GL01372

Format for GEOTHERM Tape

	Length	
GEOTHERM record #	10	
Name of sample source	50	
KGRA	30	
Well/spring no.	20	
API no.	15	
Waring no.	5	
Country	15	
State	15	
County	25	
Latitude	10	
Longitude	11	
Township	3	
Range	4	
Section	5	
Quarter sections	14	
Base & Meridian	20	
Map reference	50	
Geologic province	30	
Other locality info	100	
Source type	10	
Point of collection	25	
Sample number	15	
Collection date	10	
Collector	30	
-----	7	
Deposits or alteration	50	
Water treatment data	100	
Pertinent lithology	100	
Other sample info	400	
Analysis date	10	
Analyst	30	
Units used for solutes	10	
Form of alkalinity measure	5	
Temperature	10	Numeric
Depth of temperature		
Flow		
Ambient temperature		
Depth		
Gradient		
Wellhead pressure		
1st separation pressure		
2nd " "		
3rd " "		
Steam flow		
Total flow enthalpy		
pH		
pH temperature		

	Length	
Specific gravity	10	Numeric
Specific conductance		
Alkalinity		
Total dissolved solids		
Total suspended solids		
Ag		
Al		
As		
Au		
B		
Ba		
Be		
Bi		
Br		
Ca		
Ca + Mg		
Cd		
Cl		
Co		
CO_3		
Cr		
Cs		
Cu		
F		
Fe^{+3}		
Fe (total)		
Ga		
Ge		
HCO_3		
Hg		
H_2S		
I		
K		
Li		
Mg		
Mn		
Mo		
Na		
Na + K		
Nb		
NH_4		
Ni		
NO_3		
Pb		
PO_4		
Rb		
S		

Format for GEOTHERM Tape (continued)

	Length	
Sb	10	Numeric
Sc		
Se		
SiO_2		
Sn		
SO_4		
Sr		
Ta		
Ti		
U		
V		
W		
Zn		
δD water		
δO(18) water		
δO(18) SO_4		
δS(34) SO_4		
δS(34) H_2S		
δC(13) CO_2		
Tritium content	10	
C(14) of CO_2	10	
Other analytical data	100	
Qualifying information	100	
Reference	50	
Reporting Organization	40	

Specifications

Created by:	IBM 370/155
Format:	fixed
Record length:	2344 bytes
Block length:	unblocked
Label:	non-label
Character set:	EBCDIC

GEOTHERM

Retrieval Samples

(November 1976)

SECTION A - GEOTHERMAL FIELD/AREA

The following retrieval is a printout of 45 geothermal field records from Nevada. Records are sorted by county and the entire record is printed.

RECORD 00001

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA.

RECORD IDENTIFICATION

RECORD NO..... 0000652	NAME..... E. A. JOHNSON, J. RENNER
CROSS INDEX NO.. CF02261	DATE..... 75/01
RECORD TYPE..... A	ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. DIXIE HOT SPRINGS	
WARING FIGURE..... 8	WARING NUMBER..... 71A
COUNTRY CODE..... US	COUNTRY NAME..... UNITED STATES
STATE/PROVINCE..... NEVADA	COUNTY..... CHURCHILL
LATITUDE..... 39-47-52N	LONGITUDE..... 118-04-02W

TOWNSHIP	RANGE	SECTION	1/4	1/4
22N	35E	5	SE	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: DIXIE H.S. 1:62,500; RENO 1:250,000

GENERAL DESCRIPTION

ELEVATION..... 1044.85 M 3428. FT
RESOURCE CATEGORY..... C
SURFACE THERMAL ACTIVITY..... HOT SPRING(S),

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE..... 3.33 L/S 2.0000E+02 L/MIN ESTIMATED
SPRING TEMPERATURES..... 72. C

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	135.	C	TO 155.	C	ASSUMED			
BEST ESTIMATE.....	150.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 3.0	KM**2		
BEST ESTIMATE.....	2.0	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 6.000	KM**3		
BEST ESTIMATE.....	3.000	KM**3						

COMMENTS: DEPTHS TO TOP & BOTTOM OF RESERVOIR ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.9302E+17 J	6.9999E+16 CAL	TO 2.0930E+18 J 4.9999E+17 CAL
BEST ESTIMATE.....	1.0046E+18 J	2.3999E+17 CAL	ABOVE 15. C

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY VOLCANIC ROCKS; LATE MESOZOIC INTRUSIVE & METAMORPHIC ROCKS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) PAGE,R.M.,1965, PRELIMINARY GEOLOGIC MAP OF A PART OF THE STILLWATER RANGE, CHURCHILL COUNTY, NEVADA: NEVADA BUR. MINES MAP 28
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00002

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	000608	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02041	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	LEE HOT SPRINGS		
WARING FIGURE.....	8	WARING NUMBER.....	74A
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	CHURCHILL
LATITUDE.....	39-12-33N	LONGITUDE.....	118-43-23W

TOWNSHIP	RANGE	SECTION	1/4	1/4
16N	29E	34	NW	NE

AVAILABLE MAPS OF AREA: ALLEN SP. 1:62,500; RENO, 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1225.30	M	4020.	FT	
RESOURCE CATEGORY.....	B				
SURFACE THERMAL ACTIVITY.....	DEPOSITS				
ASSOCIATED DEPOSITS.....	SINTER, TRAVERTINE				
NO. OF HOT SPRINGS.....	SEVERAL				

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	2.17	L/S	1.3000E+02	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	88.	C	TO 78.	C	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	150.	C	TO 180.	C	ASSUMED			
BEST ESTIMATE.....	175.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	3.3489E+17 J	7.9999E+16 CAL	TO 1.6744E+18 J	3.9999E+17 CAL	
BEST ESTIMATE.....	8.7902E+17 J	2.0999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: MIOCENE-PLIOCENE VOLCANIC ROCKS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492
3) WILLDEN, RONALD, AND SPEED,R.C.,1968, GEOLOGY & MINERAL DEPOSITS OF CHURCHILL COUNTY, NEV.:U.S.G.S. OPEN-FILE MAP

RECORD 00003

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000602	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02011	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	BRADY HOT SPRINGS		
WARING FIGURE.....	8	WARING NUMBER.....	72
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	CHURCHILL
LATITUDE.....	39-47-13N	LONGITUDE.....	119-00-00W

TOWNSHIP	RANGE	SECTION	1/4	1/4
22N	26E	12	SW	

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: FIRE BALL RIDGE 1:62,500; RENO 1:250,000

GENERAL DESCRIPTION

SIZE OF SURFACE EXPRESSION....	0.6	KM**2			
ELEVATION.....	1255.78	M	4120.	FT	
RESOURCE CATEGORY.....	B				
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS, FUMAROLE OR WARM VAPOR				
ASSOCIATED DEPOSITS.....	SINTER				
NO. OF HOT SPRINGS.....	SEVERAL				

GEOTHERMAL CHARACTERISTICS

TOTAL CALCULATED DISCHARGE OF DEEP WATERS:	45.00	L/S	2700.00	L/MIN	
TOTAL NATURAL HEAT FLUX.....	33.91	J/S	8.0999E+00	CAL/S	
SPRING TEMPERATURES.....	70.	C	TO 98.	C	
WELL INFORMATION					
MAXIMUM WELL TEMPERATURE.....	214.	C			

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	200.	C	TO 230.	C	ASSUMED				
BEST ESTIMATE.....	214.0	C							
SUBSURFACE AREA.....	5.0	KM**2			TO 30.0	KM**2			
BEST ESTIMATE.....	12.0	KM**2							
BASED ON: GEOLOGY, TEMP GRADIENT, EXPLORATION, SURFACE EXPRESSION									
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM	TO 1500.00	M	1.500	KM	
BEST ESTIMATE.....	500.00	M	0.500	KM					
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM	
BEST ESTIMATE.....	3000.00	M	3.000	KM					
THICKNESS OF RESERVOIR.....	1500.00	M	1.500	KM	TO 2500.00	M	2.500	KM	
BEST ESTIMATE.....	2500.00	M	2.500	KM					
VOLUME OF RESERVOIR.....	7.500	KM**3			TO 75.000	KM**3			
BEST ESTIMATE.....	30.000	KM**3							

COMMENTS: DEPTH TO BOTTOM OF RESERVOIR IS ASSUMED.

RESERVES

TOTAL STORED HEAT.....	3.4743E+18 J	8.2999E+17 CAL	TO 4.0604E+19 J	9.6999E+18 CAL
BEST ESTIMATE.....	1.5069E+19 J	3.5999E+18 CAL	ABOVE 15.	C

GEOLOGY
GENERAL ROCK TYPES: PLIOCENE-PLEISTOCENE BASALT; QUATERNARY ALLUVIUM

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) GARSIDE,L.J.,1974, GEOTHERMAL EXPLORATION & DEVELOPMENT IN NEVADA THROUGH 1973: NEVADA BUR. MINES AND GEOLOGY REPORT 21
2) KOENIG,J.B.,1970, GEOTHERMAL EXPLORATION IN THE WESTERN UNITED STATES: GEOTHERMICS SPEC. ISSUE 2,V.2,PT.1,P.1-13
3) OLMSTED,F.H., AND OTHERS,1975, PRELIMINARY HYDROGEOLOGIC APPRAISAL OF SELECTED HYDROTHERMAL SYSTEMS IN NORTHERN & CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT 75-56
4) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00004

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA.

RECORD IDENTIFICATION

RECORD NO.....	0000600	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02001	DATE.....	75/02
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	SODA LAKE		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	CHURCHILL
LATITUDE.....	39-34-00N	LONGITUDE.....	118-49-00W

TOWNSHIP	RANGE	SECTION	1/4	1/4
20N	28E	28		

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: SODA LAKE 1:62,500

GENERAL DESCRIPTION

ELEVATION..... 1200.91 M 3940. FT

RESOURCE CATEGORY..... B

SURFACE THERMAL ACTIVITY..... FUMAROLE OR WARM VAPOR,

GEOTHERMAL CHARACTERISTICS

TOTAL NATURAL HEAT FLUX..... 1.4651E+07 J/S 3.5000E+06 CAL/S

WELL INFORMATION

MAXIMUM WELL TEMPERATURE..... 90. C TO 1. M

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	120.	C	TO 165.	C	ASSUMED				
BEST ESTIMATE.....	155.0	C							
SUBSURFACE AREA.....	2.0	KM**2			TO 10.0	KM**2			
BEST ESTIMATE.....	5.0	KM**2							
BASED ON: GEOLOGY, TEMP GRADIENT									
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM	TO 1500.00	M	1.500	KM	
BEST ESTIMATE.....	500.00	M	0.500	KM					
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM	
BEST ESTIMATE.....	3000.00	M	3.000	KM					
THICKNESS OF RESERVOIR.....	1500.00	M	1.500	KM	TO 2500.00	M	2.500	KM	
BEST ESTIMATE.....	2500.00	M	2.500	KM					
VOLUME OF RESERVOIR.....	3.000	KM**3			TO 25.000	KM**3			
BEST ESTIMATE.....	12.500	KM**3							

COMMENTS: DEPTH TO BOTTOM OF RESERVOIR IS ASSUMED.

RESERVES

TOTAL STORED HEAT.....	7.9530E+17 J	1.8999E+17 CAL	TO 9.6274E+18 J	2.2999E+18 CAL
BEST ESTIMATE.....	4.6042E+18 J	1.0999E+18 CAL	ABOVE 15.	C

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM BETWEEN TWO CENTERS OF QUATERNARY BASALTIC ERUPTIONS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., AND OTHERS,1975, THE MINOR & TRACE ELEMENTS, GAS, & ISOTOPE COMPOSITIONS OF THE PRINCIPAL HOT SPRINGS OF NEVADA & OREGON: U.S.G.S. OPEN-FILE REPORT (AUGUST 1975)
2) OLMSTED,F.H., AND OTHERS,1975, PRELIMINARY HYDROGEOLOGIC APPRAISAL OF SELECTED HYDROTHERMAL SYSTEMS IN NORTHERN & CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT 75-56

RECORD 00005

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO..... 0000598
CROSS INDEX NO.. CF01991
RECORD TYPE..... A

NAME..... E. A. JOHNSON, J. RENNER
DATE..... 75/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. STILLWATER AREA
COUNTRY CODE..... US
STATE/PROVINCE..... NEVADA
LATITUDE..... 39-31-17N

COUNTRY NAME..... UNITED STATES
COUNTY..... CHURCHILL
LONGITUDE..... 118-33-08W

TOWNSHIP	RANGE	SECTION	1/4	1/4
19N	31E	7	SW	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: STILLWATER 1:62,500, RENO 1:250,000

GENERAL DESCRIPTION

ELEVATION..... 1188.72 M 3900. FT
RESOURCE CATEGORY..... B
SURFACE THERMAL ACTIVITY..... FOUND BY DRILLING
NUMBER OF WELLS: NO. WELLS TOTAL.. 1

GEOTHERMAL CHARACTERISTICS

TOTAL CALCULATED DISCHARGE OF DEEP WATERS: 100.00 L/S 6000.00 L/MIN
TOTAL NATURAL HEAT FLUX..... 6.2790E+07 J/S 1.5000E+07 CAL/S
SPRING TEMPERATURES..... 96. C

WELL INFORMATION

MAXIMUM WELL TEMPERATURE..... 115. C

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	145.	C	TO 175.	C				
BEST ESTIMATE.....	160.0	C						
SUBSURFACE AREA.....	4.0	KM**2			TO 20.0	KM**2		
BEST ESTIMATE.....	10.0	KM**2						
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM	TO 1500.00	M	1.500	KM
BEST ESTIMATE.....	500.00	M	0.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1500.00	M	1.500	KM	TO 2500.00	M	2.500	KM
BEST ESTIMATE.....	2500.00	M	2.500	KM				
VOLUME OF RESERVOIR.....	6.000	KM**3			TO 50.000	KM**3		
BEST ESTIMATE.....	25.000	KM**3						

COMMENTS: DEPTH TO BOTTOM OF RESERVOIR IS ASSUMED.

RESERVES

TOTAL STORED HEAT.....	1.9674E+18 J	4.6999E+17 CAL	TO 2.0092E+19 J	4.7999E+18 CAL
BEST ESTIMATE.....	9.2088E+18 J	2.1999E+18 CAL	ABOVE 15.	C

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY BASALT (?)

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) MORRISON,R.B.,1964, LAKE LAHONTAN: GEOLOGY OF SOUTHERN CARSON DESERT, NEVADA: U.S.G.S. PROF. PAPER 401
3) OLMSTED,F.H., AND OTHERS,1975, PRELIMINARY HYDROGEOLOGIC APPRAISAL OF SELECTED HYDROTHERMAL SYSTEMS IN NORTHERN & CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT 75-56
4) WILLDEN, RONALD, AND SPEED,R.C.,1968, GEOLOGY & MINERAL DEPOSITS OF CHURCHILL COUNTY, NEV.:U.S.G.S. OPEN-FILE MAP

RECORD 00006

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000656	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02281	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	WALLEYS HOT SPRINGS (GENOA HOT SPRINGS)		
WARING FIGURE.....	8	WARING NUMBER.....	60
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	DOUGLAS
LATITUDE.....	38-58-52N	LONGITUDE.....	119-49-55W

TOWNSHIP	RANGE	SECTION	1/4	1/4
13N	19E	22	NE	

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: MINDEN 1:24,000; WALKER LAKE 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1423.42	M	4670.	FT	
RESOURCE CATEGORY.....	C				
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS				
ASSOCIATED DEPOSITS.....	TRAVERTINE				
NO. OF HOT SPRINGS.....	MANY				

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	1.25	L/S	7.5000E+01	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	61.	C	TO 71.	C	
WELL INFORMATION					
MAXIMUM WELL TEMPERATURE.....	83.	C			

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	85.	C	TO 120.	C	ASSUMED			
BEST ESTIMATE.....	110.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	1.2558E+17 J	2.9999E+16 CAL	TO 1.0465E+18 J	2.4999E+17 CAL	
BEST ESTIMATE.....	5.4414E+17 J	1.2999E+17 CAL	ABOVE 15.	C	

GEOLOGY
GENERAL ROCK TYPES: TRIASSIC & JURASSIC META VOLCANICS (GREENSCHIST)

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) GARSIDE,L.J.,1974, GEOTHERMAL EXPLORATION & DEVELOPMENT IN NEVADA THROUGH 1973: NEVADA BUR. MINES AND GEOLOGY REPORT 21
2) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
3) MOORE,J.G.,1969, GEOLOGY & MINERAL DEPOSITS OF LYON, DOUGLAS, & ORMSBY COUNTIES, NEVADA: NEVADA BUR. OF MINES BULL . 75
4) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00007

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA.

