULL, D. A.
 POINT OF COLLECTION.. WELL HEAD
 TEMPERATURE (C)..... 24.0
 WELL DEPTH (M)..... 60.

WATER ANALYSIS
 DATE/ANALYST..... 1975/08/21 LWS
 PH..... 8.3
 SPECIFIC CONDUCTANCE..... 2400.
 ALKALINITY..... 115. AS CAC03
 TOTAL DISSOLVED SOLIDS... 1381.
 CHARGE IMBALANCE (% DIFF)... 0.0

ANALYSIS IN MG/L

AG....		CO3....		LI... 0.4			
AL.... 0.01		CR....		MG... 0.5			
AS.... 0.001		CS....		MN... 0.05			
H.... 14.		F.... 2.2		NA... 482.	SiO2. 32.		
HE....		FE(TOT). 0.1		NB... 504..	135.		
HI....		GA....		NH4... 0.92			
CA.... 16.		HCO3....		NO3.. 0.03			
CL.... 598.							
CO....	K..... 6.7						

ISOTOPES (0/00)

QUALIFICATION FIELD..... PH MEASURED IN LAB.

REFERENCE AND IDENTIFICATION

COMPILED BY..... BOWEN, RICHARD
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 28
 REFERENCE..... *DOGAMI

RECORD 00260

GEOTERM FILE ID: 0015411

GEOTERM SAMPLE FILE

NAME OF SAMPLE SOURCE... ARTESIAN WELL
 WELL/SPRING NUMBER..... 21S/46E-330D
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE 21S 046E 33 SE OF SE
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE.. 32

COORDINATES
 LAT/LONG... 43-41.8 N 117-05.7 W
 UTM ZONE... 11
 NORTHING... 4837972.
 492345.

MSP REFERENCE..... ADRIAN 1124000, BOISE 11250000

SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1977/03/03 BOWEN, R. AND HULL, D.
 POINT OF COLLECTION.. WELL HEAD
 TEMPERATURE (C)..... 46.0

WATER ANALYSIS
 DATE/ANALYST..... 1977/04/27 HANERJEE, KALA C.
 PH..... 9.5
 SPECIFIC CONDUCTANCE..... 670.
 ALKALINITY..... 77. AS CAC03

TOTAL DISSOLVED SOLIDS... 443.
 CHARGE IMBALANCE (% DIFF)... 2.3
 ANALYSIS IN MG/L

AG....		CO3.....		LI....	0.04				
AL....	0.1	CR.....		MG....	0.1				
AS....	0.01	CS.....		MN....	L 0.05				
H....	0.31	F.....	2.7	NA....	124.	SI02.	44.		
FE....		FE(TOT) L	0.1	NB....		S04..	164.		
HI....		GA.....		NH4..	0.8				
CA....	1.8	HCO3.....		NO3..	0.02				
CD....		H2S.....		PO4..	0.02				
CL....	12.								
CO....		K.....	0.8						

ISOTOPES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... BOWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 27
 REFERENCE..... *UOGAMI

RECORD 00261

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000723

NAME OF SAMPLE SOURCE... BEULAH HOT SPRINGS

WELL NUMBER..... 74

LOCATIONTOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES 19S 037E 02 SE
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE.. 32

LAT/LONG... 43-56.65 N 118-08.15 W
 UTM ZONE... 11
 NORTHING... 4866082.
 408847.

MAP REFERENCE..... BEULAH 1162500, BURNS 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP

TEMPERATURE (C)..... 60.0

DISCHARGE..... 50. L/MIN

WATER TREATMENT..... PRESSURE - FILTERED THROUGH .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED

DEPOSITS OR ALTERATION... SINTER, TRAVERTINE

PERTINENT LITHOLOGY..... MIOCENE AND PLEISTOCENE VITRIC TUFF

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 7.56

SPECIFIC CONDUCTANCE..... 1090.

CHARGE IMBALANCE (% DIFF)... 3.8

ANALYSIS IN MG/L

AG....	L 0.02	CO3.....	1.	LI....	0.24	S....			
AL....	0.006	CR.....		MG....	0.2	SR... L	0.2		
AS....	0.21	CS.....	L 0.1	MN....	0.03				
AU....	L 0.1	CU.....	0.01						
H....	4.7	F.....	4.7	NA....	200.	SI02.	170.		
HA....	L 0.1			NB....		S04..	290.		
HE....	L 0.1	FE(TOT) L	0.02	NH4..	0.26	SR... L	0.17		
HI....		GA.....							
HP....	0.1								
CA....	24.	HCO3.....	161.						
CA+MG.		HG.....	0.0001	PB... L	0.06				
CD....	L 0.01	H2S.....		PO4..	0.18				
CL....	55.	I.....	0.03						

ISOTOPES (0/00)

DEL D OF WATER..... -131.7
 DEL O(18) OF WATER... -13.22

CO... L 0.05 K... 6.0 RB... L 0.02
 REFERENCE AND IDENTIFICATION
 COMPILED BY... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 04
 REFERENCE... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975

RECORD 00262

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... CANTER'S HOT SPRING (JORDAN VALLEY)
 LOCATION
 COUNTRY... UNITED STATES TOWNSHIP=RANGE
 STATE... OREGON 30S 046E 02
 COUNTY... MALHEUR COORDINATES
 GEOLOGIC PROVINCE... 33 LAT/LONG... 42-54.0 N 117-04.2 W
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)... 50.
 DISCHARGE... L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY... MARINER, R. & BROOK, C.
 REFERENCE... WARING, 1965

RECORD 00263

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... DEER BUTTE H.S./MITCHELL BUTTE SYSTEM
 LOCATION
 COUNTRY... UNITED STATES TOWNSHIP=RANGE
 STATE... OREGON COORDINATES
 COUNTY... MALHEUR LAT/LONG... 43-44.7 N 117-10.2 W
 GEOLOGIC PROVINCE... 32
 SAMPLE DESCRIPTION AND CONDITIONS
 DISCHARGE... L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY... MARINER, R. & BROOK, C.
 REFERENCE... WARING, 1965

RECORD 00264

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... JONESBORO WARM SPRING
 WELL/SPRING NUMBER... 20S/39E-29DC
 LOCATION
 COUNTRY... UNITED STATES TOWNSHIP=RANGE
 STATE... OREGON 20S 039E 29 SW OF SE COORDINATES
 COUNTY... MALHEUR LAT/LONG... 43-47.5 N 117-57.5 W
 GEOLOGIC PROVINCE... 32 UTM ZONE... +11
 MAP REFERENCE... WESTFALL BUTTE 1162500, BOISE 11250000 NORTHING... 4848964.
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR... DELLECHAIE, F.
 SAMPLE NUMBER... AMAX EXPLORATION 89873
 TEMPERATURE (C)... 44.5
 WATER ANALYSIS
 PH... 9.6
 CHARGE IMBALANCE (K DIFF)... 10.7

ANALYSIS IN MG/L				<u>ISOTOPES (0/00)</u>			
AG....		CO3....	48.	LI... L 0.1			
AL....		CR....		MG... L 0.1			
B.....	L 0.1	F.....	0.8	NA... 72.	SI02..	70.	
RE....		FE(TQT).		NB... 504..	S04..	38.	
CA....	1.0	HCO3....	50.				
CL....	11.						
CO....		K.....	0.7				

REFERENCE AND IDENTIFICATION

COMPILED BY..... ROWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 24
 REFERENCE..... *DOGAMI

RECORD 00265

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0015407

NAME OF SAMPLE SOURCE... JUNTAHA WARM SPRING #1
 WELL/SPRING NUMBER..... 215/38E-9C
 LOCATION

COUNTRY.....	UNITED STATES	TOWNSHIP-RANGE	
STATE.....	OREGON	21S 038E 09	SW
COUNTY.....	MALHEUR		
GEOLOGIC PROVINCE..			

COORDINATES

LAT/LONG... 43-45.5 N 118-04.0 W
 UTM ZONE... +11
 NORTHING... 4845369.
 414132.

M.P. REFERENCE..... BEULAH 1:62500, BURNS 1:250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... DELLECHAIE, F.
 SAMPLE NUMBER..... AMAX EXPLORATION 90214
 TEMPERATURE (C)..... 25.0

WATER ANALYSIS

Pi..... 9.4
 CHARGE IMBALANCE (% DIFF)... 27.8

ANALYSIS IN PPM

				<u>ISOTOPES (0/00)</u>			
AG....		CO3.... N		LI... L 0.1			
AL....		CR....		MG... 21.			
B.....	L 1.0	F.....	1.0	NA... 24.	SI02..	55.	
RE....		FE(TQT).		NB... 504..	S04..	16.	
CA....	48.	HCO3....	204.				
CL....	120.						
CO....		K.....	8.2				

REFERENCE AND IDENTIFICATION

COMPILED BY..... ROWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 25
 REFERENCE..... *DOGAMI

RECORD 00266

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0015409

NAME OF SAMPLE SOURCE... JUNTAHA WARM SPRING #2
 WELL/SPRING NUMBER..... 215/38E-17B
 LOCATION

COUNTRY.....	UNITED STATES	TOWNSHIP-RANGE	
STATE.....	OREGON	21S 038E 17	NW
COUNTY.....	MALHEUR		
GEOLOGIC PROVINCE..	32		

COORDINATES

LAT/LONG... 43-45.5 N 118-05.5 W
 UTM ZONE... +11
 NORTHING... 4845395.
 412119.

MAP REFERENCE..... BEULAH 1:62500, BURNS 1:25000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... DELLECHIE, F.
 SAMPLE NUMBER..... AMAX EXPLORATION 90215
 TEMPERATURE (C)..... 35.0
 WATER ANALYSIS

PH..... 9.7
 CHARGE IMBALANCE (% DIFF).... 68.8
 ANALYSIS IN PPM

ISOTOPES (0/00)

AG....	CO3.....	28.	LI... L	0.1		
AL....	CR.....		MG... L	0.1		
H..... L	F.....	1.3	NA... 78.		SI02.	79.
HE....	FE(TQT).		NB...		SO4..	43.
CA.... 1.v	HCO3....	76.				
CL.... 140.						
CO....	K.....	0.8				

REFERENCE AND IDENTIFICATION
 COMPILED BY..... ROWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 26
 REFERENCE..... *DOGAMI

RECORD 00267

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000725

NAME OF SAMPLE SOURCE... LUCE HOT SPRINGS
 WADING NUMBER..... 84

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 245 037E 20
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE..

LAT/LONG... 43-28.15 N 118-12.08 W
 UTM ZONE... +11
 NORTHING... 4813402.
 402826.

MAP REFERENCE..... MCEWEN BUTTE 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP
 TEMPERATURE (C)..... 63.0
 DISCHARGE..... 200. L/MIN

WATER TREATMENT..... PRESSURE - FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED
 DEPOSITS OR ALTERATION... TRACES OF CaCO3 DEPOSITED. TRACES OF GAS PRESENT.

PERTINENT LITHOLOGY..... ANDESITE IS ROCK TYPE

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 7.43
 SPECIFIC CONDUCTANCE..... 1330.
 CHARGE IMBALANCE (% DIFF).... 2.9

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG.... L	0.02	CO3..... L	1.	LI... 0.27	S....	
AL....		CR.....		MG... 0.5	SB... L	0.2
AS.... 0.04		CS..... L	0.1	MN... 0.04		
AU.... L	0.1	CU.....	0.01			
H..... 6.6		F.....	4.8	NA... 240.	SI02.	110.
HA.... L	0.1					
HE.... L	0.1	FE(TQT).	L 0.02	NB... 0.514	SO4..	290.
HI....		GA.....		NH4..	SR... 0.42	
HR.... 0.5						
CA.... 34.		HCO3....	160.			

DEL D OF WATER..... -134.0
 DEL O(18) OF WATER... -15.15

CA+MG. MG..... 0.0001 PB... L 0.06
 CD.... L 0.01 H2S..... PU4... 0.21
 CL.... 140. I..... 0.03
 CO.... L 0.05 K..... 9.7 RB... 0.04

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 23
 REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975

RECORD 00268

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0001700

NAME OF SAMPLE SOURCE... MALHEUR BUTTE SPRINGS (MAY NOT EXIST)

LOCATION TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 17S 047E 31

LAT/LONG... 42-02.7 N 117-01.2 W

STATE..... OREGON

COUNTY..... MALHEUR

GEOLOGIC PROVINCE... 33

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 75.

DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.

REFERENCE..... WARING, 1965

RECORD 00269

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0000784

NAME OF SAMPLE SOURCE... MITCHELL BUTTE HOT SPRINGS

WARING NUMBER..... 79

LOCATION TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 21S 045E 12 NE OF NE

LAT/LONG... 43-45.78 N 117-09.34 W

STATE..... OREGON

UTM ZONE... +11

COUNTY..... MALHEUR

NORTHING... 4845346.

GEOLOGIC PROVINCE... 32

487470.

M.P. REFERENCE..... MITCHELL BUTTE 1:24000; BOISE 1:250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP

TEMPERATURE (C)..... 42.0

DISCHARGE..... 40. L/MIN

WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED

DEPOSITS OR ALTERATION... TRAVERTINE

PERTINENT LITHOLOGY..... PLIOCENE CONGLOMERATE, SANDSTONE, SILTSTONE

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

P.H..... 8.69

SPECIFIC CONDUCTANCE... 559.

CHARGE IMBALANCE (% DIFF)... 4.3

ANALYSIS IN MG/L

AG.... L 0.02	CO3..... 3.	LI... 0.03	S....
AL.... 0.015	CR.....	MG... L 0.1	SB... L 0.2
AS.... L 0.01	CH..... L 0.1	MN... L 0.02	
AM.... L 0.1	CU..... L 0.01		
H.... 0.44	F..... 10.	NA... 110.	SI02. 94.
HA.... L 0.1			

ISOTOPES (0/00)

DEL D OF WATER.....	-137.3
DEL O (18) OF WATER...	-16.68

RE.... L 0.1	FE(TQT). L 0.02	NB...	S04.. 130.
RI....	GA.....	NH4.. 0.386	SR... L 0.05
RR.... 0.2			
CA.... 4.6	HCO3.... 72.		
CA+MG.	HG..... 0.0001	PB... L 0.06	
CD.... L 0.01	H2S....	PO4.. 0.12	
CL.... 28.	I..... 0.01		
CO.... L 0.05	K..... 1.6	RB... L 0.02	

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 08
 REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975

RECORD 00270

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0000687

NAME OF SAMPLE SOURCE... NEAL HOT SPRINGS

WELLING NUMBER..... 75

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 18S 043E 09 NW
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE..

LAT/LONG... 44-01.45 N 117-27.60 W
 UTM ZONE... 11
 NORTHING... 4874444.
 463134.

MAP REFERENCE..... JAMESON 1162500, BAKER 11250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP

TEMPERATURE (C)..... 87.0

DISCHARGE..... 90. L/MIN

WATER TREATMENT..... PRESSURE - FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED

DEPOSITS OR ALTERATION... SINTER, TRAVERTINE

PERTINENT LITHOLOGY..... MIOCENE? VOLCANIC FLOWS

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 7.32

SPECIFIC CONDUCTANCE..... 1010.

CHARGE IMBALANCE (% DIFF)... 4.2

ANALYSIS IN MG/L

AG.... L 0.02	CO3.... L 1.	LI... 0.3	S....
AL.... 0.008	CR.....	MG... 0.2	SB... L 0.2
AS.... 0.02	CS.... 0.1	MN... 0.06	SC... 100.
AU.... L 0.1	CU.... 0.02	NA... 190.	SI02. 100.
BA.... 4.1	F..... 9.4		
BA.... L 0.1			
HE.... L 0.1	FE(TQT). L 0.02	NB... 120.	
HI....	GA.....	NH4.. 0.16	
RR.... 0.5			
CA.... 8.8	HCO3.... 198.		
CA+MG.	HG..... 0.0001	PB... L 0.06	
CD.... L 0.01	H2S....	PO4.. 0.21	
CL.... 120.	I..... 0.06		
CO.... L 0.05	K..... 16.	RB... 0.09	

ISOTOPES (0/00)

DEL D OF WATER..... -138.7
 DEL O(18) OF WATER... -16.52
 DEL O(18) OF SO4..... -8.37

GAS ANALYSIS

ANALYSIS IN VOLUME %

CH4... 6.
 C2H6.

N2... 62.

ISOTOPES (00/01)

OTHER ANALYTICAL DATA... 02, AH=12

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... NEH-976

REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00271

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001733

NAME OF SAMPLE SOURCE... NELSON WELL

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE COORDINATES

STATE..... OREGON 18S 043E 34 LAT/LONG... 43-57.6 N 117-37.8 W

COUNTY..... MALHEUR

GEOLOGIC PROVINCE... 32

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 21.

WELL DEPTH (M)..... 58.

DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.

REFERENCE..... ROWEN AND OTHERS, 1978

RECORD 00272

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015413

NAME OF SAMPLE SOURCE... NORTH HARPER BLM WELL

WELL/SPRING NUMBER..... 19S/45E-9DB

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE COORDINATES

STATE..... OREGON 19S 045E 09 NW OF SE LAT/LONG... 43-55.76 N 117-12.72 W

COUNTY..... MALHEUR

GEOLOGIC PROVINCE... 32

MAP REFERENCE..... JAMIFSON 1162500, BAKER 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1976/06/11 BOWEN, R. G.

POINT OF COLLECTION.. WELL HEAD

TEMPERATURE (C)..... 36.0

WELL DEPTH (M)..... 212.

WATER ANALYSIS

DATE/ANALYST..... 1976/07/07 JOHNSON, ELLEN M.

pH..... 8.0

SPECIFIC CONDUCTANCE... 714.

ALKALINITY..... 157. AS CaCO3

TOTAL DISSOLVED SOLIDS... 476.

CHARGE IMBALANCE (% DIFF)... 4.3

ANALYSIS IN MG/L

AG....		CO3....		LI....	0.21
AL....	L 0.05	CR....		MG....	0.5
AS....	0.05	CS....		MN....	L 0.05
H....	0.26	F....	1.6	NA....	134.
HF....		FE(TOT)..	L 0.05	NB....	
HI....		GA....		NH4....	0.25
CA....	3.0	MC03....		N03....	0.14
CO....		H2S....		PU4....	0.13

ISOTOPES (U/D/L)

SI02..	40.
S04..	121.

CL.... 4.3
 CO.... K..... 2.2
 QUALIFICATION FIELD..... PH MEASURED IN LAB.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... ROWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 29
 REFERENCE..... *NOGAMI

RECORD 00273

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001731

NAME OF SAMPLE SOURCE... PAGE WELL
 LOCATION

TOWNSHIP-RANGE
 19S 04SE 28

COORDINATES

LAT/LONG... 43-52.5 N 117-13.8 W

COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE... 32

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 40.
 WELL DEPTH (M)..... 190.

DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... ROWEN AND OTHERS, 1978

RECORD 00274

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001730

NAME OF SAMPLE SOURCE... ROUND MTN. BLM WELL
 LOCATION

TOWNSHIP-RANGE
 31S 042E 33

COORDINATES

LAT/LONG... 42-49.2 N 117-35.4 W

COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE... 32

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 40.
 WELL DEPTH (M)..... 179.

DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... ROWEN AND OTHERS, 1978

RECORD 00275

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001727

NAME OF SAMPLE SOURCE... S. BLACK WILLOW SPRING/SNIVELY
 LOCATION

TOWNSHIP-RANGE

COORDINATES

LAT/LONG... 43-42.0 N 117-10.8 W

COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE... 32

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 25.

DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

RECORD 00276

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001739

NAME OF SAMPLE SOURCE... SAND HOLLOW OIL TEST
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 19S 044E 19
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE... 32
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 50.
 WELL DEPTH (M)..... 384.
 DISCHARGE..... L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... STEWARD AND NEWTON, 1965

COORDINATES

LAT/LONG... 43-56.6 N 117-22.5 W

RECORD 00277

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001735

NAME OF SAMPLE SOURCE... SCOTT'S SPRING
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE.. 32
 OTHER LOCALITY INFORMATION: SIX MILES SW ROME
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 20.
 DISCHARGE..... 18700. L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

COORDINATES

LAT/LONG... 42-46.8 N 117-43.2 W

RECORD 00278

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001734

NAME OF SAMPLE SOURCE... TUDORS SPRING
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 33S 039E 14
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE... 31
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 20.
 DISCHARGE..... 22700. L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

COORDINATES

LAT/LONG... 42-37.2 N 117-59.8 W

RECORD 00279

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0015979

NAME OF SAMPLE SOURCE... UNNAMED (J. SEIDER PROPERTY)
 WELL/SPRING NUMBER..... 19S-43E-30-BAC
 LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY..... UNITED STATES 19S 043E 30 SW OF NE OF NW LAT/LONG... 43-53.50 N 117-29.00 W
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE.. SNAKE RIVER BASIN
 MAP REFERENCE..... VINES HILL 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/11/24 HART, D.
 SAMPLE NUMBER..... WS79-348
 POINT OF COLLECTION.. ORIFICE
 TEMPERATURE (C)..... 82.
 AMBIENT TEMP (C)..... 18.
 DISCHARGE..... 379. L/MIN

WATER ANALYSIS
 DATE/ANALYST..... 1980/01/10 BANERJEE, KALA C.
 PH..... 8.6 AT(C) 82.
 SPECIFIC CONDUCTANCE..... 720.
 ALKALINITY..... 103. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 510.
 CHARGE IMBALANCE (% DIFF)... 5.6

ANALYSIS IN MG/L ISOTOPES (0/001)
 AG.... CO3.... LI... 0.1
 AL.... 0.06 CR.... MG... 0.04
 AS.... 0.005 CS.... MN... L 0.02
 H.... 5.3 F.... 7.0 NA... 143. SI02. 130.
 HA.... FE+3... L 0.05 NB... 504.. 78.
 HE.... FE(TOT). NO3... L 0.02
 CA.... 3.5 HCO3... PO4... 0.008
 CD.... H2S.....
 CL.... 74.
 CO.... K.... 3.1

REFERENCE AND IDENTIFICATION
 COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00280

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0000786

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING AT THREE FORKS
 WELL/SPRING NUMBER..... 45C
 LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY..... UNITED STATES 35S 045E 03 LAT/LONG... 42-32.0 N 117-10.9 W
 STATE..... OREGON UTM ZONE... 11
 COUNTY..... MALHEUR NORTHING... 4708796.
 GEOLOGIC PROVINCE.. 33 485081.
 MAP REFERENCE..... JORDAN VALLEY 1:250000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1973/08/00 BARNES GROUP
 TEMPERATURE (C)..... 34.0
 DISCHARGE..... 4000. L/MIN
 WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED.
 PERTINENT LITHOLOGY..... ROCK TYPE: BASALT
 WATER ANALYSIS

DATE/ANALYST..... 1973/00/00 BARNES GROUP

P..... 8.11

SPECIFIC CONDUCTANCE..... 338.

CHARGE IMBALANCE (% DIFF)... 1.8

ANALYSIS IN MG/L

AG.... L 0.02	CO3..... 1.	LI... 0.04	S....
AL....	CR.....	MG... 0.7	SB... L 0.2
AS....	CS..... L 0.1	MN... L 0.02	
AU.... L 0.1	CU..... L 0.01		
R..... 0.11	F..... 4.2	NA... 61.	SI02. 44.
RA.... L 0.1			
RE.... L 0.1	FE(TOT). L 0.02	NB... 34.	S04.. 34.
RI....	GA.....	NH4..	SR... 0.06
CA.... 11.	HCO3... 108.		
CA+MG.	HG.....	PB... L 0.06	
CO.... L 0.01			
CL.... 18.			
CO.... L 0.05	K..... 1.2	RH... L 0.02	

ISOTOPES (0/00)

DEL D OF WATER.....	-127.4
DEL O(18) OF WATER...	-16.09

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 18

REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975

RECORD 00281

GEO THERM SAMPLE FILE

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRING AT THREE FORKS

WELL NUMBER..... RSC

GEO THERM FILE ID# 0002239

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 35S 045E 03

STATE..... OREGON

COUNTY..... MALHEUR

GEOLOGIC PROVINCE..

MAP REFERENCE..... JORDAN VALLEY 11250000

COORDINATES

LAT/LONG... 42-32.0 N 117-10.9 W

UTM ZONE... +11

NORTHING... 4708796.

485081.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1935/07/20 WARING, G. A.

TEMPERATURE (C)..... 35.0

DISCHARGE..... 1136. L/MIN

PERTINENT LITHOLOGY..... FROM RHYOLITE BENEATH BASALT, PROBABLY TERTIARY

OTHER SAMPLE INFORMATION.. ABOUT 15 SPRINGS FOR 1/2 MILE. TOTAL FLOW=3785 LPM. TEMPERATURE RANGE 31-35 C

WATER ANALYSIS

DATE/ANALYST..... 1935/00/00 USGS

TOTAL DISSOLVED SOLIDS... 230.

ANALYSIS IN PPM

AG....	CO3..... 11.	MG... 1.6	SI02. 44.
AL....	CR.....	NA... 62.	S04.. 31.
R.....	F..... 4.9		
RE....	FE(TOT). 0.02.	NB... 31.	
CA.... 12.	HCO3... 97.	NO3.. 2.9	
CL.... 19.			

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 18

REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00282

GEOHEM FILE ID: 0000733

GEOHEM SAMPLE FILE

NAME OF SAMPLE SOURCE... INNAMED HOT SPRING NEAR McDERMITT
 WARING NUMBER..... R6

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 40S 04E 25
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE.. 31
 MAP REFERENCE..... JORDAN VALLEY 1:250000

COORDINATES

LAT/LONG... 42-04.7 N 117-45.6 W
 UTM ZONE... +11
 NORTHING... 4658539.
 437134.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP

TEMPERATURE (C)..... 52.0
 DISCHARGE..... 750. L/MIN

WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE, PORTION ACIDIFIED, DILUTED.

PERTINENT LITHOLOGY..... ROCK TYPE: BASALT

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 8.79

SPECIFIC CONDUCTANCE..... 598.

CHARGE IMBALANCE (% DIFF)... 7.1

ANALYSIS IN MG/L

AG.... L 0.02	CO3.... 13.	LI.... 0.06	S....
AL.... 0.013	CR....	MG.... L 0.1	SB.... L 0.2
AS.... 0.05	CS.... L 0.1	MN.... L 0.02	
AU.... L 0.1	CU.... L 0.01		
B.... 1.1	F.... 6.6	NA.... 130.	SI02. 72.
BA.... L 0.1			
BE.... L 0.1	FE (TOT). L 0.02	NB....	S04.. 52.
BI....	GA....	NH4.. 0.103	SR.... L 0.05
BR.... 0.4			
CA.... 0.6	HCO3'.... 237.		
CA+MG.	MG.... 0.0001	PB.... L 0.06	
CD.... L 0.01	H2S....	PO4.. 0.06	
CL.... 14.	I.... 0.008		
CO.... L 0.05	K.... 1.0	RB.... L 0.02	

ISOTOPES (0/00)

DEL D OF WATER..... -134.6
 DEL O(18) OF WATER... -16.95

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 19
 REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975

RECORD 00283

GEOHEM FILE ID: 0002238

GEOHEM SAMPLE FILE

NAME OF SAMPLE SOURCE... INNAMED HOT SPRING NEAR McDERMITT
 WARING NUMBER..... R6

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 40S 04E 25
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... JORDAN VALLEY 1:250000

COORDINATES

LAT/LONG... 42-04.7 N 117-45.6 W
 UTM ZONE... +11
 NORTHING... 4658539.
 437134.

OTHER LOCALITY INFORMATION: SEVERAL MILES NORTH OF McDERMITT AND 1 MILE WEST OF HIGHWAY

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1957/05/17 WHITE, DON
 SAMPLE NUMBER..... LAR# 356
 TEMPERATURE (C)..... 53.5
 DISCHARGE..... 1514. L/MIN
 PERTINENT LITHOLOGY..... FROM ALLUVIUM, PROVABLY ON TERTIARY LAKE

WATER ANALYSIS

DATE/ANALYST..... 1958/03/24 WHITEHEAD AND SCHUCH
 PH..... 9.2
 SPECIFIC CONDUCTANCE..... 604.
 TOTAL DISSOLVED SOLIDS... 426.
 CHARGE IMBALANCE (% DIFF)... 1.5

ANALYSIS IN PPM

AG....		CO3....	43.	LI... N			
AL....		CH....		MG... N			
H....	0.7	F....	7.0	NA... 135.	SI02..	90.	
HE....		FE(TOT)...		NB... 504..		46.	
CA....	1.2	HCO3....	176.	NO3.. N			
CL....	15.						
CO....		K.....	1.8				

ISOTOPES (0/00)REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 19
 REFERENCE..... MARINER AND OTHERS, 1980

RECORD 00284

GEO THERM SAMPLE FILE

NAME OF SAMPLE SOURCE... UNNAMED HOT SPRINGS NEAR LITTLE VALLEY
 WELPING NUMBER..... 76

GEO THERM FILE ID: 0000721

LOCATION

COUNTRY..... UNITED STATES 19S 043E 30 NW
 STATE..... OREGON
 COUNTY..... MALHEUR

COORDINATES

LAT/LONG... 43-53.48 N 117-30.00 W
 UTM ZONE... 11
 NORTHING... 4859709.
 459839.