RECORD IDENTIFICATION

RECORD NO..... 0000634	NAME..... E. A. JOHNSON, J. RENNER
CROSS INDEX NO.. CF02171	DATE..... 75/01
RECORD TYPE..... A	ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	HOT SULPHUR SPRINGS (SULPHUR SPRINGS)		
WARING FIGURE.....	8	WARING NUMBER.....	30
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	ELKO
LATITUDE.....	41-09-24N	LONGITUDE.....	114-59-06W

TOWNSHIP	RANGE	SECTION	1/4	1/4
38N	52E	20	SE	SE

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: OXLEY PEAK 1:24,000;WELLS 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1743.46	M	5720.	FT	
RESOURCE CATEGORY.....	C				
SURFACE THERMAL ACTIVITY.....	HOT SPRING(S);				
NO. OF HOT SPRINGS.....	3				

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	3.17	L/S	1.9000E+02	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	90.	C	TO 37.	C	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	120.	C	TO 200.	C	ASSUMED				
BEST ESTIMATE.....	140.0	C							
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2			
BEST ESTIMATE.....	1.5	KM**2							
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM					
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM	
BEST ESTIMATE.....	3000.00	M	3.000	KM					
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM					
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3			
BEST ESTIMATE.....	2.250	KM**3							

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.5116E+17 J	5.9999E+16 CAL	TO 1.8418E+18 J	4.3999E+17 CAL	
BEST ESTIMATE.....	7.1158E+17 J	1.6999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: TERTIARY VOLCANIC ROCKS; PALEOZOIC LIMESTONE

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) GRANGER,A.E., AND OTHERS,1957, GEOLOGY & MINERAL RESOURCES OF ELKO COUNTY, NEVADA: NEVADA BUR. MINES BULL. 54
2) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00008

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO..... 0000632
CROSS INDEX NO.. CF02161
RECORD TYPE..... A

NAME..... E. A. JOHNSON, J. RENNER
DATE..... 75/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. CARLIN AREA
COUNTRY CODE..... US
STATE/PROVINCE..... NEVADA
LATITUDE..... 40-41-59N

COUNTRY NAME..... UNITED STATES
COUNTY..... ELKO
LONGITUDE..... 116-07-58W

TOWNSHIP	RANGE	SECTION	1/4	1/4
33N	52E	33		

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: CARLIN 1:62,500; WINNEMUCCA 1:250,000

GENERAL DESCRIPTION

ELEVATION..... 1499.62 M 4920. FT
RESOURCE CATEGORY..... C
SURFACE THERMAL ACTIVITY..... HOT SPRING(S),

GEOTHERMAL CHARACTERISTICS

SPRING TEMPERATURES..... TO 79. C

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	80.	C	TO 125.	C	ASSUMED				
BEST ESTIMATE.....	120.0	C							
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2			
BEST ESTIMATE.....	1.5	KM**2							
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM					
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM	
BEST ESTIMATE.....	3000.00	M	3.000	KM					
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM					
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3			
BEST ESTIMATE.....	2.250	KM**3							

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	1.6744E+17 J	3.9999E+16 CAL	TO 1.0883E+18 J	2.5999E+17 CAL
BEST ESTIMATE.....	5.8600E+17 J	1.3999E+17 CAL	ABOVE 15.	C

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY VOLCANIC ROCKS

PRIMARY REFERENCE:

AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS

DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:

1) GRANGER,A.E., AND OTHERS,1957, GEOLOGY & MINERAL RESOURCES OF ELKO COUNTY, NEVADA: NEVADA BUR. MINES BULL. 54
2) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
3) SMITH,J.F., JR., & KETNER,K.B.,1972, GENERALIZED GEOLOGIC MAP OF THE CARLIN, DIXIE FLATS, PINE VALLEY, AND ROBINSON MOUNTAIN QUADRANGLES, ELKO & EUREKA COUNTIES, NEVADA: U.S.G.S. MISC. FIELD STUDIES MAP MF-481

RECORD 00009

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000630	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02151	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	HOT HOLE (ELKO HOT SPRINGS)		
WARING FIGURE.....	8	WARING NUMBER.....	32
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	ELKO
LATITUDE.....	40-49-07N	LONGITUDE.....	115-46-32W

TOWNSHIP	RANGE	SECTION	1/4	1/4
34N	55E	21	NE	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: ELKO WEST 1:24,000, ELKO 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1542.29	M	5060.	FT
RESOURCE CATEGORY.....	C			
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS			
ASSOCIATED DEPOSITS.....	TRAVERTINE			
NO. OF HOT SPRINGS.....	SEVERAL			

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	1.25	L/S	7.5000E+01	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	56.	C	TO 89.	C	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	100.	C	TO 235.	C	ASSUMED			
BEST ESTIMATE.....	115.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.5	KM**2		
BEST ESTIMATE.....	2.0	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 5.000	KM**3		
BEST ESTIMATE.....	3.000	KM**3						

COMMENTS: DEPTHS TO TOP & BOTTOM OF RESERVOIR ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.5116E+17 J	5.9999E+16 CAL	TO 2.8046E+18 J	6.6999E+17 CAL	
BEST ESTIMATE.....	8.3716E+17 J	1.9999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: TERTIARY LIMESTONE, LACUSTRINE ROCK & VOLCANIC ROCKS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) GRANGER,A.E., AND OTHERS,1957, GEOLOGY & MINERAL RESOURCES OF ELKO COUNTY, NEVADA: NEVADA BUR. MINES BULL. 54
2) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00010

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA.

RECORD IDENTIFICATION

RECORD NO.....	0000628	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02141	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	MINERAL HOT SPRINGS (SAN JACINTO HOT SPRINGS)		
WARING FIGURE.....	8	WARING NUMBER.....	228
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	ELKO
LATITUDE.....	41-47-16N	LONGITUDE.....	114-43-19W

TOWNSHIP	RANGE	SECTION	1/4	1/4
45N	54E	16		

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: DELAPLAIN 1:62,500 , WELLS 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1615.44	M	5300.	FT				
RESOURCE CATEGORY.....	C							
SURFACE THERMAL ACTIVITY.....	HOT SPRING(S),							
NO. OF HOT SPRINGS.....	SEVERAL							

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	75.00	L/S	4.5000E+03	L/MIN	ESTIMATED			
SPRING TEMPERATURES.....	60.	C	TO 25.	C				

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	100.	C	TO 135.	C	ASSUMED					
BEST ESTIMATE.....	130.0	C								
SUBSURFACE AREA.....	1.0	KM**2				TO 2.0	KM**2			
BEST ESTIMATE.....	1.5	KM**2								
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM		TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM						
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM		TO 3000.00	M	3.000	KM	
BEST ESTIMATE.....	3000.00	M	3.000	KM						
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM		TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM						
VOLUME OF RESERVOIR.....	1.000	KM**3				TO 4.000	KM**3			
BEST ESTIMATE.....	2.250	KM**3								

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.5116E+17 J	5.9999E+16 CAL	TO 1.2139E+18 J	2.8999E+17 CAL	
BEST ESTIMATE.....	6.6972E+17 J	1.5999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: TERTIARY LACUSTRINE SEDIMENTS, GRANITE(?), & VOLCANIC FLOWS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) GRANGER,A.E., AND OTHERS,1957, GEOLOGY & MINERAL RESOURCES OF ELKO COUNTY, NEVADA: NEVADA BUR. MINES BULL. 54
2) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00011

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000586	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF01931	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	SULPHUR HOT SPRINGS (HOT SULPHUR SPRINGS)		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	ELKO
LATITUDE.....	40-35-12N	LONGITUDE.....	115-17-05W

TOWNSHIP	RANGE	SECTION	1/4	1/4
31N	59E	11	NW	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: LAMOILLE 1:62,500, ELKO 1:250,000

GENERAL DESCRIPTION

SIZE OF SURFACE EXPRESSION....	0.5	KM**2			
ELEVATION.....	1844.04	M	6050.	FT	
RESOURCE CATEGORY.....	B				
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS				
ASSOCIATED DEPOSITS.....	SINTER				
NO. OF HOT SPRINGS.....	101				

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	8.33	L/S	5.0000E+02	L/MIN	ESTIMATED
TOTAL CALCULATED DISCHARGE OF DEEP WATERS:	9.17	L/S	550.00	L/MIN	
TOTAL NATURAL HEAT FLUX.....	6.70	J/S	1.5999E+00	CAL/S	
SPRING TEMPERATURES.....	45.	C	TO 93.	C	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	170.	C	TO 200.	C	ASSUMED				
BEST ESTIMATE.....	190.0	C							
SUBSURFACE AREA.....	2.0	KM**2			TO 10.0	KM**2			
BEST ESTIMATE.....	4.0	KM**2							
BASED ON: GEOLOGY, SURFACE EXPRESSION, TEMP GRADIENT									
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM	TO 1000.00	M	1.000	KM	
BEST ESTIMATE.....	500.00	M	0.500	KM					
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM	
BEST ESTIMATE.....	3000.00	M	3.000	KM					
THICKNESS OF RESERVOIR.....	2000.00	M	2.000	KM	TO 2500.00	M	2.500	KM	
BEST ESTIMATE.....	2500.00	M	2.500	KM					
VOLUME OF RESERVOIR.....	4.000	KM**3			TO 25.000	KM**3			
BEST ESTIMATE.....	10.000	KM**3							

COMMENTS: DEPTH TO BOTTOM OF RESERVOIR IS ASSUMED.

RESERVES

TOTAL STORED HEAT.....	1.5488E+18 J	3.6999E+17 CAL	TO 1.1720E+19 J	2.7999E+18 CAL	
BEST ESTIMATE.....	4.3949E+18 J	1.0499E+18 CAL	ABOVE 15.	C	

GEOLOGY
GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; UPPER MESOZOIC GRANITE; PRECAMBRIAN THRU PALEOZOIC METAMORPHIC ROCKS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) GRANGER, A.E., AND OTHERS, 1957, GEOLOGY & MINERAL RESOURCES OF ELKO COUNTY, NEVADA: NEVADA BUR. MINES BULL. 54
2) MARINER, R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
3) OLMSTED, F.H., AND OTHERS, 1975, PRELIMINARY HYDROGEOLOGIC APPRAISAL OF SELECTED HYDROTHERMAL SYSTEMS IN NORTHERN & CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT 75-56

RECORD 00012

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO..... 0000584
CROSS INDEX NO.. CF01921
RECORD TYPE..... A

NAME..... E. A. JOHNSON, J. RENNER
DATE..... 75/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. WELLS AREA
WARING FIGURE..... 8
COUNTRY CODE..... US
STATE/PROVINCE..... NEVADA
LATITUDE..... 41-10-55N

WARING NUMBER..... 30A
COUNTRY NAME..... UNITED STATES
COUNTY..... ELKO
LONGITUDE..... 114-59-22W

TOWNSHIP	RANGE	SECTION	1/4	1/4
38N	52E	17	NW	NE

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: OXLEY PEAK 1:24,000, WELLS 1:250,000

GENERAL DESCRIPTION

ELEVATION..... 1755.65 M 5760. FT
RESOURCE CATEGORY..... B
SURFACE THERMAL ACTIVITY..... HOT SPRING(S),
NO. OF HOT SPRINGS..... 3

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE..... 0.75 L/S 4.5000E+01 L/MIN ESTIMATED
SPRING TEMPERATURES..... 61. C

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	140.	C	TO 190.	C	ASSUMED				
BEST ESTIMATE.....	180.0	C							
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2			
BEST ESTIMATE.....	1.5	KM**2							
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM					
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM	
BEST ESTIMATE.....	3000.00	M	3.000	KM					
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM					
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3			
BEST ESTIMATE.....	2.250	KM**3							

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	3.3488E+17 J	7.9999E+16 CAL	TO 1.7581E+18 J	4.1999E+17 CAL
BEST ESTIMATE.....	9.2088E+17 J	2.1999E+17 CAL	ABOVE 15.	C

GEOLOGY

GENERAL ROCK TYPES: TERTIARY LACUSTRINE ROCKS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) GRANGER,A.E., AND OTHERS,1957, GEOLOGY & MINERAL RESOURCES OF ELKO COUNTY, NEVADA: NEVADA BUR. MINES BULL. 54
2) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00013

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000582	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF01911	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	HOT SULPHUR SPRINGS (TUSCARORA)		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	ELKO
LATITUDE.....	41-28-12N	LONGITUDE.....	116-09-00W

TOWNSHIP	RANGE	SECTION	1/4	1/4
41N	52E	8	SE	NE

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: TUSCARORA 1:62,500,WINNEMUCCA 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1767.84	M	5800.	FT				
RESOURCE CATEGORY.....	B							
SURFACE THERMAL ACTIVITY.....	HOT SPRING(S),							
NO. OF HOT SPRINGS.....								

GEOTHERMAL CHARACTERISTICS

SPRING TEMPERATURES.....	90.	C						

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	155.	C	TO 190.	C	ASSUMED			
BEST ESTIMATE.....	185.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	3.3489E+17 J	7.9999E+16 CAL	TO 1.7581E+18 J	4.1999E+17 CAL	
BEST ESTIMATE.....	9.6274E+17 J	2.2999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: TERTIARY LACUSTRINE ROCKS

PRIMARY REFERENCE:

AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) GRANGER,A.E., AND OTHERS,1957, GEOLOGY & MINERAL RESOURCES OF ELKO COUNTY, NEVADA: NEVADA BUR. MINES BULL. 54
2) MOSE,R.K., AND TAYLOR,B.E.,1974, GEOTHERMAL SYSTEMS OF NORTHERN NEVADA: U.S.G.S., OPEN-FILE REPORT 74-271
3) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT

RECORD 00014

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000636	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02181	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	HOT SPRINGS POINT		
WARING FIGURE.....	8	WARING NUMBER.....	884
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	EUREKA
LATITUDE.....	40-24-13N	LONGITUDE.....	116-31-00W

TOWNSHIP	RANGE	SECTION	1/4	1/4
29N	48E	11	NE	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: CRESCENT VA 1:62,500; WINNEMUCCA 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1447.80	M	4750.	FT
RESOURCE CATEGORY.....	C			
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS			
ASSOCIATED DEPOSITS.....	TRAVERTINE			
NO. OF HOT SPRINGS.....	2			

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	2.08	L/S	1.2500E+02	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	50.	C	TO 54.	C	
WELL INFORMATION					
MAXIMUM WELL TEMPERATURE.....	74.	C			

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	110.	C	TO 235.	C	ASSUMED			
BEST ESTIMATE.....	125.0	C						
SUBSURFACE AREA.....	2.0	KM**2			TO 10.0	KM**2		
BEST ESTIMATE.....	5.0	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	2.000	KM**3			TO 20.000	KM**3		
BEST ESTIMATE.....	7.500	KM**3						

COMMENTS: DEPTHS TO TOP & BOTTOM OF RESERVOIR ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	4.6042E+17 J	1.0999E+17 CAL	TO 1.0883E+19 J	2.5999E+18 CAL	
BEST ESTIMATE.....	2.0511E+18 J	4.8999E+17 CAL	ABOVE 15.	C	

GEOLOGY
GENERAL ROCK TYPES: UPPER MIOCENE & EARLY PLIOCENE BASALT; & ORDOVICIAN QUARTZITE AND CHERT

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) GARSIDE,L.J.,1974, GEOTHERMAL EXPLORATION & DEVELOPMENT IN NEVADA THROUGH 1973: NEVADA BUR. MINES AND GEOLOGY REPORT 21
2) GILLULY, JAMES, AND GATES,OLCOTT,1965, TECTONIC AND IGNEOUS GEOLOGY OF THE NORTHERN SHOSHONE RANGE, NEVADA: U.S.G.S. PROF. PAPER 465
3) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
4) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00015

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO..... 0000638	NAME..... E. A. JOHNSON, J. RENNER
CROSS INDEX NO.. CF02191	DATE..... 75/01
RECORD TYPE..... A	ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. WALTI HOT SPRINGS	
COUNTRY CODE..... US	COUNTRY NAME..... UNITED STATES
STATE/PROVINCE..... NEVADA	COUNTY..... EUREKA
LATITUDE..... 39-54-05N	LONGITUDE..... 116-35-13W

TOWNSHIP	RANGE	SECTION	1/4	1/4
24N	48E	33	SW	

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: WALTI H.S. 1:62,500; MILLET, 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1426.46	M	4680.	FT
RESOURCE CATEGORY.....	C			
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS			
ASSOCIATED DEPOSITS.....	TRAVERTINE			
NO. OF HOT SPRINGS.....	6			

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	5.00	L/S	3.0000E+02 L/MIN	ESTIMATED
SPRING TEMPERATURES.....	72.	C		

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	75.	C	TO 130.	C	ASSUMED			
BEST ESTIMATE.....	120.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 3.0	KM**2		
BEST ESTIMATE.....	2.0	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 6.000	KM**3		
BEST ESTIMATE.....	3.000	KM**3						

COMMENTS: DEPTHS TO TOP & BOTTOM OF RESERVOIR ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	1.6744E+17 J	3.9999E+16 CAL	TO 1.7162E+18 J	4.0999E+17 CAL
BEST ESTIMATE.....	7.9530E+17 J	1.8999E+17 CAL	ABOVE 15.	C

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; LATE MESOZOIC EARLY CENOZOIC GRANITE; PALEOZOIC SEDIMENTS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) ROBERTS,R.J. & OTHERS,1967, GEOLOGY AND MINERAL RESOURCES OF EUREKA COUNTY, NEVADA: NEVADA BUR. MINES BULL. 64

RECORD 00016

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA.

RECORD IDENTIFICATION

RECORD NO.....	000058	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF01941	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	BEOWAWE		
WARING FIGURE.....	8	WARING NUMBER.....	77A
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	EUREKA
LATITUDE.....	40-34-12N	LONGITUDE.....	116-34-48W

TOWNSHIP	RANGE	SECTION	1/4	1/4
31N	48E	17	NW	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: DUNPHY 1:62,500; WINNEMUCCA 1:250,000

GENERAL DESCRIPTION

SIZE OF SURFACE EXPRESSION....	1.6	KM**2			
ELEVATION.....	1524,00	M	5000.	FT	
RESOURCE CATEGORY.....	B				
PRESENT USE & DEVELOPMENTS:	9 WELLS 131M TO 3000M; TEMPS TO 212C				
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS, GEYSERS, FUMAROLE OR WARM VAPOR				
ASSOCIATED DEPOSITS.....	SINTER				
NO. OF HOT SPRINGS.....	15				

GEOTHERMAL CHARACTERISTICS

SPRING TEMPERATURES.....	50.	C	TO 98.	C	
WELL INFORMATION					
MAXIMUM WELL TEMPERATURE.....	212.	C	TO 220.	M	
BOTTOM-HOLE TEMPERATURE.....	212.0	C	TO 220.00	M	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	165.	C	TO 280.	C	ASSUMED				
BEST ESTIMATE.....	240.0	C							
SUBSURFACE AREA.....	0.6	KM**2				TO 31.0	KM**2		
BEST ESTIMATE.....	21.0	KM**2							
BASED ON: GEOLOGY, GEOPHYSICS, EXPLORATION									
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM		TO 1500.00	M	1.500	KM
BEST ESTIMATE.....	1000.00	M	1.000	KM					
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM		TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM					
THICKNESS OF RESERVOIR.....	1500.00	M	1.500	KM		TO 2500.00	M	2.500	KM
BEST ESTIMATE.....	2000.00	M	2.000	KM					
VOLUME OF RESERVOIR.....	0.900	KM**3				TO 77.500	KM**3		
BEST ESTIMATE.....	42.000	KM**3							

COMMENTS: DEPTHS TO TOP & BOTTOM OF RESERVOIR ARE ASSUMED.

RESERVES

TOTAL STORED HEAT..... 4.1860E+17 J 9.9999E+16 CAL TO 5.1484E+19 J 1.2299E+19 CAL
BEST ESTIMATE..... 2.3860E+19 J 5.6999E+18 CAL ABOVE 15. C

GEOLOGY
GENERAL ROCK TYPES: TERTIARY BASALT,QUATERNARY ALLUVIUM

GEOPHYSICS
GRAVITY SURVEY INFORMATION: TEST MADE
MAGNETIC SURVEY INFORMATION: TEST MADE

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) GILLULY, JAMES, AND GATES,OLCOTT,1965, TECTONIC AND IGNEOUS GEOLOGY OF THE NORTHERN SHOSHONE RANGE, NEVADA: U.S.G.S. PROF. PAPER 465
2) HOSE,R.K., AND TAYLOR,B.E.,1974, GEOTHERMAL SYSTEMS OF NORTHERN NEVADA: U.S.G.S., OPEN-FILE REPORT 74-271
3) MABEY,D.R.,1964, GRAVITY MAP OF EUREKA COUNTY AND ADJOINING AREAS, NEVADA: U.S.G.S. GEOPHYS. INV. MAP GP-415
4) MARINER, R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: USGS OPEN-FILE REPORT

ROBINSON, E.S., 1970, RELATIONS BETWEEN GEOLOGIC STRUCTURE AND AEROMAGNETIC ANOMALIES IN CENTRAL NEVADA: GEOL. SOC. AMERICA BULL. V. 81, NO. 7, P. 2045-2060

STEWART, J.H. & MCKEE, E.H., 1970, GEOLOGIC MAP OF LANDER COUNTY, NEVADA: USGS OPEN-FILE REPORT

ZOBACK, M.L., 1974, A GEOLOGICAL AND GEOPHYSICAL INVESTIGATION OF THE BEOWAWE GEOTHERMAL AREA, NORTH-CENTRAL NEVADA: STANFORD UNIV., M.S. REPORT

RECORD 00017

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000664	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02321	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	BARTHOLOMAE HOT SPRINGS (CLORE HOT SPRINGS)		
WARING FIGURE.....	8	WARING NUMBER.....	939
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	EUREKA
LATITUDE.....	39-24-19N	LONGITUDE.....	116-20-47W

TOWNSHIP	RANGE	SECTION	1/4	1/4
19N	50E	28	SE	

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: ANTELOPE PEAK 1:62,500 ; MILLETT 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1933.04	M	6342.	FT
RESOURCE CATEGORY.....	C			
SURFACE THERMAL ACTIVITY.....	HOT SPRING(S),			

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	6.33	L/S	3.8000E+02	L/MIN
SPRING TEMPERATURES.....	54.	C		

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	70.	C	TO 135.	C	ASSUMED				
BEST ESTIMATE.....	130.0	C							
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2			
BEST ESTIMATE.....	1.5	KM**2							
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM					
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM	
BEST ESTIMATE.....	3000.00	M	3.000	KM					
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM					
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3			
BEST ESTIMATE.....	2.250	KM**3							

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	1.2558E+17 J	2.9999E+16 CAL	TO 1.2139E+18 J	2.8999E+17 CAL	
BEST ESTIMATE.....	6.2786E+17 J	1.4999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY VOLCANIC ROCKS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) ROBERTS,R.J. & OTHERS,1967, GEOLOGY AND MINERAL RESOURCES OF EUREKA COUNTY, NEVADA: NEVADA BUR. MINES BULL. 64
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00018

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000648	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02241	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	GOLCONDA HOT SPRINGS		
WARING FIGURE.....	8	WARING NUMBER.....	19
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	HUMBOLDT
LATITUDE.....	40-57-41N	LONGITUDE.....	117-29-38W

TOWNSHIP	RANGE	SECTION	1/4	1/4
36N	40E	29	SE	

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: GOLCONDA 1:24,000; WINNEMUCCA 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1328.93	M	4360.	FT	
RESOURCE CATEGORY.....	C				
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS				
ASSOCIATED DEPOSITS.....	TRAVERTINE				
NO. OF HOT SPRINGS.....	12				

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	12.50	L/S	7.5000E+02	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	74.	C	TO 49.	C	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	100.	C	TO 210.	C	ASSUMED			
BEST ESTIMATE.....	125.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.5116E+17 J	5.9999E+16 CAL	TO 1.9674E+18 J	4.6999E+17 CAL	
BEST ESTIMATE.....	6.2786E+17 J	1.4999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; CAMBRIAN QUARTZITE; TERTIARY VOLCANIC ROCKS.

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) ERICKSON,R.L., AND MARSH,S.P.,1974, GEOLOGIC MAP OF THE GOLCONDA QUAD., HUMBOLDT COUNTY, NEVADA: U.S.G.S. QUAD. MAP GQ-1174
2) FERGUSON,H.G., & OTHERS,1952, GEOLOGY OF THE GOLCONDA QUADRANGLE, NEVADA: U.S.G.S. GEOL. QUAD. MAP GQ-15
3) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
4) WARING, G.A., 1965, THERMAL SPRINGS OF THE U.S. AND OTHER COUNTRIES OF THE WORLD - A SUMMARY: USGS PROF. PAPER 492

WILLDEN, RONALD, 1964, GEOLOGY AND MINERAL RESOURCES OF HUMBOLDT COUNTY, NEVADA: NEVADA BUR. MINES BULL. 59

RECORD 00019

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000620	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02101	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	DOUBLE HOT SPRING		
WARING FIGURE.....	8	WARING NUMBER.....	12
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	HUMBOLDT
LATITUDE.....	41-02-58N	LONGITUDE.....	119-02-49W

TOWNSHIP	RANGE	SECTION	1/4	1/4
36N	26E	4		

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: VYA 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1219.20	M	4000.	FT	
RESOURCE CATEGORY.....	C				
SURFACE THERMAL ACTIVITY.....	HOT SPRING(S),				
NO. OF HOT SPRINGS.....	SEVERAL SPRINGS				

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	2.92	L/S	1.7500E+02	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	80.	C	TO 57.	C	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	110.	C	TO 150.	C	ASSUMED			
BEST ESTIMATE.....	145.0	C						
SUBSURFACE AREA.....	2.0	KM**2			TO 30.0	KM**2		
BEST ESTIMATE.....	10.0	KM**2						
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1000.00	M	1.000	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2500.00	M	2.500	KM
BEST ESTIMATE.....	2000.00	M	2.000	KM				
VOLUME OF RESERVOIR.....	2.000	KM**3			TO 75.000	KM**3		
BEST ESTIMATE.....	20.000	KM**3						

COMMENTS: DEPTHS TO TOP & BOTTOM OF RESERVOIR ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	4.6042E+17 J	1.0999E+17 CAL	TO 2.5534E+19 J	6.0999E+18 CAL	
BEST ESTIMATE.....	6.6972E+18 J	1.5999E+18 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY BASALT & ASH FLOW RHYOLITE

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) HOSE,R.K., AND TAYLOR,B.E.;1974, GEOTHERMAL SYSTEMS OF NORTHERN NEVADA: U.S.G.S., OPEN-FILE REPORT 74-271
2) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
3) OLMSTED,F.H., AND OTHERS,1975, PRELIMINARY HYDROGEOLOGIC APPRAISAL OF SELECTED HYDROTHERMAL SYSTEMS IN NORTHERN & CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT 75-56
4) WARING, G.A., 1965, THERMAL SPRINGS OF THE U.S. AND OTHER COUNTRIES OF THE WORLD - A SUMMARY: USGS PROF. PAPER 492

WILLDEN, RONALD, 1964, GEOLOGY AND MINERAL RESOURCES OF HUMBOLDT COUNTY, NEVADA: NEVADA BUR. MINES BULL. 59

RECORD 00020

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO..... 0000612	NAME..... E. A. JOHNSON, J. RENNER
CROSS INDEX NO.. CF02061	DATE..... 75/01
RECORD TYPE..... A	ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. BOG HOT SPRINGS	
WARING FIGURE..... 8	WARING NUMBER..... 2
COUNTRY CODE..... US	COUNTRY NAME..... UNITED STATES
STATE/PROVINCE..... NEVADA	COUNTY..... HUMBOLDT
LATITUDE..... 41-55-31N	LONGITUDE..... 118-48-08W

TOWNSHIP	RANGE	SECTION	1/4	1/4
46N	28E	18	NW	

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: RAILROAD POINT 1:62,500; VYA 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1310.64	M	4300.	FT
RESOURCE CATEGORY.....	C			
SURFACE THERMAL ACTIVITY.....	HOT SPRING(S),			
NO. OF HOT SPRINGS.....	2			

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	66.66	L/S	4.0000E+03	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	54.	C	TO 88.	C	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	95.	C	TO 120.	C	ASSUMED			
BEST ESTIMATE.....	115.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 3.0	KM**2		
BEST ESTIMATE.....	2.0	KM**2						
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM	TO 1500.00	M	1.500	KM
BEST ESTIMATE.....	1000.00	M	1.000	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1500.00	M	1.500	KM	TO 2500.00	M	2.500	KM
BEST ESTIMATE.....	2000.00	M	2.000	KM				
VOLUME OF RESERVOIR.....	1.500	KM**3			TO 7.500	KM**3		
BEST ESTIMATE.....	4.000	KM**3						

COMMENTS: DEPTHS TO TOP & BOTTOM OF RESERVOIR ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.9302E+17 J	6.9999E+16 CAL	TO 1.9674E+18 J	4.6999E+17 CAL	
BEST ESTIMATE.....	1.0046E+18 J	2.3999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; PLIOCENE VOLCANIC & SEDIMENTARY ROCKS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER, R.H. & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: USGS OPEN-FILE REPORT
2) WARING, G.A., 1965, THERMAL SPRINGS OF THE U.S. AND OTHER COUNTRIES OF THE WORLD - A SUMMARY: USGS PROF. PAPER 492
3) WILLDEN, RONALD, 1964, GEOLOGY AND MINERAL RESOURCES OF HUMBOLDT COUNTY, NEVADA: NEVADA BUR. MINES BULL. 59

RECORD 00021

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO..... 0000646	NAME..... E. A. JOHNSON, J. RENNER
CROSS INDEX NO.. CF02231	DATE..... 75/01
RECORD TYPE..... A	ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. THE HOT SPRING	
WARING FIGURE..... 8	WARING NUMBER..... 11
COUNTRY CODE..... US	COUNTRY NAME..... UNITED STATES
STATE/PROVINCE..... NEVADA	COUNTY..... HUMBOLDT
LATITUDE..... 41-25-24N	LONGITUDE..... 117-22-58W

TOWNSHIP	RANGE	SECTION	1/4	1/4
41N	41E	20	NE	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: HOT SP PEAK 1:62,500 ; MCDERMITT 1:250,000

GENERAL DESCRIPTION

ELEVATION..... 1371.60 M 4500. FT
RESOURCE CATEGORY..... C
PRESENT USE & DEVELOPMENTS:
SURFACE THERMAL ACTIVITY..... HOT SPRINGS
ASSOCIATED DEPOSITS.....TRAVERTINE

GEOTHERMAL CHARACTERISTICS

SPRING TEMPERATURES..... 58. C

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	100.	C	TO 210.	C	ASSUMED			
BEST ESTIMATE.....	110.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
BASED ON:								
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.5116E+17 J	5.9999E+16 CAL	TO 1.9674E+18 J	4.6999E+17 CAL	
BEST ESTIMATE.....	5.4414E+17 J	1.2999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: TERTIARY SEDIMENTARY ROCKS & FLOWS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492
3) WILLDEN, R., 1964, GEOLOGY AND MINERAL RESOURCES OF HUMBOLDT COUNTY, NEVADA: NEVADA BUR. MINES BULL. 59

RECORD 00022

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000642	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02211	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	HOT POT (BLOSSOM HOT SPRING)		
WARING FIGURE.....	8	WARING NUMBER.....	19A(7)
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	HUMBOLDT
LATITUDE.....	40-55-20N	LONGITUDE.....	117-06-31W

TOWNSHIP	RANGE	SECTION	1/4	1/4
35N	43E	11	SW	

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: HOT POT 1:24,000; WINNEMUCCA 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1353.31	M	4440.	FT				
RESOURCE CATEGORY.....	C							
SURFACE THERMAL ACTIVITY.....	HOT SPRING(S),							
NO. OF HOT SPRINGS.....	1							

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	4.42	L/S	2.6500E+02	L/MIN				
SPRING TEMPERATURES.....	58.	C						

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	80.	C	TO 130.	C	ASSUMED				
BEST ESTIMATE.....	125.0	C							
SUBSURFACE AREA.....	1.0	KM**2			TO 8.0	KM**2			
BEST ESTIMATE.....	1.5	KM**2							
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM					
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM	
BEST ESTIMATE.....	3000.00	M	3.000	KM					
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM					
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 16.000	KM**3			
BEST ESTIMATE.....	2.250	KM**3							