M.P. REFERENCE..... HARPER J162500, BOISE 1:250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1973/00/00 BARNES GROUP
 TEMPERATURE (C)..... 70.0
 DISCHARGE..... 550. L/MIN
 WATER TREATMENT..... PRESSURE - FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED
 DEPOSITS OR ALTERATION... TRAVERTINE, SINTER
 PERTINENT LITHOLOGY..... BASALT AND ANDESITE

WATER ANALYSIS

DATE/ANALYST..... 1973/00/00 BARNES GROUP
 PH..... 8.71
 SPECIFIC CONDUCTANCE..... 740.
 CHARGE IMBALANCE (% DIFF)... 5.2

ANALYSIS IN MG/L

AG.... L 0.02	CO3....	1.	LI... 0.11	S....		
AL....	CH....		MG... L 0.05	SO... L 0.2		
AS....	CS.... L 0.1		MN... L 0.02	SC... L 0.2		
AU.... L 0.1	CU.... L 0.01					
R.... 4.7	F..... 6.8		NA... 160.	SI02.. 115.		
RA.... L 0.1						

ISOTOPES (0/00)

DEL D OF WATER..... -139.7
 DEL O(18) OF WATER... -16.52
 DEL O(18) OF SO4..... -8.63

HE.... L 0.1	FE(TQT). L 0.02	NB...	S04.. 110.
HI....	GA.....	NH4..	SR... L 0.05
CA.... 3.2	HCO3.... 127.		
CA+MG.	HG..... 0.0007	PB... L 0.06	
CD.... L 0.01			
CL.... 74.			
CO.... L 0.05	K..... 3.2	RB... 0.02	

REFERENCE AND IDENTIFICATION
 COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 06
 REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00285

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0001738

NAME OF SAMPLE SOURCE... UNNAMED SPRING
 LOCATION TOWNSHIP=RANGE
 COUNTRY..... UNITED STATES 27S 043E 18
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE... 32
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 50.
 DISCHARGE..... 19. L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

COORDINATES

LAT/LONG... 43-18.0 N 117-22.5 W

RECORD 00286

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0001737

NAME OF SAMPLE SOURCE... UNNAMED SPRING
 LOCATION TOWNSHIP=RANGE
 COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE.. 32
 OTHER LOCALITY INFORMATION: FOUR MILES NE SADDLE BUTTE
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 50.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... RUSSELL, 1965

COORDINATES

LAT/LONG... 43-06.9 N 117-52.8 W

RECORD 00287

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015414

NAME OF SAMPLE SOURCE... UNNAMED WARM SPRING NEAR BULLY CREEK
 WELL/SPRING NUMBER..... 185/43E-40A
 LOCATION TOWNSHIP=RANGE
 COUNTRY..... UNITED STATES 18S 043E 04 NE OF SE
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... JAMIFSON 1162500, HOISE 1:250000

COORDINATES

LAT/LONG... 44-01.95 N 117-26.95 W
 UTM ZONE... 11
 NORTHING... 4875364.
 464007.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1977/06/24 BOWEN, R.
 TEMPERATURE (C)..... 37.0
 DISCHARGE..... 76. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1977/11/29 BANERJEE, KALA C.
 PH..... 7.8 AT(C) 35.
 SPECIFIC CONDUCTANCE..... 115.
 ALKALINITY..... 37. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 181.
 CHARGE IMBALANCE (% DIFF)... 118.5

ANALYSIS IN MG/L

AG....		CO3....		LI....	0.04		
AL....	0.28	CR....		MG....	15.		
AS....	0.02	CS....		MN....	0.05		
R....	0.15	F....	0.7	NA....	1.4	SI02..	99.
HF....		FE(TOT)..	0.4	NB....		S04..	1.0
HI....		GA....		NH4..	0.28		
CA....	37.	HCO3....		NO3..	0.06		
CL....	0.5						
CO....		K....	0.4				

ISOTOPES (0/001)

OTHER ANALYTICAL DATA... CO2 PRESENT

REFERENCE AND IDENTIFICATION

COMPILED BY..... BOWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 30
 REFERENCE..... *DOGAMI

RECORD 00288

GEOHERM SAMPLE FILE

GEOHERM FILE ID# 0000685

NAME OF SAMPLE SOURCE... VALE HOT SPRINGS
 KGRA..... VALE HOT SPRINGS
 WSPRING NUMBER..... 77

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 18S 04SE 20 SW OF SE
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 43-58.96 N 117-13.98 W
 UTM ZONE... +11
 NORTHING... 4869758.
 481313.

MSP REFERENCE..... VALE EAST 1124000, BOISE 11250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/00/00 BARNES GROUP
 TEMPERATURE (C)..... 73.0

WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED

WATER ANALYSIS

DATE/ANALYST..... 1974/00/00 BARNES GROUP
 PH..... 7.47
 SPECIFIC CONDUCTANCE..... 1530.
 ALKALINITY..... 143. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

AG....	L 0.02	CO3....		LI....	0.28	S....	
AL....	0.017	CR....		MG....	0.8	SB....	L 0.2
AS....		CS....	L 0.1	MN....	0.04	SC....	
AU....	L 0.1	CU....	L 0.01				
R....	9.4	F....	6.1	NA....	310.	SI02..	130.

ISOTOPES (0/001)

DEL D OF WATER..... -135.0
 DEL O(18) OF WATER... -15.18
 DEL O(18) OF S04..... -6.56

HA.... L 0.1
 HE.... L 0.1 FE(TOT). L 0.02 NB... S04.. 100.
 HI.... GA..... NH4.. 1.0
 CA.... 19. HCO3... 143. PB... L 0.06
 CA-MG. MG.....
 CD.... L 0.01
 CL.... 360.
 CO.... L 0.05 K..... 16. RB... 0.09

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 05
 REFERENCE..... MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00289

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0003002

NAME OF SAMPLE SOURCE... VALE HOT SPRINGS
 WARPING NUMBER..... 77

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 185 045E 20 SW OF SE
 STATE..... OREGON 66M WILLAMETTE
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... VALE EAST 1124000
 LAT/LONG... 43-58.96 N 117-13.98 W
 UTM ZONE... +11
 NORTHING... 4869762.
 479977.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/08/07
 TEMPERATURE (C)..... 90.

WATER ANALYSIS

ANALYSIS IN MG/L

ISOTOPES (0/100)

AL.... CR..... MG... SB...
 AS.... CS..... MN... SC...
 HE.... FE(TOT). NB... S04.. 112.
 DEL 0(18) OF WATER... -15.00
 DEL 0(18) OF S04..... -3.91

CL.... 350.

REFERENCE AND IDENTIFICATION

COMPILED BY..... SWANSON, JAMES R.
 COMPILER AFFILIATION... U. S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 05
 REFERENCE..... NEHRING AND OTHERS, 1979

RECORD 00290

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0001729

NAME OF SAMPLE SOURCE... VALE WELL

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 195 045E 09
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE.. 32
 LAT/LONG... 43-55.2 N 117-13.2 W

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 40.
 WELL DEPTH (M)..... 212.

DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... BOWEN AND OTHERS, 1978

RECORD 00291

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... VINES HILL BLM WELL
 LOCATION TOWNSHIP=RANGE
 COUNTRY..... UNITED STATES 19S 043E 22
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE... 32
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 40.
 WELL DEPTH (M)..... 219.
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... ROWEN AND OTHERS, 1978

GEOTHERM FILE ID: 0001726

COORDINATES
 LAT/LONG... 43-54.3 N 117-25.8 W

RECORD 00292

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... WHITEHORSE RANCH WELL
 LOCATION TOWNSHIP=RANGE
 COUNTRY..... UNITED STATES 37S 037E 31
 STATE..... OREGON
 COUNTY..... MALHEUR
 GEOLOGIC PROVINCE... 31
 SAMPLE DESCRIPTION AND CONDITIONS
 TEMPERATURE (C)..... 32.
 WELL DEPTH (M)..... 396.
 DISCHARGE..... L/MIN
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... ROWEN AND OTHERS, 1978

GEOTHERM FILE ID: 0001732

COORDINATES
 LAT/LONG... 42-18.0 N 118-12.6 W

RECORD 00293

 GEOTHERM SAMPLE FILE
 NAME OF SAMPLE SOURCE... BREITENBUSH HOT SPRINGS
 AREA..... BREITENBUSH HOT SPRINGS
 WELL/SPRING NUMBER..... 9S-7E-20-A
 LOCATION TOWNSHIP=RANGE
 COUNTRY..... UNITED STATES 09S 007E 20 NE
 STATE..... OREGON
 COUNTY..... MARION
 GEOLOGIC PROVINCE... WESTERN CASCADES
 MAP REFERENCE..... BREITENBUSH HOT SPRINGS 1162500
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/08/27 HARTLEY, GEORGE W.
 SAMPLE NUMBER..... W579-271
 POINT OF COLLECTION.. PIPE LEADING FROM SPRING.
 TEMPERATURE (C)..... 98.
 AMBIENT TEMP (C)..... 19.
 WATER ANALYSIS
 DATE/ANALYST..... 1979/10/02 BANERJEE, KALA C.
 PH..... 8.0 AT(C) 98.
 SPECIFIC CONDUCTANCE..... 4110.

GEOTHERM FILE ID: 0015972

COORDINATES
 LAT/LONG... 44-46.87 N 121-58.5 W

ALKALINITY..... 116. AS CAC03
 TOTAL DISSOLVED SOLIDS... 2463.
 CHARGE IMBALANCE (% DIFF)... 10.0

ANALYSIS IN MG/L

AG....		CO3.....		LI....	1.8				
AL....	L 0.1	CR.....		MG....	1.5				
AS....	0.38	CS.....		MN....	L 0.02				
R.....	4.6	F.....	3.9	NA....	651.	SI02..	175.		
HE....		FE(TQT)..	0.36	NB....		S04..	126.		
CA....	103.	HCO3.....		NO3..	0.57				
CD....		H2S.....		PO4..	0.172				
CL....	1160.								

ISOTOPES (0/00)

CO..... K..... 16.
 REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIU, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, UNPUBLISHED DATA

RECORD 00294

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0000701

NAME OF SAMPLE SOURCE... BREITENBUSH HOT SPRINGS
 LOCALITY..... BREITENBUSH HOT SPRINGS
 LOCATION TOWNSHIP-RANGE
 COUNTRY..... UNITED STATES 09S 007E 20 NE
 STATE..... OREGON
 COUNTY..... MARION
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 44-46.86 N 121-58.54 W
 UTM ZONE... +10
 NORTING... 4958916.
 581043.

MAP REFERENCE..... BREITENBUSH HOT SPRINGS 1:62500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP
 TEMPERATURE (C)..... 92.0
 DISCHARGE..... 3400. L/MIN
 WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED
 DEPOSITS OR ALTERATION... TRAVERTINE
 PERTINENT LITHOLOGY..... ROCK TYPE: ANDESITE

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP
 PH..... 7.31
 SPECIFIC CONDUCTANCE..... 4030.
 CHARGE IMBALANCE (% DIFF)... 11.7

ANALYSIS IN MG/L

AG....	L 0.02	CO3.....	L 1.	LI....	1.8	S....			
AL....		CR.....		MG....	1.3	S8....	L 0.2		
AS....	0.51	CS.....	0.1	MN....	0.22	SC....			
AU....	L 0.1	CU.....	0.01	NA....	720.	SI02..	83.		
R.....	4.1	F.....	3.4	NB....		S04..	140.		
HA....	L 0.1	FE(TQT)..	0.02	NH4..		SR....	0.73		
HE....	L 0.1	GA.....							
HI....									
HR....	5.	HCO3.....	142.	PH....	L 0.06				
CA....	100.	HI.....	0.0002	PO4..	0.25				
CA+MG.		H2S.....							
CD....	L 0.01	I.....	0.1						
CL....	1300.	K.....	31.	RB....	0.18				
CO....	L 0.05								

ISOTOPES (0/00)

DEL D OF WATER..... -97.5
 DEL D(18) OF WATER... -11.66
 DEL O(18) OF S04..... -2.67

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 01
 REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975; NEHRING AND OTHERS, 1979

RECORD 00295

GEOTHERM FILE ID: 0015445

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... BREITENBUSH HOT SPRINGS - WELL
 KGRA..... BREITENBUSH HOT SPRINGS
 WELL/SPRING NUMBER..... 9S/7E-20A
 MAPPING NUMBER..... 06

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 09S 007E 20 NE
 STATE..... OREGON
 COUNTY..... MARION
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 44-46.86 N 121-58.54 W
 UTM ZONE... +10
 NORTHING... 4958916.
 581043.

M.P. REFERENCE..... BREITENBUSH HOT SPRINGS 1:62500

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1978/02/23 BOWEN, M.
 SAMPLE NUMBER..... ORE DEPT. ENV. QUAL WS 78-032
 POINT OF COLLECTION.. WELL HEAD
 TEMPERATURE (C)..... 110.0

OTHER SAMPLE INFORMATION.. WELL GEYSERING

WATER ANALYSIS

DATE/ANALYST..... 1978/03/16 BANERJEE, KALA C.

P_H..... 8.5
 ALKALINITY..... 72. AS CaCO₃
 TOTAL DISSOLVED SOLIDS... 2439.
 CHARGE IMBALANCE (% DIFF)... 2.5

ANALYSIS IN MG/L

AG....	CO ₃	LI... 1.9			
AL....	CR....	MG... 1.3	SB...		
AS.... 0.54	CS....	MN...	SC...		
R.... 5.4	F.... 4.0	NA... 690.	SI02. 0.182.		
HE....	FE(TOT).	NH...	SO4... 96.		
CA.... 90.					
CL.... 1170.					
CO....	K..... 34.				

ISOTOPIES (0/00)

DEL 0(18) OF WATER... -12.59
 DEL 0(18) OF SO₄..... -3.28

QUALIFICATION FIELD..... SI02 ANALYSIS MADE ON 10 ML WELL WATER, 50 ML DEMINERALIZED WATER

REFERENCE AND IDENTIFICATION

COMPILED BY..... BOWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 01
 REFERENCE..... *DOGAMI

RECORD 00296

GEOTHERM FILE ID: 0003072

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... BREITENBUSH WELL NO. 3
 KGRA..... BREITENBUSH
 WELL/SPRING NUMBER..... 9S-07E-020-AA

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 09S 007E 20 NE OF NE
 STATE..... OREGON
 NAME WILLAMETTE

COORDINATES

LAT/LONG... 44-46.93 N 121-58.35 W

COUNTY..... MARION
 GEOLOGIC PROVINCE.. CASCADES
 MAP REFERENCE..... BREITENBUSH HOT SPRINGS, ORE. 1162500
SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1980/04/29 BLACK, GERALD
 SAMPLE NUMBER..... WSAU-108
 POINT OF COLLECTION.. WEILHEAD
 TEMPERATURE (C)..... 74.
 AMBIENT TEMP (C)..... 11.
 WELL DEPTH (M)..... 310.
 GRADIENT (C/KM)..... 123.
 DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS
 DATE/ANALYST..... 1980/06/16 BANERJEE, KALA C.
 PH..... 7.6
 SPECIFIC CONDUCTANCE..... 3480.0
 ALKALINITY..... 145. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 2487.
 CHARGE IMBALANCE (% DIFF)... 8.7

ANALYSIS IN MU/L

AG.....	CO3.....	LI.....	2.0		
AL..... 1.8	CR.....	MG.....	0.7		
AS..... 0.554	CS.....	MN.....	0.34		
H..... 4.5	F..... 3.7	NA.....	675.	5102.	133.
HE.....	FE(TOT). 3.4	NB.....		504..	129.
CA..... 106.	H2S.....	PO4..	0.108		
CL..... 1070.	K..... 165.				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OOGAMI
 REFERENCE..... *OOGAMI IN-HOUSE STUDIES. DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00297

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0001708

NAME OF SAMPLE SOURCE... WELLS SPRING (WELL)
LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE U2N 02SE 28
 STATE..... OREGON
 COUNTY..... MORROW

COORDINATES

LAT/LONG... 45-37.8 N 119-48.0 W

GEOLOGIC PROVINCE... 29
SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 27.
 DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WAGNER, 1959

RECORD 00298

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000296

NAME OF SAMPLE SOURCE... CAMP COLLINS WARM SPRINGS (WELL)
LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE U1S 004E 10 NW

COORDINATES

LAT/LONG... 45-30.2 N 122-18.3 W

STATE..... OREGON
 COUNTY..... MULTNOMAH
 GEOLOGIC PROVINCE.. 30
 MAP REFERENCE..... WASHOUGAL 1124000
 OTHER LOCALITY INFORMATION: YMCA WATER SUPPLY WELL
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1980/08/07 MARINER, R., AND EVANS, W.
 SAMPLE NUMBER..... GT30RMB0
 TEMPERATURE (C)..... 29.

WATER ANALYSIS

DATE/ANALYST..... 1981/02 BARNES GROUP
 PH..... 8.57
 SPECIFIC CONDUCTANCE..... 518.
 ALKALINITY..... 122. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 2.9

ANALYSIS IN MG/L

AL....	CR.....	MG....	0.21		
H..... L 1.	F.....	NA....	100.	SI02.	61.
HF....	FE(TOT).....	NB....		SO4..	L 1.
CA.... 5.4	HCO3.....		122.		
CO....	H2S.....		L 1.		
CL.... 91.					
CO....	K.....		9.5		

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... LIEB, RANDY
 COMPILER AFFILIATION... USGS
 REFERENCE..... *MARINER, R., USGS, MENLO PARK

RECORD 00299

GEO THERM SAMPLE FILE

GEO THERM FILE 101 0015415

NAME OF SAMPLE SOURCE... CORBETT WARM SPRING
 WELL/SPRING NUMBER..... 1N/4E-270A

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 01N 004E 27 NE OF SE
 STATE..... OREGON
 COUNTY..... MULTNOMAH
 GEOLOGIC PROVINCE..

LAT/LONG... 45-32.5 N 122-17.5 W
 UTM ZONE... +10
 NORTHING... 5043152.
 555301.

MAP REFERENCE..... WASHOUGAL 1124000; VANCOUVER 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... MULL, D.
 SAMPLE NUMBER..... ORE DEU 45-75-103
 TEMPERATURE (C)..... 18.0
 DISCHARGE..... 76. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1975/06/16 L. W. S.
 PH..... 8.2
 SPECIFIC CONDUCTANCE..... 570.
 ALKALINITY..... 104. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 327.
 CHARGE IMBALANCE (% DIFF)... 13.2

ANALYSIS IN MG/L

AG....	CO3.....	LI....	0.03		
AL.... 0.16	CR.....	MG....	0.8		
AS.... 0.12	CS.....	MN....	0.1		
H..... 1.2	F.....	NA....	86.	SI02.	44.

ISOTOPES (0/00)

HF....	FE(TQT)...	0.2	NB...	S04..	5.9
HI....	GA.....		NH4..	0.01	
CA.... 22.	HCO3.....		NO3..	0.01	
CO....	H2S.....		PO4..	0.05	
CL.... 77.					
CO....	K.....	8.9			

QUALIFICATION FIELD..... PH MEASURED IN LAB

REFERENCE AND IDENTIFICATION

COMPILED BY..... BOWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 01
 REFERENCE..... *DOGAMI

RECORD 00300

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015416

NAME OF SAMPLE SOURCE... YMCA CAMP COLLINS

WELL/SPRING NUMBER..... 15/4E-108B

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 01S 004E 10 NW OF NW
 STATE..... OREGON
 COUNTY..... MULTNOMAH
 GEOLOGIC PROVINCE..

LAT/LONG... 45-30.2 N 122-18.3 W
 UTM ZONE... +10
 NORTHING... 5038884.
 554297.

MAP REFERENCE..... WASHOUGAL 1:24000, VANCOUVER 1:250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1956/09/02
 SAMPLE NUMBER..... 436 IN NEWCOMB, 1972
 TEMPERATURE (C)..... 23.3
 WELL DEPTH (M)..... 94.

OTHER SAMPLE INFORMATION.. WATER BEARING ZONE 309-310'

WATER ANALYSIS

PH..... 8.6
 SPECIFIC CONDUCTANCE... 517.
 TOTAL DISSOLVED SOLIDS... 326.
 CHARGE IMBALANCE (% DIFF)... 133.8

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....	CO3.....	5.0	MG...	0.2		
AL....	CR.....		NA...	10.	S102.	60.
H.... 0.38	F.....	3.2	NB...		S04..	1.2
HE....	FE(TQT)...	0.06	NO3..	0.5		
CA.... 5.2	HCO3.....	114.				
CL.... 92.						
CO....	K.....	9.6				

REFERENCE AND IDENTIFICATION

COMPILED BY..... BOWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 02
 REFERENCE..... NEWCOMB, 1972

RECORD 00301

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015347

NAME OF SAMPLE SOURCE... RINGHAM SPRINGS

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 03N 037E 18 SE OF NE
 STATE..... OREGON

LAT/LONG... 45-44.47 N 118-13.96 W
 UTM ZONE... +11

COUNTY..... UMATILLA
 GEOLOGIC PROVINCE... 29
 M.P. REFERENCE..... BINGHAM SPRINGS 1124000, PENDLETON 11250000

NORTHING... 5065811.
 404105.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1954/04/01
 TEMPERATURE (C)..... 34.4
 DISCHARGE..... 122. L/MIN
 WATER ANALYSIS

PH..... 8.6
 SPECIFIC CONDUCTANCE..... 765.
 TOTAL DISSOLVED SOLIDS..... 464.
 CHARGE IMBALANCE (% DIFF)... 0.2

ANALYSIS IN PPM

AG....	CO3....	9.0			
AL....	CR....		MG...	3.5	
HA....	10.	F....	4.0	NA...	133.
HF....	14.	FE(TOT)...	0.2	SI02.	68.
CA....	14.	HCO3....	64.	NO3...	0.2
CD....		H2S.....		PO4..	0.2
CL....	192.				
CO....		K.....	7.6		

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... ROWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 01
 REFERENCE..... HOGENSON, 1964

RECORD 00302

GEO THERM SAMPLE FILE

GEOTHERM FILE ID: 0001711

NAME OF SAMPLE SOURCE... CITY OF HERMISTON WELL
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... UMATILLA
 GEOLOGIC PROVINCE... 29

COORDINATES

LAT/LONG... 45-49.8 N 119-18.0 W

NAME OF SAMPLE SOURCE... CITY OF HERMISTON WELL
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... UMATILLA
 GEOLOGIC PROVINCE... 29

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 24.
 WELL DEPTH (M)..... 150.
 DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WAGNER, 1959

RECORD 00303

GEO THERM SAMPLE FILE

GEOTHERM FILE ID: 0001709

NAME OF SAMPLE SOURCE... MIDAWAY SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... UMATILLA
 GEOLOGIC PROVINCE... 29

COORDINATES

LAT/LONG... 45-07.8 N 118-43.8 W

NAME OF SAMPLE SOURCE... MIDAWAY SPRINGS
 LOCATION
 COUNTRY..... UNITED STATES
 STATE..... OREGON
 COUNTY..... UMATILLA
 GEOLOGIC PROVINCE... 29

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 34.
 DISCHARGE..... 565. L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... WARING, 1965

RECORD 00304

GEO THERM SAMPLE FILE

GEO THERM FILE ID# 0000785

NAME OF SAMPLE SOURCE... LEHMAN SPRINGS

WARING NUMBER..... 08

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 05S 03E 12 NW OF SE NE

STATE..... OREGON

COUNTY..... UMATILLA

GEOLOGIC PROVINCE.. 29

COORDINATES

LAT/LONG... 45-09.06 N 118-39.55 W

UTM ZONE... +11

NORTHING... 5000847.
369572.

MAP REFERENCE..... LEHMAN SPRINGS 1:24000; PENLETON 1:250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP

TEMPERATURE (C)..... 61.0

DISCHARGE..... 275. L/MIN

WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED

DEPOSITS OR ALTERATION... TRAVERTINE

PERTINENT LITHOLOGY..... ROCK TYPE: ANDESITE

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 9.18

SPECIFIC CONDUCTANCE..... 252.

CHARGE IMBALANCE (% DIFF)... 6.9

ANALYSIS IN MG/L

AG.... L 0.02	CO3..... 11.	LI... 0.03	S....
AL....	CR.....	HG... 0.1	SB... L 0.2
AS.... 0.02	CS..... L 0.1	MN... L 0.02	
AU.... L 0.1	CU..... L 0.01	NA... 53.	SI02. 44.
H.... 0.12	F..... 2.1	NB... 23.	SR... L 0.05
HA.... L 0.1	FE(TQT). L 0.02	NH4..	
HE.... L 0.1	GA.....		
HI....			
HR.... 0.006	HCO3..... 88.		
CA.... 0.9	HG..... 0.0003	PB... L 0.06	
CA+MG.	H2S.....	PO4.. 0.12	
CD.... L 0.01	I..... 0.001		
CL.... 5.4	K..... 0.7	RB... L 0.02	
CO.... L 0.05			

ISOTOPES (0/00)

DEL D OF WATER..... -121.3
 DEL O(18) OF WATER... -16.52

GAS ANALYSIS

ANALYSIS IN VOLUME %

CH4.. L 0.1
 C2H6.
 CO2.. L 0.1
 N2... 94.

ISOTOPES (00/0)

OTHER ANALYTICAL DATA... 02-AH=4

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... NEM-971

REFERENCE..... MARINER AND OTHERS, 1974; MARINER AND OTHERS, 1975

RECORD 00305

GEOTHERM FILE ID: 0001710

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... WELL

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE COORDINATES
 STATE..... OREGON 05N 035E 05 LAT/LONG... 45-56.4 N 118-27.6 W
 COUNTY..... UMATILLA
 GEOLOGIC PROVINCE... 29

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 24.
 WELL DEPTH (M)..... 174.
 DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... NEWCOMB, 1972

RECORD 00306

GEOTHERM FILE ID: 000179

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... BAKER WARM SPRING (CHUCK BENNETT WARM SPRING)

KARA..... LE GRANDE
 WELL/SPRING NUMBER..... 045-40E-021-CH

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE COORDINATES
 STATE..... OREGON 04S 040E 21 NW OF SW LAT/LONG... 45-18.0 N 117-49.5 W
 COUNTY..... UNION
 GEOLOGIC PROVINCE... 29

MAP REFERENCE..... UNION, ORE. 112400

OTHER LOCALITY INFORMATION: ELEVATION = 900 METERS.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/07/00
 SAMPLE NUMBER..... 768
 TEMPERATURE (C)..... 26.0
 DISCHARGE..... 11. L/MIN

PERTINENT LITHOLOGY..... REGIONAL STRATIGRAPHY IS CHARACTERIZED BY A PALEOZOIC-MESOZOIC BASEMENT OF METASEDIMENTARY, METAVOLCANIC AND INTRUSIVE IGNEOUS ROCKS WHICH ARE OVERLAIN BY CONTINENTAL SEDIMENTARY AND VOLCANIC ROCKS OF EOCENE THROUGH PLEISTOCENE AGE.

WATER ANALYSIS

PH..... 7.89
 TOTAL DISSOLVED SOLIDS... 292.
 CHARGE IMBALANCE (% DIFF)... 14.0

ANALYSIS IN MG/L

AG.....	CO ₃	L 1.0	LI... L 0.01		
AL.....	CR.....		MG... L 0.1		
H..... L 1.0	F.....	0.5	NA... 62.	SI02, 54.	
HE.....	FE(TOT).....		NB... 504..	10.	
CA..... 2.0	HCO ₃	136.			
CL..... 27.					
CO.....	K.....	0.3			

ISOTOPIES (0/00)

OTHER ANALYTICAL DATA... T SI02 (QUARTZ) =138.01 T NA/K =-15.01 T NA-K-CA =35.0, ALL VALUES ARE DEGREES C.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERS, SANDRA K.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... DELLECHATE, 1978

RECORD 00307

GEOHERM FILE ID: 0000177

GEOHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... BARSTAD HOT WELL
 KGRA..... LE GRANDE
 WELL/SPRING NUMBER..... 045-39E-005-DA
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE NE OF SE
 STATE..... OREGON 04S 039E 05
 COUNTY..... UNION
 MAP REFERENCE..... CRAIG MOUNTAIN, ORE. 1124000
 OTHER LOCALITY INFORMATION: ELEVATION = 900 METERS.

COORDINATES

LAT/LONG... 45-13.6 N 117-57.3 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/07/00
 SAMPLE NUMBER..... 714
 TEMPERATURE (C)..... 81.5
 DISCHARGE..... 378. L/MIN
 PERTINENT LITHOLOGY..... REGIONAL STRATIGRAPHY IS CHARACTERIZED BY A PALEOZOIC-MESOZOIC SEQUENCE OF METASEDIMENTARY, METAVOLCANIC AND INTRUSIVE IGNEOUS ROCKS WHICH ARE OVERLAIN BY CONTINENTAL SEDIMENTARY AND VOLCANIC ROCKS OF EUCENE THROUGH PLEISTOCENE AGE.

WATER ANALYSIS

PH..... 9.31
 TOTAL DISSOLVED SOLIDS... 528.
 CHARGE IMBALANCE (% DIFF)... 7.9

ANALYSIS IN MG/L

AG....	CO3....	8.6	LI....	0.03		
AL....	CR....		MG....	0.1		
B....	F....	2.4	NA....	136.	SiO2.	107.
BR....	FE(TOT)...		NH....		SO4..	60.
CA....	HCO3....	69.				
CL....						
CO....	K.....	2.5				

ISOTOPES (0/00)

OTHER ANALYTICAL DATA... T SiO2 (QUARTZ) = 141.01 T NA/K = 46.01 T NA-K-CA = 99.0. ALL VALUES ARE DEGREES C.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERS, SANDRA K.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... BELLECHATE, 1978

RECORD 00308

GEOHERM FILE ID: 0000186

GEOHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... BENNETT WARM SPRING
 KGRA..... LE GRANDE
 WELL/SPRING NUMBER..... 045-40E-020-AD
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE SE OF NE
 STATE..... OREGON 04S 040E 20
 COUNTY..... UNION
 GEOLOGIC PROVINCE... 29
 MAP REFERENCE..... UNION, ORE. 1124000
 OTHER LOCALITY INFORMATION: ELEVATION = 900 METERS.

COORDINATES

LAT/LONG... 45-12.00 N 117-49.83 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/01/01
 SAMPLE NUMBER..... 766
 TEMPERATURE (C)..... 27.0

DISCHARGE..... 39. L/MIN
 PERTINENT LITHOLOGY..... REGIONAL STRATIGRAPHY IS CHARACTERIZED BY A PALEOZOIC-MESOZOIC SEQUENCE OF
 METASEDIMENTARY, METAVOLCANIC AND INTRUSIVE IGNEOUS ROCKS WHICH ARE OVERLAIN BY CONTINENTAL SEDIMENTARY AND
 VOLCANIC ROCKS OF EOCENE THROUGH PLEISTOCENE AGE.

WATER ANALYSIS

PH..... 8.7
 TOTAL DISSOLVED SOLIDS.... 333.
 CHARGE IMBALANCE (% DIFF)... 61.8
 ANALYSIS IN MG/L

ISOTOPES (D/001)

AG....	CO3.....	42.	LI... L	0.01		
AL....	CR.....		MG... L	0.1		
H..... L	F.....	0.4	NA... 56.	SI02.	61.	
HF....	FE(TOT).		NB... 56.	S04..	15.	
CA.... 0.8	HCO3....	121.				
CL.... 36.						
CO....	K.....	0.9				

OTHER ANALYTICAL DATA... T SI02 (QUARTZ) =111.01 T NA/K =38.01 T NA-K-CA =84.0; ALL VALUES ARE DEGREES C.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERS, SANDRA K.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... DELLECHATE, 1978

RECORD 00309

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0001707

NAME OF SAMPLE SOURCE... CLAYTON FOX WELL

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 01S 039E 20
 STATE..... OREGON
 COUNTY..... UNION

LAT/LONG... 45-28.2 N 117-58.2 W

GEOLOGIC PROVINCE... 29

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 27.
 WELL DEPTH (M)..... 447.