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	1.6744E+17 J	3.9999E+16 CAL	TO 4.6042E+18 J	1.0999E+18 CAL	
BEST ESTIMATE.....	6.2786E+17 J	1.4999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY BASALT (?); CAMBRIAN QUARTZITE

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492
3) WILLDEN, R., 1964, GEOLOGY AND MINERAL RESOURCES OF HUMBOLDT COUNTY, NEVADA: NEVADA BUR. MINES BULL. 59

RECORD 00023

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000618	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02091	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	SOLDIERS MEADOW AREA		
WARING FIGURE.....	8	WARING NUMBER.....	8
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	HUMBOLDT
LATITUDE.....	41-21-29N	LONGITUDE.....	119-13-13W

TOWNSHIP	RANGE	SECTION	1/4	1/4
40N	24E	23		

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: VYA 1:250,000

GENERAL DESCRIPTION

SIZE OF SURFACE EXPRESSION....	6.0	KM**2			
ELEVATION.....	1402.08	M	4600.	FT	
RESOURCE CATEGORY.....	C				
SURFACE THERMAL ACTIVITY.....	HOT SPRING(S),				
NO. OF HOT SPRINGS.....	SEVERAL SPRINGS				

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	0.83	L/S	5.0000E+01	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	54.	C			

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	60.	C	TO 120.	C	ASSUMED				
BEST ESTIMATE.....	115.0	C							
SUBSURFACE AREA.....	4.0	KM**2			TO 12.0	KM**2			
BEST ESTIMATE.....	6.0	KM**2							
BASED ON:									
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM	TO 1500.00	M	1.500	KM	
BEST ESTIMATE.....	1000.00	M	1.000	KM					
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM	
BEST ESTIMATE.....	3000.00	M	3.000	KM					
THICKNESS OF RESERVOIR.....	1500.00	M	1.500	KM	TO 2500.00	M	2.500	KM	
BEST ESTIMATE.....	2000.00	M	2.000	KM					
VOLUME OF RESERVOIR.....	6.000	KM**3			TO 30.000	KM**3			
BEST ESTIMATE.....	12.000	KM**3							

COMMENTS: DEPTHS TO TOP & BOTTOM OF RESERVOIR ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	6.6972E+17 J	1.5999E+17 CAL	TO 7.9530E+18 J	1.8999E+18 CAL	
BEST ESTIMATE.....	3.0139E+18 J	7.1999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY FLOWS & TUFFS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492
3) WILLDEN, R., 1964, GEOLOGY AND MINERAL RESOURCES OF HUMBOLDT COUNTY, NEVADA: NEVADA BUR. MINES BULL. 59

RECORD 00024

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO..... 0000616	NAME..... E. A. JOHNSON, J. RENNER
CROSS INDEX NO.. CF02081	DATE..... 75/01
RECORD TYPE..... A	ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	DYKE HOT SPRINGS		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	HUMBOLDT
LATITUDE.....	41-34-01N	LONGITUDE.....	118-33-44W

TOWNSHIP	RANGE	SECTION	1/4	1/4
43N	30E	25	SE	SE

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: DUFFOR PEAK 1:62,500; VYA 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1255.78	M	4120.	FT				
RESOURCE CATEGORY.....	C							
SURFACE THERMAL ACTIVITY.....	HOT SPRING(S),							
NO. OF HOT SPRINGS.....	17							

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	1.67	L/S	1.0000E+02 L/MIN					
SPRING TEMPERATURES.....	66.	C						

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	120.	C	TO 150.	C				
BEST ESTIMATE.....	140.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.5116E+17 J	5.9999E+16 CAL	TO 1.3395E+18 J	3.1999E+17 CAL	
BEST ESTIMATE.....	7.1158E+17 J	1.6999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TRIASSIC & JURASSIC METAMORPHIC ROCKS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) SMITH,J.G.,1973, GEOLOGIC MAP OF DUFFER PEAK QUAD., HUMBOLDT COUNTY, NEV.: U.S.G.S. MISC. INV. MAP I-606
3) WILLDEN, R., 1964, GEOLOGY AND MINERAL RESOURCES OF HUMBOLDT COUNTY, NEVADA: NEVADA BUR. MINES BULL. 59

RECORD 00025

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO..... 0000614	NAME..... E. A. JOHNSON, J. RENNER
CROSS INDEX NO.. CF02071	DATE..... 75/01
RECORD TYPE..... A	ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	HOWARD HOT SPRINGS		
WARING FIGURE.....	8	WARING NUMBER.....	10
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	HUMBOLDT
LATITUDE.....	41-43-16N	LONGITUDE.....	118-30-16W

TOWNSHIP	RANGE	SECTION	1/4	1/4
44N	31E	4	NE	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: DUFFOR PEAK 1:62,500 , VYA 1:250,000

GENERAL DESCRIPTION

ELEVATION..... 1316.74 M 4320. FT
RESOURCE CATEGORY..... C
SURFACE THERMAL ACTIVITY..... HOT SPRING(S),
NO. OF HOT SPRINGS..... SEVERAL

GEOTHERMAL CHARACTERISTICS

SPRING TEMPERATURES..... 56. C

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	80.	C	TO 140.	C	ASSUMED			
BEST ESTIMATE.....	130.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 4.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 8.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	1.6744E+17 J	3.9999E+16 CAL	TO 2.5116E+18 J	5.9999E+17 CAL
BEST ESTIMATE.....	6.2786E+17 J	1.4999E+17 CAL	ABOVE 15.	C

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY VOLCANIC FLOWS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) SMITH,J.G.,1973, GEOLOGIC MAP OF DUFFER PEAK QUAD., HUMBOLDT COUNTY, NEV.: U.S.G.S. MISC. INV. MAP I-606
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492
4) WILLDEN, R., 1964, GEOLOGY AND MINERAL RESOURCES OF HUMBOLDT COUNTY, NEVADA: NEVADA BUR. MINES BULL. 59

RECORD 00026

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO..... 0000594	NAME..... E. A. JOHNSON, J. RENNER
CROSS INDEX NO.. CF01971	DATE..... 75/01
RECORD TYPE..... A	ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	UNNAMED HOT SPRINGS (HOT SPRINGS RANCH)		
WARING FIGURE.....	8	WARING NUMBER.....	196?
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	HUMBOLDT
LATITUDE.....	40-45-41N	LONGITUDE.....	117-29-32W

TOWNSHIP	RANGE	SECTION	1/4	1/4
33N	40E	5	SE	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: EDNA MTN. 1:62,500; WINNEMUCCA 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1475.23 M 4840. FT
RESOURCE CATEGORY.....	B
SURFACE THERMAL ACTIVITY.....	DEPOSITS
ASSOCIATED DEPOSITS.....	TRAVERTINE
NO. OF HOT SPRINGS.....	SEVERAL

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	1.67	L/S	1.0000E+02	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	85.	C			

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	145.	C	TO 190.	C	ASSUMED			
BEST ESTIMATE.....	180.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	3.3488E+17 J	7.9999E+16 CAL	TO 1.7581E+18 J	4.1999E+17 CAL	
BEST ESTIMATE.....	9.2088E+17 J	2.1999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: CAMBRIAN PHYLLITIC SHALE

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492
3) WILLDEN, R., 1964, GEOLOGY AND MINERAL RESOURCES OF HUMBOLDT COUNTY, NEVADA: NEVADA BUR. MINES BULL. 59

RECORD 00027

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000578	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF01891	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	PINTO HOT SPRINGS AREA		
WARING FIGURE.....	8	WARING NUMBER.....	9
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	HUMBOLDT
LATITUDE.....	41-21-00N	LONGITUDE.....	118-47-00W

TOWNSHIP	RANGE	SECTION	1/4	1/4
40N	28E	19	SE	NE

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: VYA 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1371.60	M	4500.	FT
RESOURCE CATEGORY.....	B			
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS			
ASSOCIATED DEPOSITS.....	SINTER, TRAVERTINE			
NO. OF HOT SPRINGS.....	2			
NUMBER OF WELLS: NO. WELLS TOTAL..	1			

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	8.33	L/S	5.0000E+02 L/MIN	ESTIMATED
SPRING TEMPERATURES.....	93.	C		

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	150.	C	TO 180.	C	ASSUMED			
BEST ESTIMATE.....	165.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 7.0	KM**2		
BEST ESTIMATE.....	5.0	KM**2						
BASED ON: GEOLOGY, SURFACE EXPRESSION								
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 14.000	KM**3		
BEST ESTIMATE.....	7.500	KM**3						

COMMENTS: DEPTHS TO TOP & BOTTOM OF RESERVOIR ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	3.3488E+17 J	7.9999E+16 CAL	TO 5.8600E+18 J	1.3999E+18 CAL	
BEST ESTIMATE.....	2.8464E+18 J	6.7999E+17 CAL	ABOVE 15.	C	

GEOLOGY
GENERAL ROCK TYPES: CRETACEOUS OR TERTIARY GRANODIORITE

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492
3) WILLDEN, R., 1964, GEOLOGY AND MINERAL RESOURCES OF HUMBOLDT COUNTY, NEVADA: NEVADA BUR. MINES BULL. 59

RECORD 00028

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA.

RECORD IDENTIFICATION
- RECORD NO..... 0000576
- CROSS INDEX NO.. CF01881
- RECORD TYPE..... A
- NAME..... E. A. JOHNSON, J. RENNER
- DATE..... 75/01
- ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. BALTAZOR HOT SPRINGS
- COUNTRY CODE..... US
- COUNTRY NAME..... UNITED STATES
- STATE/PROVINCE..... NEVADA
- COUNTY..... HUMBOLDT
- LATITUDE..... 41-55-20N
- LONGITUDE..... 118-42-39W

TOWNSHIP	RANGE	SECTION	1/4	1/4
46N	28E	13	NW	

- BASE & MERIDIAN..... MT. DIABLO
- AVAILABLE MAPS OF AREA: DENIO 1:62,500; VYA 1:250,000

GENERAL DESCRIPTION
- ELEVATION..... 1284.12 M 4213. FT
- RESOURCE CATEGORY..... B
- SURFACE THERMAL ACTIVITY..... HOT SPRINGS
- ASSOCIATED DEPOSITS..... SINTER, TRAVERTINE

GEOTHERMAL CHARACTERISTICS
- NATURAL SURFACE DISCHARGE..... 1.67 L/S 1.0000E+02 L/MIN ESTIMATED
- SPRING TEMPERATURES..... 80. C

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	150.	C	TO 175.	C	ASSUMED			
BEST ESTIMATE.....	170.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 4.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM	TO 1500.00	M	1.500	KM
BEST ESTIMATE.....	1000.00	M	1.000	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1500.00	M	1.500	KM	TO 2500.00	M	2.500	KM
BEST ESTIMATE.....	2000.00	M	2.000	KM				
VOLUME OF RESERVOIR.....	1.500	KM**3			TO 6.000	KM**3		
BEST ESTIMATE.....	3.000	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	5.0228E+17 J	1.1999E+17 CAL	TO 2.4278E+18 J	5.7999E+17 CAL
BEST ESTIMATE.....	1.1720E+18 J	2.7999E+17 CAL	ABOVE 15.	C

GEOLOGY
- GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY VOLCANICS; CRETACEOUS GRANODIORITE

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) WILLDEN, R., 1964, GEOLOGY AND MINERAL RESOURCES OF HUMBOLDT COUNTY, NEVADA: NEVADA BUR. MINES BULL. 59

RECORD 00029

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000610	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02051	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	SMITH CREEK VALLEY AREA		
WARING FIGURE.....	8	WARING NUMBER.....	847
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	LANDER
LATITUDE.....	39-21-21N	LONGITUDE.....	117-32-48W

TOWNSHIP	RANGE	SECTION	1/4	1/4
17N	39E	11		

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: MILLET 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1859.28	M	6100.	FT
RESOURCE CATEGORY.....	B			
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS			
ASSOCIATED DEPOSITS.....	TRAVERTINE			
NO. OF HOT SPRINGS.....	SEVERAL			

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	1.25	L/S	7.5000E+01	L/MIN
SPRING TEMPERATURES.....	86.	C		

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	135.	C	TO 165.	C	ASSUMED			
BEST ESTIMATE.....	160.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.9302E+17 J	6.9999E+16 CAL	TO 1.5069E+18 J	3.5999E+17 CAL	
BEST ESTIMATE.....	8.3716E+17 J	1.9999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY (OLIGOCENE-MIOCENE) ASH-FLOW RHYOLITE

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) MCKEE,E.H.,1968, GEOLOGIC MAP OF THE SPENCER HOT SPRINGS QUAD., LANDER COUNTY, NEVADA: U.S.G.S. QUAD. MAP GQ-770
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00030

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000644	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02221	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	BUFFALO VALLEY HOT SPRINGS		
WARING FIGURE.....	6	WARING NUMBER.....	78
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	LANDER
LATITUDE.....	40-22-06N	LONGITUDE.....	117-19-31W

TOWNSHIP	RANGE	SECTION	1/4	1/4
29N	41E	23	SE	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: BUFFALO SP. 1:62,500; WINNEMUCCA 1:250,000

GENERAL DESCRIPTION

SIZE OF SURFACE EXPRESSION....	0.3	KM**2			
ELEVATION.....	1405.13	M	4610.	FT	
RESOURCE CATEGORY.....	C				
SURFACE THERMAL ACTIVITY.....	HOT SPRING(S),				
NO. OF HOT SPRINGS.....	200				

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	0.60	L/S	3.6000E+01	L/MIN	ESTIMATED
TOTAL CALCULATED DISCHARGE OF DEEP WATERS:	8.33	L/S	500.00	L/MIN	
TOTAL NATURAL HEAT FLUX.....	5860399.00	J/S	1.4000E+06	CAL/S	
SPRING TEMPERATURES.....	31.	C	TO 79.	C	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	120.	C	TO 200.	C				
BEST ESTIMATE.....	130.0	C						
SUBSURFACE AREA.....								
BEST ESTIMATE.....	4.0	KM**2						
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM	TO 1500.00	M	1.500	KM
BEST ESTIMATE.....	500.00	M	0.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1500.00	M	1.500	KM	TO 2500.00	M	2.500	KM
BEST ESTIMATE.....	2500.00	M	2.500	KM				
VOLUME OF RESERVOIR.....	6.000	KM**3			TO 10.000	KM**3		
BEST ESTIMATE.....	10.000	KM**3						

COMMENTS: DEPTH TO BOTTOM OF RESERVOIR IS ASSUMED.

RESERVES

TOTAL STORED HEAT.....	1.5906E+18 J	3.7999E+17 CAL	TO 4.6042E+18 J	1.0999E+18 CAL	
BEST ESTIMATE.....	2.8883E+18 J	6.8999E+17 CAL	ABOVE 15.	C	

GEOLOGY
GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; QUATERNARY BASALT; TERTIARY TUFF

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) MCKEE,E.H.,1969, GEOLOGY OF THE MOUNT MOSES AND SOUTHEAST PART OF BUFFALO SPRINGS QUADRANGLES, LANDER COUNTY, NEVADA: U.S.G.S. OPEN-FILE MAP
3) OLMSTED,F.H., AND OTHERS,1975, PRELIMINARY HYDROGEOLOGIC APPRAISAL OF SELECTED HYDROTHERMAL SYSTEMS IN NORTHERN & CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT 75-56
4) STEWART, J.H., & MCKEE, E.H., 1970, GEOLOGIC MAP OF LANDER COUNTY, NEV.: USGS OPEN-FILE MAP

WARING, G.A., 1965, THERMAL SPRINGS OF THE U.S. AND OTHER COUNTRIES OF THE WORLD - A SUMMARY: USGS PROF. PAPER 492

RECORD 00031

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA.