DISCHARGE..... L/MIN

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.
 REFERENCE..... BOWEN AND OTHERS, 1978

RECORD 00310

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0003084

NAME OF SAMPLE SOURCE... COURTWRIGHT WELL

WELL/SPRING NUMBER..... 45-39E-005-0A

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 04S 039E 05 NE OF SE
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... UNION
 GEOLOGIC PROVINCE... 29

LAT/LONG... 45-14.037N 117-57.004W

MAP REFERENCE..... CRAIG MOUNTAIN, ORE. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/04/01 BLACK, GERALD
 SAMPLE NUMBER..... WSAU-064
 POINT OF COLLECTION.. WEILMEAD OVERFLOW
 TEMPERATURE (C)..... 67.
 AMBIENT TEMP (C)..... 10.

DISCHARGE..... 76. L/MIN
 WATER ANALYSIS
 DATE/ANALYST..... 1980/05/09 BANERJEE, KALA C.
 P..... 9.4
 SPECIFIC CONDUCTANCE..... 725.
 ALKALINITY..... 65. AS CAC03
 TOTAL DISSOLVED SOLIDS... 47J.
 CHARGE IMBALANCE (% DIFF)... 6.8

ANALYSIS IN MG/L

AG....		CO3....		LI... L	0.1		
AL....	0.14	CR....		MG... L	0.1		
AS....	0.009	CS....		MN... L	0.05		
H....	2.9	F.....	1.6	NA... L	145.6	SI02.	83.
HF....		FE(TOT). L	0.05	NB...		SO4..	47.5
CA....	4.4						
CO....		H2S.....		PO4..	0.009		
CL....	135.						
CO....		K.....	2.6				

ISOTOPES (O/D01)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00311

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0003080

NAME OF SAMPLE SOURCE... COVE BATH HOUSE
 WELL/SPRING NUMBER..... 35-40E-022-HB

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 03S 040E 22 NW OF NW
 STATE..... OREGON 65MI WILLAMETTE
 COUNTY..... UNION
 GEOLOGIC PROVINCE.. BLUE MOUNTAINS

LAT/LONG... 45-17.037N 117-48.019W

MAP REFERENCE..... COVE, ORE. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/04/01 BLACK, GERALD
 SAMPLE NUMBER..... WSA0-069
 POINT OF COLLECTION.. ORIFICE
 TEMPERATURE (C)..... 28.8
 AMBIENT TEMP (C)..... 10.
 DISCHARGE..... 7.6 L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/05/13 BANERJEE, KALA C.
 P..... 9.6
 SPECIFIC CONDUCTANCE..... 149.
 ALKALINITY..... 50. AS CAC03
 TOTAL DISSOLVED SOLIDS... 110.
 CHARGE IMBALANCE (% DIFF)... 1.6

ANALYSIS IN MG/L

AG....		CO3....		LI... L	0.1		
AL....	0.24	CR....		MG... L	0.1		
AS....	0.005	CS....		MN... L	0.05		
R....	L 0.2	F.....	0.1	NA... L	28.	SI02.	35.
HF....		FE(TOT). L	0.12	NB...		SO4..	8.1
CA....	1.7						
CO....		H2S.....		PO4..	0.014		

ISOTOPES (O/D01)

CI.... 4.3
 CO.... K.... 0.5
REFERENCE AND IDENTIFICATION
 COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00312

GEO THERM SAMPLE FILE GEO THERM FILE ID: 0000182
 NAME OF SAMPLE SOURCE... COVE WARM SPRING
 KGRA..... LA GRANDE
 WELL/SPRING NUMBER..... 03S-40E-022-BB
LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY..... UNITED STATES 03S 040E 22 NW OF NW LAT/LONG... 45-17.66 N 117-48.40 W
 STATE..... OREGON
 COUNTY..... UNION
 GEOLOGIC PROVINCE.. 29

MAP REFERENCE..... COVE, ORE. 1124000
 OTHER LOCALITY INFORMATION: ELEVATION = 900 METERS.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/07/00
 SAMPLE NUMBER..... 685
 TEMPERATURE (C)..... 42.0
 DISCHARGE..... 1158. L/MIN
 PERTINENT LITHOLOGY..... REGIONAL STRATIGRAPHY IS CHARACTERIZED BY A PALEOZOIC-MESOZOIC BASALMENT OF METASEDIMENTARY, METAVOLCANIC AND INTRUSIVE IGNEOUS ROCKS WHICH ARE OVERLAIN BY CONTINENTAL SEDIMENTARY AND VOLCANIC ROCKS OF EUCENE THROUGH PLEISTOCENE AGE.

WATER ANALYSIS

PH..... 8.57
 TOTAL DISSOLVED SOLIDS... 196.
 CHARGE IMBALANCE (% DIFF)... 35.2
 ANALYSIS IN MG/L

ISOTOPES (0/001)

AG....	CO3.... L 1.0	LI... L 0.01			
AL....	CR....	MG... 0.1			
H.... L 1.0	F.... 0.3	NA... 32.	SI02.. 36.		
HE....	FE(TOT).	NB... 504..	7.0		
CA.... 2.0	HCO3.... 112.				
CL.... 6.1					
CO....	K..... 0.8				

OTHER ANALYTICAL DATA... T SI02 (QUARTZ) =87.01 T NA/K =64.01 T NA-K-CA =55.0, ALL VALUES ARE DEGREES C.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERS, SANDRA K.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... DELLECHAIE, 1978

RECORD 00313

GEO THERM SAMPLE FILE GEO THERM FILE ID: 0015418
 NAME OF SAMPLE SOURCE... COVE WARM SPRING
 WELL/SPRING NUMBER..... 3S/40E-228H
LOCATION TOWNSHIP-RANGE COORDINATES
 COUNTRY..... UNITED STATES 03S 040E 22 NW OF NW LAT/LONG... 45-17.67 N 117-48.38 W
 STATE..... OREGON UTM ZONE... +11
 COUNTY..... UNION NORTHING... 5015765.
 GEOLOGIC PROVINCE.. 436773.

MAP REFERENCE..... COVE 1124000, GRANGEVILLE 11250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1957/06/02
TEMPERATURE (C)..... 29.4
DISCHARGE..... 855. L/MIN

WATER ANALYSIS

PH..... 9.8
SPECIFIC CONDUCTANCE..... 150.
TOTAL DISSOLVED SOLIDS... 109.
CHARGE IMBALANCE (% DIFF)... 6.3

ANALYSIS IN MG/L

AG....		CO3....	32.				
B....	0.08	F....	0.3	NA...	30.	SI02.	29.
HA....		FE+3....	0.03				
HE....		FE(TOT)..		NB...		S04..	8.8
CA....	1.6	HCO3....	5.0	NO3..	N		
CL....	5.0						
CO....		K....	0.5				

ISOTOPES (O/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... ROWEN, RICHARD G.
COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
COMPILER CROSS INDEX... 01
REFERENCE..... HAMPTON AND BROWN, 1964

RECORD 00314

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... CRESTON SHAW WELL
WELL/SPRING NUMBER..... IS-39E-31-0D

GEOTHERM FILE ID: 0015980

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE SE OF SE
STATE..... OREGON 01S 039E 31
COUNTY..... UNION
GEOLOGIC PROVINCE.. 29

COORDINATES

LAT/LONG... 45-27.12 N 117-58.19 W

MAP REFERENCE..... IMBLER 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/12/06 GEST. D.
SAMPLE NUMBER..... W579-381
POINT OF COLLECTION.. WELLHEAD
TEMPERATURE (C)..... 22.
AMBIENT TEMP (C)..... 8.

DISCHARGE..... 1136. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/01/23 BANERJEE, KALA C.
PH..... 8.3 AT(C) 22.
SPECIFIC CONDUCTANCE..... 140.
ALKALINITY..... 67. AS CaCO3
TOTAL DISSOLVED SOLIDS... 161.
CHARGE IMBALANCE (% DIFF)... 2.7

ANALYSIS IN MG/L

AG....		CO3....		LI... L	0.01		
AL....	L 0.05	CR....		MG...	0.55		
AS....	L 0.005	CS....		MN... L	0.02		
B....	L 0.2	F....	0.4	NA...	19.	SI02.	72.
HE....		FE(TOT)..	0.06	NB...		S04..	3.8
CA....	8.5						

ISOTOPES (O/001)

CO.... H2S..... PU4.. 0.018
 CL.... 0.9
 CO.... K..... 5.1
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

RECORD 00315

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003085

NAME OF SAMPLE SOURCE... DUCK POND
 WELL/SPRING NUMBER..... 45-39E-015-DB

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 045 039E 15 NW OF SE LAT/LONG... 45-12.049N 117-55.016W
 STATE..... OREGON 8&M1 WILLAMETTE
 COUNTY..... UNION
 GEOLOGIC PROVINCE.. 29

MAP REFERENCE..... CRAIG MOUNTAIN, ORE. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/04/01 BLACK, GERALD
 SAMPLE NUMBER..... WSA0-065
 POINT OF COLLECTION.. OUTLET
 TEMPERATURE (C)..... 25.
 AMBIENT TEMP (C)..... 10.
 DISCHARGE..... 57. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/04/01 BANERJEE, KALA C.
 PH..... 8.5
 SPECIFIC CONDUCTANCE..... 232.
 ALKALINITY..... 66. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 177.
 CHARGE IMBALANCE (% DIFF)... 4.3

ANALYSIS IN MG/L

ISOTOPIES (0/00)

AG....	CO3....	LI... L	0.1		
AL.... 0.12	CR....	MG... L	0.2		
AS.... 0.015	CS....	MN... L	0.05		
H.... 0.5	F.... 0.6	NA... L	39.	SI02..	56.
HE....	FE(TOT). L	NB... L	0.05	S04..	14.
CA.... 3.9					
CO....	H2S.....	PO4..	0.017		
CL.... 15.					

CO.... K..... 2.8

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... DUGAMI
 REFERENCE..... DUGAMI IN-HOUSE STUDIES, DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00316

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003073

NAME OF SAMPLE SOURCE... GIRDNER WARM SPRING
 WELL/SPRING NUMBER..... 35-40E-027-RC

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 03S 040E 27 SW OF NW LAT/LONG... 45-16.032N 117-48.023W
 STATE..... OREGON 8&M1 WILLAMETTE

COUNTY..... UNION
 GEOLOGIC PROVINCE.. 29
 MAP REFERENCE..... COVE, ORE. 1:24000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1980/04/01 BLACK, GERALD
 SAMPLE NUMBER..... WSA0-070
 POINT OF COLLECTION.. HOUSE TAP
 TEMPERATURE (C)..... 22.2
 AMBIENT TEMP (C)..... 10.
 DISCHARGE..... 76. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/05/13 BANERJEE, KALA C.
 PH..... 9.0
 SPECIFIC CONDUCTANCE..... 133.0
 ALKALINITY..... 54. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 121.
 CHARGE IMBALANCE (% DIFF)... 4.9

ANALYSIS IN MG/L

AG.....	CO3.....	LI... L 0.1			
AL... L 0.1	CR.....	MG... L 0.1			
AS... L 0.005	CS.....	MN... L 0.005			
R... L 0.2	F..... 0.2	NA... 27.	SI02.. 59.		
HF.....	FE(TQT) L 0.05	NB... 504..	6.6		
HT.....	GA.....	NH4.. 0.02			
CA... 0.5					
CD.....	M25.....	PO4.. 0.043			
CL... 3.1					
CO.....	K..... 2.0				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... BROWN AND OTHERS, 1980C

RECORD 00317

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0003076

NAME OF SAMPLE SOURCE... GRANGE HALL
 WELL/SPRING NUMBER..... 3S-40E-009-DD
 LOCATION
 COUNTRY..... UNITED STATES 03S 040E 09 SE OF SE
 STATE..... OREGON B&M: WILLAMETTE
 COUNTY..... UNION
 GEOLOGIC PROVINCE.. BLUE MOUNTAINS
 MAP REFERENCE..... COVE, ORE. 1:24000

COORDINATES

LAT/LONG... 45-18.046N 117-48.027W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/04/01 BLACK, GERALD
 SAMPLE NUMBER..... WSR0-073
 POINT OF COLLECTION.. OFFICE
 TEMPERATURE (C)..... 26.
 AMBIENT TEMP (C)..... 10.
 DISCHARGE..... 57. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/05/08 BANERJEE, KALA C.
 PH..... 8.7
 SPECIFIC CONDUCTANCE..... 114.0
 ALKALINITY..... 46. AS CaCO3

TOTAL DISSOLVED SOLIDS... 95.
 ANALYSIS IN MG/L

AG....	CO3....	LI... L 0.1			
AL.... L 0.1	CR....	MG... L 0.1			
AS.... L 0.005	CS....	MN... L 0.05			
H.... L 0.2	F..... 0.1	NA... 5102. 38.			
HE....	FE(TOT). L 0.05	NH... 504.. 5.8			
CA.... 2.2	H2S.....	PO4.. 0.014			
CL.... 3.5	K..... 0.8				

ISOTOPIES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIU, JOSEPH F.
 COMPILER AFFILIATION... DUGAMI
 REFERENCE..... *DUGAMI IN-HOUSE STUDIES, DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00318

GEOHERM SAMPLE FILE

GEOHERM FILE 101 0000176

NAME OF SAMPLE SOURCE... HAYSTACK WARM SPRING
 KGRA..... LE GRANDE
 WELL/SPRING NUMBER..... 045-39E-015-D
 LOCATION

COUNTRY.....	UNITED STATES	045 039E 15	SE
STATE.....	OREGON		
COUNTY.....	UNION		
GEOLOGIC PROVINCE..	29		
MAP REFERENCE.....	CRAIG MOUNTAIN, ORE. 1124000		

OTHER LOCALITY INFORMATION: ELEVATION = 900 METERS.

COORDINATES

LAT/LONG... 45-12.8 N 117-55.3 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/07/00
 SAMPLE NUMBER..... 716
 TEMPERATURE (C)..... 25.5
 DISCHARGE..... 141. L/MIN
 PERTINENT LITHOLOGY..... REGIONAL STRATIGRAPHY IS CHARACTERIZED BY A PALEOZOIC-MESOZOIC BASALIMENT OF METASEDIMENTARY, METAVOLCANIC AND INTRUSIVE IGNEOUS ROCKS WHICH ARE OVERLAIN BY CONTINENTAL SEDIMENTARY AND VOLCANIC ROCKS OF EOCENE THROUGH PLEISTOCENE AGE.

WATER ANALYSIS

PH..... 8.9
 TOTAL DISSOLVED SOLIDS... 294.
 CHARGE IMBALANCE (% DIFF)... 37.1
 ANALYSIS IN MG/L

ISOTOPIES (0/00)

AG....	CO3.... L 1.0	LI... L 0.01			
AL....	CR....	MG... L 0.1			
H.... L 1.0	F..... 1.2	NA... 49.	5102. 70.		
HE....	FE(TOT). 139.	NH... 504.. 11.			
CA.... 2.0	HCO3.... 139.				
CL.... 19.					
CO....	K..... 3.0				

OTHER ANALYTICAL DATA... T SiO2 (QUARTZ) = 118.01 T NA/K = 141.01 T NA-K-CA = 157.0, ALL VALUES ARE DEGREES C

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERS, SANDRA K.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... DELLECHAIE, 1978

RECORD 00319

GEOTHERM FILE ID: 0003074

GEOTHERM SAMPLE FILENAME OF SAMPLE SOURCE... HOOFNAGLE
WELL/SPRING NUMBER..... 35-40E-010-DC

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 03S 040E 10 SW OF SE.
STATE..... OREGON B&M: WILLAMETTECOORDINATES

LAT/LONG... 45-18.052N 117-47.042W

COUNTY..... UNION
GEOLOGIC PROVINCE.. 29

MAP REFERENCE..... COVE, ORE. 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/04/01 BLACK, GERALD

SAMPLE NUMBER..... WSR0-071

POINT OF COLLECTION.. ONIFICE

TEMPERATURE (C)..... 24.

AMBIENT TEMP (C)..... 10.

DISCHARGE..... 19. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/05/13 BANERJEE, KALA C.

PH..... 9.1

SPECIFIC CONDUCTANCE..... 121.

ALKALINITY..... 45. AS CaCO3

TOTAL DISSOLVED SOLIDS... 96.

CHARGE IMBALANCE (% DIFF)... 3.1

ANALYSIS IN MG/L

AG....	CO3....	LI... L 0.1			
AL... L 0.1	CR....	MG... L 0.1			
AS.... 0.005	CS....	MN... L 0.05			
H.... L 0.2	F.... 0.1	NA... 23.	SI02.. 38.		
HE....	FE(TOT). L 0.05	NB... 504..	5.5		
CA.... 2.5					
CD....	M2S....	P04.. 0.018			
CL.... 3.6					
CO....	K..... 1.2				

ISOTOPES (0/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.

COMPILER AFFILIATION... DOGAMI

REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00320

GEOTHERM FILE ID: 0000711

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... HOT LAKE

WELL/SPRING NUMBER..... T1

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 04S 039E 05 NW OF SE
STATE..... OREGONCOORDINATES

LAT/LONG... 45-14.63 N 117-57.51 W

COUNTY..... UNION

GEOLOGIC PROVINCE.. 29

MAP REFERENCE..... CRAIG MTN. 1:24000, GRANGEVILLE 1:250000

UTM ZONE... 11

NORTHING... 5010267.

424774.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1972/00/00 BARNES GROUP

TEMPERATURE (C)..... 80.0

DISCHARGE..... 1500. L/MIN

WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED.
 DEPOSITS OR ALTERATION..... TRAVERTINE
 PERTINENT LITHOLOGY..... BASALT AND MYLONITE

WATER ANALYSIS

DATE/ANALYST..... 1972/00/00 BARNES GROUP

PH..... 9.21

SPECIFIC CONDUCTANCE..... 688.

CHARGE IMBALANCE (% DIFF).... 9.4

ANALYSIS IN MG/L

AG.... L 0.02	CO3..... 10.	LI.... 0.03	S....
AL....	CR.....	MG.... L 0.1	SB.... L 0.2
AS.... 0.01	CS.... L 0.1	MN.... L 0.02	SC....
AU.... L 0.1	CU..... 0.01	NA.... 130.	SI02. 48.
B.... 2.9	F..... 1.7	NH....	S04.. 56.
BA.... L 0.1	FE (TOT). L 0.02	NH4..	SR... L 0.05
BE.... L 0.1	GA.....		
BI....			
BR.... 0.4	HCO3..... 62.		
CA.... 4.9	HG..... 0.0032	PB... L 0.06	
CA+MG.	H2S.....	PU4.. 0.09	
CI.... L 0.01	I..... 0.08		
CL.... 140.	K..... 2.7	RB... L 0.02	
CO.... L 0.05			

ISOTOPES (02/00)

DEL D OF WATER.....	-127.7
DEL O(18) OF WATER...	-16.56
DEL O(18) OF SO4.....	4.63

GAS ANALYSIS

ANALYSIS IN VOLUME %

CH4... 9.

C2H6.

CO2... L 1.

N2... 90.

ISOTOPES (00/01)

OTHER ANALYTICAL DATA... 02,AR=2

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILED AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILED CROSS INDEX... NEH-972

REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975; NEMMING AND OTHERS, 1979

RECORD 00321

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003083

NAME OF SAMPLE SOURCE... HOT LAKE RESORT

WELL/SPRING NUMBER..... 45-39E-005-08

LOCATION

COUNTRY..... UNITED STATES 45 039E 05 NW OF SE

STATE..... OREGON BRM; WILLAMETTE

COUNTY..... UNION

GEOLOGIC PROVINCE.. BLUE MOUNTAINS

MAP REFERENCE..... CHAIG MOUNTAIN, ORE. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/04/01 BLACK, GERALD

SAMPLE NUMBER..... WSA0-063

POINT OF COLLECTION.. ORIFICE

TEMPERATURE (C)..... 81.

AMBIENT TEMP (C).... 10.

DISCHARGE..... 6426. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/05/09 BANERJEE, KALA C.

PH..... 9.3

SPECIFIC CONDUCTANCE..... 703.
 ALKALINITY..... 61. AS CAC03
 CHARGE IMBALANCE (% DIFF)... 8.4

ANALYSIS IN MG/L

AG.....	CO3.....	LI... L 0.1		
AL..... 0.13	CR.....	MG... L 0.1		
AS..... 0.009	CS.....	MN... L 0.05		
R..... 2.8	F..... 1.5	NA... 119.	SI02.. 84.	
BA.....	FE+3... L 0.05			
HE.....	FE(TOT).	NB... 504..	1.4	
CA..... 4.9	H2S.....	PO4.. 0.009		
CD.....				
CL..... 132.				
CO.....	K..... 2.8			

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00322

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000180

NAME OF SAMPLE SOURCE... HOT LAKE SPRING
 AREA..... LE GRANDE
 WELL/SPRING NUMBER..... 04S-39E-005-08

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 04S 039E 05 NW OF SE
 STATE..... OREGON
 COUNTY..... UNION
 MAP REFERENCE..... CRAIG MOUNTAIN, ORE. 1:24000
 OTHER LOCALITY INFORMATION: ELEVATION = 900 METERS.

LAT/LONG... 45-14.52 N 117-57.06 W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/07/00
 SAMPLE NUMBER..... 713
 TEMPERATURE (C)..... 81.
 DISCHARGE..... 1514. L/MIN

PERTINENT LITHOLOGY..... REGIONAL STRATIGRAPHY IS CHARACTERIZED BY A PALEOZOIC-MESOZOIC BASALMENT OF METASEDIMENTARY, METAVOLCANIC AND INTRUSIVE IGNEOUS ROCKS WHICH ARE OVERLAIN BY CONTINENTAL SEDIMENTARY AND VOLCANIC ROCKS OF EUCENE THROUGH PLEISTOCENE AGE.

WATER ANALYSIS

P-H..... 9.22
 TOTAL DISSOLVED SOLIDS... 526.
 CHARGE IMBALANCE (% DIFF)... 11.1

ANALYSIS IN MG/L

AG.....	CO3..... 10.	LI... 0.03		
AL.....	CR.....	MG... L 0.1		
R..... 3.6	F..... 3.2	NA... 132.	SI02.. 142.	
HE.....	FE(TOT).	NB... 504..	60.	
CA..... 4.9	HCO3.... 78.			
CL..... 131.				
CO.....	K..... 2.8			

ISOTOPES (0/00)

OTHER ANALYTICAL DATA... T SI02 (QUARTZ) =138.0% T NA/K =54.0% T NA-K-CA =96.0% ALL VALUES ARE DEGREES C.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERS, SANDRA K.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... DELLECHATE, 1978

RECORD 00323

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0000181

NAME OF SAMPLE SOURCE... LA GRANDE WARM WELL
 KGRA..... LE GRANDE
 WELL/SPRING NUMBER..... 035-38E-006-AD

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE 035 038E 06 SE OF NE
 STATE..... OREGON
 COUNTY..... UNION
 GEOLOGIC PROVINCE.. 29

COORDINATES
 LAT/LONG... 45-20.66 N 118-05.90 W

MAP REFERENCE..... LE GRANDE S.E., ORE. 1124000
 SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/07/00
 SAMPLE NUMBER..... 679
 TEMPERATURE (C)..... 28.0
 DISCHARGE..... 1420. L/MIN

PERTINENT LITHOLOGY..... REGIONAL STRATIGRAPHY IS CHARACTERIZED BY A PALEOZOIC-MESOZOIC BA SEMENT OF
 METASEDIMENTARY, METAVOLCANIC AND INTRUSIVE IGNEOUS ROCKS WHICH ARE OVERLAIN BY CONTINENTAL SEDIMENTARY AND
 VOLCANIC ROCKS OF EUCENE THROUGH PLEISTOCENE AGE.

WATER ANALYSIS

PH..... 8.1
 TOTAL DISSOLVED SOLIDS... 223.
 CHARGE IMBALANCE (% DIFF)... 22.7

ANALYSIS IN MG/L

AG....	CO3... L 1.0	LI... L 0.01		
AL....	CR....	MG... 0.7		
R.... L 1.0	F.... 0.4	NA... 22.	SI02. 76.	
HF....	FE(TOT).	NB...	SO4.. 2.0	
CA.... 7.0	HCO3... 109.			
CL.... 1.1				
CO....	K..... 5.2			

ISOTOPES (0/00)

OTHER ANALYTICAL DATA... T SI02 (QUARTZ) =122.01 T NA/K =312.01 T NA-K-CA =86.0, ALL VALUES ARE DEGREES C.
 REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERS, SANDRA K.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... DELLECHATE, 1978

RECORD 00324

GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0003081

NAME OF SAMPLE SOURCE... LOVE SWIMMING POOL
 WELL/SPRING NUMBER..... 35-40E-022-BB

LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE 035 040E 22 NW OF NW
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... UNION
 GEOLOGIC PROVINCE.. 29

COORDINATES
 LAT/LONG... 45-17.036N 117-48.022W

MAP REFERENCE..... COVE, ORE. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/04/01 BLACK, GERALD
 SAMPLE NUMBER..... WS80-068
 POINT OF COLLECTION.. ORIFICE
 TEMPERATURE (C)..... 30.
 AMBIENT TEMP (C)..... 10.

DISCHARGE..... 756. L/MIN
 WATER ANALYSIS
 DATE/ANALYST..... 1980/05/13 BANERJEE, KALA C.
 PH..... 9.7
 SPECIFIC CONDUCTANCE..... 157.
 ALKALINITY..... 55. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 114.
 CHARGE IMBALANCE (% DIFF)... 2.4

ANALYSIS IN MG/L

AG....	CO3....	LI... L 0.1			
AL.... 0.16	CR....	MG... L 0.1			
AS.... 0.006	CS....	MN... L 0.05			
H.... L 0.2	F..... 0.1	NA... 29.	SI02.. 39.		
HE....	FE(TOT).. 0.05	NB... 29.	S04.. 8.3		
CA.... 1.9					
CO....	H2S.....	PO4.. 0.008			
CL.... 4.5					
CO....	K..... 0.6				

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00325

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000183

NAME OF SAMPLE SOURCE... MEDICAL HOT SPRING
 KARA..... LE GRANDE
 WELL/SPRING NUMBER..... 06S-41E-025-AA
 LOCATION
 COUNTRY..... UNITED STATES 06S 041E 25 NE OF NE
 STATE..... OREGON
 COUNTY..... UNION

COORDINATES

LAT/LONG... 45-01.10 N 117-38.50 W

MAP REFERENCE..... MEDICAL SPRINGS, ORE. 1:24000
 OTHER LOCALITY INFORMATION: ELEVATION = 900 METERS.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/07/00
 SAMPLE NUMBER..... 786
 TEMPERATURE (C)..... 61.5
 DISCHARGE..... 378. L/MIN

CONTINENT LITHOLOGY..... REGIONAL STRATIGRAPHY IS CHARACTERIZED BY A PALEOZOIC-MESOZOIC BASALMENT OF METASEDIMENTARY, METAVOLCANIC AND INTRUSIVE IGNEOUS ROCKS WHICH ARE OVERLAIN BY CONTINENTAL SEDIMENTARY AND VOLCANIC ROCKS OF EOCENE THROUGH PLEISTOCENE AGE.

WATER ANALYSIS

PH..... 8.36
 TOTAL DISSOLVED SOLIDS... 946.
 CHARGE IMBALANCE (% DIFF)... 11.3

ANALYSIS IN MG/L

AG....	CO3.... L 1.0	LI... 0.04			
AL....	CR....	MG... 0.2			
H.... 1.9	F..... 1.3	NA... 200.	SI02.. 78.		
HE....	FE(TOT)..	NB... 200.	S04.. 500.		
CA.... 56.	HCO3.... 22.				
CL.... 80.					
CO....	K..... 6.9				

ISOTOPES (0/00)

OTHER ANALYTICAL DATA... T SI02 (QUARTZ) =124.01 T NA/K =86.01 T NA-K-CA =72.0; ALL VALUES ARE DEGREES C.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERS, SANDRA K.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... DELLECHAIE, 1978

RECORD 00326

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0000713

NAME OF SAMPLE SOURCE... MEDICAL HOT SPRINGS

WELLING NUMBER..... 12

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 06S 041E 25 NE

LAT/LONG... 45-01.08 N 117-37.48 W

STATE..... OREGON

UTM ZONE... +11

COUNTY..... UNION

NORTHING... 4984923.

GEOLOGIC PROVINCE... 29

450781.

MAP REFERENCE..... FLAGSTAFF BUTTE 1124000, GRANGEVILLE 11250000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1973/00/00 BARNES GROUP

TEMPERATURE (C)..... 60.0

DISCHARGE..... 200. L/MIN

WATER TREATMENT..... PRESSURE-FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUED

DEPOSITS OR ALTERATION... TRAVERTINE

PERTINENT LITHOLOGY..... ROCK TYPE: BASALT

WATER ANALYSIS

DATE/ANALYST..... 1973/00/00 BARNES GROUP

PH..... 8.23

SPECIFIC CONDUCTANCE..... 1173.

CHARGE IMBALANCE (% DIFF)... 9.4

ANALYSIS IN MG/L

AG.... L 0.02 CO₃.... L 1. LI... 0.05 S....

AL.... CH..... MG... 0.2 SB... L 0.2

AS.... CS.... L 0.1 MN... L 0.02

AU.... L 0.1 CU.... L 0.01

R.... 2.2 F..... 1.2 NA... 190. SiO₂. 80.RA.... L 0.1 FE (TOT). L 0.02 NB... S0₄.. 400.RE.... L 0.1 GA..... NH₄.. SR... 0.8

RI....

HR.... 0.2

CA.... 72. HCO₃.... 26.

CA+MG. HG..... 0.0004 PB... L 0.06

CD.... L 0.01

CL.... 77.

CO.... L 0.05 K..... 7.0 RB... 0.02

ISOTOPIES (0/00)

DEL D OF WATER..... -130.2

DEL O(18) OF WATER... -16.99

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 07

REFERENCE..... MARINER AND OTHERS, 1974A; MARINER AND OTHERS, 1975

RECORD 00327

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0002241

NAME OF SAMPLE SOURCE... MEDICAL HOT SPRINGS

WELLING NUMBER..... 12

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 06S 041E 25 SE OF NE

LAT/LONG... 45-01.08 N 117-37.48 W

STATE..... OREGON
 COUNTY..... UNION
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... FLAGSTAFF BUTTE 1124000, GRANGEVILLE 1125000
 OTHER LOCALITY INFORMATION: 20 MI. NNE OF BAKER

UTM ZONE... +11
 NORTHING... 4984923.
 450781.

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 60.0
 DISCHARGE..... 189. L/MIN

WATER ANALYSIS

TOTAL DISSOLVED SOLIDS... 896.

ANALYSIS IN PPM

AG....	CO3..... U 11.				
AL....	CR.....	MG...	0 1.2		
H....	F.....	NA...	0 191.	SI02.	97.
HE....	FE(TOT).	NB...		S04...	0 432.
CA.... U 62.					
CL.... U 77.					
CO....	K..... U 3.4				

ISOTOPES (0/001)

QUALIFICATION FIELD..... SOLUTES CALCULATED FROM:

CaCl2=55.52, MgCl2=4.66, KCl=6.42, NaCl=57.58, Na2SO3=5.24, Na2SO4=506.38, Na2CO3=5.79, FeSO4=5.58, CaSO4=121.75, CaCO3=14.17,
 ORGANIC=15.53 ALL IN PPM

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 07
 REFERENCE..... LINDGREN, 1901

RECORD 00328

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000185

NAME OF SAMPLE SOURCE... OASIS WARM SPRING

KGRA..... LE GRANDE

WELL/SPRING NUMBER..... 045-39E-023-CB

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP=RANGE 045 039E 23 NW OF SW

COORDINATES

LAT/LONG... 45-12.02 N 117-54.51 W

STATE..... OREGON

COUNTY..... UNION

GEOLOGIC PROVINCE.. 29

MAP REFERENCE..... CRAIG MOUNTAIN, ORE. 1124000

OTHER LOCALITY INFORMATION: ELEVATION = 900 METERS.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/07/00

SAMPLE NUMBER..... 720

TEMPERATURE (C)..... 29.5

DISCHARGE..... 220. L/MIN

PERTINENT LITHOLOGY..... REGIONAL STRATIGRAPHY IS CHARACTERIZED BY A PALEOZOIC-MESOZOIC HA SEMENT OF METASEDIMENTARY, METAVOLCANIC AND INTRUSIVE IGNEOUS ROCKS WHICH ARE OVERLAIN BY CONTINENTAL SEDIMENTARY AND VOLCANIC ROCKS OF EUCENE THROUGH PLEISTOCENE AGE.

WATER ANALYSIS

PH..... 8.70

TOTAL DISSOLVED SOLIDS... 407.

CHARGE IMBALANCE (% DIFF)... 25.6

ANALYSIS IN MG/L

AG....	CO3..... L 1.0	LI...	0.05		
AL....	CR.....	MG...	1.0		
H.... L 1.0	F..... 2.1	NA...	80.	SI02.	7d.

ISOTOPES (0/001)

HE.... FE(TOT). NB... 504.. 42.
 CA.... 4.v HCO3.... 136.
 CL.... 62.
 CO.... K..... 2.7

OTHER ANALYTICAL DATA... T SiO2 (QUARTZ) =124.01 T NA/K =85.01 T NA-K-CA =87.0; ALL VALUES ARE DEGREES C.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERS, SANDRA K.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... DELLECHATE, 1978

RECORD 00329

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0003078

NAME OF SAMPLE SOURCE... ROYCE
 WELL/SPRING NUMBER..... IS-39E-017-80

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 01S 039E 17 SE OF NW
 STATE..... OREGON B&M: WILLAMETTE
 COUNTY..... UNION
 GEOLOGIC PROVINCE.. 29

LAT/LONG... 45-28.054W 117-57.043W

MAP REFERENCE..... IMPLER, ONE, 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/04/02 BLACK, GERALD
 SAMPLE NUMBER..... WS80-076
 POINT OF COLLECTION.. WELLSHEAD
 TEMPERATURE (C)..... 26.
 AMBIENT TEMP (C)..... 10.

WATER ANALYSIS

DATE/ANALYST..... 1980/05/13 BANERJEE, KALA C.
 PH..... 8.6
 SPECIFIC CONDUCTANCE..... 148.
 ALKALINITY..... 60. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 142.
 CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....	CO3....	LI... L 0.1		
AL.... L 0.1	CR....	MG... L 0.1		
AS.... L 0.005	CS....	MN... L 0.05		
H.... L 0.2	F..... 1.1	NA... 25.	SI02. 72.	
HE....	FE(TOT). L 0.05	NB... 504..		5.5
CA.... 3.3				
CD....	H2S....	PO4.. 0.021		
CL.... 1.v				
CO....	K..... 5.4			

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... DUGAMI
 REFERENCE..... *DUGAMI IN-HOUSE STUDIES, DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00330

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000184

NAME OF SAMPLE SOURCE... SWEET WARM SPRING
 KGRA..... LA GRANDE
 WELL/SPRING NUMBER..... 04S-39E-022-

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 045 039E 22 OF LAT/LONG... 45-12.13 N 117-55.03 W
 STATE..... OREGON
 COUNTY..... UNION
 GEOLOGIC PROVINCE.. 29
 MAP REFERENCE..... CRAIG MOUNTAIN, ORE. 1124000
 OTHER LOCALITY INFORMATION: T45, R39E, CENTER OF SEC. 22, ELEV.=900M.
SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1974/07/00
 SAMPLE NUMBER..... 719
 TEMPERATURE (C)..... 38.0
 DISCHARGE..... 56. L/MIN
 PERTINENT LITHOLOGY..... REGIONAL STRATIGRAPHY IS CHARACTERIZED BY A PALEOZOIC-MESOZOIC BASALMENT OF
 METASEDIMENTARY, METAVOLCANIC AND INTRUSIVE IGNEOUS ROCKS WHICH ARE OVERLAIN BY CONTINENTAL SEDIMENTARY AND
 VOLCANIC ROCKS OF EOCENE THROUGH PLEISTOCENE AGE.

WATER ANALYSIS

pH..... 8.6
 TOTAL DISSOLVED SOLIDS... 421.
 CHARGE IMBALANCE (8 DIFF)... 22.1

ANALYSIS IN MG/L

AG....		CO3.....	L 1.0	LI...	0.04		
AL....		CR.....		MG...	1.0		
B....	1.8	F.....	2.6	NA...	84.	SI02.	84.
BE....		FE(TOT)		NB...		SO4..	46.
CA....	4.0	HCO3.....	130.				
CL....	64.						
CO....		K.....	3.4				

ISOTOPES (0/001)

OTHER ANALYTICAL DATA... T SI02 (QUARTZ) =128.01 T NA/K =98.01 T NA-K-CA =97.0; ALL VALUES ARE DEGREES C.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERS, SANDRA K.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... DELLECHAIE, 1978

RECORD 00331

GEOTHERM SAMPLE FILE

GEOTHERM FILE 101 0015981

NAME OF SAMPLE SOURCE... U.P. HR NO. 1
 WELL/SPRING NUMBER..... 7S-38E-5-CB
LOCATION
 COUNTRY..... UNITED STATES 035 038E 05 NW OF SW **COORDINATES**
 STATE..... OREGON LAT/LONG... 45-19.54 N 118-07.20 W
 COUNTY..... UNION
 GEOLOGIC PROVINCE.. BLUE MOUNTAINS
 MAP REFERENCE..... LA GRANDE SE 1124000
SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1979/12/06 GEST. D.
 SAMPLE NUMBER..... WS79-382
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 25.5
 AMBIENT TEMP (C)..... A.
 DISCHARGE..... 179. L/MIN
WATER ANALYSIS
 DATE/ANALYST..... 1980/01/28 BANERJEE, KALA C.
 pH..... 8.2 AT (C) 26.
 SPECIFIC CONDUCTANCE..... 129.
 ALKALINITY..... 60. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 160.

CHARGE IMBALANCE (% DIFF)... 2.8

ANALYSIS IN MG/L

AG....		CO3....		LI...	0.01				
AL....	L 0.05	CR....		HG...	0.39				
AS....	L 0.005	CS....		MN...	L 0.02				
R....	L 0.2	F....	0.1	NA...	19.	SI02.	84.		
HF....		FE(TOT).	L 0.05	NB...		S04..	3.9		
CA....	5.4	H2S....		PO4..	0.016				
CD....									
CL....	0.9								
CO....		K....	5.7						

ISOTOPES (OZ/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *DOGAMI

RECORD 00332

GEOTERM SAMPLE FILE

GEOTERM FILE ID: 0015982

NAME OF SAMPLE SOURCE... U.P. HR NO. 2
 WELL/SPRING NUMBER..... 35-38E-5-CH

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 03S 03E 05 NW OF SW
 STATE..... OREGON
 COUNTY..... UNION

COORDINATES

LAT/LONG... 45-20.00 N 118-07.17 W

GEOLOGIC PROVINCE... 29
 MAP REFERENCE..... LA GRANDE SE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1979/12/28 BLACK, G.
 SAMPLE NUMBER..... W579-378
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 26.
 AMBIENT TEMP (C)..... 8.
 DISCHARGE..... 284. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/01/23 BANERJEE, KALA C.
 PH..... 8.4 AT(C) 26.
 SPECIFIC CONDUCTANCE..... 143.
 ALKALINITY..... 67. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 154.
 CHARGE IMBALANCE (% DIFF)... 3.4

ANALYSIS IN MG/L

AG....		CO3....		LI...	0.01				
AL....	L 0.05	CR....		HG...	0.62				
AS....	L 0.005	CS....		MN...	L 0.02				
R....	L 0.2	F....	0.7	NA...	24.	SI02.	80.		
HF....		FE+3...	L 0.05	NB...		S04..	2.4		
CA....	5.0	FE(TOT).		PO4..	0.026				
CD....		H2S....							
CL....	0.9								
CO....		K....	6.1						

ISOTOPES (OZ/001)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... OREGON STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 REFERENCE..... *OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

RECORD 00333

GEOTHERM FILE ID: 0003082

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... UNION JUNCTION NO. 1
 WELL/SPRING NUMBER..... 45-39E-022-0A
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 04S 039E 22 NE OF SE
 COUNTY..... UNION B&M: WILLAMETTE
 GEOLOGIC PROVINCE.. 29
 MAP REFERENCE..... CRAIG MOUNTAIN, ORE. 1124000

COORDINATES
 LAT/LONG... 45-12.003N 117-54.046W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/04/01 BLACK, GERALD
 SAMPLE NUMBER..... WSR0-067
 POINT OF COLLECTION.. ORIFICE
 TEMPERATURE (C)..... 37.
 AMBIENT TEMP (C)..... 10.
 DISCHARGE..... 57. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/05/03 BANERJEE, KALA C.
 PH..... 8.1
 SPECIFIC CONDUCTANCE..... 465.
 ALKALINITY..... 58. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 311.
 CHARGE IMBALANCE (% DIFF)... 1.3

ANALYSIS IN MG/L

AG....	CO3.....	LI... L 0.1			
AL... L 0.1	CR.....	MG... 1.1			
AS... 0.063	CS.....	MN... L 0.05			
H... 1.5	F..... 1.2	NA... 75.	SI02.. 78.		
HE....	FE(TOT). L 0.05	NB... 504..	504.. 41.		
CA... 5.0					
CD....	H2S.....	PO4.. 0.055			
CL... 59.					
CO... K..... 3.5					

ISOTOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIU, JOSEPH F.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00334

GEOTHERM FILE ID: 0003071

GEOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... UNION JUNCTION NO. 2
 WELL/SPRING NUMBER..... 45-39E-023-CB
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP-RANGE
 STATE..... OREGON 04S 039E 23 NW OF SW
 COUNTY..... UNION B&M: WILLAMETTE
 GEOLOGIC PROVINCE.. BLUE MOUNTAINS
 MAP REFERENCE..... CRAIG MOUNTAIN, ORE. 1124000

COORDINATES
 LAT/LONG... 45-12.000N 117-54.023W

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/04/01 BLACK, GERALD
 SAMPLE NUMBER..... WSR0-066
 POINT OF COLLECTION.. ORIFICE

TEMPERATURE (C)..... 30.
 AMBIENT TEMP (C)..... 10.
 DISCHARGE..... 95. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/05/13 BANERJEE, KALA C.
 PH..... 8.4
 SPECIFIC CONDUCTANCE..... 464.
 ALKALINITY..... 64. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 306.
 CHARGE IMBALANCE (% DIFF)... 4.5

ANALYSIS IN MG/L

AG....		CO3.....		LI....	0.1				
AL....	0.13	CR.....		MG....	0.8				
AS....	0.057	CS.....		MN....	L 0.05				
R....	1.5	F.....	1.1	NA....	74.	SI02..	65.		
HF....		FE(TOT)..	0.05	NB....		S04..	40.		
CA....	6.0								
CD....		H2S.....		P04..	0.04				
CL....	59.								
CO....		K.....	2.6						

ISOTOPES (U/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00335

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0003077

NAME OF SAMPLE SOURCE... WAGNER
 WELL/SPRING NUMBER..... 1S-38E-024-0D

LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY.....	UNITED STATES	01S 038E 24	SE OF SE:	LAT/LONG...	45-27.026N 117-59.050W
STATE.....	OREGON	B&M	WILLAMETTE		
COUNTY.....	UNION				
GEOLOGIC PROVINCE..	29				

MAP REFERENCE..... CRAIG MOUNTAIN, ORE. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/04/02 BLACK, GERALD
 SAMPLE NUMBER..... W580-074
 POINT OF COLLECTION.. WELLHEAD
 TEMPERATURE (C)..... 31.
 AMBIENT TEMP (C)..... 10.
 DISCHARGE..... 13230. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/05/13 BANERJEE, KALA C.
 PH..... 8.5
 SPECIFIC CONDUCTANCE..... 145.0
 ALKALINITY..... 55. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 154.
 CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

AG....		CO3.....		LI....	L 0.1				
AL....	L 0.1	CR.....		MG....	L 0.1				
AS....	L 0.005	CS.....		MN....	L 0.05				
R....	L 0.2	F.....	1.5	NA....	25.	SI02..	80.		
HF....		FE(TOT)..	L 0.05	NB....		S04..	6.1		

ISOTOPES (U/00)

CA.... 2.2
 CD....
 CL.... 1.4
 CO.... K..... 5.4

QUALIFICATION FIELD..... FROM BAATER AND OTHERS, 1978 FLOW RATE, PUMPED IS 5000 GPM
 REFERENCE AND IDENTIFICATION
 COMPILED BY..... RICCIO, JOSEPH F.
 COMPILER AFFILIATION... DOGAMI
 REFERENCE..... *DOGAMI IN-HOUSE STUDIES, DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00336

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0000178

NAME OF SAMPLE SOURCE... WAGNER WARM ARTISAN WELL
 KGRA..... LE GRANDE
 WELL/SPRING NUMBER..... 01S-03E-024-00

LOCATION

COUNTRY..... UNITED STATES 01S 03E 24 SE OF SE COORDINATES
 STATE..... OREGON
 COUNTY..... UNION
 MAP REFERENCE..... SUMMERVILLE, ORE. 1124000

OTHER LOCALITY INFORMATION: ELEVATION = 900 METERS.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/07/00
 SAMPLE NUMBER..... 664

TEMPERATURE (C)..... 32.0
 DISCHARGE..... 378. L/MIN

PERTINENT LITHOLOGY..... REGIONAL STRATIGRAPHY IS CHARACTERIZED BY A PALEOZOIC-MESOZOIC BASALMENT OF METASEDIMENTARY, METAVOLCANIC AND INTRUSIVE IGNEOUS ROCKS WHICH ARE OVERLAIN BY CONTINENTAL SEDIMENTARY AND VOLCANIC ROCKS OF EOCENE THROUGH PLEISTOCENE AGE.

WATER ANALYSIS

PH..... 8.55
 TOTAL DISSOLVED SOLIDS... 252.
 CHARGE IMBALANCE (% DIFF)... 30.4

ANALYSIS IN MG/L

AG....	CO3.... L 1.0	LI....	0.01		
AL....	CR....	MG....	0.1		
H.... L 1.0	F.... 1.7	NA....	30.	5102.	91.
HE....	FE(TOT)...	NH....		504..	4.0
CA.... 2.0	MCO3.... 116.				
CL.... 1.5					
CO....	K..... 5.6				

ISOTOPIES (0/00)

OTHER ANALYTICAL DATA... T SiO2 (QUARTZ) =132.01 T NA/K =270.01 T NA-K-CA =205.0. ALL VALUES ARE DEGREES C.

REFERENCE AND IDENTIFICATION

COMPILED BY..... PETERS, SANDRA K.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 REFERENCE..... DELLECHATE, 1978

RECORD 00337

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015946

NAME OF SAMPLE SOURCE... WAGNER WELL

LOCATION
 COUNTRY..... UNITED STATES 01S 03E 24 SE OF SE
 STATE..... OREGON
 COUNTY..... UNION

COORDINATES

LAT/LONG... 45-27.43 N 117-59.84 W
 UTM ZONE... +11
 NORTHING... 5034004.

422020.

GEOLOGIC PROVINCE.. 29
 MAP REFERENCE..... IMBLFR 1124000
 SAMPLE DESCRIPTION AND CONDITIONS
 DATE/COLLECTOR..... 1950/08/09
 TEMPERATURE (C)..... 29.
 WELL DEPTH (M)..... 351.

WATER ANALYSIS

PH..... 8.0
 SPECIFIC CONDUCTANCE..... 148.
 CHARGE IMBALANCE (% DIFF).... 1.3

ANALYSIS IN PPM

AG....		CO3.....	4.9				
AL....		CR.....		MG...	0.8		
H.....	0.1	F.....	2.0	NA...	28.		
RE....		FE(TOT)...		NB...		504..	8.3
CA....	3.6	HCO3.....	62.	NO3..	0.2		
CL....	3.1						
CO....		K.....	4.0				

ISOIOPES (0/00)

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 05
 REFERENCE..... HAMPTON AND BROWN, 1964

RECWD 00338

GEOHERM SAMPLE FILE

GEOHERM FILE ID: 0003075

NAME OF SAMPLE SOURCE... WARM CREEK
 WELL/SPRING NUMBER..... 3S-40E-009-DA
 LOCATION

TOWNSHIP-RANGE

COORDINATES

COUNTRY..... UNITED STATES 09S 040E 09 NE OF SE
 STATE..... OREGON B&M WILLAMETTE
 COUNTY..... UNION
 GEOLOGIC PROVINCE.. 29

LAT/LONG... 45-18.059N 117-48.037W

MAP REFERENCE..... COVE, ORE. 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1980/04/01 BLACK, GERALD.
 SAMPLE NUMBER..... W580-072
 POINT OF COLLECTION.. ORIFICE
 TEMPERATURE (C)..... 25.
 AMBIENT TEMP (C)..... 10.
 DISCHARGE..... 945. L/MIN

WATER ANALYSIS

DATE/ANALYST..... 1980/05/13 BANERJEE, KALA C.
 PH..... 9.3
 SPECIFIC CONDUCTANCE..... 121.
 ALKALINITY..... 45. AS CaCO3
 TOTAL DISSOLVED SOLIDS... 95.
 CHARGE IMBALANCE (% DIFF).... 1.2

ANALYSIS IN MG/L

AG....		CO3.....		LI... L	0.1		
AL....	0.22	CR.....		MG...	0.2		
AS....	0.005	CS.....		MN... L	0.05		
H.....	L 0.2	F.....	0.1	NA...	22.	SI02.	35.
HE....		FE(TOT)...	0.09	NB...		504..	5.5
CA....	2.4						

ISOIOPES (0/00)

CO.... H2S..... P04.. 0.012

CL.... 3.8

CO.... K..... 0.8

REFERENCE AND IDENTIFICATION

COMPILED BY..... RICCIO, JOSEPH F.

COMPILER AFFILIATION... DOGAMI

REFERENCE..... *DOGAMI IN-HOUSE STUDIES. DOE CONTRACT NO. DE-FFC07-79ET27220.

RECORD 00339

GEO THERM SAMPLE FILE

NAME OF SAMPLE SOURCE... WARM MINERAL SPRINGS

GEO THERM FILE ID: 0001706

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 06S 03SE 12

COORDINATES

LAT/LONG... 45-04.2 N 118-27.3 W

STATE..... OREGON

COUNTY..... UNION

GEOLOGIC PROVINCE... 29

SAMPLE DESCRIPTION AND CONDITIONS

TEMPERATURE (C)..... 28.

DISCHARGE..... R 143. L/MIN

OTHER SAMPLE INFORMATION.. SULFUROUS ODER

QUALIFICATION FIELD..... RANGE FOR DISCHARGE IS 95. - 190.

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. & BROOK, C.

REFERENCE..... HAMPTON AND BROWN, 1964

RECORD 00340

GEO THERM SAMPLE FILE

NAME OF SAMPLE SOURCE... WELL

GEO THERM FILE ID: 0015945

WELL/SPRING NUMBER..... 03S/38E-05M

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 03S 038E 05 NW OF SW

COORDINATES

LAT/LONG... 45-19.89 N 118-05.43 W

STATE..... OREGON

COUNTY..... UNION

GEOLOGIC PROVINCE..

UTM ZONE... +11

NORTHING... 5020138.

414546.

MAP REFERENCE..... LA GRANDE SE 1:24000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1955/01/21

TEMPERATURE (C)..... 25.

WELL DEPTH (M)..... 437.

DISCHARGE..... 1060. L/MIN

PERTINENT LITHOLOGY..... BASALT AND TUFF IN ALTERNATING LAYERS

WATER ANALYSIS

DATE/ANALYST.....

OREGON STATE BOARD OF HEALTH

PH..... 7.9

ALKALINITY..... 63.

AS HCO3

CHARGE IMBALANCE (% DIFF)... 37.5

ANALYSIS IN PPM

AL.... CR.....

H.... F..... 0.5

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

CA.... 4.8 HCO3..... 63.

CL.... 2.1

CO.... K..... 5.

REFERENCE AND IDENTIFICATION

ISOTOPES (D/H/O)

MG... 1.3

NA... 30. SI02. 72.

NB... S04.. 4.8

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 01
 REFERENCE..... HAMPTON AND BROWN, 1964

RECORD 00341

GEOOTHERM FILE ID: 0015943

GEOOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... WELL
 WELL/SPRING NUMBER..... 035/30E-06

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE SE OF NE
 STATE..... OREGON 03S 038E 06
 COUNTY..... UNION
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 45-20.07 N 118-05.83 W
 UTM ZONE... +11
 NORTHING... 5020478.
 414029.

M.P. REFERENCE..... LA GRANDE SE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1957/05/10
 TEMPERATURE (C)..... 27.
 WELL DEPTH (M)..... 1391.

PERTINENT LITHOLOGY..... BASALT

WATER ANALYSIS

SPECIFIC CONDUCTANCE..... 146.
 ALKALINITY..... 84. AS HCO3
 CHARGE IMBALANCE (% DIFF)... 3.7

ANALYSIS IN PPM

		ISOTOPES (0/001)	
AL.....	CR.....	MG...	0.2
H.....	F..... 0.5	NA...	19.
HE.....	FE (TQT).....	NB...	504.. 71.
CA..... 100.	HCO3..... 84.		504.. 4.5
CL..... 1.			
CO.....	K..... 5.		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MARINER, R. H.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 01
 REFERENCE..... HAMPTON AND BROWN, 1964

RECORD 00342

GEOOTHERM FILE ID: 0015944

GEOOTHERM SAMPLE FILE

NAME OF SAMPLE SOURCE... WELL
 WELL/SPRING NUMBER..... 035/38E-05

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE NW OF SW
 STATE..... OREGON 03S 038E 05
 COUNTY..... UNION
 GEOLOGIC PROVINCE..

COORDINATES

LAT/LONG... 45-19.89 N 118-05.43 W
 UTM ZONE... +11
 NORTHING... 5020138.
 414546.

M.P. REFERENCE..... LA GRANDE SE 1124000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1955/01/21
 TEMPERATURE (C)..... 27.
 WELL DEPTH (M)..... 468.

DISCHARGE..... 1093. L/MIN

PERTINENT LITHOLOGY..... ALTERNATING LAYERS OF TUFF AND BASALT

WATER ANALYSIS

DATE/ANALYST..... OREGON STATE BOARD OF HEALTH

P.I..... 7.9

ANALYSIS IN PPM

ISOTOPES (0/00)

AL....	CR.....	MG...	0.3		
H.....	F.....	NA...	27.	SI02.	84.
RE....	FE(TOT).	NB...		S04..	3.3
CA....					
CI....					
CU....	K.....		5.		

REFERENCE AND IDENTIFICATION

COMPILED BY..... MAHNER, R. M.
 COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY
 COMPILER CROSS INDEX... 01
 REFERENCE..... HAMPTON AND BROWN, 1964

RECORD 00343

GEO THERM SAMPLE FILE

GEO THERM FILE ID: 0015410

NAME OF SAMPLE SOURCE... COOK CREEK WARM SPRING

WELL/SPRING NUMBER..... 5N/48E-30 88

LOCATION

TOWNSHIP-RANGECOORDINATES

COUNTRY..... UNITED STATES USN 048E 30 NW OF NW
 STATE..... OREGON
 COUNTY..... WALLOWA
 GEOLOGIC PROVINCE.. 29
 M&P REFERENCE..... MAPSHILLA CREEK 1124000, GRANGEVILLE 11250000

LAT/LONG... 45-53.49 N 116-52.41 W
 UTM ZONE... 11
 NORTHING... 5081782.
 509815.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1974/11/21 HULL, DONALD A.

TEMPERATURE (C)..... 36.0

DISCHARGE..... 30. L/MIN

DEPOSITS OR ALTERATION... NONE VISIBLE

WATER ANALYSIS

DATE/ANALYST..... 1975/04/16 L.W.S.

P.I..... 7.95

SPECIFIC CONDUCTANCE... 610.

ALKALINITY..... 36. AS CaCO3

TOTAL DISSOLVED SOLIDS... 386.

CHARGE IMBALANCE (% DIFF)... 1.2

ANALYSIS IN MG/L

ISOTOPES (0/00)

AG....	CO3.....	LI... L	0.01		
AL....	CR.....	MG...	1.1		
AS....	CS.....	MN... L	0.05		
H.....	F.....	NA...	62.	SI02.	46.
HE....	FE(TOT).	NB...		S04..	164.
HI....	GA.....	NH4.. L	0.01		
CA....	HCO3.....	NO3..	0.13		
CD....	H2S.....	PO4..	0.05		
CL....					
CO....	K.....		2.5		

QUALIFICATION FIELD... PH RANGE: 7.9-8.0

REFERENCE AND IDENTIFICATION

COMPILED BY..... ROWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 01
 REFERENCE..... *DOGAMI

RECORD 00344

GEO THERM FILE ID: 0015417

GEO THERM SAMPLE FILE

NAME OF SAMPLE SOURCE... J. SANDOZ WELL
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE
 STATE..... OREGON 01N 012E 38
 COUNTY..... WASCO
 GEOLOGIC PROVINCE.. 30
 MAP REFERENCE..... WHITE SALMON 1162500, THE DALLES 1125000

COORDINATES

LAT/LONG... 45-33.8 N 121-16.6 W
 UTM ZONE... +10
 NORTHING... 5046759.
 634491.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1958/07/31
 SAMPLE NUMBER..... 303 IN NEWCOMB, 1972
 TEMPERATURE (C)..... 27.8
 WELL DEPTH (M)..... 166.
 OTHER SAMPLE INFORMATION.. WATER BEARING ZONE 420-546'

WATER ANALYSIS

Pi..... 7.9
 SPECIFIC CONDUCTANCE..... 378.
 ALKALINITY..... AS CaCO3
 TOTAL DISSOLVED SOLIDS... 314.
 CHARGE IMBALANCE (% DIFF)... 0.2

ANALYSIS IN MG/L

AG....	CO3..... N				
AL.... N	CR.....	MG...	4.6		
AS....	CS.....	MN....	N		
H....	F..... 1.6	NA....	62.	SiO2..	95.
HE....	FE(TOT).. 0.04	NH....		SO4..	1.5
CA.... 16.	HCO3.... 234.				
CA+MG.	HG.....	PB...		U....	L 0.0001
CD....	H2S.....	P04..	N		
CL.... 7.5					
CO....	K..... 11.				

ISOTOPES 10/001

REFERENCE AND IDENTIFICATION

COMPILED BY..... ROWEN, RICHARD G.
 COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES
 COMPILER CROSS INDEX... 03
 REFERENCE..... *DOGAMI

RECORD 00345

GEO THERM FILE ID: 0000699

GEO THERM SAMPLE FILE

NAME OF SAMPLE SOURCE... KAHNEETAH HOT SPRINGS
 WELP NUMBER..... 07
 LOCATION
 COUNTRY..... UNITED STATES TOWNSHIP=RANGE
 STATE..... OREGON 08S 013E 20 SE OF SW NE.
 COUNTY..... WASCO
 GEOLOGIC PROVINCE..
 MAP REFERENCE..... EAGLE BUTTE 1124000, BEND 1125000

COORDINATES

LAT/LONG... 44-51.72 N 121-12.05 W
 UTM ZONE... +10
 NORTHING... 4968978.
 642146.

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1973/00/00 BARNES GROUP
 TEMPERATURE (C)..... 52.0
 DISCHARGE..... 200. L/MIN
 WATER TREATMENT..... PRESSURE - FILTERED THROUGH A .45 MICROMETRE MEMBRANE, PORTION ACIDIFIED, DILUTED

DEPOSITS OR ALTERATION.... TRAVERTINE
 PERTINENT LITHOLOGY..... RHYOLITE, ANDESITE, BASALT AND TUFFS
 WATER ANALYSIS

DATE/ANALYST..... 1973/00/00 BARNES GROUP

PH..... 8.32

SPECIFIC CONDUCTANCE..... 1370.