RECORD IDENTIFICATION

RECORD NO..... 0000640	NAME..... E. A. JOHNSON, J. RENNER
CROSS INDEX NO.. CF02201	DATE..... 75/01
RECORD TYPE..... A	ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. SPENCER HOT SPRINGS	
WARING FIGURE..... 8	WARING NUMBER..... 86
COUNTRY CODE..... US	COUNTRY NAME..... UNITED STATES
STATE/PROVINCE..... NEVADA	COUNTY..... LANDER
LATITUDE..... 39-19-00N	LONGITUDE..... 116-51-00W
AVAILABLE MAPS OF AREA: SPENCER H. S., 1:62,500; MILLET, 1:250,000	

GENERAL DESCRIPTION

ELEVATION.....	1725.17	M	5660.	FT
RESOURCE CATEGORY.....	C			
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS			
ASSOCIATED DEPOSITS.....	TRAVERTINE			
NO. OF HOT SPRINGS.....	SEVERAL			

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	0.83	L/S	5.0000E+01 L/MIN	ESTIMATED
SPRING TEMPERATURES.....	72.	C		

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	115.	C	TO 210.	C	ASSUMED			
BEST ESTIMATE.....	125.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.5116E+17 J	5.9999E+16 CAL	TO 1.9674E+18 J	4.6999E+17 CAL
BEST ESTIMATE.....	6.2786E+17 J	1.4999E+17 CAL	ABOVE 15.	C

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY ASH-FLOW TUFF; JURASSIC GRANITIC; PALEOZOIC CHERT & QUARTZITE

PRIMARY REFERENCE:

AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS

DATE..... 1975

TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:

1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) MCKEE, E.H., 1968, GEOLOGIC MAP OF THE SPENCER HOT SPRINGS QUAD., LANDER COUNTY, NEVADA: USGS QUAD. MAP GQ-770
3) STEWART,J.H., AND MCKEE,E.H.,1970, GEOLOGIC MAP OF LANDER COUNTY, NEV.: U.S.G.S. OPEN-FILE MAP
4) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00032

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000606	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02031	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	WABUSKA HOT SPRINGS		
WARING FIGURE.....	8	WARING NUMBER.....	62
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	LYON
LATITUDE.....	39-09-41N	LONGITUDE.....	119-10-58W

TOWNSHIP	RANGE	SECTION	1/4	1/4
15N	25E	16	SE	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: WABUSKA 1:62,500, TONOPAH 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1310.64	M	4300.	FT
RESOURCE CATEGORY.....	B			
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS			
ASSOCIATED DEPOSITS.....	TRAVERTINE			
NO. OF HOT SPRINGS.....	SEVERAL			

GEOTHERMAL CHARACTERISTICS

SPRING TEMPERATURES.....	59.	C	TO 97.	C
WELL INFORMATION				
MAXIMUM WELL TEMPERATURE.....	106.	C		

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	135.	C	TO 160.	C	ASSUMED			
BEST ESTIMATE.....	155.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.9302E+17 J	6.9999E+16 CAL	TO 1.4651E+18 J	3.4999E+17 CAL	
BEST ESTIMATE.....	7.9530E+17 J	1.8999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM;MIOCENE-PLEISTOCENE BASALT & ANDESITE; TRIASSIC & JURASSIC META VOLCANICS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) MOORE,J.G.,1969, GEOLOGY & MINERAL DEPOSITS OF LYON, DOUGLAS, & ORMSBY COUNTIES, NEVADA: NEVADA BUR. OF MINES BULL . 75
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00033

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000658	NAME.....	E. A. JOHNSON
CROSS INDEX NO..	CF02291	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	NEVADA HOT SPRINGS (HINDS HOT SPRINGS)		
WARING FIGURE.....	8	WARING NUMBER.....	61
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	LYON
LATITUDE.....	38-53-58N	LONGITUDE.....	119-24-42W

TOWNSHIP	RANGE	SECTION	1/4	1/4
12N	23E	16	SE	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: WELLINGTON 1:62,500; WALKER LAKE 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1420.06	M	4659.	FT	
RESOURCE CATEGORY.....	C				
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS				
ASSOCIATED DEPOSITS.....	TRAVERTINE				
NO. OF HOT SPRINGS.....	SEVERAL				

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	3.33	L/S	2.0000E+02	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	61.	C			

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	85.	C	TO 110.	C	ASSUMED			
BEST ESTIMATE.....	105.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	1.6744E+17 J	3.9999E+16 CAL	TO 9.6274E+17 J	2.2999E+17 CAL	
BEST ESTIMATE.....	5.0228E+17 J	1.1999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: CRETACEOUS INTRUSIVE GRANITIC - MAFIC ROCKS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) MOORE,J.G.,1969, GEOLOGY & MINERAL DEPOSITS OF LYON, DOUGLAS, & ORMSBY COUNTIES, NEVADA: NEVADA BUR. OF MINES BULL . 75
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00034

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA.

RECORD IDENTIFICATION
- RECORD NO..... 0000662
- CROSS INDEX NO.. CF02311
- RECORD TYPE..... A
- NAME..... E. A. JOHNSON, J. RENNER
- DATE..... 75/01
- ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. WARM SPRINGS AREA
- WARING FIGURE..... 8
- WARING NUMBER..... 125
- COUNTRY CODE..... US
- COUNTRY NAME..... UNITED STATES
- STATE/PROVINCE..... NEVADA
- COUNTY..... NYE
- LATITUDE..... 38-11-17N
- LONGITUDE..... 116-22-29W

TOWNSHIP	RANGE	SECTION	1/4	1/4
04N	50E	20	SW	

- BASE & MERIDIAN..... MT. DIABLO
- AVAILABLE MAPS OF AREA: WARM SPRING 1:62,500; TONOPAH 1:250,000

GENERAL DESCRIPTION
- ELEVATION..... 1685.54 M 5530. FT
- RESOURCE CATEGORY..... C
- SURFACE THERMAL ACTIVITY..... HOT SPRING(S),
- NO. OF HOT SPRINGS..... 2

GEOTHERMAL CHARACTERISTICS
- SPRING TEMPERATURES..... 61. C

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	100.	C	TO 195.	C	ASSUMED			
BEST ESTIMATE.....	125.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

- COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.5116E+17 J	5.9999E+16 CAL	TO 1.7999E+18 J	4.2999E+17 CAL
BEST ESTIMATE.....	6.2786E+17 J	1.4999E+17 CAL	ABOVE 15.	C

GEOLOGY
- GENERAL ROCK TYPES: TERTIARY VOLCANICS & PALEOZOIC SEDIMENTARY ROCKS.

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) KLEINHAMPL,F.J., & ZIONY,J.I.,1967, PRELIMINARY GEOLOGIC MAP OF NORTHERN NYE COUNTY, NEVADA: U.S.G.S. OPEN-FILE MAP
2) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00035

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000660	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02301	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	DARROUGH HOT SPRINGS		
WARING FIGURE.....	8	WARING NUMBER.....	118
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	NYE
LATITUDE.....	38-49-17N	LONGITUDE.....	117-10-49W

TOWNSHIP	RANGE	SECTION	1/4	1/4
11N	43E	8		

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: TONOPAH 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1706.88	M	5600.	FT
RESOURCE CATEGORY.....	C			
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS			
ASSOCIATED DEPOSITS.....	TRAVERTINE			
NO. OF HOT SPRINGS.....	SEVERAL			

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	5.83	L/S	3.5000E+02	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	71.	C	TO 97.	C	
WELL INFORMATION					
MAXIMUM WELL TEMPERATURE.....	129.	C	TO 230.	M	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	125.	C	TO 145.	C	ASSUMED			
BEST ESTIMATE.....	140.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.9302E+17 J	6.9999E+16 CAL	TO 1.2976E+18 J	3.0999E+17 CAL	
BEST ESTIMATE.....	7.1158E+17 J	1.6999E+17 CAL	ABOVE 15.	C	

GEOLOGY
GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; PALEOZOIC RHYOLITE

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) KLEINHAMPL,F.J., & ZIONY,J.I.,1967, PRELIMINARY GEOLOGIC MAP OF NORTHERN NYE COUNTY, NEVADA: U.S.G.S. OPEN-FILE MAP
2) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00036

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION
- RECORD NO..... 0000626
- CROSS INDEX NO.. CF02131
- RECORD TYPE..... A
- NAME..... E. A. JOHNSON, J. RENNER
- DATE..... 75/01
- ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. BUTTE SPRINGS(TREGO)
- WARING FIGURE..... 8
- COUNTRY CODE..... US
- STATE/PROVINCE..... NEVADA
- LATITUDE..... 40-46-00N
- WARING NUMBER..... 63?
- COUNTRY NAME..... UNITED STATES
- COUNTY..... PERSHING
- LONGITUDE..... 119-07-00W

TOWNSHIP	RANGE	SECTION	1/4	1/4
34N	26E	31	NE	

AVAILABLE MAPS OF AREA: LOVELOCK 1:250,000

GENERAL DESCRIPTION
- ELEVATION..... 1219.20 M 4000. FT
- RESOURCE CATEGORY..... C
- SURFACE THERMAL ACTIVITY..... HOT SPRING(S),

GEOTHERMAL CHARACTERISTICS
- SPRING TEMPERATURES..... TO 86. C

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	100.	C	TO 135.	C	ASSUMED			
BEST ESTIMATE.....	130.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.0930E+17 J	4.9999E+16 CAL	TO 1.2139E+18 J	2.8999E+17 CAL
BEST ESTIMATE.....	6.2786E+17 J	1.4999E+17 CAL	ABOVE 15.	C

GEOLOGY
- GENERAL ROCK TYPES: QUATERNARY DUNE SAND; CRETACEOUS GRANITE

PRIMARY REFERENCE:
- AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
- DATE..... 1975

TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:

1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) OLMSTED,F.H., AND OTHERS,1975, PRELIMINARY HYDROGEOLOGIC APPRAISAL OF SELECTED HYDROTHERMAL SYSTEMS IN NORTHERN & CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT 75-56
3) TATLOCK,D.B.,1969, PRELIMINARY GEOLOGIC MAP OF PERSHING COUNTY, NEVADA: U.S.G.S. OPEN-FILE MAP
4) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00037

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION
- RECORD NO..... 0000622
- CROSS INDEX NO.. CF02111
- RECORD TYPE..... A
- NAME..... E. A. JOHNSON, J. RENNER
- DATE..... 75/01
- ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. BLACK ROCK POINT AREA
- WARING FIGURE..... 8
- WARING NUMBER..... 16
- COUNTRY CODE..... US
- COUNTRY NAME..... UNITED STATES
- STATE/PROVINCE..... NEVADA
- COUNTY..... PERSHING
- LATITUDE..... 40-57-00N
- LONGITUDE..... 118-58-00W

TOWNSHIP	RANGE	SECTION	1/4	1/4
36N	26E	34		

- AVAILABLE MAPS OF AREA: LOVELOCK 1:250,000

GENERAL DESCRIPTION
- ELEVATION..... 1219.20 M 4000. FT
- RESOURCE CATEGORY..... C
- SURFACE THERMAL ACTIVITY..... HOT SPRING(S),

GEOTHERMAL CHARACTERISTICS
- SPRING TEMPERATURES..... TO 90. C

RESERVOIR PROPERTIES
- RESERVOIR TEMPERATURES..... 0. C TO 0. C ASSUMED
  - BEST ESTIMATE..... 150.0 C
- SUBSURFACE AREA.....
  - BEST ESTIMATE..... 1.5 KM**2
- DEPTH TO TOP OF RESERVOIR.....
  - BEST ESTIMATE..... 1500.00 M 1.500 KM
- DEPTH TO BOTTOM OF RESERVOIR.. TO 3000.00 M 3.000 KM
  - BEST ESTIMATE..... 3000.00 M 3.000 KM
- THICKNESS OF RESERVOIR.....
  - BEST ESTIMATE..... 1500.00 M 1.500 KM
- VOLUME OF RESERVOIR.....
  - BEST ESTIMATE..... 2.250 KM**3
- COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES
- TOTAL STORED HEAT.....
  - BEST ESTIMATE..... 7.5344E+17 J 1.7999E+17 CAL ABOVE 15. C

GEOLOGY
- GENERAL ROCK TYPES: QUATERNARY PLAYA SEDI.; TERTIARY VOL. & SEDI ROCKS

PRIMARY REFERENCE:
- AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
- DATE..... 1975

TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:

1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) OLMSTED,F.H., AND OTHERS,1975, PRELIMINARY HYDROGEOLOGIC APPRAISAL OF SELECTED HYDROTHERMAL SYSTEMS IN NORTHERN & CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT 75-56
3) TATLOCK,D.B.,1969, PRELIMINARY GEOLOGIC MAP OF PERSHING COUNTY, NEVADA: U.S.G.S. OPEN-FILE MAP
4) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00038

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000650	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02251	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	SOU HOT SPRINGS (GILBERTS HOT SPRINGS)		
WARING FIGURE.....	8	WARING NUMBER.....	68
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	PERSHING.
LATITUDE.....	40-05-22N	LONGITUDE.....	117-43-29W

TOWNSHIP	RANGE	SECTION	1/4	1/4
26N	38E	29	SE	

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: CAIN MTN 1:62,500; WINNEMUCCA 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1121.66	M	3680.	FT			
RESOURCE CATEGORY.....	C						
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS						
ASSOCIATED DEPOSITS.....	TRAVERTINE						
NO. OF HOT SPRINGS.....	SEVERAL						

GEOTHERMAL CHARACTERISTICS

SPRING TEMPERATURES.....	71.	C	TO 93.	C			

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	95.	C	TO 120.	C	ASSUMED				
BEST ESTIMATE.....	115.0	C							
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2			
BEST ESTIMATE.....	1.5	KM**2							
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM					
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM	
BEST ESTIMATE.....	3000.00	M	3.000	KM					
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM	
BEST ESTIMATE.....	1500.00	M	1.500	KM					
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3			
BEST ESTIMATE.....	2.250	KM**3							

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.0930E+17 J	4.9999E+16 CAL	TO 1.0883E+18 J	2.5999E+17 CAL	
BEST ESTIMATE.....	5.8500E+17 J	1.3999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY FLOWS & VOLCANICALLY DERIVED SEDIMENTS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) TATLOCK,D.B.,1969, PRELIMINARY GEOLOGIC MAP OF PERSHING COUNTY, NEVADA: U.S.G.S. OPEN-FILE MAP
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00039

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO..... 0000596
CROSS INDEX NO.. CF01981
RECORD TYPE..... A

NAME..... E. A. JOHNSON, J. RENNER
DATE..... 75/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. JERSEY VALLEY AREA
COUNTRY CODE..... US
STATE/PROVINCE..... NEVADA
LATITUDE..... 40-10-44N

COUNTRY NAME..... UNITED STATES
COUNTY..... PERSHING
LONGITUDE..... 117-29-24W

TOWNSHIP	RANGE	SECTION	1/4	1/4
27N	40E	28	SW	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: MT MOSES 1:62,500; WINNEMUCCA 1:250,000

GENERAL DESCRIPTION

ELEVATION..... 1377.70 M 4520. FT
RESOURCE CATEGORY..... B
SURFACE THERMAL ACTIVITY..... HOT SPRINGS
ASSOCIATED DEPOSITS..... SINTER, TRAVERTINE
NO. OF HOT SPRINGS..... 17

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE..... 0.33 L/S 2.0000E+01 L/MIN ESTIMATED
SPRING TEMPERATURES..... 29. C

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	135.	C	TO 190.	C	ASSUMED			
BEST ESTIMATE.....	185.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.9302E+17 J	6.9999E+16 CAL	TO 1.7581E+18 J	4.1999E+17 CAL	
BEST ESTIMATE.....	9.6274E+17 J	2.2999E+17 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY TUFFS & FLOWS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) TATLOCK,D.B.,1969, PRELIMINARY GEOLOGIC MAP OF PERSHING COUNTY, NEVADA: U.S.G.S. OPEN-FILE MAP

RECORD 00040

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA.