CHARGE IMBALANCE (% DIFF)... 0.7

ANALYSIS IN MG/L

AG.... L 0.02	CO3..... 9.	LI... 0.52	S....	<u>ISOTOPES (0/00)</u>	
AL....	CR.....	MG... L 0.05	SB... L 0.2	DEL D OF WATER.....	-118.9
AS....	CS..... L 0.1	MN... L 0.02		DEL O(18) OF WATER...	-14.75
AU.... L 0.1	CU..... L 0.01				
H.... 2.6	F..... 21.	NA... 325.	SI02. 104.		
HA.... L 0.1					
HF.... L 0.1	FE(TOT). L 0.02	NH... 34.	S04.. 34.		
HI....	GA.....	NH4.. L 0.05	SH... L 0.05		
CA.... 3.2	HCO3.... 493.				
CA+MG.	HG..... 0.0003	PB... L 0.06			
CD.... L 0.01					
CL.... 155.					
CO.... L 0.05	K..... 3.4	RB... 0.02			

REFERENCE AND IDENTIFICATION

COMPILED BY..... SANFORD, LINDA

COMPILER AFFILIATION... U.S. GEOLOGICAL SURVEY

COMPILER CROSS INDEX... 01

REFERENCE..... MARINER AND OTHERS, 1974A, MARINER AND OTHERS, 1975

RECORD 00346

 GEOTHERM SAMPLE FILE

GEOTHERM FILE ID: 0015403

NAME OF SAMPLE SOURCE... MILTON MARTIN WELL

WELL/SPRING NUMBER..... IN/13E-32AC

LOCATION

COUNTRY..... UNITED STATES TOWNSHIP-RANGE 01N 013E 32 SW OF NE

STATE..... OREGON

COUNTY..... WASCO

GEOLOGIC PROVINCE.. 30

MAP REFERENCE..... THE DALLES 1162500, THE DALLES 1125000

SAMPLE DESCRIPTION AND CONDITIONS

DATE/COLLECTOR..... 1958/07/30

SAMPLE NUMBER..... 314 IN NEWCOMB, 1972

TEMPERATURE (C)..... 22.2

WELL DEPTH (M)..... 130.

OTHER SAMPLE INFORMATION.. DEPTH OF PRODUCTION ZONE 330-336'

WATER ANALYSIS

PH..... 8.5

SPECIFIC CONDUCTANCE..... 279.

TOTAL DISSOLVED SOLIDS... 241.

CHARGE IMBALANCE (% DIFF)... 1.6

ANALYSIS IN MG/L

AG....	CO3..... N			<u>ISOTOPES (0/00)</u>	
AL.... 1.0	CR.....	MG... 2.9			
AS....	CS.....	MN... N			
H....	F..... 0.9	NA... 41.	SI02. 84.		
HF....	FE(TOT). 0.03	NH... 2.4	S04.. 2.4		
CA.... 15.	HCO3.... 167.	NO3.. N			

CA.MG.

MG.....

PB...

U.... L 0.0001

CO....

H2S.....

P04.. N

CL.... 6.0

CO....

K.....

7.2

REFERENCE AND IDENTIFICATION

COMPILED BY..... ROWEN, RICHARD G.

COMPILER AFFILIATION... OREGON DEPT. GEOLOGY AND MINERAL INDUSTRIES

COMPILER CROSS INDEX... 02

REFERENCE..... NEWCUMB, 1972

APPENDIX A

Index to GEOTHERM'S sample file for the state of Oregon. 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 preceding temperature.)

County	Name of Source	Latitude	Longitude	TNS	RNG	Sect.	I.D.	Temp.
BAKER	CITY OF HUNTINGTON WELL	44-21.0	N 117-16.2	W 14S	045E	18	0001700	24.
BAKER	FISHER HOT SPRING	44-58.48	N 118-02.61	W 07S	038E	10	0015444	37.0
BAKER	KROPP HOT SPRING	45-00.8	N 117-53.1	W 06S	039E	25	0015427	43.0
BAKER	NELSON SPRING	44-33.0	N 117-24.0	W 12S	043E	02	0001701	27.
BAKER	RADIUM HOT SPRINGS	44-55.82	N 117-56.36	W 07S	039E	28	0002206	57.2
BAKER	RADIUM HOT SPRINGS	44-55.82	N 117-56.36	W 07S	039E	28	0000709	58.
BAKER	SAMO SPRING	44-46.76	N 117-48.65	W 09S	040E	16	0015420	27.0
CLACKAMAS	ACID-SULFATE SPRING ON MT. HOOD	45-22.3	N 121-41.8	W 02S	009E	29	0015469	
CLACKAMAS	AUSTIN HOT SPRINGS (CAREY)	45-01.30	N 122-00.50	W 06S	007E	30	0000697	86.0
CLACKAMAS	BAGBY HOT SPRINGS	44-56.15	N 122-10.35	W 07S	005E	26	0015422	57.2
CLACKAMAS	BAGBY HOT SPRINGS	44-56.15	N 122-10.35	W 07S	005E	26	0015451	58.
CLACKAMAS	GEOTHERMAL GRADIENT TEST NEAR AUSTIN HOT SPRING	45-01.65	N 121-57.80	W 06S	007E	21	0015446	35.6
CLACKAMAS	MT. HOOD FUMARoles	45-22.3	N 121-41.8	W 02S	009E	29	0015472	89.4
CLACKAMAS	MT. HOOD FUMARoles	45-22.3	N 121-41.8	W 02S	009E	29	0015473	
CLACKAMAS	MT. HOOD FUMARoles	45-22.3	N 121-41.8	W 02S	009E	29	0015474	91.1
CLACKAMAS	MT. HOOD FUMARoles	45-22.3	N 121-41.8	W 02S	009E	29	0015937	86.1
CLACKAMAS	MT. HOOD FUMARoles	45-22.3	N 121-41.8	W 02S	009E	29	0015950	71.1
CLACKAMAS	MT. HOOD FUMARoles	45-22.3	N 121-41.8	W 02S	009E	29	0015951	89.4
CLACKAMAS	MT. HOOD FUMARoles	45-22.3	N 121-41.8	W 02S	009E	29	0015952	89.4
CLACKAMAS	MT. HOOD FUMARoles	45-22.3	N 121-41.8	W 02S	009E	29	0015471	
CLACKAMAS	MT. HOOD FUMARoles	45-22.3	N 121-41.8	W 02S	009E	29	0015470	89.4
CLACKAMAS	SWIM WARM SPRINGS	45-17.7	N 121-44.3	W 03S	008.5	24	0015421	26.0
CROOK	CAMP CREEK	44-00.6	N 120-09.0	W			0001702	23.
CROOK	CRADDOCK WELL	44-12.73	N 121-01.02	W 16S	014E	03	0003017	24.3
CROOK	DEADMAN SPRINGS	44-10.045	N 120-56.020	W 16S	015E	16	0003007	13.
CROOK	E. MEEKER WELL	44-11.42	N 121-01.65	W 16S	014E	10	0003021	24.9
CROOK	JACKSON WELL	44-11.1	N 121-02.9	W 16S	014E	16	0003018	27.
CROOK	PD-1 DOGAMI DRILL HOLE	44-09.022	N 121-03.013	W 16S	014E	016	0003014	32.5
CROOK	SAMPALUESI WELL	44-14.80	N 120-57.17	W 15S	015E	29	0003033	21.6
CROOK	T. BEARDY WELL	44-11.23	N 121-02.05	W 16S	014E	15	0003016	24.5
CROOK	T. O. MARSHALL WELL	44-10.73	N 121-03.30	W 16S	014E	21	0001605	33.3
CROOK	UNNAMED SPRING ON S. FORK CROOKED RIVER	44-04.2	N 120-02.4	W 17S	022E		0001703	31.
CROOK	WEIGAND WELL	44-15.5	N 121-03.0	W 15S	014E	33	0003015	24.
DESCHUTES	DECKER WELL NO. 2	43-48.026	N 120-45.053	W 20S	016E	24	0003009	25.1
DESCHUTES	EAST LAKE HOT SPRINGS	43-43.1	N 121-12.2	W 21S	013E	29	0000781	62.0
DESCHUTES	EAST LAKE HOT SPRINGS	43-43.1	N 121-12.2	W 21S	013E	29	0015453	49.
DESCHUTES	EAST LAKE HOT SPRINGS	43-43.1	N 121-12.2	W 21S	013E	29	0015452	
DESCHUTES	PAULINA HOT SPRINGS	43-43.75	N 121-15.125	W 21S	012E	26	0015947	
DESCHUTES	PAULINA HOT SPRINGS	43-43.75	N 121-15.125	W 21S	012E	26	0015454	
DESCHUTES	WARM WELL AT LITTLE CRATER CAMPGROUND	43-42.9	N 121-14.5	W 21S	012E	36	0015455	35.5
DOUGLAS	UMPQUA HOT SPRINGS	43-17.70	N 122-21.917	W 26S	004E	20	0015456	46.5
DOUGLAS	UMPQUA HOT SPRINGS	43-17.67	N 122-21.917	W 26S	004E	20	0015949	46.
GRANT	BLUE MOUNTAIN HOT SPRINGS	44-21.30	N 118-34.40	W 14S	034E	13	0000719	58.0
GRANT	BRISBOIS RANCH SPRINGS	44-05.4	N 119-25.2	W 17S	027E	13	0001704	22.
GRANT	JOAQUIN MILLER RESORT	44-16.81	N 118-57.36	W 15S	031E	11	0015948	40.

GRANT	LINEKILN SPRING	44-22.5	N	118-43.8	W	14S	033E	10	0001705	21.
GRANT	RITTER HOT SPRINGS	44-53.60	N	119-08.50	W	08S	030E	08	0000715	41.0
GRANT	WEBERG HOT SPRING	44-00.1	N	119-38.8	W	18S	026E	18	0000693	46.0
HARNEY	ALVORD HOT SPRINGS	42-32.66	N	118-31.66	W	34S	034E	32	0000681	76.0
HARNEY	ALVORD HOT SPRINGS	42-32.66	N	118-31.66	W	34S	034E	32	0015429	82.2
HARNEY	ALVORD HOT SPRINGS	42-32.66	N	118-31.66	W	34S	034E	32	0015461	78.5
HARNEY	ALVORD HOT SPRINGS	42-32.66	N	118-31.66	W	34S	034E	32	0015460	78.5
HARNEY	BAKER SPRING	43-29.4	N	119-06.0	W	24S	030E	24	0001680	21.
HARNEY	BARNYARD SPRING	43-15.05	N	119-14.02	W	27S	029E	06	0003060	22.0
HARNEY	BASQUE SPRING	43-16.2	N	119-17.1	W	26S	029E	31	0001696	23.
HARNEY	BATHUB SPRING	43-11.80	N	119-06.45	W	27S	29.5E	28	0003068	51.1
HARNEY	CITY OF HINES WELL	43-33.57	N	119-05.31	W	23S	030E	23	0015441	17.0
HARNEY	CITY OF HINES WELL	43-32.4	N	119-06.6	W				0001684	17.
HARNEY	CRANE HOT SPRING	43-26.45	N	118-38.30	W	24S	033E	34	0003046	76.0
HARNEY	CRANE HOT SPRINGS	43-26.45	N	118-38.30	W	24S	033E	34	0015938	49.
HARNEY	CRANE HOT SPRINGS	43-26.45	N	118-38.30	W	24S	033E	34	0015435	80.0
HARNEY	CRANE HOT SPRINGS	43-26.45	N	118-38.30	W	24S	033E	34	0000727	78.0
HARNEY	DEVELOPMENT WELL	43-32.33	N	119-05.02	W	23S	030E	35	0003053	26.5
HARNEY	DOG MOUNTAIN OIL TEST WELL	43-23.4	N	119-04.2	W	25S	030E	24	0001682	60.
HARNEY	DUNN RANCH ARTESIAN WELL NO. 1	43-15.06	N	119-14.01	W	26S	030E	33	0003043	26.
HARNEY	EAGLES NEST SPRING NO. 1	43-12.38	N	119-03.45	W	27S	29.5E	25	0003070	41.7
HARNEY	EAGLES NEST SPRING NO. 2	43-12.80	N	119-03.62	W	27S	29.5E	24	0003067	28.1
HARNEY	FISCHER WELL	43-31.32	N	119-05.00	W	24S	030E	02	0003054	25.5
HARNEY	GOODMAN SPRING (HOTCHKISS)	43-31.73	N	119-04.83	W	23S	030E	35	0015437	22.0
HARNEY	HARNEY LAKE HOT SPRINGS	43-10.6	N	119-03.6	W	27S	29.5E	36	0003065	67.
HARNEY	HARNEY VALLEY DEV CO. OIL TEST WELL	43-30.25	N	118-54.30	W	24S	032E	08	0015436	46.0
HARNEY	HARNEY VALLEY DEV. CO. OIL WELL	43-30.25	N	118-54.30	W	24S	032E	08	0003045	50.
HARNEY	HINES LUMBER CO. WELL	43-32.34	N	119-04.80	W	23S	030E	35	0015439	26.0
HARNEY	HINES MILL NO. 2	43-32.82	N	119-04.80	W	23S	030E	26	0003057	27.8
HARNEY	HINES MILL WELL NO. 1	43-33.43	N	119-04.85	W	23S	030E	35	0003056	28.5
HARNEY	HOGHOUSE HOT SPRING	42-53.7	N	118-53.7	W	31S	032E	13	0001679	27.
HARNEY	HOT BORAX LAKE	42-19.60	N	118-36.17	W	37S	033E	14	0000782	36.0
HARNEY	HOT BORAX LAKE	42-19.60	N	118-36.17	W	37S	033E	14	0002208	R 29.4
HARNEY	HOT BORAX LAKE	42-19.60	N	118-36.17	W	37S	033E	14	0002211	31.1
HARNEY	HOTCHKISS WELL	43-31.42	N	119-03.83	W	24S	030E	01	0015438	27.
HARNEY	HOTCHKISS WELL	43-31.42	N	119-03.83	W	24S	030E	01	0015940	27.
HARNEY	HOTCHKISS WELL	43-31.42	N	119-03.83	W	24S	030E	01	0003050	33.
HARNEY	HOWELL OIL TEST	43-21.6	N	118-53.4	W	26S	032E	05	0001681	41.
HARNEY	HUGHET SPRING	43-15.0	N	119-15.6	W	27S	029E	08	0001697	20.
HARNEY	ISLAND RANCH WELL	43-25.40	N	118-55.95	W	25S	032E	07	0015434	41.0
HARNEY	JOHNSON SPRING	43-15.6	N	119-16.8	W	27S	029E	05	0001698	22.
HARNEY	LONG HOLLOW WELL	43-19.03	N	118-33.01	W	26S	034E	08	0003042	25.
HARNEY	LYNCH SPRING	43-15.0	N	119-01.5	W	27S	030E	08	0001699	18.
HARNEY	MICKEY SPRINGS	42-40.6	N	118-20.7	W	33S	035E	13	0000679	73.0
HARNEY	MICKEY SPRINGS	42-40.54	N	118-20.67	W	33S	035E	13	0015459	
HARNEY	MICKEY SPRINGS	42-40.6	N	118-20.7	W	33S	035E	13	0015458	86.
HARNEY	MICKEY SPRINGS	42-40.6	N	118-20.7	W	33S	035E	13	0015457	86.
HARNEY	MICKEY SPRINGS	42-40.6	N	118-20.7	W	33S	035E	13	0015433	85.
HARNEY	MILLPOND SPRING	43-32.43	N	119-04.86	W	23S	030E	35	0015941	26.
HARNEY	NORTH OF VENATOR	43-23.4	N	118-18.9	W				0001690	45.
HARNEY	O. J. THOMAS	43-37.65	N	118-51.75	W	22S	032E	34	0015440	72.0
HARNEY	O. J. THOMAS WELL	43-37.65	N	118-51.74	W	22S	032E	35	0003048	72.
HARNEY	OU STATION SPRING	43-18.00	N	119-19.00	W	26S	028E	36	0003061	23.
HARNEY	POTTERS SWAMP ART. WELL FIELD	43-30.04	N	119-05.00	W	24S	030E	11	0003039	27.
HARNEY	POWERHOUSE WELL	43-33.03	N	119-04.77	W	23S	030E	26	0003055	25.

HARNEY	REST STOP WARM WELL	43-31.060N	119-04.040W	23S	030E	36	0003040	26.
HARNEY	ROADLAND SPRING	43-29.4	N 119-07.2	W 24S	030E	11	0001685	22.
HARNEY	SAGE HEN CREEK ART. WELL	43-28.041N	119-04.024W	24S	030E	24	0003038	23.
HARNEY	THOMPSON IRR. WELL	43-18.048N	118-35.019W	26S	033E	13	0003037	24.
HARNEY	TRAILER COURT WELL	43-32.38	N 119-04.68	W 23S	031E	36	0003058	26.5
HARNEY	UNAMED WARM SPRINGS	43-17.008N	119-17.008W	26S	029E	31	0003062	21.
HARNEY	UNNAMED	43-31.8	N 119-04.5	W 23S	030E	36	0001686	25.
HARNEY	UNNAMED	42-16.5	N 119-22.5	W 26S	028E	33	0001691	20.
HARNEY	UNNAMED	43-20.4	N 119-26.1	W 26S	027E	12	0001689	20.
HARNEY	UNNAMED	42-49.2	N 118-54.0	W 32S	032E	12	0001688	32.
HARNEY	UNNAMED	42-16.2	N 118-41.4	W 38S	034E	22	0001695	32.
HARNEY	UNNAMED	43-57.6	N 119-38.4	W 19S	026E	05	0001694	29.
HARNEY	UNNAMED	42-18.0	N 118-17.4	W 37S	036E	33	0001693	46.
HARNEY	UNNAMED	42-15.6	N 118-18.6	W 38S	037E	24	0001692	38.
HARNEY	UNNAMED	42-50.0	N 118-52.2	W 32S	032.5	05	0001687	28.
HARNEY	UNNAMED HOT SPRING NEAR HARNEY LAKE	43-10.6	N 119-03.6	W 27S	29.5E	36	0000729	68.0
HARNEY	UNNAMED HOT SPRING NEAR HARNEY LAKE	43-10.6	N 119-03.6	W 27S	29.5E	36	0015939	59.
HARNEY	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	42-19.82	N 118-36.16	W 37S	033E	14	0015467	84.
HARNEY	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	42-20.17	N 118-36.08	W 37S	033E	11	0015466	97.
HARNEY	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	42-20.17	N 118-36.08	W 37S	033E	11	0015462	91.
HARNEY	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	42-19.82	N 118-36.16	W 37S	033E	14	0015465	86.
HARNEY	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	42-19.82	N 118-36.16	W 37S	033E	14	0015464	90.5
HARNEY	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	42-20.08	N 118-36.11	W 37S	033E	11	0002219	87.0
HARNEY	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	42-20.17	N 118-36.08	W 37S	033E	11	0000683	96.0
HARNEY	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	42-19.82	N 118-36.16	W 37S	033E	14	0002210	79.4
HARNEY	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	42-20.17	N 118-36.08	W 37S	033E	11	0002209	R 73.9
HARNEY	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	42-20.08	N 118-36.11	W 37S	033E	11	0015463	97.
HARNEY	UNNAMED HOT SPRING NEAR TROUT CREEK (FLAGSTAFF	42-11.3	N 118-23.0	W 39S	037E	16	0015428	
HARNEY	UNNAMED HOT SPRING NEAR TROUT CREEK (FLAGSTAFF	42-11.3	N 118-23.0	W 39S	037E	16	0000731	52.0
HARNEY	UNNAMED SPRING	43-39.76	N 118-44.30	W 22S	32.5E	14	0015942	22.
HARNEY	UNNAMED WARM SPRING	43-16.026N	119-15.020W	27S	029E	09	0003063	21.
HARNEY	UNNAMED WARM SPRING IN HARNEY LAKE	43-12.006N	119-04.027W	27S	29.5E	36	0003064	22.
HARNEY	WARM SPRING NEAR VENATOR	43-23.7	N 118-18.4	W 25S	036E	16	0015345	41.
HARNEY	WARM SPRINGS RESERVOIR	43-39.0	N 118-15.6	W			0001683	62.
HOOD RIVER	PARKDALE GRADIENT HOLE	45-29.75	N 121-33.5	W 01S	010E	09	0015971	24.
JACKSON	JACKSON HOT SPRING	42-13.30	N 122-44.65	W 38S	001E	48	0015344	35.0
KLAMATH	ABE BOEIM	42-04.05	N 121-45.40	W 40S	009E	28	0003005	25.
KLAMATH	ABE BOEIM	42-04.05	N 121-45.40	W 40S	009E	28	0015309	25.0
KLAMATH	ALFRED JACOBSEN	42-07.65	N 121-44.40	W 39S	009E	34	0015325	30.0
KLAMATH	ANNIE SPRING	42-52.35	N 122-10.10	W 31S	006E	19	0015312	25.0
KLAMATH	BILL HILL	42-03.55	N 121-36.60	W 40S	010E	26	0015338	20.0
KLAMATH	CLAUDE SHUCK	42-11.35	N 121-39.80	W 39S	010E	08	0015327	24.
KLAMATH	CLYDE DEHLINGER	42-06.75	N 121-39.65	W 40S	010E	05	0015337	24.0
KLAMATH	DAN O'CONNOR	42-04.85	N 121-43.85	W 40S	009E	23	0015336	24.0
KLAMATH	EAGLE POINT SPRING	42-25.85	N 121-57.75	W 36S	007E	23	0015300	Q 35.
KLAMATH	FALCON HEIGHTS SCHOOL	42-07.80	N 121-45.10	W 39S	009E	34	0015305	37.0
KLAMATH	GEORGE CARTER	42-00.55	N 121-36.90	W 41S	010E	14	0015343	22.
KLAMATH	GEORGE STACY CO.	42-08.40	N 121-39.80	W 39S	010E	32	0015333	25.0
KLAMATH	HOWARD HOLLIDAY	42-10.55	N 121-49.70	W 39S	008E	13	0015320	25.0
KLAMATH	J. E. FRIESEN	42-13.75	N 121-46.15	W 38S	009E	28	0015315	73.0
KLAMATH	J. K. O'NEIL	42-00.30	N 121-38.10	W 39S	010E	34	0015335	23.0
KLAMATH	J. K. O'NEIL	42-08.30	N 121-38.10	W 39S	010E	34	0015442	
KLAMATH	JACK LISKEY	42-02.95	N 121-44.40	W 40S	009E	34	0015310	93.0
KLAMATH	JACK LISKEY	42-02.25	N 121-43.60	W 41S	009E	02	0015311	22.0
KLAMATH	JACK LISKEY	42-02.25	N 121-43.60	W 41S	009E	02	0003004	25.

KLAMATH	JACK O'CONNER	42-02.00 N 121-42.95 W 41S 009E	01	0015339	38.0
KLAMATH	KLAMATH ICE CO.	42-13.40 N 121-01.40 W 38S 009E	33	0015431	51.7
KLAMATH	LEN DOBRY	42-08.90 N 121-38.65 W 39S 010E	28	0015331	21.0
KLAMATH	LESTER BROOKSHIRE	42-08.70 N 121-39.70 W 39S 010E	29	0015332	25.0
KLAMATH	LOIS MERRUYS	42-13.65 N 121-01.45 W 38S 009E	33	0015319	71.0
KLAMATH	MAZAMA SCHOOL	42-11.85 N 121-43.90 W 39S 009E	11	0015322	61.0
KLAMATH	MEDO-BELL DAIRY	42-13.8 N 121-46.4 W 38S 009E	28	0015302	81.0
KLAMATH	MEDO-BELL DAIRY	42-13.8 N 121-46.4 W 38S 009E	28	0003001	81.
KLAMATH	MELVIN FEIGI	42-08.20 N 121-30.10 W 40S 011E	03	0015430	31.0
KLAMATH	MELVIN MCCOLLUM	42-11.50 N 121-41.05 W 39S 010E	07	0015306	25.0
KLAMATH	MILLS SCHOOL	42-13.45 N 121-45.90 W 38S 009E	33	0015303	89.0
KLAMATH	MONTE DEHLINGER	42-07.60 N 121-40.40 W 39S 010E	32	0015334	26.0
KLAMATH	MOYINA WATER CO.	42-12.60 N 121-42.45 W 39S 009E	01	0015321	G 50.
KLAMATH	O. H. OSBORN	42-03.30 N 121-44.70 W 40S 009E	27	0015308	90.0
KLAMATH	O.I.T. NO. 5	42-13.85 N 121-46.40 W 38S 009E	28	0015419	89.0
KLAMATH	O.I.T. NO. 6	42-14.90 N 121-46.85 W 38S 009E	20	0015301	88.0
KLAMATH	O.I.T. NO. 6	42-14.90 N 121-46.85 W 38S 009E	20	0003006	79.
KLAMATH	O'CONNER LIVESTOCK CO.	42-01.00 N 121-41.00 W 41S 010E	07	0015342	30.0
KLAMATH	OLENE GAP HOT SPRINGS	42-10.45 N 121-36.90 W 39S 010E	14	0000705	74.0
KLAMATH	OLENE GAP HOT SPRINGS	42-10.45 N 121-36.90 W 39S 010E	14	0003003	87.
KLAMATH	OLENE GAP HOT SPRINGS	42-10.45 N 121-36.90 W 39S 010E	14	0015443	73.9
KLAMATH	OREGON WATER CORP.(1)	42-13.30 N 121-47.45 W 38S 009E	32	0015316	Q 21.
KLAMATH	OREGON WATER CORP.(2)	42-13.30 N 121-47.45 W 38S 009E	32	0015317	21.0
KLAMATH	OREGON WATER CORP.(3)	42-13.30 N 121-47.45 W 38S 009E	32	0015318	20.0
KLAMATH	OREGON WATER CORP.(4)	42-12.10 N 121-41.40 W 39S 010E	06	0015326	26.
KLAMATH	POPE'S MEAT CO.	42-01.95 N 121-37.50 W 41S 010E	03	0015341	22.0
KLAMATH	RAY BIXLER	42-11.55 N 121-37.95 W 39S 010E	10	0015328	22.0
KLAMATH	RAY SMITH WELL	42-27.25 N 121-25.40 W 36S 011E	16	0015432	25.
KLAMATH	ROBERT LANGLEY	42-10.75 N 121-37.90 W 39S 010E	15	0015330	23.
KLAMATH	ROENICKE HOT SPRING	42-10.40 N 121-37.05 W 39S 010E	14	0015329	Q 65.0
KLAMATH	S. AND C. KILGORE	42-06.40 N 121-03.80 W 40S 014E	16	0015314	20.0
KLAMATH	TOWN OF MERRILL	42-01.50 N 121-36.00 W 41S 010E	02	0015340	21.0
KLAMATH	U.S. AIR FORCE(1)	42-08.05 N 121-45.25 W 39S 009E	34	0015323	Q 31.0
KLAMATH	U.S. AIR FORCE(2)	42-08.10 N 121-45.35 W 39S 009E	34	0015324	Q 30.
KLAMATH	MEYERHAUSER WELL NO. 4	42-10.70 N 121-48.10 W 39S 009E	18	0015304	22.
LAKE	ADEL WELL	42-10.8 N 119-52.8 W 39S 024E	23	0001721	71.
LAKE	ANA RIVER SPRING	42-59.8 N 120-45.3 W 30S 017E	06	0002215	18.9
LAKE	ANTELOPE HOT SPRINGS	42-29.97 N 119-41.48 W 35S 026E	32	0002216	40.0
LAKE	ANTONE SPRINGS	42-18.52 N 120-23.78 W 38S 020E	06	0015954	22.5
LAKE	BARRY RANCH HOT SPRINGS	42-09.35 N 120-20.67 W 39S 020E	27	0015976	92.5
LAKE	BARRY RANCH HOT SPRINGS (GUS ALLEN)	42-09.35 N 120-20.67 W 39S 020E	27	0002217	85.0
LAKE	BARRY RANCH HOT SPRINGS (GUS ALLEN)	42-09.35 N 120-20.67 W 39S 020E	27	0000780	88.0
LAKE	BEAN HOT SPRING	42-23.4 N 120-19.4 W 37S 020E	11	0001716	20.
LAKE	CHAMBERS RANCH IRRIGATION WELL	42-45. N 120-20.66 W 38S 020E	22	0015955	28.5
LAKE	COLVERT SPRING	42-21.44 N 120-21.51 W 37S 020E	16	0015963	16.
LAKE	CRUMP SPRING	42-13.60 N 119-52.87 W 38S 024E	34	0002223	40.0
LAKE	CRUMP SPRING	42-13.60 N 119-52.87 W 38S 024E	34	0000691	78.0
LAKE	CRUMP WELL (1)	42-13.59 N 119-52.87 W 38S 024E	34	0002221	99.0
LAKE	CRUMP WELL (2)	42-13.59 N 119-52.87 W 38S 024E	34	0002220	88.0
LAKE	DON LINDSEY WELL	42-14.10 N 120-20.18 W 38S 020E	33	0015956	48.
LAKE	E. MCDONALD HOT WELL	42-14.500N 120-21.967W 38S 020E	33	0015966	94.
LAKE	EVERETT MCDONALD HOT SPRING	42-14.500N 120-21.968W 38S 020E	33	0015953	77.5
LAKE	FISHER HOT SPRINGS	42-17.84 N 119-46.55 W 38S 025E	10	0000717	68.0
LAKE	GLASS BUTTE MERCURY MINE WELL	43-32.4 N 119-55.8 W 23S 023E	27	0001718	48.
LAKE	HALLINAN SPRINGS	42-04.8 N 119-54.6 W 40S 024E	30	0001719	71.