RECORD IDENTIFICATION

RECORD NO.....	0000592	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF01961	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	LEACH HOT SPRINGS		
WARING FIGURE.....	8	WARING NUMBER.....	64
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	PERSHING
LATITUDE.....	40-36-13N	LONGITUDE.....	117-38-44W

TOWNSHIP	RANGE	SECTION	1/4	1/4
32N	38E	36	SE	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: LEACH HOT SPRING 1:62,500 , WINNEMUCCA 1:250,000

GENERAL DESCRIPTION

SIZE OF SURFACE EXPRESSION....	0.1	KM**2			
ELEVATION.....	1420.67	M	4661.	FT	
RESOURCE CATEGORY.....	B				
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS				
ASSOCIATED DEPOSITS.....	SINTER				
NO. OF HOT SPRINGS.....	SEVERAL				

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	12.67	L/S	7.6000E+02	L/MIN	ESTIMATED
TOTAL CALCULATED DISCHARGE OF DEEP WATERS:	15.00	L/S	900.00	L/MIN	
TOTAL NATURAL HEAT FLUX.....	3348799.00	J/S	8.0000E+05	CAL/S	
SPRING TEMPERATURES.....	59.	C	TO 96.	C	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	150.	C	TO 180.	C	ASSUMED			
BEST ESTIMATE.....	170.0	C						
SUBSURFACE AREA.....								
BEST ESTIMATE.....	4.0	KM**2						
BASED ON: GEOLOGY, TEMPERATURE GRADIENT								
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM	TO 1500.00	M	1.500	KM
BEST ESTIMATE.....	500.00	M	0.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1500.00	M	1.500	KM	TO 2500.00	M	2.500	KM
BEST ESTIMATE.....	2500.00	M	2.500	KM				
VOLUME OF RESERVOIR.....	6.000	KM**3			TO 10.000	KM**3		
BEST ESTIMATE.....	10.000	KM**3						

COMMENTS: DEPTH TO BOTTOM OF RESERVOIR IS ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.0511E+18 J	4.8999E+17 CAL	TO 4.1441E+18 J	9.8999E+17 CAL	

BEST ESTIMATE..... 3.8929E+18 J 9.2999E+17 CAL ABOVE 15. C

GEOLOGY
GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; TERTIARY SEDIMENTARY ROCKS; BASALT (AGE?); PALEOZOIC METAMORPHIC ROCKS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) OLMSTED,F.H., AND OTHERS,1975, PRELIMINARY HYDROGEOLOGIC APPRAISAL OF SELECTED HYDROTHERMAL SYSTEMS IN NORTHERN & CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT 75-56
3) TATLOCK,D.B.,1969, PRELIMINARY GEOLOGIC MAP OF PERSHING COUNTY, NEVADA: U.S.G.S. OPEN-FILE MAP
4) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00041

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO..... 0000590	NAME..... E. A. JOHNSON, J. RENNER
CROSS INDEX NO.. CF01951	DATE..... 75/01
RECORD TYPE..... A	ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. KYLE HOT SPRINGS	
WARING FIGURE..... 8	WARING NUMBER..... 66
COUNTRY CODE..... US	COUNTRY NAME..... UNITED STATES
STATE/PROVINCE..... NEVADA	COUNTY..... PERSHING
LATITUDE..... 40-24-27N	LONGITUDE..... 117-52-52W

TOWNSHIP	RANGE	SECTION	1/4	1/4
29N	36E	1	SW	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: KYLE HOT SPRING 1:62,500, WINNEMUCCA 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1389.89	M	4560.	FT
RESOURCE CATEGORY.....	B			
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS			
ASSOCIATED DEPOSITS.....	TRAVERTINE			
NO. OF HOT SPRINGS.....	SEVERAL			

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	0.33	L/S	2.0000E+01	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	77.	C	TO 38.	C	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	150.	C	TO 200.	C	ASSUMED			
BEST ESTIMATE.....	180.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 2.0	KM**2		
BEST ESTIMATE.....	1.5	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 4.000	KM**3		
BEST ESTIMATE.....	2.250	KM**3						

COMMENTS: SUBSURFACE AREA AND DEPTHS ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	3.3488E+17 J	7.9999E+16 CAL	TO 1.8418E+18 J	4.3999E+17 CAL
BEST ESTIMATE.....	1.0046E+18 J	2.3999E+17 CAL	ABOVE 15.	C

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; PALEOZOIC METAMORPHIC ROCKS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
2) TATLOCK,D.B.,1969, PRELIMINARY GEOLOGIC MAP OF PERSHING COUNTY, NEVADA: U.S.G.S. OPEN-FILE MAP
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00042

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO..... 0000580	NAME..... E. A. JOHNSON, J. RENNER
CROSS INDEX NO.. CF01901	DATE..... 75/01
RECORD TYPE..... A	ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	GREAT BOILING SPRINGS (GERLACH HOT SPRINGS)		
WARING FIGURE.....	8	WARING NUMBER.....	38
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	WASHOE
LATITUDE.....	40-39-43N	LONGITUDE.....	119-21-44W

TOWNSHIP	RANGE	SECTION	1/4	1/4
32N	23E	15	NW	

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: GERLACH 1:62,500, LOVELOCK 1:250,000

GENERAL DESCRIPTION

ELEVATION.....	1207.01	M	3960.	FT	
RESOURCE CATEGORY.....	B				
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS				
ASSOCIATED DEPOSITS.....	SINTER				
NO. OF HOT SPRINGS.....	2 MAJOR GROUPS& 4 OTHERS				

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	16.67	L/S	1.0000E+03	L/MIN	ESTIMATED
TOTAL CALCULATED DISCHARGE OF DEEP WATERS:	34.00	L/S	2040.00	L/MIN	
TOTAL NATURAL HEAT FLUX.....	2.9302E+07	J/S	7.0000E+06	CAL/S	
SPRING TEMPERATURES.....	20.	C	TO 90.	C	
WELL INFORMATION					
BOTTOM-HOLE TEMPERATURE.....	110.0	C	TO 150.00	M	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	0.	C	TO 0.	C				
BEST ESTIMATE.....	170.0	C						
SUBSURFACE AREA.....	2.5	KM**2			TO 30.0	KM**2		
BEST ESTIMATE.....	10.0	KM**2						
BASED ON: GEOLOGY, TEMP GRADIENT								
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM	TO 1500.00	M	1.500	KM
BEST ESTIMATE.....	500.00	M	0.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1500.00	M	1.500	KM	TO 2500.00	M	2.500	KM
BEST ESTIMATE.....	2500.00	M	2.500	KM				
VOLUME OF RESERVOIR.....	3.750	KM**3			TO 75.000	KM**3		
BEST ESTIMATE.....	25.000	KM**3						

COMMENTS: DEPTH TO BOTTOM OF RESERVOIR IS ASSUMED.

RESERVES

TOTAL STORED HEAT..... 1.4551E+18 J 3.4999E+17 CAL TO 2.9302E+19 J 6.9999E+18 CAL
BEST ESTIMATE..... 9.6274E+18 J 2.2999E+18 CAL ABOVE 15. C

GEOLOGY
GENERAL ROCK TYPES: CRETACEOUS OR TERTIARY GRANODIORITE, QUATERNARY ALLUVIUM & LAKE SEDIMENTS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) BONHAM,H.F.,1969, GEOLOGY AND MINERAL DEPOSITS OF WASHOE AND STOREY COUNTIES, NEVADA: NEVADA BUR. MINES BULL. 70
2) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
3) OLMSTED,F.H., AND OTHERS,1975, PRELIMINARY HYDROGEOLOGIC APPRAISAL OF SELECTED HYDROTHERMAL SYSTEMS IN NORTHERN & CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT 75-56
4) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00043

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA.

RECORD IDENTIFICATION

RECORD NO.....	0000654	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02271	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	PYRAMID LAKE (THE NEEDLES)		
WARING FIGURE.....	8	WARING NUMBER.....	49
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	WASHOE
LATITUDE.....	40-08-46N	LONGITUDE.....	119-40-29W

TOWNSHIP	RANGE	SECTION	1/4	1/4
26N	21E	6	SW	SW

AVAILABLE MAPS OF AREA: THE NEEDLES ROCK 1:24,000; LOVELOCK 1:250,000

GENERAL DESCRIPTION

SIZE OF SURFACE EXPRESSION....	0.5	KM**2			
ELEVATION.....	1158.24	M	3800.	FT	
RESOURCE CATEGORY.....	C				
PRESENT USE & DEVELOPMENTS:	SEVERAL EXPLORATORY WELLS DRILLED				
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS				
ASSOCIATED DEPOSITS.....	TRAVERTINE				
NO. OF HOT SPRINGS.....	SEVERAL				

GEOTHERMAL CHARACTERISTICS

SPRING TEMPERATURES.....	56.	C	TO 98.	C
WELL INFORMATION				
MAXIMUM WELL TEMPERATURE.....	116.	C	TO 450.	M
BOTTOM-HOLE TEMPERATURE.....	116.0	C	TO 1800.00	M

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	125.	C	TO 215.	C	ASSUMED			
BEST ESTIMATE.....	145.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 3.0	KM**2		
BEST ESTIMATE.....	2.0	KM**2						
DEPTH TO TOP OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1500.00	M	1.500	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 6.000	KM**3		
BEST ESTIMATE.....	3.000	KM**3						

COMMENTS: DEPTHS TO TOP & BOTTOM OF RESERVOIR ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.9302E+17 J	6.9999E+16 CAL	TO 3.0139E+18 J	7.1999E+17 CAL	
BEST ESTIMATE.....	9.6274E+17 J	2.2999E+17 CAL	ABOVE 15.	C	

GEOLOGY
GENERAL ROCK TYPES: QUATERNARY TUFA & ALLUVIUM;TERTIARY OLIVINE BASALT

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) BONHAM,H.F.,1969, GEOLOGY AND MINERAL DEPOSITS OF WASHOE AND STOREY COUNTIES, NEVADA: NEVADA BUR. MINES BULL. 70
2) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
3) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492

RECORD 00044

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000624	NAME.....	E. A. JOHNSON, J. RENNER
CROSS INDEX NO..	CF02121	DATE.....	75/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	FLY RANCH (WARDS HOT SPRINGS)		
WARING FIGURE.....	8	WARING NUMBER.....	37
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	WASHOE
LATITUDE.....	40-52-02N	LONGITUDE.....	119-20-56W

TOWNSHIP	RANGE	SECTION	1/4	1/4
34N	23E	1		

BASE & MERIDIAN..... MT. DIABLO

AVAILABLE MAPS OF AREA: LOVELOCK 1:250,000

GENERAL DESCRIPTION

SIZE OF SURFACE EXPRESSION....	0.3	KM**2		
ELEVATION.....	1234.44	M	4050.	FT
RESOURCE CATEGORY.....	C			
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS			
ASSOCIATED DEPOSITS.....	TRAVERTINE			
NO. OF HOT SPRINGS.....	SEVERAL			

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	8.33	L/S	5.0000E+02	L/MIN	ESTIMATED
SPRING TEMPERATURES.....	80.	C	TO 57.	C	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	110.	C	TO 155.	C	ASSUMED			
BEST ESTIMATE.....	130.0	C						
SUBSURFACE AREA.....	1.0	KM**2			TO 10.0	KM**2		
BEST ESTIMATE.....	8.0	KM**2						
DEPTH TO TOP OF RESERVOIR.....	500.00	M	0.500	KM	TO 2000.00	M	2.000	KM
BEST ESTIMATE.....	1000.00	M	1.000	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	1000.00	M	1.000	KM	TO 2500.00	M	2.500	KM
BEST ESTIMATE.....	2000.00	M	2.000	KM				
VOLUME OF RESERVOIR.....	1.000	KM**3			TO 25.000	KM**3		
BEST ESTIMATE.....	16.000	KM**3						

COMMENTS: DEPTHS TO TOP & BOTTOM OF RESERVOIR ARE ASSUMED.

RESERVES

TOTAL STORED HEAT.....	2.5116E+17 J	5.9999E+16 CAL	TO 8.7902E+18 J	2.0999E+18 CAL	
BEST ESTIMATE.....	4.6042E+18 J	1.0999E+18 CAL	ABOVE 15.	C	

GEOLOGY

GENERAL ROCK TYPES: QUATERNARY ALLUVIUM; LATE TERTIARY BASALT, TUFFS & SEDIMENTARY ROCKS

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) BONHAM,H.F.,1969, GEOLOGY AND MINERAL DEPOSITS OF WASHOE AND STOREY COUNTIES, NEVADA: NEVADA BUR. MINES BULL. 70
2) HOSE,R.K., AND TAYLOR,B.E.,1974, GEOTHERMAL SYSTEMS OF NORTHERN NEVADA: U.S.G.S., OPEN-FILE REPORT 74-271
3) MARINER,R.H., & OTHERS, 1974, THE CHEMICAL COMPOSITION AND ESTIMATED MINIMUM THERMAL RESERVOIR TEMPERATURE OF THE PRINCIPAL HOT SPRINGS OF NORTHERN AND CENTRAL NEVADA: U.S.G.S. OPEN-FILE REPORT
4) OLMSTEAD, F.H. & OTHERS, 1975, PRELIMINARY HYDROGEOLOGIC APPRISAL OF SELECTED HYDROTHERMAL SYSTEMS IN NORTHERN ANDCENTRAL NEVADA: USGS OPEN-FILE REPORT 75-56

WARING, G.A., 1965, THERMAL SPRINGS OF THE U.S. AND OTHER COUNTRIES OF THE WORLD- A SUMMARY: USGS PROF. PAPER 492

RECORD 00045

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION A.- GEOTHERMAL FIELD-AREA

RECORD IDENTIFICATION

RECORD NO.....	0000604	NAME.....	D. E. WHITE
CROSS INDEX NO..	CF02021	DATE.....	27/01
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	STEAMBOAT SPRINGS		
WARING FIGURE.....	8	WARING NUMBER.....	56, 55 E,F
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	NEVADA	COUNTY.....	WASHOE
LATITUDE.....	39-23-00N	LONGITUDE.....	119-45-00W

TOWNSHIP	RANGE	SECTION	1/4	1/4
18N	20E	33	NW	

BASE & MERIDIAN..... MT. DIABLO
AVAILABLE MAPS OF AREA: MT. ROSE AND VIRGINIA CITY 1:62,500

GENERAL DESCRIPTION

SIZE OF SURFACE EXPRESSION....	5.7	KM**2			
ELEVATION.....	1420.37	M	4660.	FT	
RESOURCE CATEGORY.....	B				
PRESENT USE & DEVELOPMENTS:	ABOUT 35 WELLS DRILLED, MOSTLY FOR SPA SUPPLY; ABOUT 10 FOR GEOT				
SURFACE THERMAL ACTIVITY.....	HOT SPRINGS, GEYSERS, FUMAROLE OR WARM VAPOR				
ASSOCIATED DEPOSITS.....	SINTER				
NO. OF HOT SPRINGS.....	74				

GEOTHERMAL CHARACTERISTICS

NATURAL SURFACE DISCHARGE.....	4.17	L/S	2.5000E+02	L/MIN	ESTIMATED
TOTAL CALCULATED DISCHARGE OF DEEP WATERS:	71.66	L/S	4300.00	L/MIN	
TOTAL NATURAL HEAT FLUX.....	50.23	J/S	1.2000E+01	CAL/S	
SPRING TEMPERATURES.....	45.	C	TO 96.	C	
WELL INFORMATION					
MAXIMUM WELL TEMPERATURE.....	186.	C	TO 221.	M	
BOTTOM-HOLE TEMPERATURE.....	186.0	C	TO 221.00	M	

RESERVOIR PROPERTIES

RESERVOIR TEMPERATURES.....	170.	C	TO 220.	C	ASSUMED			
BEST ESTIMATE.....	210.0	C						
SUBSURFACE AREA.....	5.0	KM**2			TO 10.0	KM**2		
BEST ESTIMATE.....	6.0	KM**2						
BASED ON: SURFACE EXPRESSION								
DEPTH TO TOP OF RESERVOIR.....	50.00	M	0.050	KM	TO 300.00	M	0.300	KM
BEST ESTIMATE.....	300.00	M	0.300	KM				
DEPTH TO BOTTOM OF RESERVOIR..	3000.00	M	3.000	KM	TO 3000.00	M	3.000	KM
BEST ESTIMATE.....	3000.00	M	3.000	KM				
THICKNESS OF RESERVOIR.....	2900.00	M	2.900	KM	TO 2500.00	M	2.500	KM
BEST ESTIMATE.....	2700.00	M	2.700	KM				
VOLUME OF RESERVOIR.....	12.500	KM**3			TO 29.000	KM**3		
BEST ESTIMATE.....	15.000	KM**3						

POROSITY..... 0.01 TO 0.05
BEST ESTIMATE..... 0.02
AVERAGE WELL FLOW..... 0.002778 KG/S 10.00 KG/HR TO 50. KG/HR
WELL DIAMETER..... 15.00 CM
COMMENTS: DEPTH TO BOTTOM OF RESERVOIR IS ASSUMED.