LAKE	HAMMERSLY CANYON NO. 1 GRADIENT HOLE	42-13.12 N 120-20.89 W 39S 020E	03	0015993	50.
LAKE	HAMMERSLY CANYON NO. 1 GRADIENT HOLE	42-13.12 N 120-20.89 W 39S 020E	03	0015984	71.
LAKE	HART MTN. HOT SPRING	42-28.2 N 119-42.0 W 36S 026E	07	0001725	
LAKE	HOUSTON WELL	42-04.8 N 119-51.6 W 40S 024E	27	0001720	71.
LAKE	HUNTER HOT SPRING SOUTHWEST	42-12.9 N 120-22.4 W 39S 020E	04	0015985	87.
LAKE	HUNTER WELL	42-08.10 N 120-21.30 W 39S 020E	33	0015962	95.
LAKE	HUNTERS HOT SPRINGS	42-13.28 N 120-22.08 W 39S 020E	04	0015978	95.
LAKE	HUNTERS HOT SPRINGS	42-13.28 N 120-22.08 W 39S 020E	04	0015969	94.
LAKE	HUNTERS HOT SPRINGS	42-13.28 N 120-22.08 W 39S 020E	04	0015970	88.
LAKE	HUNTERS HOT SPRINGS (LAKEVIEW)	42-13.32 N 120-22.09 W 39S 020E	04	0002226	86.0
LAKE	HUNTERS HOT SPRINGS (LAKEVIEW)	42-13.32 N 120-22.09 W 39S 020E	04	0002228	98.0
LAKE	HUNTERS HOT SPRINGS (LAKEVIEW)	42-13.32 N 120-22.09 W 39S 020E	04	0000689	96.0
LAKE	INGLETON WELL	42-13.20 N 120-21.57 W 39S 020E	04	0015965	23.
LAKE	LAKEVIEW CITY WELL NO. 3	42-11.333N 120-21.130W 39S 020E	16	0015959	16.5
LAKE	LAKEVIEW CITY WELL NO. 4	42-11.333N 120-21.139W 39S 020E	16	0015958	19.5
LAKE	LAKEVIEW CITY WELL NO. 5	42-11.333N 120-20.266W 39S 020E	15	0015957	37.5
LAKE	LAKEVIEW CITY WELL NO. 7	42-11.333N 120-21.463N 39S 020E	16	0015960	16.
LAKE	LEDFORD WELL	42-01.08 N 120-17.67 W 41S 021E	18	0015964	21.
LAKE	LEITHEAD (JOYLAND PLUNGE) HOT SPRING	42-09.708N 120-20.608W 39S 020E	27	0015977	70.
LAKE	LEITHEAD (JOYLAND PLUNGE) HOT SPRING	42-09.708N 120-20.608W 39S 020E	27	0002224	69.4
LAKE	LOST CABIN	42-55.2 N 120-39.0 W 30S 017E	25	0001712	20.
LAKE	MOSS 1 WELL	42-19.2 N 119-52.7 W 38S 024E	03	0001723	22.
LAKE	MOSS 2 WELL	42-17.4 N 119-52.8 W 38S 024E	10	0001722	28.
LAKE	PARDON	42-56.4 N 120-47.4 W 30S 016E	35	0001715	24.
LAKE	ROBBIE WELL	42-10.43 N 120-22.47 W 39S 020E	04	0015967	80.
LAKE	ROCKFORD (OLD DETER) RANCH	42-06.350N 120-17.327W 40S 020E	01	0015961	77.
LAKE	SUMMER LAKE HOT SPRING (WOODWARD)	42-43.53 N 120-38.75 W 33S 017E	12	0002229	46.7
LAKE	SUMMER LAKE HOT SPRING (WOODWARD)	42-43.53 N 120-38.75 W 33S 017E	12	0000707	43.0
LAKE	U.S. SOIL CONSERVATION SERVICE WELL	42-42.6 N 120-34.5 W 33S 018E	15	0001713	32.
LAKE	UNNAMED	42-36.0 N 120-10.2 W 34S 022E	30	0001714	27.
LAKE	UPPER BARRY NO. 1	42-09.4 N 120-20.38 W 39S 020E	27	0015986	63.
LAKE	UPPER ROCK CREEK	42-32.4 N 119-39.6 W 35S 026E	16	0001724	46.
LAKE	WHITE ROCK RANCH HOT SPRING	42-20.4 N 120-19.5 W 36S 020E	26	0001717	20.
LANE	BELKNAP HOT SPRINGS	44-11.65 N 122-02.90 W 16S 006E	11	0000703	71.0
LANE	BELKNAP HOT SPRINGS	44-11.65 N 122-02.90 W 16S 006E	11	0002230	86.7
LANE	BIGELOW HOT SPRINGS	44-14.35 N 122-03.50 W 15S 006E	26	0015423	61.0
LANE	COUGAR RESERVOIR HOT SPRINGS (RIDER)	44-04.95 N 122-14.00 W 17S 005E	20	0000787	44.0
LANE	COUGAR RESERVOIR HOT SPRINGS (RIDER)	44-04.95 N 122-14.00 W 17S 005E	20	0015426	42.0
LANE	FOLEY SPRINGS	44-09.20 N 122-05.85 W 16S 006E	28	0015424	80.6
LANE	FRISSEL ROAD SPRING	44-12.06 N 122-03. W 16S 006E	02	0015973	18.
LANE	KITSON HOT SPRING	43-41.35 N 122-22.32 W 22S 004E	06	0015968	44.
LANE	KITSON SPRINGS	43-41.35 N 122-22.50 W 22S 004E	06	0015468	43.
LANE	KITSON SPRINGS	43-41.35 N 122-22.50 W 22S 004E	06	0002232	44.4
LANE	MCCREDIE HOT SPRING NO. 2	43-42.6 N 122-17.3 W 21S 004E	36	0015975	62.
LANE	MCCREDIE SPRINGS	43-42.35 N 122-17.20 W 21S 004E	36	0015425	71.0
LANE	MCCREDIE SPRINGS	43-42.35 N 122-17.20 W 21S 004E	36	0000783	73.
LANE	WALL CREEK WARM SPRINGS	43-48.45 N 122-18.55 W 20S 004E	26	0015401	41.0
LANE	WALL CREEK WARM SPRINGS	43-48.5 N 122-18.2 W 20S 004E	26	0015974	40.
LANE	ALKALI FLAT GRADIENT WELL	44-06.60 N 117-13.60 W 17S 045E	08	0015412	24.0
MALHEUR	ARTESIAN WELL	43-41.8 N 117-05.7 W 21S 046E	33	0015411	46.0
MALHEUR	BEULAH HOT SPRINGS	43-56.65 N 118-08.15 W 19S 037E	02	0000723	60.0
MALHEUR	CANTER'S HOT SPRING(JORDAN VALLEY)	42-54.0 N 117-04.2 W 30S 046E	02	0001736	50.
MALHEUR	DEER BUTTE II.S./MITCHELL BUTTE SYSTEM	43-44.7 N 117-10.2 W		0001728	
MALHEUR	JONESBORO WARM SPRING	43-47.5 N 117-57.5 W 20S 039E	29	0015405	44.5
MALHEUR	JUNTURA WARM SPRING #1	43-45.5 N 118-04.0 W 21S 038E	09	0015407	25.0

MALHEUR	JUNTURA WARM SPRING #2	43-45.5	N 118-05.5	W 21S 038E	17	0015409	35.0
MALHEUR	LUCE HOT SPRINGS	43-28.15	N 118-12.08	W 24S 037E	20	0000725	63.0
MALHEUR	MALHEUR BUTTE SPRINGS(MAY NOT EXIST)	42-02.7	N 117-01.2	W 17S 047E	31	0001740	75.
MALHEUR	MITCHELL BUTTE HOT SPRINGS	43-45.78	N 117-09.34	W 21S 045E	12	0000784	62.0
MALHEUR	NEAL HOT SPRINGS	44-01.45	N 117-27.60	W 18S 043E	09	0000687	87.0
MALHEUR	NELSON WELL	43-57.6	N 117-37.8	W 18S 043E	34	0001733	21.
MALHEUR	NORTH HARPER BLM WELL	43-55.76	N 117-12.72	W 19S 045E	09	0015413	36.0
MALHEUR	PAGE WELL	43-52.5	N 117-13.8	W 19S 045E	28	0001731	40.
MALHEUR	ROUND MTN. BLM WELL	42-49.2	N 117-35.4	W 31S 042E	33	0001730	40.
MALHEUR	S. BLACK WILLOW SPRING/SNIVELY	43-42.0	N 117-10.8	W		0001727	25.
MALHEUR	SAND HOLLOW OIL TEST	43-56.6	N 117-22.5	W 19S 044E	19	0001739	50.
MALHEUR	SCOTT'S SPRING	42-46.8	N 117-43.2	W		0001735	20.
MALHEUR	TUDORS SPRING	42-37.2	N 117-59.8	W 33S 039E	14	0001734	20.
MALHEUR	UNNAMED (J. SEIDER PROPERTY)	43-53.50	N 117-29.00	W 19S 043E	30	0015979	82.
MALHEUR	UNNAMED HOT SPRING AT THREE FORKS	42-32.0	N 117-10.9	W 35S 045E	03	0000786	34.0
MALHEUR	UNNAMED HOT SPRING AT THREE FORKS	42-32.0	N 117-10.9	W 35S 045E	03	0002239	35.0
MALHEUR	UNNAMED HOT SPRING NEAR MCDERMITT	42-04.7	N 117-45.6	W 40S 042E	25	0000733	52.0
MALHEUR	UNNAMED HOT SPRING NEAR MCDERMITT	42-04.7	N 117-45.6	W 40S 042E	25	0002238	53.5
MALHEUR	UNNAMED HOT SPRINGS NEAR LITTLE VALLEY	43-53.48	N 117-30.00	W 19S 043E	30	0000721	70.0
MALHEUR	UNNAMED SPRING	43-18.0	N 117-22.5	W 27S 043E	18	0001738	50.
MALHEUR	UNNAMED SPRING	43-06.9	N 117-52.8	W		0001737	50.
MALHEUR	UNNAMED WARM SPRING NEAR BULLY CREEK	44-01.95	N 117-26.95	W 18S 043E	04	0015414	37.0
MALHEUR	VALE HOT SPRINGS	43-58.96	N 117-13.98	W 18S 045E	20	0000685	73.0
MALHEUR	VALE HOT SPRINGS	43-58.96	N 117-13.98	W 18S 045E	20	0003002	90.
MALHEUR	VALE WELL	43-55.2	N 117-13.2	W 19S 045E	09	0001729	40.
MALHEUR	VINES HILL BLM WELL	43-54.3	N 117-25.8	W 19S 043E	22	0001726	40.
MALHEUR	WHITEHORSE RANCH WELL	42-18.0	N 118-12.6	W 37S 037E	31	0001732	32.
MARION	BREITENBUSH HOT SPRINGS	44-46.87	N 121-58.5	W 09S 007E	20	0015972	98.
MARION	BREITENBUSH HOT SPRINGS	44-46.86	N 121-58.54	W 09S 007E	20	0000701	92.0
MARION	BREITENBUSH HOT SPRINGS - WELL	44-46.86	N 121-58.54	W 09S 007E	20	0015445	110.
MARION	BREITENBUSH WELL NO. 3	44-46.93	N 121-58.35	W 09S 007E	20	0003072	74.
MORROW	WELLS SPRING (WELL)	45-37.8	N 119-48.0	W 02N 025E	28	0001708	27.
MULTNOMAH	CAMP COLLINS WARM SPRINGS (WELL)	45-30.2	N 122-18.3	W 01S 004E	10	0000296	29.
MULTNOMAH	CORBETT WARM SPRING	45-32.5	N 122-17.5	W 01N 004E	27	0015415	18.0
MULTNOMAH	YMCA CAMP COLLINS	45-30.2	N 122-18.3	W 01S 004E	10	0015416	23.3
UMATILLA	BINGHAM SPRINGS	45-44.47	N 118-13.96	W 03N 037E	18	0015347	34.4
UMATILLA	CITY OF HERMISTON WELL	45-28.8	N 119-18.0	W 04N 028E	10	0001711	24.
UMATILLA	HIDAWAY SPRINGS	45-07.8	N 118-43.8	W 05S 033E	21	0001709	38.
UMATILLA	LEHMAN SPRINGS	45-09.06	N 118-39.55	W 05S 033E	12	0000785	61.0
UMATILLA	WELL	45-56.4	N 118-27.6	W 05N 035E	05	0001710	24.
UNION	BAKER WARM SPRING (CHUCK BENNETT WARM SPRING)	45-18.0	N 117-49.5	W 04S 040E	21	0000179	26.0
UNION	BARSTAD HOT WELL	45-13.6	N 117-57.3	W 04S 039E	05	0000177	81.5
UNION	BENNETT WARM SPRING	45-12.00	N 117-49.83	W 04S 040E	20	0000186	27.0
UNION	CLAYTON FOX WELL	45-28.2	N 117-58.2	W 01S 039E	20	0001707	27.
UNION	COURTWRIGHT WELL	45-14.037	N 117-57.004	W 04S 039E	05	0003084	67.
UNION	COVE BATH HOUSE	45-17.037	N 117-48.019	W 03S 040E	22	0003080	28.8
UNION	COVE WARM SPRING	45-17.66	N 117-48.40	W 03S 040E	22	0000182	42.0
UNION	COVE WARM SPRING	45-17.67	N 117-48.38	W 03S 040E	22	0015418	29.4
UNION	CRESTON SHAW WELL	45-27.12	N 117-58.19	W 01S 039E	31	0015980	22.
UNION	DUCK POND	45-12.049	N 117-55.016	W 04S 039E	15	0003085	25.
UNION	GIRONER WARM SPRING	45-16.032	N 117-48.023	W 03S 040E	27	0003073	22.2
UNION	GRANGE HALL	45-18.046	N 117-48.027	W 03S 040E	09	0003076	26.
UNION	HAYSTACK WARM SPRING	45-12.8	N 117-55.3	W 04S 039E	15	0000176	25.5
UNION	HOOFNAGLE	45-18.052	N 117-47.042	W 03S 040E	10	0003074	24.
UNION	HOT LAKE	45-14.63	N 117-57.51	W 04S 039E	05	0000711	80.0

UNION	HOT LAKE RESORT	45-14.037N 117-57.030W 04S 039E	05	0003083	81.
UNION	HOT LAKE SPRING	45-14.52 N 117-57.06 W 04S 039E	05	0000180	81.
UNION	LA GRANDE WARM WELL	45-20.66 N 118-05.90 W 03S 038E	06	0000181	28.0
UNION	LOVE SWIMMING POOL	45-17.036N 117-48.022W 03S 040E	22	0003081	30.
UNION	MEDICAL HOT SPRING	45-01.10 N 117-38.50 W 06S 041E	25	0000183	61.5
UNION	MEDICAL HOT SPRINGS	45-01.08 N 117-37.48 W 06S 041E	25	0000713	60.0
UNION	MEDICAL HOT SPRINGS	45-01.08 N 117-37.48 W 06S 041E	25	0002241	60.0
UNION	OASIS WARM SPRING	45-12.02 N 117-54.51 W 04S 039E	23	0000185	29.5
UNION	ROYCE	45-28.054W 117-57.043W 01S 039E	17	0003078	26.
UNION	SWEET WARM SPRING	45-12.13 N 117-55.03 W 04S 039E	22	0000184	38.0
UNION	U.P. RR NO. 1	45-19.54 N 118-07.20 W 03S 038E	05	0015981	25.5
UNION	U.P. RR NO. 2	45-20.00 N 118-07.17 W 03S 038E	05	0015982	26.
UNION	UNION JUNCTION NO. 1	45-12.003N 117-54.046W 04S 039E	22	0003082	37.
UNION	UNION JUNCTION NO. 2	45-12.000N 117-54.023W 04S 039E	23	0003071	30.
UNION	WAGNER	45-27.026N 117-59.050W 01S 038E	24	0003077	31.
UNION	WAGNER WARM ARTISAN WELL	01S 038E	24	0000178	32.0
UNION	WAGNER WELL	45-27.43 N 117-59.84 W 01S 038E	24	0015946	29.
UNION	WARM CREEK	45-18.059N 117-48.037W 09S 040E	09	0003075	25.
UNION	WARM MINERAL SPRINGS	45-04.2 N 118-27.3 W 06S 035E	12	0001706	28.
UNION	WELL	45-19.89 N 118-05.43 W 03S 038E	05	0015945	25.
UNION	WELL	45-20.07 N 118-05.83 W 03S 038E	06	0015943	27.
UNION	WELL	45-19.89 N 118-05.43 W 03S 038E	05	0015944	27.
WALLOWA	COOK CREEK WARM SPRING	45-53.49 N 116-52.41 W 05N 048E	30	0015410	36.0
WASCO	J. SANDOZ WELL	45-33.8 N 121-16.6 W 01N 012E	38	0015417	27.8
WASCO	KAHNEETAH HOT SPRINGS	44-51.72 N 121-12.05 W 08S 013E	20	0000699	52.0
WASCO	MILTON MARTIN WELL	45-31.70 N 121-12.95 W 01N 013E	32	0015403	22.2

APPENDIX B

Index to GEOTHERM sample file for the state of Oregon 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 preceding 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>
BAKER	06S	039E	25	KROPP HOT SPRING	0015427	43.0
BAKER	07S	038E	10	FISHER HOT SPRING	0015444	37.0
BAKER	07S	039E	28	RADIUM HOT SPRINGS	0002206	57.2
BAKER	07S	039E	28	RADIUM HOT SPRINGS	0000709	58.
BAKER	09S	040E	16	SAMO SPRING	0015420	27.0
BAKER	12S	043E	02	NELSON SPRING	0001701	27.
BAKER	14S	045E	18	CITY OF HUNTINGTON WELL	0001700	24.
CLACKAMAS	02S	009E	29	ACID-SULFATE SPRING ON MT. HOOD	0015469	
CLACKAMAS	02S	009E	29	MT. HOOD FUMARoles	0015473	
CLACKAMAS	02S	009E	29	MT. HOOD FUMARoles	0015470	89.4
CLACKAMAS	02S	009E	29	MT. HOOD FUMARoles	0015952	89.4
CLACKAMAS	02S	009E	29	MT. HOOD FUMARoles	0015471	
CLACKAMAS	02S	009E	29	MT. HOOD FUMARoles	0015472	89.4
CLACKAMAS	02S	009E	29	MT. HOOD FUMARoles	0015950	71.1
CLACKAMAS	02S	009E	29	MT. HOOD FUMARoles	0015937	86.1
CLACKAMAS	02S	009E	29	MT. HOOD FUMARoles	0015951	89.4
CLACKAMAS	02S	009E	29	MT. HOOD FUMARoles	0015474	91.1
CLACKAMAS	03S	008.5	24	SWIM WARM SPRINGS	0015421	26.0
CLACKAMAS	06S	007E	21	GEOTHERMAL GRADIENT TEST NEAR AUSTIN HOT	0015446	35.6
CLACKAMAS	06S	007E	30	AUSTIN HOT SPRINGS (CAREY)	0000697	86.0
CLACKAMAS	07S	005E	26	BAGBY HOT SPRINGS	0015422	57.2
CLACKAMAS	07S	005E	26	BAGBY HOT SPRINGS	0015451	58.
CROOK				CAMP CREEK	0001702	23.
CROOK	15S	014E	33	WEIGAND WELL	0003015	24.
CROOK	15S	015E	29	SAMPALUESI WELL	0003033	21.6
CROOK	16S	014E	016	PB-1 DOGAMI DRILL HOLE	0003014	32.5
CROOK	16S	014E	03	CRADDOCK WELL	0003017	24.3
CROOK	16S	014E	10	E. MEEKER WELL	0003021	24.9
CROOK	16S	014E	15	T. BEARDY WELL	0003016	24.5
CROOK	16S	014E	16	JACKSON WELL	0003018	27.
CROOK	16S	014E	21	T. O. MARSHALL WELL	0001605	33.3
CROOK	16S	015E	16	DEADMAN SPRINGS	0003007	13.
CROOK	17S	022E		UNNAMED SPRING ON S. FORK CROOKED RIVER	0001703	31.
DESCHUTES	20S	016E	24	DECKER WELL NO. 2	0003009	25.1
DESCHUTES	21S	012E	26	PAULINA HOT SPRINGS	0015947	
DESCHUTES	21S	012E	26	PAULINA HOT SPRINGS	0015454	
DESCHUTES	21S	012E	36	WARM WELL AT LITTLE CRATER CAMPGROUND	0015455	35.5
DESCHUTES	21S	013E	29	EAST LAKE HOT SPRINGS	0000781	62.0
DESCHUTES	21S	013E	29	EAST LAKE HOT SPRINGS	0015453	49.
DESCHUTES	21S	013E	29	EAST LAKE HOT SPRINGS	0015452	
DOUGLAS	26S	004E	20	UMPQUA HOT SPRINGS	0015949	46.
DOUGLAS	26S	004E	20	UMPQUA HOT SPRINGS	0015456	46.5
GRANT	08S	030E	08	RITTER HOT SPRINGS	0000715	41.0
GRANT	14S	033E	10	LIMEKILN SPRING	0001705	21.
GRANT	14S	034E	13	BLUE MOUNTAIN HOT SPRINGS	0000719	58.0
GRANT	15S	031E	11	JOAQUIN MILLER RESORT	0015948	40.

GRANT	17S 027E	13,	BRISBOIS RANCH SPRINGS	0001704	22.
GRANT	18S 026E	18	WEBERG HOT SPRING	0000693	46.0
HARNEY			CITY OF HINES WELL	0001684	17.
HARNEY			NORTH OF VENATOR	0001690	45.
HARNEY			WARM SPRINGS RESERVOIR	0001683	62.
HARNEY	19S 026E	05	UNNAMED	0001694	29.
HARNEY	22S 032E	34	O. J. THOMAS	0015440	72.0
HARNEY	22S 032E	35	O. J. THOMAS WELL	0003048	72.
HARNEY	22S 32.5E	14	UNNAMED SPRING	0015942	22.
HARNEY	23S 030E	23	CITY OF HINES WELL	0015441	17.0
HARNEY	23S 030E	26	POWERHOUSE WELL	0003055	25.
HARNEY	23S 030E	26	HINES MILL NO. 2	0003057	27.8
HARNEY	23S 030E	35	MILLPOND SPRING	0015941	26.
HARNEY	23S 030E	35	HINES LUMBER CO. WELL	0015439	25.0
HARNEY	23S 030E	35	GOODMAN SPRING (HOTCHKISS)	0015437	22.0
HARNEY	23S 030E	35	DEVELOPMENT WELL	0003053	26.5
HARNEY	23S 030E	35	HINES MILL WELL NO. 1	0003056	28.5
HARNEY	23S 030E	36	UNNAMED	0001686	25.
HARNEY	23S 030E	36	REST STOP WARM WELL	0003040	26.
HARNEY	23S 031E	36	TRAILER COURT WELL	0003058	26.5
HARNEY	24S 030E	01	HOTCHKISS WELL	0015940	27.
HARNEY	24S 030E	01	HOTCHKISS WELL	0015438	27.
HARNEY	24S 030E	01	HOTCHKISS WELL	0003050	33.
HARNEY	24S 030E	02	FISCHER WELL	0003054	25.5
HARNEY	24S 030E	11	ROADLAND SPRING	0001685	22.
HARNEY	24S 030E	11	POTTERS SWAMP ART. WELL FIELD	0003039	27.
HARNEY	24S 030E	24	BAKER SPRING	0001680	21.
HARNEY	24S 030E	24	SAGE HEN CREEK ART. WELL	0003038	23.
HARNEY	24S 032E	08	HARNEY VALLEY DEV CO. OIL TEST WELL	0015436	46.0
HARNEY	24S 032E	08	HARNEY VALLEY DEV. CO. OIL WELL	0003045	50.
HARNEY	24S 033E	34	CRANE HOT SPRINGS	0015938	49.
HARNEY	24S 033E	34	CRANE HOT SPRINGS	0000727	78.0
HARNEY	24S 033E	34	CRANE HOT SPRING	0003046	76.0
HARNEY	24S 033E	34	CRANE HOT SPRINGS	0015435	80.0
HARNEY	25S 030E	24	DOG MOUNTAIN OIL TEST WELL	0001682	60.
HARNEY	25S 032E	07	ISLAND RANCH WELL	0015434	41.0
HARNEY	25S 036E	16	WARM SPRING NEAR VENATOR	0015345	41.
HARNEY	26S 027E	12	UNNAMED	0001689	20.
HARNEY	26S 028E	33	UNNAMED	0001691	20.
HARNEY	26S 028E	36	OO STATION SPRING	0003061	23.
HARNEY	26S 029E	31	UNAMED WARM SPRINGS	0003062	21.
HARNEY	26S 029E	31	BASQUE SPRING	0001696	23.
HARNEY	26S 030E	33	DUNN RANCH ARTESIAN WELL NO. 1	0003043	26.
HARNEY	26S 032E	05	HOWELL OIL TEST	0001681	41.
HARNEY	26S 033E	13	THOMPSON IRR. WELL	0003037	24.
HARNEY	26S 034E	08	LONG HOLLOW WELL	0003042	25.
HARNEY	27S 029E	05	JOHNSON SPRING	0001698	22.
HARNEY	27S 029E	06	BARNYARD SPRING	0003060	22.0
HARNEY	27S 029E	08	HUGHET SPRING	0001697	20.
HARNEY	27S 029E	09	UNNAMED WARM SPRING	0003063	21.
HARNEY	27S 030E	08	LYNCH SPRING	0001699	18.
HARNEY	27S 29.5E	24	EAGLES NEST SPRING NO. 2	0003067	28.1
HARNEY	27S 29.5E	25	EAGLES NEST SPRING NO. 1	0003070	41.7
HARNEY	27S 29.5E	28	BATHTUB SPRING	0003068	51.1
HARNEY	27S 29.5E	36	UNNAMED WARM SPRING IN HARNEY LAKE	0003064	22.

HARNEY	27S	29.5E	36	UNNAMED HOT SPRING NEAR HARNEY LAKE	0000729	68.0
HARNEY	27S	29.5E	36	HARNEY LAKE HOT SPRINGS	0003065	67.
HARNEY	27S	29.5E	36	UNNAMED HOT SPRING NEAR HARNEY LAKE	0015939	59.
HARNEY	31S	032E	13	HOGHOUSE HOT SPRING	0001679	27.
HARNEY	32S	032.5	05	UNNAMED	0001687	28.
HARNEY	32S	032E	12	UNNAMED	0001688	32.
HARNEY	33S	035E	13	MICKEY SPRINGS	0000679	73.0
HARNEY	33S	035E	13	MICKEY SPRINGS	0015459	
HARNEY	33S	035E	13	MICKEY SPRINGS	0015458	86.
HARNEY	33S	035E	13	MICKEY SPRINGS	0015457	86.
HARNEY	33S	035E	13	MICKEY SPRINGS	0015433	85.
HARNEY	34S	034E	32	ALVORD HOT SPRINGS	0015429	82.2
HARNEY	34S	034E	32	ALVORD HOT SPRINGS	0015460	78.5
HARNEY	34S	034E	32	ALVORD HOT SPRINGS	0015461	78.5
HARNEY	34S	034E	32	ALVORD HOT SPRINGS	0000681	76.0
HARNEY	37S	033E	11	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	0000683	96.0
HARNEY	37S	033E	11	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	0002209	R 73.9
HARNEY	37S	033E	11	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	0015462	91.
HARNEY	37S	033E	11	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	0015466	97.
HARNEY	37S	033E	11	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	0002219	87.0
HARNEY	37S	033E	11	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	0015463	97.
HARNEY	37S	033E	14	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	0015467	84.
HARNEY	37S	033E	14	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	0015465	86.
HARNEY	37S	033E	14	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	0015464	90.5
HARNEY	37S	033E	14	HOT BORAX LAKE	0002208	R 29.4
HARNEY	37S	033E	14	HOT BORAX LAKE	0000782	36.0
HARNEY	37S	033E	14	HOT BORAX LAKE	0002211	31.1
HARNEY	37S	033E	14	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	0002210	79.4
HARNEY	37S	036E	33	UNNAMED	0001693	46.
HARNEY	38S	034E	22	UNNAMED	0001695	32.
HARNEY	38S	037E	24	UNNAMED	0001692	38.
HARNEY	39S	037E	16	UNNAMED HOT SPRING NEAR TROUT CREEK	(F0000731	52.0
HARNEY	39S	037E	16	UNNAMED HOT SPRING NEAR TROUT CREEK	(F0015428	
HOOD RIVER	01S	010E	09	PARKDALE GRADIENT HOLE	0015971	24.
JACKSON	38S	001E	48	JACKSON HOT SPRING	0015344	35.0
KLAMATH	31S	006E	19	ANNIE SPRING	0015312	25.0
KLAMATH	36S	007E	23	EAGLE POINT SPRING	0015300	Q 35.
KLAMATH	36S	011E	16	RAY SMITH WELL	0015432	25.
KLAMATH	38S	009E	20	O.I.T. NO. 6	0003006	79.
KLAMATH	38S	009E	20	O.I.T. NO. 6	0015301	88.0
KLAMATH	38S	009E	28	MEDO-BELL DAIRY	0015302	81.0
KLAMATH	38S	009E	28	MEDO-BELL DAIRY	0003001	81.
KLAMATH	38S	009E	28	O.I.T. NO. 5	0015419	89.0
KLAMATH	38S	009E	28	J. E. FRIESEN	0015315	73.0
KLAMATH	38S	009E	32	OREGON WATER CORP.(2)	0015317	21.0
KLAMATH	38S	009E	32	OREGON WATER CORP.(1)	0015316	Q 21.
KLAMATH	38S	009E	32	OREGON WATER CORP.(3)	0015318	20.0
KLAMATH	38S	009E	33	LOIS MERRUYS	0015319	71.0
KLAMATH	38S	009E	33	KLAMATH ICE CO.	0015431	51.7
KLAMATH	38S	009E	33	MILLS SCHOOL	0015303	89.0
KLAMATH	39S	008E	13	HOWARD HOLLIDAY	0015320	25.0
KLAMATH	39S	009E	01	MOYINA WATER CO.	0015321	G 50.
KLAMATH	39S	009E	11	MAZAMA SCHOOL	0015322	61.0
KLAMATH	39S	009E	18	WEYERHAUSER WELL NO. 4	0015304	22.
KLAMATH	39S	009E	34	FALCON HEIGHTS SCHOOL	0015305	37.0

KLAMATH 39S 009E 34	ALFRED JACOBSEN	0015325	30.0
KLAMATH 39S 009E 34	U.S. AIR FORCE(1)	0015323	Q 31.0
KLAMATH 39S 009E 34	U.S. AIR FORCE(2)	0015324	Q 30.
KLAMATH 39S 010E 06	OREGON WATER CORP.(4)	0015326	26.
KLAMATH 39S 010E 07	MELVIN MCCOLLUM	0015306	25.0
KLAMATH 39S 010E 08	CLAUDE SHUCK	0015327	24.
KLAMATH 39S 010E 10	RAY BIXLER	0015328	22.0
KLAMATH 39S 010E 14	ROENICKE HOT SPRING	0015329	Q 65.0
KLAMATH 39S 010E 14	OLENE GAP HOT SPRINGS	0003003	87.
KLAMATH 39S 010E 14	OLENE GAP HOT SPRINGS	0000705	74.0
KLAMATH 39S 010E 14	OLENE GAP HOT SPRINGS	0015443	73.9
KLAMATH 39S 010E 15	ROBERT LANGLEY	0015330	23.
KLAMATH 39S 010E 28	LEN DOBRY	0015331	21.0
KLAMATH 39S 010E 29	LESTER BROOKSHIRE	0015332	25.0
KLAMATH 39S 010E 32	GEORGE STACY CO.	0015333	25.0
KLAMATH 39S 010E 32	MONTE DEHLINGER	0015334	26.0
KLAMATH 39S 010E 34	J. K. O'NEIL	0015442	
KLAMATH 39S 010E 34	J. K. O'NEIL	0015335	23.0
KLAMATH 40S 009E 23	DAN O'CONNER	0015336	24.0
KLAMATH 40S 009E 27	O. H. OSBORN	0015308	90.0
KLAMATH 40S 009E 28	ABE BOEHM	0015309	25.0
KLAMATH 40S 009E 28	ABE BOEHM	0003005	25.
KLAMATH 40S 009E 34	JACK LISKEY	0015310	93.0
KLAMATH 40S 010E 05	CLYDE DEHLINGER	0015337	24.0
KLAMATH 40S 010E 26	BILL HILL	0015338	20.0
KLAMATH 40S 011E 03	MELVIN FEIGI	0015430	31.0
KLAMATH 40S 014E 16	S. AND C. KILGORE	0015314	20.0
KLAMATH 41S 009E 01	JACK O'CONNER	0015339	38.0
KLAMATH 41S 009E 02	JACK LISKEY	0015311	22.0
KLAMATH 41S 009E 02	JACK LISKEY	0003004	25.
KLAMATH 41S 010E 02	TOWN OF MERRILL	0015340	21.0
KLAMATH 41S 010E 03	POPE'S MEAT CO.	0015341	22.0
KLAMATH 41S 010E 07	O'CONNER LIVESTOCK CO.	0015342	30.0
KLAMATH 41S 010E 14	GEORGE CARTER	0015343	22.
LAKE 23S 023E 27	GLASS BUTTE MERCURY MINE WELL	0001718	48.
LAKE 30S 016E 35	PARDON	0001715	24.
LAKE 30S 017E 06	ANA RIVER SPRING	0002215	18.9
LAKE 30S 017E 25	LOST CABIN	0001712	20.
LAKE 33S 017E 12	SUMMER LAKE HOT SPRING (WOODWARD)	0002229	46.7
LAKE 33S 017E 12	SUMMER LAKE HOT SPRING (WOODWARD)	0000707	43.0
LAKE 33S 018E 15	U.S. SOIL CONSERVATION SERVICE WELL	0001713	32.
LAKE 34S 022E 30	UNNAMED	0001714	27.
LAKE 35S 026E 16	UPPER ROCK CREEK	0001724	46.
LAKE 35S 026E 32	ANTELOPE HOT SPRINGS	0002216	40.0
LAKE 36S 020E 26	WHITE ROCK RANCH HOT SPRING	0001717	20.
LAKE 36S 026E 07	HART MTN. HOT SPRING	0001725	
LAKE 37S 020E 11	BEAN HOT SPRING	0001716	20.
LAKE 37S 020E 16	COLVERT SPRING	0015963	16.
LAKE 38S 020E 06	ANTONE SPRINGS	0015954	22.5
LAKE 38S 020E 22	CHAMBERS RANCH IRRIGATION WELL	0015955	28.5
LAKE 38S 020E 33	EVERETT MCDONALD HOT SPRING	0015953	77.5
LAKE 38S 020E 33	DON LINDSEY WELL	0015956	48.
LAKE 38S 020E 33	E. MCDONALD HOT WELL	0015966	94.
LAKE 38S 024E 03	MOSS 1 WELL	0001723	22.
LAKE 38S 024E 10	MOSS 2 WELL	0001722	28.

LAKE	38S	024E	34	CRUMP SPRING	0002223	40.0
LAKE	38S	024E	34	CRUMP SPRING	0000691	78.0
LAKE	38S	024E	34	CRUMP WELL (2)	0002220	88.0
LAKE	38S	024E	34	CRUMP WELL (1)	0002221	99.0
LAKE	38S	025E	10	FISHER HOT SPRINGS	0000717	68.0
LAKE	39S	020E	03	HAMMERSLY CANYON NO. 1 GRADIENT HOLE	0015993	50.
LAKE	39S	020E	03	HAMMERSLY CANYON NO. 1 GRADIENT HOLE	0015984	71.
LAKE	39S	020E	04	HUNTERS HOT SPRINGS	0015978	95.
LAKE	39S	020E	04	HUNTER HOT SPRING SOUTHWEST	0015985	87.
LAKE	39S	020E	04	ROBBIE WELL	0015967	80.
LAKE	39S	020E	04	HUNTERS HOT SPRINGS	0015970	88.
LAKE	39S	020E	04	HUNTERS HOT SPRINGS	0015969	94.
LAKE	39S	020E	04	HUNTERS HOT SPRINGS (LAKEVIEW)	0002226	86.0
LAKE	39S	020E	04	HUNTERS HOT SPRINGS (LAKEVIEW)	0002228	98.0
LAKE	39S	020E	04	HUNTERS HOT SPRINGS (LAKEVIEW)	0000689	96.0
LAKE	39S	020E	04	INGLEDON WELL	0015965	23.
LAKE	39S	020E	15	LAKEVIEW CITY WELL NO. 5	0015957	37.5
LAKE	39S	020E	16	LAKEVIEW CITY WELL NO. 7	0015960	16.
LAKE	39S	020E	16	LAKEVIEW CITY WELL NO. 4	0015958	19.5
LAKE	39S	020E	16	LAKEVIEW CITY WELL NO. 3	0015959	16.5
LAKE	39S	020E	27	BARRY RANCH HOT SPRINGS (GUS ALLEN)	0002217	85.0
LAKE	39S	020E	27	LEITHEAD (JOYLAND PLUNGE) HOT SPRING	0002224	69.4
LAKE	39S	020E	27	UPPER BARRY NO. 1	0015986	63.
LAKE	39S	020E	27	BARRY RANCH HOT SPRINGS	0015976	92.5
LAKE	39S	020E	27	LEITHEAD (JOYLAND PLUNGE) HOT SPRING	0015977	70.
LAKE	39S	020E	27	BARRY RANCH HOT SPRINGS (GUS ALLEN)	0000780	88.0
LAKE	39S	020E	33	HUNTER WELL	0015962	95.
LAKE	39S	024E	23	ADEL WELL	0001721	71.
LAKE	40S	020E	01	ROCKFORD (OLD DETER) RANCH	0015961	77.
LAKE	40S	024E	27	HOUSTON WELL	0001720	71.
LAKE	40S	024E	30	HALLINAN SPRINGS	0001719	71.
LAKE	41S	021E	18	LEDFORD WELL	0015964	21.
LANE	15S	006E	26	BIGELOW HOT SPRINGS	0015423	61.0
LANE	16S	006E	02	FRISSEL ROAD SPRING	0015973	18.
LANE	16S	006E	11	BELKNAP HOT SPRINGS	0002230	86.7
LANE	16S	006E	11	BELKNAP HOT SPRINGS	0000703	71.0
LANE	16S	006E	28	FOLEY SPRINGS	0015424	80.6
LANE	17S	005E	20	COUGAR RESERVOIR HOT SPRINGS (RIDER)	0015426	42.0
LANE	17S	005E	20	COUGAR RESERVOIR HOT SPRINGS (RIDER)	0000787	44.0
LANE	20S	004E	26	WALL CREEK WARM SPRINGS	0015974	40.
LANE	20S	004E	26	WALL CREEK WARM SPRINGS	0015401	41.0
LANE	21S	004E	36	MCCREDIE SPRINGS	0000783	73.
LANE	21S	004E	36	MCCREDIE SPRINGS	0015425	71.0
LANE	21S	004E	36	MCCREDIE HOT SPRING NO. 2	0015975	62.
LANE	22S	004E	06	KITSON SPRINGS	0002232	44.4
LANE	22S	004E	06	KITSON HOT SPRING	0015968	44.
LANE	22S	004E	06	KITSON SPRINGS	0015468	43.
MALHEUR				UNNAMED SPRING	0001737	50.
MALHEUR				SCOTT'S SPRING	0001735	20.
MALHEUR				DEER BUTTE H.S./MITCHELL BUTTE SYSTEM	0001728	
MALHEUR				S. BLACK WILLOW SPRING/SNIVELY	0001727	25.
MALHEUR	17S	045E	08	ALKALI FLAT GRADIENT WELL	0015412	24.0
MALHEUR	17S	047E	31	MALHEUR BUTTE SPRINGS(MAY NOT EXIST)	0001740	75.
MALHEUR	18S	043E	04	UNNAMED WARM SPRING NEAR BULLY CREEK	0015414	37.0
MALHEUR	18S	043E	09	NEAL HOT SPRINGS	0000687	87.0

MALHEUR	18S 043E	34	NELSON WELL	0001733	21.
MALHEUR	18S 045E	20	VALE HOT SPRINGS	0003002	90.
MALHEUR	18S 045E	20	VALE HOT SPRINGS	0000685	73.0
MALHEUR	19S 037E	02	BEULAH HOT SPRINGS	0000723	60.0
MALHEUR	19S 043E	22	VINES HILL BLM WELL	0001726	40.
MALHEUR	19S 043E	30	UNNAMED (J. SEIDER PROPERTY)	0015979	82.
MALHEUR	19S 043E	30	UNNAMED HOT SPRINGS NEAR LITTLE VALLEY	0000721	70.0
MALHEUR	19S 044E	19	SAND HOLLOW OIL TEST	0001739	50.
MALHEUR	19S 045E	09	VALE WELL	0001729	40.
MALHEUR	19S 045E	09	NORTH HARPER BLM WELL	0015413	36.0
MALHEUR	19S 045E	28	PAGE WELL	0001731	40.
MALHEUR	20S 039E	29	JONESBORO WARM SPRING	0015405	44.5
MALHEUR	21S 038E	09	JUNTURA WARM SPRING #1	0015407	25.0
MALHEUR	21S 038E	17	JUNTURA WARM SPRING #2	0015409	35.0
MALHEUR	21S 045E	12	MITCHELL BUTTE HOT SPRINGS	0000784	62.0
MALHEUR	21S 046E	33	ARTESIAN WELL	0015411	46.0
MALHEUR	24S 037E	20	LUCE HOT SPRINGS	0000725	63.0
MALHEUR	27S 043E	18	UNNAMED SPRING	0001738	50.
MALHEUR	30S 046E	02	CANTER'S HOT SPRING(JORDAN VALLEY)	0001736	50.
MALHEUR	31S 042E	33	ROUND MTN. BLM WELL	0001730	40.
MALHEUR	33S 039E	14	TUDORS SPRING	0001734	20.
MALHEUR	35S 045E	03	UNNAMED HOT SPRING AT THREE FORKS	0000786	34.0
MALHEUR	35S 045E	03	UNNAMED HOT SPRING AT THREE FORKS	0002239	35.0
MALHEUR	37S 037E	31	WHITEHORSE RANCH WELL	0001732	32.
MALHEUR	40S 042E	25	UNNAMED HOT SPRING NEAR MCDERMITT	0002238	53.5
MALHEUR	40S 042E	25	UNNAMED HOT SPRING NEAR MCDERMITT	0000733	52.0
MARION	09S 007E	20	BREITENBUSH HOT SPRINGS	0000701	92.0
MARION	09S 007E	20	BREITENBUSH HOT SPRINGS - WELL	0015445	110.
MARION	09S 007E	20	BREITENBUSH WELL NO. 3	0003072	74.
MARION	09S 007E	20	BREITENBUSH HOT SPRINGS	0015972	98.
MORROW	02N 025E	28	WELLS SPRING (WELL)	0001708	27.
MULTNOMAH	01N 004E	27	CORBETT WARM SPRING	0015415	18.0
MULTNOMAH	01S 004E	10	YMCA CAMP COLLINS	0015416	23.3
MULTNOMAH	01S 004E	10	CAMP COLLINS WARM SPRINGS (WELL)	0000296	29.
UMATILLA	03N 037E	18	BINGHAM SPRINGS	0015347	34.4
UMATILLA	04N 028E	10	CITY OF HERMISTON WELL	0001711	24.
UMATILLA	05N 035E	05	WELL	0001710	24.
UMATILLA	05S 033E	12	LEHMAN SPRINGS	0000785	61.0
UMATILLA	05S 033E	21	HIDAWAY SPRINGS	0001709	38.
UNION	01S 038E	24	WAGNER	0003077	31.
UNION	01S 038E	24	WAGNER WARM ARTISAN WELL	0000178	32.0
UNION	01S 038E	24	WAGNER WELL	0015946	29.
UNION	01S 039E	17	ROYCE	0003078	26.
UNION	01S 039E	20	CLAYTON FOX WELL	0001707	27.
UNION	01S 039E	31	CRESTON SHAW WELL	0015980	22.
UNION	03S 038E	05	U.P. RR NO. 2	0015982	26.
UNION	03S 038E	05	U.P. RR NO. 1	0015981	25.5
UNION	03S 038E	05	WELL	0015945	25.
UNION	03S 038E	05	WELL	0015944	27.
UNION	03S 038E	06	WELL	0015943	27.
UNION	03S 038E	06	LA GRANDE WARM WELL	0000181	28.0
UNION	03S 040E	09	GRANGE HALL	0003076	26.
UNION	03S 040E	10	HOOFNAGLE	0003074	24.
UNION	03S 040E	22	LOVE SWIMMING POOL	0003081	30.
UNION	03S 040E	22	COVE WARM SPRING	0000182	42.0

UNION	03S 040E	22	COVE BATH HOUSE	0003080	28.8
UNION	03S 040E	22	COVE WARM SPRING	0015418	29.4
UNION	03S 040E	27	GIRDNER WARM SPRING	0003073	22.2
UNION	04S 039E	05	HOT LAKE RESORT	0003083	81.
UNION	04S 039E	05	COURTWRIGHT WELL	0003084	67.
UNION	04S 039E	05	HOT LAKE SPRING	0000180	81.
UNION	04S 039E	05	HOT LAKE	0000711	80.0
UNION	04S 039E	05	BARSTAD HOT WELL	0000177	81.5
UNION	04S 039E	15	HAYSTACK WARM SPRING	0000176	25.5
UNION	04S 039E	15	DUCK POND	0003085	25.
UNION	04S 039E	22	UNION JUNCTION NO. 1	0003082	37.
UNION	04S 039E	22	SWEET WARM SPRING	0000184	38.0
UNION	04S 039E	23	OASIS WARM SPRING	0000185	29.5
UNION	04S 039E	23	UNION JUNCTION NO. 2	0003071	30.
UNION	04S 040E	20	BENNETT WARM SPRING	0000186	27.0
UNION	04S 040E	21	BAKER WARM SPRING	0000179	26.0
			(CHUCK BENNETT WARM SPRING)		
UNION	06S 035E	12	WARM MINERAL SPRINGS	0001706	28.
UNION	06S 041E	25	MEDICAL HOT SPRING	0000183	61.5
UNION	06S 041E	25	MEDICAL HOT SPRINGS	0000713	60.0
UNION	06S 041E	25	MEDICAL HOT SPRINGS	0002241	60.0
UNION	09S 040E	09	WARM CREEK	0003075	25.
WALLOWA	05N 048E	30	COOK CREEK WARM SPRING	0015410	36.0
WASCO	01N 012E	38	J. SANDOZ WELL	0015417	27.8
WASCO	01N 013E	32	MILTON MARTIN WELL	0015403	22.2
WASCO	08S 013E	20	KAHNEETAH HOT SPRINGS	0000699	52.0

APPENDIX C

Index to GEOTHERM sample file for the state of Oregon sorted into one-degree blocks by latitude and longitude. Records are sorted by name of source within each one-degree block. Adjacent one-degree blocks which are published as a 1:250,000 map are combined under the appropriate map name. See Table 1 for explanation of alphabetic qualifiers preceding temperature. I.D. - GEOTHERM record identifier. Temp. - Temperature °C.

<u>Latitude</u>	<u>Longitude</u>	<u>Name of Source</u>	<u>County</u>	<u>I.D.</u>	<u>Temp.</u>
COORDINATES NOT GIVEN					
		WAGNER WARM ARTISAN WELL	UNION	0000178	32.0
JORDAN VALLEY 1:250,00					
42-54.0	N 117-04.2	W CANTER'S HOT SPRING(JORDAN VALLEY)	MALHEUR	0001736	50.
42-02.7	N 117-01.2	W MALHEUR BUTTE SPRINGS(MAY NOT EXIST)	MALHEUR	0001740	75.
42-49.2	N 117-35.4	W ROUND MTH. BLM WELL	MALHEUR	0001730	40.
42-46.8	N 117-43.2	W SCOTT'S SPRING	MALHEUR	0001735	20.
42-37.2	N 117-59.8	W TUDORS SPRING	MALHEUR	0001734	20.
42-32.0	N 117-10.9	W UNNAMED HOT SPRING AT THREE FORKS	MALHEUR	0002239	35.0
42-32.0	N 117-10.9	W UNNAMED HOT SPRING AT THREE FORKS	MALHEUR	0000786	34.0
42-04.7	N 117-45.6	W UNNAMED HOT SPRING NEAR MCDERMITT	MALHEUR	0002238	53.5
42-04.7	N 117-45.6	W UNNAMED HOT SPRING NEAR MCDERMITT	MALHEUR	0000733	52.0
ADEL 1:250,000					
42-32.66	N 118-31.66	W ALVORD HOT SPRINGS	HARNEY	0015429	82.2
42-32.66	N 118-31.66	W ALVORD HOT SPRINGS	HARNEY	0000681	76.0
42-32.66	N 118-31.66	W ALVORD HOT SPRINGS	HARNEY	0015461	78.5
42-32.66	N 118-31.66	W ALVORD HOT SPRINGS	HARNEY	0015460	78.5
42-53.7	N 118-53.7	W HOGHOUSE HOT SPRING	HARNEY	0001679	27.
42-19.60	N 118-36.17	W HOT BORAX LAKE	HARNEY	0002211	31.1
42-19.60	N 118-36.17	W HOT BORAX LAKE	HARNEY	0002208	R 29.4
42-19.60	N 118-36.17	W HOT BORAX LAKE	HARNEY	0000782	36.0
42-40.6	N 118-20.7	W MICKEY SPRINGS	HARNEY	0015433	85.
42-40.54	N 118-20.67	W MICKEY SPRINGS	HARNEY	0015459	
42-40.6	N 118-20.7	W MICKEY SPRINGS	HARNEY	0015458	86.
42-40.6	N 118-20.7	W MICKEY SPRINGS	HARNEY	0015457	86.
42-40.6	N 118-20.7	W MICKEY SPRINGS	HARNEY	0000679	73.0
42-16.2	N 118-41.4	W UNNAMED	HARNEY	0001695	32.
42-18.0	N 118-17.4	W UNNAMED	HARNEY	0001693	46.
42-15.6	N 118-18.6	W UNNAMED	HARNEY	0001692	38.
42-49.2	N 118-54.0	W UNNAMED	HARNEY	0001688	32.
42-50.0	N 118-52.2	W UNNAMED	HARNEY	0001687	28.
42-19.82	N 118-36.16	W UNNAMED HOT SPRING NEAR HOT BORAX LAKE	HARNEY	0002210	79.4
42-20.17	N 118-36.08	W UNNAMED HOT SPRING NEAR HOT BORAX LAKE	HARNEY	0002209	R 73.9
42-20.17	N 118-36.08	W UNNAMED HOT SPRING NEAR HOT BORAX LAKE	HARNEY	0000683	96.0
42-20.17	N 118-36.08	W UNNAMED HOT SPRING NEAR HOT BORAX LAKE	HARNEY	0015462	91.
42-19.82	N 118-36.16	W UNNAMED HOT SPRING NEAR HOT BORAX LAKE	HARNEY	0015464	90.5
42-20.08	N 118-36.11	W UNNAMED HOT SPRING NEAR HOT BORAX LAKE	HARNEY	0015463	97.
42-19.82	N 118-36.16	W UNNAMED HOT SPRING NEAR HOT BORAX LAKE	HARNEY	0015467	84.
42-20.17	N 118-36.08	W UNNAMED HOT SPRING NEAR HOT BORAX LAKE	HARNEY	0015466	97.

42-19.82	N	118-36.16	W	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	HARNEY	0015465	86.
42-20.08	N	118-36.11	W	UNNAMED HOT SPRING NEAR HOT BORAX LAKE	HARNEY	0002219	87.0
42-11.3	N	118-23.0	W	UNNAMED HOT SPRING NEAR TROUT CREEK (FLAGSTAFF	HARNEY	0000731	52.0
42-11.3	N	118-23.0	W	UNNAMED HOT SPRING NEAR TROUT CREEK (FLAGSTAFF	HARNEY	0015428	
42-18.0	N	118-12.6	W	WHITEHORSE RANCH WELL	MALHEUR	0001732	32.
42-10.8	N	119-52.8	W	ADEL WELL	LAKE	0001721	71.
42-29.97	N	119-41.48	W	ANTELOPE HOT SPRINGS	LAKE	0002216	40.0
42-13.60	N	119-52.87	W	CRUMP SPRING	LAKE	0002223	40.0
42-13.60	N	119-52.87	W	CRUMP SPRING	LAKE	0000691	78.0
42-13.59	N	119-52.87	W	CRUMP WELL (1)	LAKE	0002221	99.0
42-13.59	N	119-52.87	W	CRUMP WELL (2)	LAKE	0002220	88.0
42-17.84	N	119-46.55	W	FISHER HOT SPRINGS	LAKE	0000717	68.0
42-04.8	N	119-54.6	W	HALLINAN SPRINGS	LAKE	0001719	71.
42-28.2	N	119-42.0	W	HART MTN. HOT SPRING	LAKE	0001725	
42-04.8	N	119-51.6	W	HOUSTON WELL	LAKE	0001720	71.
42-19.2	N	119-52.7	W	MOSS 1 WELL	LAKE	0001723	22.
42-17.4	N	119-52.8	W	MOSS 2 WELL	LAKE	0001722	28.
42-16.5	N	119-22.5	W	UNNAMED	HARNEY	0001691	20.
42-32.4	N	119-39.6	W	UPPER ROCK CREEK	LAKE	0001724	46.

KLAMATH FALLS 1:250,000

42-59.8	N	120-45.3	W	ANA RIVER SPRING	LAKE	0002215	18.9
42-18.52	N	120-23.78	W	ANTONE SPRINGS	LAKE	0015954	22.5
42-09.35	N	120-20.67	W	BARRY RANCH HOT SPRINGS	LAKE	0015976	92.5
42-09.35	N	120-20.67	W	BARRY RANCH HOT SPRINGS (GUS ALLEN)	LAKE	0002217	85.0
42-09.35	N	120-20.67	W	BARRY RANCH HOT SPRINGS (GUS ALLEN)	LAKE	0000780	88.0
42-23.4	N	120-19.4	W	BEAN HOT SPRING	LAKE	0001716	20.
42-45.	N	120-20.66	W	CHAMBERS RANCH IRRIGATION WELL	LAKE	0015955	28.5
42-21.44	N	120-21.51	W	COLVERT SPRING	LAKE	0015963	16.
42-14.10	N	120-20.18	W	DON LINDSEY WELL	LAKE	0015956	48.
42-14.500N		120-21.967W	E.	MCDONALD HOT WELL	LAKE	0015966	94.
42-14.500N		120-21.968W		EVERETT MCDONALD HOT SPRING	LAKE	0015953	77.5
42-13.12	N	120-20.89	W	HAMMERSLY CANYON NO. 1 GRADIENT HOLE	LAKE	0015993	50.
42-13.12	N	120-20.89	W	HAMMERSLY CANYON NO. 1 GRADIENT HOLE	LAKE	0015984	71.
42-12.9	N	120-22.4	W	HUNTER HOT SPRING SOUTHWEST	LAKE	0015985	87.
42-08.10	N	120-21.30	W	HUNTER WELL	LAKE	0015962	95.
42-13.28	N	120-22.08	W	HUNTERS HOT SPRINGS	LAKE	0015970	88.
42-13.28	N	120-22.08	W	HUNTERS HOT SPRINGS	LAKE	0015969	94.
42-13.28	N	120-22.08	W	HUNTERS HOT SPRINGS	LAKE	0015978	95.
42-13.32	N	120-22.09	W	HUNTERS HOT SPRINGS (LAKEVIEW)	LAKE	0002228	98.0
42-13.32	N	120-22.09	W	HUNTERS HOT SPRINGS (LAKEVIEW)	LAKE	0002226	86.0
42-13.32	N	120-22.09	W	HUNTERS HOT SPRINGS (LAKEVIEW)	LAKE	0000689	96.0
42-13.20	N	120-21.57	W	INGLEDON WELL	LAKE	0015965	23.
42-11.333N		120-21.130W		LAKEVIEW CITY WELL NO. 3	LAKE	0015959	16.5
42-11.333N		120-21.139W		LAKEVIEW CITY WELL NO. 4	LAKE	0015958	19.5
42-11.333N		120-20.266W		LAKEVIEW CITY WELL NO. 5	LAKE	0015957	37.5
42-11.333N		120-21.463W		LAKEVIEW CITY WELL NO. 7	LAKE	0015960	16.
42-01.08	N	120-17.67	W	LEDFORD WELL	LAKE	0015964	21.
42-09.708N		120-20.608W		LEITHEAD (JOYLAND PLUNGE) HOT SPRING	LAKE	0002224	69.4
42-09.708N		120-20.608W		LEITHEAD (JOYLAND PLUNGE) HOT SPRING	LAKE	0015977	70.
42-55.2	N	120-39.0	W	LOST CABIN	LAKE	0001712	20.
42-56.4	N	120-47.4	W	PARDON	LAKE	0001715	24.
42-10.43	N	120-22.47	W	ROBBIE WELL	LAKE	0015967	80.
42-06.350N		120-17.327W		ROCKFORD (OLD DETER) RANCH	LAKE	0015961	77.

42-43.53 N 120-38.75 W SUMMER LAKE HOT SPRING (WOODWARD)
 42-43.53 N 120-38.75 W SUMMER LAKE HOT SPRING (WOODWARD)
 42-42.6 N 120-34.5 W U.S. SOIL CONSERVATION SERVICE WELL
 42-36.0 N 120-10.2 W UNNAMED
 42-09.4 N 120-20.38 W UPPER BARRY NO. 1
 42-20.4 N 120-19.5 W WHITE ROCK RANCH HOT SPRING
 42-04.05 N 121-45.40 W ABE BOEHM
 42-04.05 N 121-45.40 W ABE BOEHM
 42-07.65 N 121-44.40 W ALFRED JACOBSEN
 42-03.55 N 121-36.60 W BILL HILL
 42-11.35 N 121-39.80 W CLAUDE SHUCK
 42-06.75 N 121-39.65 W CLYDE DEHLINGER
 42-04.85 N 121-43.85 W DAN O'CONNOR
 42-25.85 N 121-57.75 W EAGLE POINT SPRING
 42-07.80 N 121-45.10 W FALCON HEIGHTS SCHOOL
 42-00.55 N 121-36.90 W GEORGE CARTER
 42-08.40 N 121-39.80 W GEORGE STACY CO.
 42-10.55 N 121-49.70 W HOWARD HOLLIDAY
 42-13.75 N 121-46.15 W J. E. FRIESEN
 42-08.30 N 121-38.10 W J. K. O'NEIL
 42-08.30 N 121-38.10 W J. K. O'NEIL
 42-02.25 N 121-43.60 W JACK LISKEY
 42-02.25 N 121-43.60 W JACK LISKEY
 42-02.95 N 121-44.40 W JACK LISKEY
 42-02.00 N 121-42.95 W JACK O'CONNOR
 42-13.40 N 121-01.40 W KLAMATH ICE CO.
 42-08.90 N 121-38.65 W LEN DOBRY
 42-08.70 N 121-39.70 W LESTER BROOKSHIRE
 42-13.65 N 121-01.45 W LOIS MERRUYS
 42-11.85 N 121-43.90 W MAZAMA SCHOOL
 42-13.8 N 121-46.4 W MEDO-BELL DAIRY
 42-13.8 N 121-46.4 W MEDO-BELL DAIRY
 42-08.20 N 121-30.10 W MELVIN FEIGI
 42-11.50 N 121-41.05 W MELVIN MCCOLLUM
 42-13.45 N 121-45.90 W MILLS SCHOOL
 42-07.60 N 121-40.40 W MONTE DEHLINGER
 42-12.60 N 121-42.45 W MOYINA WATER CO.
 42-03.30 N 121-44.70 W O. H. OSBORN
 42-13.85 N 121-46.40 W O.I.T. NO. 5
 42-14.90 N 121-46.85 W O.I.T. NO. 6
 42-14.90 N 121-46.85 W O.I.T. NO. 6
 42-01.00 N 121-41.00 W O'CONNOR LIVESTOCK CO.
 42-10.45 N 121-36.90 W OLENE GAP HOT SPRINGS
 42-10.45 N 121-36.90 W OLENE GAP HOT SPRINGS
 42-10.45 N 121-36.90 W OLENE GAP HOT SPRINGS
 42-13.30 N 121-47.45 W OREGON WATER CORP.(1)
 42-13.30 N 121-47.45 W OREGON WATER CORP.(2)
 42-13.30 N 121-47.45 W OREGON WATER CORP.(3)
 42-12.10 N 121-41.40 W OREGON WATER CORP.(4)
 42-01.95 N 121-37.50 W POPE'S MEAT CO.
 42-11.55 N 121-37.95 W RAY BIXLER
 42-27.25 N 121-25.40 W RAY SMITH WELL
 42-10.75 N 121-37.90 W ROBERT LANGLEY
 42-10.40 N 121-37.05 W ROENICKE HOT SPRING
 42-06.40 N 121-03.80 W S. AND C. KILGORE

LAKE 0000707 43.0
 LAKE 0002229 46.7
 LAKE 0001713 32.
 LAKE 0001714 27.
 LAKE 0015986 63.
 LAKE 0001717 20.
 KLAMATH 0003005 25.
 KLAMATH 0015309 25.0
 KLAMATH 0015325 30.0
 KLAMATH 0015338 20.0
 KLAMATH 0015327 24.
 KLAMATH 0015337 24.0
 KLAMATH 0015336 24.0
 KLAMATH 0015300 Q 35.
 KLAMATH 0015305 37.0
 KLAMATH 0015343 22.
 KLAMATH 0015333 25.0
 KLAMATH 0015320 25.0
 KLAMATH 0015315 73.0
 KLAMATH 0015335 23.0
 KLAMATH 0015442
 KLAMATH 0015311 22.0
 KLAMATH 0003004 25.
 KLAMATH 0015310 93.0
 KLAMATH 0015339 38.0
 KLAMATH 0015431 51.7
 KLAMATH 0015331 21.0
 KLAMATH 0015332 25.0
 KLAMATH 0015319 71.0
 KLAMATH 0015322 61.0
 KLAMATH 0003001 81.
 KLAMATH 0015302 81.0
 KLAMATH 0015430 31.0
 KLAMATH 0015306 25.0
 KLAMATH 0015303 89.0
 KLAMATH 0015334 26.0
 KLAMATH 0015321 G 50.
 KLAMATH 0015308 90.0
 KLAMATH 0015419 89.0
 KLAMATH 0015301 88.0
 KLAMATH 0003006 79.
 KLAMATH 0015342 30.0
 KLAMATH 0000705 74.0
 KLAMATH 0003003 87.
 KLAMATH 0015443 73.9
 KLAMATH 0015316 Q 21.
 KLAMATH 0015317 21.0
 KLAMATH 0015318 20.0
 KLAMATH 0015326 26.
 KLAMATH 0015341 22.0
 KLAMATH 0015328 22.0
 KLAMATH 0015432 25.
 KLAMATH 0015330 23.
 KLAMATH 0015329 Q 65.0
 KLAMATH 0015314 20.0

42-01.50 N 121-36.00 W TOWN OF MERRILL
 42-08.05 N 121-45.25 W U.S. AIR FORCE(1)
 42-08.10 N 121-45.35 W U.S. AIR FORCE(2)
 42-10.70 N 121-48.10 W WEYERHAUSER WELL NO. 4

KLAMATH 0015340 21.0
 KLAMATH 0015323 Q 31.0
 KLAMATH 0015324 Q 30.
 KLAMATH 0015304 22.