RESERVES
TOTAL STORED HEAT..... 5.0228E+18 J 1.1999E+18 CAL TO 1.5069E+19 J 3.5999E+18 CAL
BEST ESTIMATE..... 7.9530E+18 J 1.8999E+18 CAL ABOVE 15. C

GEOLOGY
GENERAL ROCK TYPES: PLIOCENE - PLEISTOCENE VOLCANICS ON PRE-TERTIARY GRANITIC AND METAMORPHIC "BASEMENT"

GEOPHYSICS
GRAVITY SURVEY INFORMATION: TEST MADE
MAGNETIC SURVEY INFORMATION: TEST MADE
ELECTRICAL RESISTIVITY: D.C. RESISTIVITY

PRIMARY REFERENCE:
AUTHOR..... D.E. WHITE & D.L. WILLIAMS, EDITORS
DATE..... 1975
TITLE..... ASSESSMENT OF GEOTHERMAL RESOURCES OF THE UNITED STATES - 1975
REFERENCE... U.S.G.S. CIRCULAR 726

RELATED REFERENCES:
1) THOMPSON,G.A., AND WHITE,D.E.,1964, REGIONAL GEOLOGY OF THE STEAMBOAT SPRINGS AREA, WASHOE COUNTY, NEV.: U.S.G.S. PROF. PAPER 458-A, P.A1-A52
2) WARING,G.A.,1965, THERMAL SPRINGS OF THE UNITED STATES AND OTHER COUNTRIES OF THE WORLD-A SUMMARY: U.S.G.S. PROF. PAPER 492
3) WHITE,D.E.,1968, HYDROLOGY, ACTIVITY AND HEAT FLOW OF THE STEAMBOAT SPRINGS THERMAL SYSTEM, WASHOE COUNTY, NEV.: U.S.G.S. PROF. PAPER 458-C, P.C1-C109
4) WHITE, D.E., & OTHERS, 1963, CHEMICAL COMPOSITION OF SUBSURFACE WATERS, IN FLEISCHER, M., ED., DATA OF GEOCHEMISTRY: USGS PROF. PAPER 440-F, P. F1-F67

WHITE, D.E., & OTERHS, 1964, ROCKS, STRUCTURE, AND GEOLOGIC HISTORY OF STEAMBOAT SPRINGS THERMAL AREA, WASHOE COUNTY, NEVADA: USGS PROF. PAPER 458-B P. B1-B63

SECTION B - Chemical Analysis

The following retrieval is a printout of 43 geothermal chemical analysis records from California. Records are sorted by county and geothermal field. The entire record is printed.

RECORD 00006

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000363
CROSS INDEX NO.. CF00811
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 27/01.
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. GROVERS HOT SPRINGS
COUNTRY CODE..... US.
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 38-41.90 N

COUNTRY NAME..... UNITED STATES
COUNTY..... ALPINE
LONGITUDE..... 119-51.60 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING

WATER ANALYSIS W

PH 1)..... 7.00

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
0.81	428.00	11.00						
MG	CA	SR	BA	CA+MG				
	34.00							
ZN	HG	B	HB02	AL	PB	AS	SB	U
		2.4						
F	CL	BR	I					
4.2	183.00							
NH4	NO3	P04	SI02	S04	C03	HC03		
			96.00	160.00		760.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
FETH AND OTHERS, 1964

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000331
CROSS INDEX NO.. CF00651
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME.....
DATE..... 27/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. COOKS SPRINGS
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 39-15.20 N

COUNTRY NAME..... UNITED STATES
COUNTY..... COLUSA
LONGITUDE..... 122-31.40 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING

WATER ANALYSIS W

PH 1)..... 6.80

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
2.0	710.00	50.00						
MG	CA	SR	BA	CA+MG				
576	21.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		27						
F	CL	BR	I					
.3	880.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
14			91.00	6.00		3420.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
HERKSTRESSER, 1968

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION H.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000337
CROSS INDEX NO.. CF00681
RECORD TYPE..... H
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 27/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. DEADSHOT SPRING
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 39-05.10 N

COUNTRY NAME..... UNITED STATES
COUNTY..... COLUSA
LONGITUDE..... 122-27.40 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING

WATER ANALYSIS W

PH ()..... 6.70

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
9.6	2190.00	199.00						
MG	CA	SR	BA	CA+MG				
367	167.00							
ZN	HG	B	H3O2	AL	PB	AS	SB	U
		126						
F	CL	BR	I					
.9	3210.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
101			97.00	18.00		3280.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000325
CROSS INDEX NO.. CF00621
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 00/00
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. FOUTS SPRING (CHAMPAGNE)
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 39-20.50 N

COUNTRY NAME..... UNITED STATES
COUNTY..... COLUSA
LONGITUDE..... 122-39.40 W

SAMPLE INFORMATION
SOURCE TYPE..... SPRING

WATER ANALYSIS
PH 1)..... 7.00

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
.03	13.00	1.40						
MG	CA	SR	BA	CA+MG				
138	135.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		.2						
F	CL	BR	I					
1.0	4.20							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
0.0			68.00	4.00		1130.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

RECORD 00010

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION A

SECTION A.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000323	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	CF00611	DATE.....	27/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	FOUTS SPRING (REDEYE)		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	COLUSA
LATITUDE.....	39-21.00 N	LONGITUDE.....	122-40.10 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	17.0	C		
WATER FLOW RATE.....	0.006666	L/S	0.4	L/MIN

WATER ANALYSIS W

PH 1).....	6.50

SOLUTE ANALYSIS (WATER)

LT	NA	K	RB	CS	NA+K				
	3800.00	56.00							
MG	CA	SR	BA	CA+MG					
254	104.00								
ZN	HG	B	H9O2	AL	PB	AS	SB	U	
		115							
F	CL	BR	I						
1.1	3990.00								
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3			
			125.00	70.00		4838.00			

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BARNES AND OTHERS, 1973

RECORD 00011

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION A

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000335	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	CF00671	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	WILBUR HOT SPRINGS AREA		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	COLUSA
LATITUDE.....	39-02.20 N	LONGITUDE.....	122-05.20 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	53.0	C		
WATER FLOW RATE.....	1.33	L/S	80.0	L/MIN

WATER ANALYSIS W

PH 1).....	7.00

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K	
	8500.00	440.00				
MG	CA	SR	BA	CA+MG		
38	2.30					
F	CL	BR	I			
	9700.00					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			200.00	390.00		7100.00

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BARNES AND OTHERS, 1973

RECORD 00012

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000381
CROSS INDEX NO.. CF00901
RECORD TYPE..... R
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 75/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. MERCEY HOT SPRINGS
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 36-42.20 N

COUNTRY NAME..... UNITED STATES
COUNTY..... FRESNO
LONGITUDE..... 120-51.60 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING
WATER SAMPLING TEMP.... 46.0 C

WATER ANALYSIS W

PH 1)..... 8.60

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
	830.00	7.10						
MG	CA	SR	BA	CA+MG				
0	43.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		10						
F	CL	BR	I					
	1300.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			75.00	5.00		13.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
WHITE, 1957

RECORD 00013

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000319
CROSS INDEX NO.. CF00591
RECORD TYPE..... W
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 27/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. SALT SPRING
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 39-25.83 N

COUNTRY NAME..... UNITED STATES
COUNTY..... GLENN
LONGITUDE..... 122-32.27 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING
WATER SAMPLING TEMP.... 23.0 C
WATER FLOW RATE..... 0.33 L/S 20.0 L/MIN

WATER ANALYSIS W

PH 1)..... 6.50

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
	9400.00	90.00						
MG	CA	SR	BA	CA+MG				
262	115.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		200						
F	CL	BR	I					
1.4	11800.00	45	50					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			140.00	63.00		3066.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BARNES & OTHERS, 1973

RECORD 00014

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000291
CROSS INDEX NO.. CF00451
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME..... J. A. CROWLEY, J. RENNER, D. WILLIAMS, D
DATE..... 00/00
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. COSO HOT SPRINGS
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 36-03.00 N

COUNTRY NAME..... UNITED STATES
COUNTY..... INYO
LONGITUDE..... 117-47.00 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING

WATER ANALYSIS W

PH 1)..... 8.50

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K	
	1630.00	244.00				
MG	CA	SR	BA	CA+MG		
	74.00					
F	CL	BR	I			
	3040.00					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			150.00	53.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
MOYLE, 1974

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000345
CROSS INDEX NO.. CF00721
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 75/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. BAKER SODA SPRING
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 38-53.55 N

COUNTRY NAME..... UNITED STATES
COUNTY..... LAKE
LONGITUDE..... 122-31.90 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING
WATER SAMPLING TEMP.... 24.0 C
WATER FLOW RATE..... 0.13 L/S 7.6 L/MIN

WATER ANALYSIS W

PH 1)..... 7.60

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
7.0	2630.00	189.00						
MG	CA	SR	BA	CA+MG				
336	69.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		179						
F	CL	BR	I					
0.8	3010.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			81.00	9.90		4560.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000321		NAME..... C. BROOK, J. RENNER	
CROSS INDEX NO.. CF00601		DATE..... 75/01	
RECORD TYPE..... B		ORGANIZATION.. U.S.G.S.	
SAMPLE TYPE..... SURFACE			

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	CRABTREE HOT SPRINGS		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	LAKE
LATITUDE.....	39-17.43 N	LONGITUDE.....	122-49.27 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	40.5	C		
WATER FLOW RATE.....	0.63	L/S	38.0	L/MIN

WATER ANALYSIS W

PH 1).....	7.80

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
4.4	1650.00	34.00						
MG	CA	SR	BA	CA+MG				
188	50.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		277						
F	CL	RR	I					
	1120.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			154.00	29.00		3680.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

RECORD 00017

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000333	NAME.....	C. BROOK+ J. RENNER
CROSS INDEX NO..	CF00661	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	SARATOGA SPRINGS		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	LAKE
LATITUDE.....	39-10.54 N	LONGITUDE.....	122-58.72 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	16.0	C		
WATER FLOW RATE.....	0.049998	L/S	3.0	L/MIN

WATER ANALYSIS W

PH 1).....	6.70

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
	224.00	7.90						
MG	CA	SR	BA	CA+MG				
496	280.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		37						
F	CL	BR	I					
2.2	50.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			99.00	5.00		3860.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
dERKSTRESSER, 1968

RECORD 00018

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 9

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000343	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	CF00711	DATE.....	75/01
RECORD TYPE.....	H	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	SEIGLER SPRINGS (INCLUDING GEYSER SPRING)		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	LAKE
LATITUDE.....	38-52.50 N	LONGITUDE.....	122-41.30 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	52.0	C		
WATER FLOW RATE.....	0.47	L/S	28.0	L/MIN

WATER ANALYSIS W

PH 1).....	6.20

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
	162.00	20.00						
MG	CA	SR	BA	CA+MG				
238	30.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		19						
F	CL	BR	I					
	272.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			170.00	6.30		1258.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
SEIGLER SPG. #2 OF BARNES AND OTHERS, 1973

RECORD 00019

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION A

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000317	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	CF00581	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	SODA SPRING		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	LAKE
LATITUDE.....	39-24.80 N	LONGITUDE.....	122-58.60 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	17.0	C		
WATER FLOW RATE.....	1.25	L/S	75.0	L/MIN

WATER ANALYSIS W

PH 1).....	6.50

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
	1310.00	60.00						
MG	CA	SR	BA	CA+MG				
450	153.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		265						
F	CL	BR	I					
	530.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			120.00	33.00		5030.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BARNES AND OTHERS, 1973

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION B

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	00002H	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	GF00401	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	SULFUR BANK HOT SPRINGS (CLEAR LAKE, HOT BOLATA)		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	LAKE
LATITUDE.....	39-01.00 N	LONGITUDE.....	122-39.00 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING	
WATER SAMPLING TEMP....	99.0	C

WATER ANALYSIS W

PH 1).....	8.10

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
6.4	1340.00	44.00						
MG	CA	SR	BA	CA+MG				
23	26.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		82H						
F	CL	BR	I					
1.4	900.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			203.00	680.00		2600.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

RECORD 00021

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000313
CROSS INDEX NO.. CF00561
RECORD TYPE..... R
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 75/02
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. WENDEL - AMEDEE
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 40-18.00 N

COUNTRY NAME..... UNITED STATES
COUNTY..... LASSEN
LONGITUDE..... 120-11.00 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING

WATER ANALYSIS W

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K	
	227.00	6.80				
MG	CA	SR	BA	CA+MG		
	16.00					
F	CL	BR	I			
	160.00					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			96.00	288.00		27.00

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
WHITE AND OTHER 1963

RECORD 00022

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000341	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	CF00701	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	ORNBAUM SPRINGS		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	MENDOCINO
LATITUDE.....	38-54.68 N	LONGITUDE.....	123-18.37 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	16.0	C		
WATER FLOW RATE.....	0.006666	L/S	0.4	L/MIN

WATER ANALYSIS W

PH 1).....	7.60

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K	
	15.00	1.30				
MG	CA	SR	BA	CA+MG		
12	117.00					
F	CL	BR	I			
.4	7.40					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			81.00	1.00		456.00

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

RECORD 00023

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS
RECORD IDENTIFICATION
RECORD NO..... 0000327
CROSS INDEX NO.. CF00631
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 75/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY
GEOTHERMAL FIELD-AREA.. ORRS HOT SPRINGS
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 39-13.75 N

COUNTRY NAME..... UNITED STATES
COUNTY..... MENDOCINO
LONGITUDE..... 123-21.85 W

SAMPLE INFORMATION
SOURCE TYPE..... SPRING
WATER SAMPLING TEMP.... 40.0 C
WATER FLOW RATE..... 1.90 L/S 114.0 L/MIN

WATER ANALYSIS W
PH 1)..... 8.60

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
	140.00	1.30						
MG	CA	SR	BA	CA+MG				
	4.90							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		38						
F	CL	BR	I					
14	50.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			61.00	1.00		170.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

RECORD 00024

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000339	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	CF00691	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	POINT ARENA HOT SPRINGS		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	MENDOCINO
LATITUDE.....	38-52.63 N	LONGITUDE.....	123-30.55 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	44.0	C		
WATER FLOW RATE.....	0.32	L/S	19.0	L/MIN

WATER ANALYSIS W

PH 1).....	9.30

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
	105.00	0.40						
MG	CA	SR	BA	CA+MG				
.1	0.90							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		5.2						
F	CL	BR	I					
6.3	22.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			53.00	11.00		128.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

RECORD 00025

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000329	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	CF00641	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	VICHY SPRINGS (DOOLINS UKIAH VICHY SPRINGS)		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	MENDOCINO
LATITUDE.....	39-09.93 N	LONGITUDE.....	123-09.37 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	29.4	C		
WATER FLOW RATE.....	1.07	L/S	64.0	L/MIN

WATER ANALYSIS W

PH 1).....	7.70

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
.92	924.00	30.00						
MG	CA	SR	BA	CA+MG				
35	49.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		112						
F	CL	BR	I					
1.2	179.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			91.00	1.00		2510.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION A

SECTION A.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000305
CROSS INDEX NO.. CF00521
RECORD TYPE..... A
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 27/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. KELLY HOT SPRING
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 41-27.50 N

COUNTRY NAME..... UNITED STATES
COUNTY..... MODOC
LONGITUDE..... 120-50.00 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING
WATER SAMPLING TEMP.... 93.5 C
WATER FLOW RATE..... 20.48 L/S 1229.0 L/MIN

WATER ANALYSIS W
ANALYSIS DATE..... 1957

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K	
	231.00	6.40				
MG	CA	SR	BA	CA+MG		
	29.00					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			127.00			

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
UNPUBLISHED USGS DATA

RECORD 00027

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION A

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000277	NAME.....	J. RENNER, C. BROOK, D. WILLIAMS
CROSS INDEX NO..	CF00381	DATE.....	75/02
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	SURPRISE VALLEY		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	MODOC
LATITUDE.....	41-40.00 N	LONGITUDE.....	120-12.00 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	86.0	C		
WATER FLOW RATE.....	0.049998	L/S	3.0	L/MIN

WATER ANALYSIS

ANALYSIS DATE..... 1973

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K	
	343.00	16.30				
MG	CA	SR	BA	CA+MG		
	11.00					
F	CL	BR	I			
	223.00					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			182.00	330.00		124.00

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
DUFFIELD & FOURNIER 1974 (MUD VOLCANO AREA)

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000365
CROSS INDEX NO.. CF00821
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME..... JACK A. CROWLEY, J. RENNER
DATE..... 00/00
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. FALES HOT SPRINGS
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 38-20.00 N

COUNTRY NAME..... UNITED STATES
COUNTY..... MONO
LONGITUDE..... 119-24.00 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING
WATER SAMPLING TEMP.... 69.0 C

WATER ANALYSIS W

PH 1)..... 6.80

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
1.7	550.00	31.00						
MG	CA	SR	BA	CA+MG				
9.7	42.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		7.6						
F	CL	BR	I					
	160.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			118.00	263.00		1090.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
WHITE UNPUBLISHED

RECORD 00029

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION A

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000287
CROSS INDEX NO.. CF00431
RECORD TYPE..... H
SAMPLE TYPE..... SURFACE

NAME..... J. RENNER, J. A. CROWLEY
DATE..... 75/05
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. LONG VALLEY
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 37-40.00 N

COUNTRY NAME..... UNITED STATES
COUNTY..... MONO
LONGITUDE..... 118-52.00 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING
WATER SAMPLING TEMP.... 94.0 C

WATER ANALYSIS W

PH 1)..... 9.20

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
2.8	390.00	45.00						
MG	CA	SR	BA	CA+MG				
	0.90							
ZN	HG	B	H8O2	AL	PB	AS	SB	U
		15						
F	CL	BR	I					
	280.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			340.00	130.00		450.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
WILLEY ETAL 1974 (MAGMA RITCHIE #5)

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION A

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000371
CROSS INDEX NO.. CF00851
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME..... JACK A. CROWLEY, J. RENNER
DATE..... 75/04.
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. TRAVERTINE HOT SPRINGS (MARBLE QUARRY)
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 38-14.80 N

COUNTRY NAME..... UNITED STATES
COUNTY..... MONO
LONGITUDE..... 119-12.10 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING

WATER ANALYSIS W

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K	
	1109.00	35.00				
MG	CA	SR	BA	CA+MG		
	60.00					
F	CL	BR	I			
	214.00					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			89.00	939.00		

COMMENTS: MARINER UNPUBLISHED TEMPS SIO2, 114C; NA-K-CA, 172C, SPRING 69C.