MEDFORD 1:250,000

42-52.35 N 122-10.10 W ANNIE SPRING
 42-13.30 N 122-44.65 W JACKSON HOT SPRING

KLAMATH 0015312 25.0
 JACKSON 0015344 35.0

BOISE 1:250,000

43-41.8 N 117-05.7 W ARTESIAN WELL
 43-44.7 N 117-10.2 W DEER BUTTE H.S./MITCHELL BUTTE SYSTEM
 43-47.5 N 117-57.5 W JONESBORO WARM SPRING
 43-45.78 N 117-09.34 W MITCHELL BUTTE HOT SPRINGS
 43-57.6 N 117-37.8 W NELSON WELL
 43-55.76 N 117-12.72 W NORTH HARPER BLM WELL
 43-52.5 N 117-13.8 W PAGE WELL
 43-42.0 N 117-10.8 W S. BLACK WILLOW SPRING/SNIVELY
 43-56.6 N 117-22.5 W SAND HOLLOW OIL TEST
 43-53.50 N 117-29.00 W UNNAMED (J. SEIDER PROPERTY)
 43-53.48 N 117-30.00 W UNNAMED HOT SPRINGS NEAR LITTLE VALLEY
 43-18.0 N 117-22.5 W UNNAMED SPRING
 43-06.9 N 117-52.8 W UNNAMED SPRING
 43-58.96 N 117-13.98 W VALE HOT SPRINGS
 43-58.96 N 117-13.98 W VALE HOT SPRINGS
 43-55.2 N 117-13.2 W VALE WELL
 43-54.3 N 117-25.8 W VINES HILL BLM WELL

MALHEUR 0015411 46.0
 MALHEUR 0001728
 MALHEUR 0015405 44.5
 MALHEUR 0000784 62.0
 MALHEUR 0001733 21.
 MALHEUR 0015413 36.0
 MALHEUR 0001731 40.
 MALHEUR 0001727 25.
 MALHEUR 0001739 50.
 MALHEUR 0015979 82.
 MALHEUR 0000721 70.0
 MALHEUR 0001738 50.
 MALHEUR 0001737 50.
 MALHEUR 0003002 90.
 MALHEUR 0000685 73.0
 MALHEUR 0001729 40.
 MALHEUR 0001726 40.

BURNS 1:250,000

43-56.65 N 118-08.15 W DEULAH HOT SPRINGS
 43-26.45 N 118-38.30 W CRANE HOT SPRING
 43-26.45 N 118-38.30 W CRANE HOT SPRINGS
 43-26.45 N 118-38.30 W CRANE HOT SPRINGS
 43-26.45 N 118-38.30 W CRANE HOT SPRINGS
 43-30.25 N 118-54.30 W HARNEY VALLEY DEV CO. OIL TEST WELL
 43-30.25 N 118-54.30 W HARNEY VALLEY DEV. CO. OIL WELL
 43-21.6 N 118-53.4 W HOWELL OIL TEST
 43-25.40 N 118-55.95 W ISLAND RANCH WELL
 43-45.5 N 118-04.0 W JUNTURA WARM SPRING #1
 43-45.5 N 118-05.5 W JUNTURA WARM SPRING #2
 43-19.039N 118-33.015W LONG HOLLOW WELL
 43-28.15 N 118-12.08 W LUCE HOT SPRINGS
 43-23.4 N 118-18.9 W NORTH OF VENATOR
 43-37.65 N 118-51.75 W O. J. THOMAS
 43-37.65 N 118-51.74 W O. J. THOMAS WELL
 43-18.040N 118-35.019W THOMPSON IRR. WELL
 43-39.76 N 118-44.30 W UNNAMED SPRING
 43-23.7 N 118-18.4 W WARM SPRING NEAR VENATOR
 43-39.0 N 118-15.6 W WARM SPRINGS RESERVOIR
 43-29.4 N 119-06.0 W BAKER SPRING
 43-15.051N 119-14.020W BARNYARD SPRING
 43-16.2 N 119-17.1 W DASQUE SPRING

MALHEUR 0000723 60.0
 HARNEY 0003046 76.0
 HARNEY 0000727 78.0
 HARNEY 0015938 49.
 HARNEY 0015435 80.0
 HARNEY 0015436 46.0
 HARNEY 0003045 50.
 HARNEY 0001681 41.
 HARNEY 0015434 41.0
 MALHEUR 0015407 25.0
 MALHEUR 0015409 35.0
 HARNEY 0003042 25.
 MALHEUR 0000725 63.0
 HARNEY 0001690 45.
 HARNEY 0015440 72.0
 HARNEY 0003048 72.
 HARNEY 0003037 24.
 HARNEY 0015942 22.
 HARNEY 0015345 41.
 HARNEY 0001683 62.
 HARNEY 0001680 21.
 HARNEY 0003060 22.0
 HARNEY 0001696 23.

43-11.80 N 119-06.45 W	BATHTUB SPRING	HARNEY	0003068	51.1
43-32.4 N 119-06.6 W	CITY OF HINES WELL	HARNEY	0001684	17.
43-33.57 N 119-05.31 W	CITY OF HINES WELL	HARNEY	0015441	17.0
43-32.33 N 119-05.02 W	DEVELOPMENT WELL	HARNEY	0003053	26.5
43-23.4 N 119-04.2 W	DOG MOUNTAIN OIL TEST WELL	HARNEY	0001682	60.
43-15.06 N 119-14.019W	DUNN RANCH ARTESIAN WELL NO. 1	HARNEY	0003043	26.
43-12.38 N 119-03.45 W	EAGLES NEST SPRING NO. 1	HARNEY	0003070	41.7
43-12.80 N 119-03.62 W	EAGLES NEST SPRING NO. 2	HARNEY	0003067	28.1
43-31.32 N 119-05.00 W	FISCHER WELL	HARNEY	0003054	25.5
43-32.4 N 119-55.8 W	GLASS BUTTE MERCURY MINE WELL	LAKE	0001718	48.
43-31.73 N 119-04.83 W	GOODMAN SPRING (HOTCHKISS)	HARNEY	0015437	22.0
43-10.6 N 119-03.6 W	HARNEY LAKE HOT SPRINGS	HARNEY	0003065	67.
43-32.34 N 119-04.80 W	HINES LUMBER CO. WELL	HARNEY	0015439	25.0
43-32.82 N 119-04.80 W	HINES MILL NO. 2	HARNEY	0003057	27.8
43-33.43 N 119-04.85 W	HINES MILL WELL NO. 1	HARNEY	0003056	28.5
43-31.42 N 119-03.83 W	HOTCHKISS WELL	HARNEY	0015940	27.
43-31.42 N 119-03.83 W	HOTCHKISS WELL	HARNEY	0003050	33.
43-31.42 N 119-03.83 W	HOTCHKISS WELL	HARNEY	0015438	27.
43-15.0 N 119-15.6 W	HUGHET SPRING	HARNEY	0001697	20.
43-15.6 N 119-16.8 W	JOHNSON SPRING	HARNEY	0001698	22.
43-15.0 N 119-01.5 W	LYNCH SPRING	HARNEY	0001699	18.
43-32.43 N 119-04.86 W	MILLPOND SPRING	HARNEY	0015941	26.
43-18.005N 119-19.003W	OO STATION SPRING	HARNEY	0003061	23.
43-30.040N 119-05.009W	POTTERS SWAMP ART. WELL FIELD	HARNEY	0003039	27.
43-33.03 N 119-04.77 W	POWERHOUSE WELL	HARNEY	0003055	25.
43-31.060N 119-04.040W	REST STOP WARM WELL	HARNEY	0003040	26.
43-29.4 N 119-07.2 W	ROADLAND SPRING	HARNEY	0001685	22.
43-28.041N 119-04.024W	SAGE HEN CREEK ART. WELL	HARNEY	0003038	23.
43-32.38 N 119-04.68 W	TRAILER COURT WELL	HARNEY	0003058	26.5
43-17.008N 119-17.008W	UNNAMED WARM SPRINGS	HARNEY	0003062	21.
43-31.8 N 119-04.5 W	UNNAMED	HARNEY	0001686	25.
43-20.4 N 119-26.1 W	UNNAMED	HARNEY	0001689	20.
43-57.6 N 119-38.4 W	UNNAMED	HARNEY	0001694	29.
43-10.6 N 119-03.6 W	UNNAMED HOT SPRING NEAR HARNEY LAKE	HARNEY	0015939	59.
43-10.6 N 119-03.6 W	UNNAMED HOT SPRING NEAR HARNEY LAKE	HARNEY	0000729	68.0
43-16.026N 119-15.020W	UNNAMED WARM SPRING	HARNEY	0003063	21.
43-12.006N 119-04.027W	UNNAMED WARM SPRING IN HARNEY LAKE	HARNEY	0003064	22.

CRESCENT 1:250,000

43-48.026N 120-45.053W	DECKER WELL NO. 2	DESCHUTES	0003009	25.1
43-43.1 N 121-12.2 W	EAST LAKE HOT SPRINGS	DESCHUTES	0000781	62.0
43-43.1 N 121-12.2 W	EAST LAKE HOT SPRINGS	DESCHUTES	0015453	49.
43-43.1 N 121-12.2 W	EAST LAKE HOT SPRINGS	DESCHUTES	0015452	
43-43.75 N 121-15.125W	PAULINA HOT SPRINGS	DESCHUTES	0015947	
43-43.75 N 121-15.125W	PAULINA HOT SPRINGS	DESCHUTES	0015454	
43-42.9 N 121-14.5 W	WARM WELL AT LITTLE CRATER CAMPGROUND	DESCHUTES	0015455	35.5

ROSEBURG 1:250,000

43-41.35 N 122-22.32 W	KITSON HOT SPRING	LANE	0015968	44.
43-41.35 N 122-22.50 W	KITSON SPRINGS	LANE	0002232	44.4
43-41.35 N 122-22.50 W	KITSON SPRINGS	LANE	0015468	43.
43-42.6 N 122-17.3 W	MCCREDIE HOT SPRING NO. 2	LANE	0015975	62.
43-42.35 N 122-17.20 W	MCCREDIE SPRINGS	LANE	0000783	73.

43-42.35 N 122-17.20 W MCCREDIE SPRINGS
 43-17.67 N 122-21.917W UMPQUA HOT SPRINGS
 43-17.70 N 122-21.917W UMPQUA HOT SPRINGS
 43-48.5 N 122-18.2 W WALL CREEK WARM SPRINGS
 43-48.45 N 122-18.55 W WALL CREEK WARM SPRINGS
 BAKER 1:250,000

LANE 0015425 71.0
 DOUGLAS 0015949 46.
 DOUGLAS 0015456 46.5
 LANE 0015974 40.
 LANE 0015401 41.0

44-06.60 N 117-13.60 W ALKALI FLAT GRADIENT WELL
 44-21.0 N 117-16.2 W CITY OF HUNTINGTON WELL
 44-01.45 N 117-27.60 W NEAL HOT SPRINGS
 44-33.0 N 117-24.0 W NELSON SPRING
 44-55.82 N 117-56.36 W RADIUM HOT SPRINGS
 44-55.82 N 117-56.36 W RADIUM HOT SPRINGS
 44-46.76 N 117-48.65 W SAMO SPRING
 44-01.95 N 117-26.95 W UNNAMED WARM SPRING NEAR BULLY CREEK

MALHEUR 0015412 24.0
 BAKER 0001700 24.
 MALHEUR 0000687 87.0
 BAKER 0001701 27.
 BAKER 0002206 57.2
 BAKER 0000709 58.
 BAKER 0015420 27.0
 MALHEUR 0015414 37.0

CANYON CITY 1:250,000

44-21.30 N 118-34.40 W BLUE MOUNTAIN HOT SPRINGS
 44-58.48 N 118-02.61 W FISHER HOT SPRING
 44-16.81 N 118-57.36 W JOAQUIN MILLER RESORT
 44-22.5 N 118-43.8 W LIMEKILN SPRING
 44-05.4 N 119-25.2 W BRISBOIS RANCH SPRINGS
 44-53.60 N 119-08.50 W RITTER HOT SPRINGS
 44-00.1 N 119-39.8 W WEBERG HOT SPRING

GRANT 0000719 58.0
 BAKER 0015444 37.0
 GRANT 0015948 40.
 GRANT 0001705 21.
 GRANT 0001704 22.
 GRANT 0000715 41.0
 GRANT 0000693 46.0

BEND 1:250,000

44-00.6 N 120-09.0 W CAMP CREEK
 44-10.045N 120-56.020W DEADMAN SPRINGS
 44-14.80 N 120-57.17 W SAMPALUESTI WELL
 44-04.2 N 120-02.4 W UNNAMED SPRING ON S. FORK CROOKED RIVER
 44-46.86 N 121-58.54 W BREITENBUSH HOT SPRINGS
 44-46.87 N 121-58.5 W BREITENBUSH HOT SPRINGS
 44-46.86 N 121-58.54 W BREITENBUSH HOT SPRINGS - WELL
 44-46.93 N 121-58.35 W BREITENBUSH WELL NO. 3
 44-12.73 N 121-01.02 W CRADDOCK WELL
 44-11.42 N 121-01.65 W E. MEEKER WELL
 44-11.1 N 121-02.9 W JACKSON WELL
 44-51.72 N 121-12.05 W KAHNEETAH HOT SPRINGS
 44-09.022N 121-03.013W PB-1 DOGAMI DRILL HOLE
 44-11.23 N 121-02.05 W T. BEARDY WELL
 44-10.73 N 121-03.30 W T. O. MARSHALL WELL
 44-15.5 N 121-03.0 W WEIGAND WELL

CROOK 0001702 23.
 CROOK 0003007 13.
 CROOK 0003033 21.6
 CROOK 0001703 31.
 MARION 0000701 92.0
 MARION 0015972 98.
 MARION 0015445 110.
 MARION 0003072 74.
 CROOK 0003017 24.3
 CROOK 0003021 24.9
 CROOK 0003018 27.
 WASCO 0000699 52.0
 CROOK 0003014 32.5
 CROOK 0003016 24.5
 CROOK 0001605 33.3
 CROOK 0003015 24.

SALEM 1:250,000

44-56.15 N 122-10.35 W BAGBY HOT SPRINGS
 44-56.15 N 122-10.35 W BAGBY HOT SPRINGS
 44-11.65 N 122-02.90 W BELKNAP HOT SPRINGS
 44-11.65 N 122-02.90 W BELKNAP HOT SPRINGS
 44-14.35 N 122-03.50 W BIGELOW HOT SPRINGS
 44-04.95 N 122-14.00 W COUGAR RESERVOIR HOT SPRINGS (RIDER)
 44-04.95 N 122-14.00 W COUGAR RESERVOIR HOT SPRINGS (RIDER)
 44-09.20 N 122-05.85 W FOLEY SPRINGS

CLACKAMAS 0015451 58.
 CLACKAMAS 0015422 57.2
 LANE 0000703 71.0
 LANE 0002230 86.7
 LANE 0015423 61.0
 LANE 0015426 42.0
 LANE 0000787 44.0
 LANE 0015424 80.6

44-12.06 N 122-03. W FRISSEL ROAD SPRING

LANE 0015973 18.

GRANGEVILLE 1:250,000

45-53.49 N 116-52.41 W COOK CREEK WARM SPRING	WALLOWA	0015410	36.0
45-18.0 N 117-49.5 W BAKER WARM SPRING (CHUCK BENNETT WARM SPRING)	UNION	0000179	26.0
45-13.6 N 117-57.3 W BARSTAD HOT WELL	UNION	0000177	81.5
45-12.00 N 117-49.83 W BENNETT WARM SPRING	UNION	0000186	27.0
45-28.2 N 117-58.2 W CLAYTON FOX WELL	UNION	0001707	27.
45-14.037N 117-57.004W COURTWRIGHT WELL	UNION	0003084	67.
45-17.037N 117-48.019W COVE BATH HOUSE	UNION	0003080	28.8
45-17.67 N 117-48.38 W COVE WARM SPRING	UNION	0015418	29.4
45-17.66 N 117-48.40 W COVE WARM SPRING	UNION	0000182	42.0
45-27.12 N 117-58.19 W CRESTON SHAW WELL	UNION	0015980	22.
45-12.049N 117-55.016W DUCK POND	UNION	0003085	25.
45-16.032N 117-48.023W GIRDNER WARM SPRING	UNION	0003073	22.2
45-18.046N 117-48.027W GRANGE HALL	UNION	0003076	26.
45-12.8 N 117-55.3 W HAYSTACK WARM SPRING	UNION	0000176	25.5
45-18.052N 117-47.042W HOOFNAGLE	UNION	0003074	24.
45-14.63 N 117-57.51 W HOT LAKE	UNION	0000711	80.0
45-14.037N 117-57.030W HOT LAKE RESORT	UNION	0003083	81.
45-14.52 N 117-57.06 W HOT LAKE SPRING	UNION	0000180	81.
45-00.8 N 117-53.1 W KROPP HOT SPRING	BAKER	0015427	43.0
45-17.036N 117-48.022W LOVE SWIMMING POOL	UNION	0003081	30.
45-01.10 N 117-38.50 W MEDICAL HOT SPRING	UNION	0000183	61.5
45-01.08 N 117-37.48 W MEDICAL HOT SPRINGS	UNION	0000713	60.0
45-01.08 N 117-37.48 W MEDICAL HOT SPRINGS	UNION	0002241	60.0
45-12.02 N 117-54.51 W OASIS WARM SPRING	UNION	0000185	29.5
45-28.054W 117-57.043W ROYCE	UNION	0003078	26.
45-12.13 N 117-55.03 W SWEET WARM SPRING	UNION	0000184	38.0
45-12.003N 117-54.046W UNION JUNCTION NO. 1	UNION	0003082	37.
45-12.000N 117-54.023W UNION JUNCTION NO. 2	UNION	0003071	30.
45-27.026N 117-59.050W WAGNER	UNION	0003077	31.
45-27.43 N 117-59.84 W WAGNER WELL	UNION	0015946	29.
45-18.059N 117-48.037W WARM CREEK	UNION	0003075	25.

PENDLETON 1:250,000

45-44.47 N 118-13.96 W BINGHAM SPRINGS	UMATILLA	0015347	34.4
45-07.8 N 118-43.8 W HIDAWAY SPRINGS	UMATILLA	0001709	38.
45-20.66 N 118-05.90 W LA GRANDE WARM WELL	UNION	0000181	28.0
45-09.06 N 118-39.55 W LEHMAN SPRINGS	UMATILLA	0000785	61.0
45-19.54 N 118-07.20 W U.P. RR NO. 1	UNION	0015981	25.5
45-20.00 N 118-07.17 W U.P. RR NO. 2	UNION	0015982	26.
45-04.2 N 118-27.3 W WARM MINERAL SPRINGS	UNION	0001706	28.
45-56.4 N 118-27.6 W WELL	UMATILLA	0001710	24.
45-19.89 N 118-05.43 W WELL	UNION	0015944	27.
45-19.89 N 118-05.43 W WELL	UNION	0015945	25.
45-20.07 N 118-05.83 W WELL	UNION	0015943	27.
45-49.8 N 119-18.0 W CITY OF HERMISTON WELL	UMATILLA	0001711	24.
45-37.8 N 119-48.0 W WELLS SPRING (WELL)	MORROW	0001708	27.

THE DALLES 1:250,000

45-22.3 N 121-41.8 W ACID-SULFATE SPRING ON MT. HOOD CLACKAMAS 0015469

45-01.65	N 121-57.80	W GEOTHERMAL GRADIENT TEST NEAR AUSTIN HOT SPRING	CLACKAMAS	0015446	35.6
45-33.8	N 121-16.6	W J. SANDOZ WELL	WASCO	0015417	27.8
45-31.70	N 121-12.95	W MILTON MARTIN WELL	WASCO	0015403	22.2
45-22.3	N 121-41.8	W MT. HOOD FUMARoles	CLACKAMAS	0015471	
45-22.3	N 121-41.8	W MT. HOOD FUMARoles	CLACKAMAS	0015472	89.4
45-22.3	N 121-41.8	W MT. HOOD FUMARoles	CLACKAMAS	0015474	91.1
45-22.3	N 121-41.8	W MT. HOOD FUMARoles	CLACKAMAS	0015473	
45-22.3	N 121-41.8	W MT. HOOD FUMARoles	CLACKAMAS	0015950	71.1
45-22.3	N 121-41.8	W MT. HOOD FUMARoles	CLACKAMAS	0015470	89.4
45-22.3	N 121-41.8	W MT. HOOD FUMARoles	CLACKAMAS	0015937	86.1
45-22.3	N 121-41.8	W MT. HOOD FUMARoles	CLACKAMAS	0015951	89.4
45-22.3	N 121-41.8	W MT. HOOD FUMARoles	CLACKAMAS	0015952	89.4
45-29.75	N 121-33.5	W PARKDALE GRADIENT HOLE	HOOD RIVER	0015971	24.
45-17.7	N 121-44.3	W SWIM WARM SPRINGS	CLACKAMAS	0015421	26.0

VANCOUVER 1:250,000

45-01.30	N 122-00.50	W AUSTIN HOT SPRINGS (CAREY)	CLACKAMAS	0000697	86.0
45-30.2	N 122-18.3	W CAMP COLLINS WARM SPRINGS (WELL)	MULTNOMAH	0000296	29.
45-32.5	N 122-17.5	W CORBETT WARM SPRING	MULTNOMAH	0015415	18.0
45-30.2	N 122-18.3	W YMCA CAMP COLLINS	MULTNOMAH	0015416	23.3

APPENDIX D

Sources for the records in the GEOTHERM sample file for Oregon. 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 = AYERS AND CRESWELL, 1951

AYRES, F. D., AND CRESWELL, A. E., 1951, THE MOUNT HOOD FUMARoles:
MAZAMA, V. 33, NO. 13, P. 33-40.

CODE = BOWEN AND OTHERS, 1978

BOWEN, R. G., PETERSON, N. V., RICCIO, J. F., 1978, LOW- TO INTERMED-
IATE-TEMPERATURE THERMAL SPRINGS AND WELLS IN OREGON: OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES, GEOLOGICAL MAP
SERIES, GMS-10.

CODE = BROWN AND OTHERS, 1980A

BROWN, D. E., MCLEAN, G. D., AND BLACK, G. L., 1980A, PRELIMINARY
GEOLOGY AND GEOTHERMAL RESOURCE POTENTIAL OF THE SOUTHERN HARNEY
BASIN OREGON: OREGON DEPT. OF GEOLOGY AND MINERAL INDUSTRIES
OPEN-FILE REPT. O-80-7, 90 P.

CODE = BROWN AND OTHERS, 1980B

BROWN, D. E., MCLEAN, G. D., AND BLACK, G. L., 1980B, PRELIMINARY
GEOLOGY AND GEOTHERMAL RESOURCE POTENTIAL OF THE NORTHERN HARNEY
BASIN OREGON: OREGON DEPT. OF GEOLOGY AND MINERAL INDUSTRIES
OPEN-FILE REPT. O-80-6, 52 P.

CODE = BROWN AND OTHERS, 1980C

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OPEN-FILE REPT. O-80-4, 21 P.
INDUSTRIES OPEN-FILE REPT. O-80-9.

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DELLECHAIE, F. 1978, A GEOLOGICAL AND HYDRO-GEOCHEMICAL STUDY OF THE
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COUNCIL, TRANSACTIONS, VOL. 2, JULY, 1978, P. 145-148.

CODE = GONTHIER AND OTHERS, 1977

GONTHIER, J. B., COLLINS, C. A., AND ANDERSON, D. B., 1977, GROUND
WATER DATA FOR THE DREWSEY RESOURCE AREA, HARNEY AND MALHEUR
COUNTIES, OREGON: U. S. GEOLOGICAL SURVEY OPEN-FILE REPORT 77-741,
28 P.

CODE = HAMPTON AND BROWN, 1964

HAMPTON, E. R., AND BROWN, S. G., 1964, GEOLOGY AND GROUND-WATER RESOURCES OF THE UPPER GRANDE RONDE RIVER BASIN, UNION COUNTY, OREGON: U. S. GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1597, 99 P.

CODE = HOGENSON, 1964

HOGENSON, G. M., 1964, GEOLOGY AND GROUND WATER OF THE UMATILLA RIVER BASIN, OREGON: U. S. GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1620, 162 P.

CODE = LEONARD AND HARRIS, 1974

LEONARD, A. R., AND HARRIS, A. B., 1974, GROUND WATER IN SELECTED AREAS IN THE KLAMATH BASIN, OREGON: OREGON STATE GROUND-WATER REPORT NO. 21, 104 P.

CODE = LEONARD, 1970

LEONARD, A. R., 1970, GROUND-WATER RESOURCES IN HARNEY VALLEY, HARNEY COUNTY, OREGON: OREGON STATE GROUND-WATER REPORT NO. 16, 85 P.

CODE = LINDGREN, 1901

LINDGREN, WALDEMAR, 1901, THE GOLD BELT OF THE BLUE MOUNTAINS OF OREGON: U. S. GEOLOGICAL SURVEY 2ND ANN. REPT., PT. 2, P. 551-776.

CODE = MADISON, 1966

MADISON, R. J., 1966, WATER-QUALITY DATA IN THE WILLAMETTE BASIN, OREGON, 1910-64: U. S. GEOLOGICAL SURVEY BASIC-DATA RELEASE, 40 P.

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CODE = MARINER AND OTHERS, 1980

MARINER, R. H., SWANSON, J. R., ORRIS, G. J., PRESSER, T. S., AND EVANS, W. C., 1980, CHEMICAL AND ISOTOPIC DATA FOR WATER FROM THERMAL SPRINGS AND WELLS OF OREGON: U. S. GEOLOGICAL SURVEY OPEN-FILE REPORT 80-737, 50 P.

CODE = NEHRING AND OTHERS, 1979

NEHRING, N. L., MARINER, R. H., WHITE, L. D., HUEBNER, M. A., ROBERTS, E. D., HARMON, KAREN, BOWEN, P. A., AND TANNER, LANE, 1979, SULFATE GEOTHERMOMETRY OF THERMAL WATERS IN THE WESTERN UNITED STATES: U.S. GEOLOGICAL SURVEY OPEN-FILE REPORT 79-1135, 12 P.

CODE = NEWCOMB AND HART, 1958

NEWCOMB, R. C., AND HART, D. H., 1958, PRELIMINARY REPORT ON THE GROUND-WATER RESOURCES OF THE KLAMATH RIVER BASIN, OREGON: U. S. GEOLOGICAL SURVEY OPEN-FILE REPORT 466, 248 P.

CODE = NEWCOMB, 1972

NEWCOMB, R. C., 1972, QUALITY OF THE GROUND WATER IN BASALT OF THE COLUMBIA RIVER GROUP, WASHINGTON, OREGON, AND IDAHO: U. S. GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1999N, 71 P.

CODE = PETERSON AND GROH, 1967

PETERSON, N. V., AND GROH, E. A., 1967, GEOTHERMAL POTENTIAL OF THE KLAMATH FALLS AREA, OREGON - A PRELIMINARY STUDY: THE ORE-BIN, V. 29, NO. 11, P. 209-231.

CODE = PHILLIPS, 1936

PHILLIPS, K. N., 1936, A CHEMICAL STUDY OF THE FUMARoles OF MOUNT HOOD: MAZAMA, V. 18, NO. 12, P. 44-46

CODE = PIPER AND OTHERS, 1939

PIPER, A. M., ROBINSON, T. W., AND PARK, C. F., JR., 1939, GEOLOGY AND GROUND-WATER RESOURCES OF THE HARNEY BASIN, OREGON: U. S. GEOLOGICAL SURVEY WATER-SUPPLY PAPER 841, 190 P.

CODE = PRICE, 1967

PRICE, DON, 1967, GROUND-WATER RECONNAISSANCE IN THE BURNT RIVER VALLEY AREA, OREGON: U. S. GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1839-I, 127 P.

CODE = ROBISON, 1972

ROBISON, J. H., 1972, AVAILABILITY AND QUALITY OF GROUND WATER IN THE ASHLAND QUADRANGLE, JACKSON COUNTY, OREGON: U. S. GEOLOGICAL SURVEY HYDROLOGIC INVESTIGATIONS ATLAS HA-421.