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
WARING, 1915

RECORD 00031

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION B

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000349
CROSS INDEX NO.. CF00741
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 75/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. AETNA SPRINGS
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 38-39.48 N

COUNTRY NAME..... UNITED STATES
COUNTY..... NAPA
LONGITUDE..... 122-28.73 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING
WATER SAMPLING TEMP.... 21.7 C
WATER FLOW RATE..... 0.63 L/S 37.8 L/MIN

WATER ANALYSIS W
PH 1)..... 6.70

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
.19	352.00	6.00						
MG	CA	SR	BA	CA+MG				
79	22.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		43						
F	CL	BR	I					
1.1	166.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			96.00			1130.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
HERKSTRESSER, 1968

RECORD 00032

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000283
CROSS INDEX NO.. CF0041)
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 75/02
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. CALISTOGA
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 38-34.93 N

COUNTRY NAME..... UNITED STATES
COUNTY..... NAPA
LONGITUDE..... 122-34.43 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING
WATER SAMPLING TEMP.... 98.9 C
WATER FLOW RATE..... 32.75 L/S 1965.0 L/MIN

WATER ANALYSIS W

PH 1)..... 9.00

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
2.1	193.00	8.80						
MG	CA	SR	BA	CA+MG				
0.0	4.50							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		9.2						
F	CL	BR	I					
12	215.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			139.00	12.00		0.52		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

RECORD 00033

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000355		NAME..... C. BROOK, J. RENNER	
CROSS INDEX NO.. CF00771		DATE..... 75/01	
RECORD TYPE..... B		ORGANIZATION.. U.S.G.S.	
SAMPLE TYPE..... SURFACE			

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	NAPA ROCK SODA SPRINGS (PRIEST SODA SPRINGS)		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	NAPA
LATITUDE.....	38-31.12 N	LONGITUDE.....	122-15.58 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	25.0	C		
WATER FLOW RATE.....	1.42	L/S	85.0	L/MIN

WATER ANALYSIS W

PH 1).....	6.40

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
0.55	135.00	5.60						
MG	CA	SR	BA	CA+MG				
349	22.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		23						
F	CL	BR	I					
	145.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			111.00			1920.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000359	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	CF00791	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	NAPA SODA SPRINGS (JACKSONS NAPA SODA SPRINGS)		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	NAPA
LATITUDE.....	38-23.38 N	LONGITUDE.....	122-16.65 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING

WATER ANALYSIS W

PH 1)..... 5.90

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K	
	49.00	9.60				
MG	CA	SR	BA	CA+MG		
75	82.00					
F	CL	BR	I			
	4.50					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			126.00	1.00		750.00

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER,1968

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000347
CROSS INDEX NO.. CF00731
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 75/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. ONE SHOT MINING CO.
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 38-50.00 N

COUNTRY NAME..... UNITED STATES
COUNTY..... NAPA
LONGITUDE..... 122-21.40 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING
WATER SAMPLING TEMP.... 22.0 C
WATER FLOW RATE..... 3.15 L/S 189.0 L/MIN

WATER ANALYSIS W

PH 1)..... 6.90

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
1.6	604.00	34.00						
MG	CA	SR	BA	CA+MG				
224	219.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		59						
F	CL	BR	I					
	940.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			95.00	261.00		1500.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000351	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	CF00751	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	WALTER SPRINGS (WALTERS MINERAL SPRINGS)		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	NAPA
LATITUDE.....	38-39.23 N	LONGITUDE.....	122-21.43 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING

WATER ANALYSIS W

PH 1)..... 6.10

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K	
	232.00	5.60				
MG	CA	SR	BA	CA+MG		
265	28.00					
F	CL	BR	I			
	209.00					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			94.00	54.00		1560.00

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
HERKSTRESSER, 1968

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000387	NAME.....	JACK A. CROWLEY, J. RENNER
CROSS INDEX NO..	CF00931	DATE.....	27/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	PILGER ESTATES HOT SPRINGS		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	RIVERSIDE
LATITUDE.....	33-26.00 N	LONGITUDE.....	115-41.10 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING	
WATER SAMPLING TEMP....	82.0	C

WATER ANALYSIS W

ANALYSIS DATE.....	65/04	
PH 1).....	7.70	

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
	889.00	33.00						
MG	CA	SR	BA	CA+MG				
15	107.00							
ZN	HG	B	HHO2	AL	PB	AS	SB	U
		4.4						
F	CL	BR	I					
5	1350.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			79.00	225.00		268.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
MOYLE, 1974

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000385	NAME.....	JACK A. CROWLEY, J. RENNER
CROSS INDEX NO..	CF00921	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	ARROWHEAD HOT SPRINGS AREA		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	SAN BERNARDINO
LATITUDE.....	34-08.60 N	LONGITUDE.....	117-15.20 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING

WATER ANALYSIS W

ANALYSIS DATE..... 60/08

PH 1)..... 8.30

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
	255.00	12.00						
MG	CA	SR	BA	CA+MG				
0	27.00							
ZN	HG	B	HBO2	AL	PH	AS	SB	U
		2.6						
F	CL	BR	I					
8.8	65.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			90.00	428.00		73.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
MOYLE, 1974

RECORD 00039

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000389
CROSS INDEX NO.. CF00941
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME..... JACK A. CROWLEY, J. RENNER
DATE..... 75/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. WARNER HOT SPRINGS
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 33-17.00 N

COUNTRY NAME..... UNITED STATES
COUNTY..... SAN DIEGO
LONGITUDE..... 116-38.40 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING

WATER ANALYSIS W

ANALYSIS DATE..... 64/09
PH 1)..... 9.80

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
	97.00	1.00						
MG	CA	SR	BA	CA+MG				
0.2	0.40							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		0.9						
F	CL	BR	I					
4.7	19.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			107.00	0.40		55.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
MOYLE, 1974

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000309	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	CF00541	DATE.....	27/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	BIG BEND HOT SPRINGS		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	SHASTA
LATITUDE.....	41-01.33 N	LONGITUDE.....	121-55.12 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	82.0	C		
WATER FLOW RATE.....	0.63	L/S	37.8	L/MIN

WATER ANALYSIS W

PH 1).....	8.10

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
.56	565.00	20.00						
MG	CA	SR	BA	CA+MG				
.6	88.00							
ZN	HG	B	HBO2	AL	P3	AS	SB	U
		32						
F	CL	BR	I					
1.2	850.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			73.00	276.00		40.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

RECORD 00041

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION A

SECTION A.- CHEMICAL ANALYSIS
RECORD IDENTIFICATION
RECORD NO..... 0000307
CROSS INDEX NO.. CF00531
RECORD TYPE..... A
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 27/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY
GEOTHERMAL FIELD-AREA.. HUNT HOT SPRINGS
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 41-02.05 N

COUNTRY NAME..... UNITED STATES
COUNTY..... SHASTA
LONGITUDE..... 121-55.12 W

SAMPLE INFORMATION
SOURCE TYPE..... SPRING
WATER SAMPLING TEMP.... 58.0 C
WATER FLOW RATE..... 0.063331 L/S 3.8 L/MIN

WATER ANALYSIS W
PH 1)..... 9.00

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
.15	300.00	6.50						
MG	CA	SR	BA	CA+MG				
0.0	53.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		13						
F	CL	BR	I					
3.5	152.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			49.00	504.00				

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000311
CROSS INDEX NO.. CF00551
RECORD TYPE..... B
SAMPLE TYPE..... SURFACE

NAME..... C. BROOK, J. RENNER
DATE..... 27/01
ORGANIZATION.. U.S.G.S.

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. SALT SPRING
COUNTRY CODE..... US
STATE/PROVINCE..... CALIFORNIA
LATITUDE..... 40-40.20 N

COUNTRY NAME..... UNITED STATES
COUNTY..... SHASTA
LONGITUDE..... 122-38.67 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING
WATER SAMPLING TEMP.... 20.0 C
WATER FLOW RATE..... 0.31 L/S 18.9 L/MIN

WATER ANALYSIS W

PH 1)..... 9.20

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K
2.4	3030.00	12.00			

MG	CA	SR	BA	CA+MG
4.4	1180.00			

F	CL	BR	I
.2	6650.00		

NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			55.00	48.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
HERKSTRESSER, 1968

RECORD 00043

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000357	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	CF00781	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	LOS GUILICOS WARM SPRINGS (MORTONS WARM SPRINGS)		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	SONOMA
LATITUDE.....	38-23.67 N	LONGITUDE.....	122-33.00 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	29.0	C		
WATER FLOW RATE.....	1.25	L/S	75.0	L/MIN

WATER ANALYSIS W

PH 1).....	7.30

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K	
	104.00	13.00				
MG	CA	SR	BA	CA+MG		
6.4	19.00					
F	CL	BR	I			
	61.00					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			86.00	1.00		290.00

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER, 1968

RECORD 00044

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION B

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000353		NAME..... C. BROOK, J. RENNER	
CROSS INDEX NO.. CF00761		DATE..... 75/01	
RECORD TYPE..... B		ORGANIZATION.. U.S.G.S.	
SAMPLE TYPE..... SURFACE			

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. MARK WEST SPRINGS			
COUNTRY CODE..... US		COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE..... CALIFORNIA		COUNTY.....	SONOMA
LATITUDE..... 38-32.93 N		LONGITUDE.....	122-43.20 W

SAMPLE INFORMATION

SOURCE TYPE..... SPRING				
WATER SAMPLING TEMP....	30.5	C		
WATER FLOW RATE.....	0.011666	L/S	0.7	L/MIN

WATER ANALYSIS W

PH 1)..... 8.50

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
	29.00	3.90						
MG	CA	SR	BA	CA+MG				
19	31.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		1.0						
F	CL	BR	I					
	16.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			105.00	1.00		226.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
HEMKSTRESSER, 1968

RECORD 00045

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000245	NAME.....	C. BROOK , J. RENNER
CROSS INDEX NO..	CF00421	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	SKAGGS HOT SPRINGS		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	SONOMA
LATITUDE.....	38-41.55' N	LONGITUDE.....	123-01.53 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	59.6	C		
WATER FLOW RATE.....	0.25	L/S	15.0	L/MIN

WATER ANALYSIS W

PH 1)..... 7.20

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
	945.00	29.00						
MG	CA	SR	BA	CA+MG				
4.5	14.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		90						
F	CL	BR	I					
9.8	54.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			124.00	5.00		2470.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
BERKSTRESSER 1968

RECORD 00046

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION A

SECTION A.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000279	NAME.....	D. E. WHITE
CROSS INDEX NO..	CF00391	DATE.....	75/03
RECORD TYPE.....	A	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	MORGAN SPRINGS		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	TEHAMA
LATITUDE.....	40-23.00 N	LONGITUDE.....	121-31.00 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER FLOW RATE.....	1.99	L/S	95.4	L/MIN

WATER ANALYSIS W

PH 1).....	30.00

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K	
	1398.00	196.00				
MG	CA	SR	BA	CA+MG		
	79.00					
F	CL	BR	I			
	2430.00					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			233.00	79.00		52.00

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
WHITE, UNPUBLISHED DATA

RECORD 00047

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO.....	0000315	NAME.....	C. BROOK, J. RENNER
CROSS INDEX NO..	CF0057J	DATE.....	75/01
RECORD TYPE.....	B	ORGANIZATION..	U.S.G.S.
SAMPLE TYPE.....	SURFACE		

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	TUSCAN SPRINGS (LICK SPRINGS)		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	TEHAMA
LATITUDE.....	40-14.50 N	LONGITUDE.....	122-08.40 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING	
WATER SAMPLING TEMP....	30.0	C

WATER ANALYSIS W

PH 1).....	8.30

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K			
2.0	8080.00	51.00						
MG	CA	SR	BA	CA+MG				
17	22.00							
ZN	HG	B	HBO2	AL	PB	AS	SB	U
		201						
F	CL	BR	I					
4.8	11900.00							
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3		
			99.00	67.00		1150.00		

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
WHITE, 1957

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION B.- CHEMICAL ANALYSIS

RECORD IDENTIFICATION

RECORD NO..... 0000293		NAME..... JACK A. CROWLEY, J. RENNER	
CROSS INDEX NO.. CF00461		DATE..... 27/01.	
RECORD TYPE..... B		ORGANIZATION.. U.S.G.S.	
SAMPLE TYPE..... SURFACE			

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA..	SESPE HOT SPRINGS		
COUNTRY CODE.....	US	COUNTRY NAME.....	UNITED STATES
STATE/PROVINCE.....	CALIFORNIA	COUNTY.....	VENTURA
LATITUDE.....	34-35.70 N	LONGITUDE.....	118-59.90 W

SAMPLE INFORMATION

SOURCE TYPE.....	SPRING			
WATER SAMPLING TEMP....	90.0	C		
WATER FLOW RATE.....	6.00	L/S	360.0	L/MIN

WATER ANALYSIS W

PH 1).....	8.00

SOLUTE ANALYSIS (WATER)

LI	NA	K	RB	CS	NA+K	
	320.00	16.00				
MG	CA	SR	BA	CA+MG		
	23.00					
F	CL	BR	I			
	292.00					
NH4	NO3	PO4	SIO2	SO4	CO3	HCO3
			92.00	288.00		68.00

REFERENCES: WHITE & OTHERS, ASSESSMENT OF GEOTHERMAL RESOURCES OF THE U.S. - 1975, U.S.G.S. CIRCULAR 726
MOYLE, 1974

SECTION C - Geothermal Well/Drill Hole

The following retrieval is a printout of 38 geothermal well records from New Zealand. The records are sorted by geothermal field and the entire record is printed.

RECORD 00001

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000079
- CROSS INDEX NO..
- RECORD TYPE..... C
- NAME..... COBB, JO A.
- DATE..... 75/04
- ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. AWAKERI
- WELL NAME OR NUMBER.... 4
- COUNTRY CODE..... NZ
- COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... PRODUCTION
- DEPTH OF HOLE..... 98. M

WELL PERFORMANCE CHARACTERISTICS
- HIGH FLOW RATE MEASUREMENTS
  - TEMPERATURE..... 68.5 C
- COMMENTS (WELL PERFORMANCE): DOWNHOLE THERMAL GRADIENT 1.5 C/30 M

PRIMARY REFERENCE:
- AUTHOR..... LLOYD, E.F.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION

RECORD NO..... 0000078
CROSS INDEX NO..
RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. AWAKERI
WELL NAME OR NUMBER.... M4
COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION

TYPE OF WELL..... ABANDONED
DEPTH OF HOLE..... 64. M

WELL PERFORMANCE CHARACTERISTICS

HIGH FLOW RATE MEASUREMENTS

SELF-DRIVING OR UNDER PUMP.. SELF DRIVING
FLOWING WELLHEAD PRESSURE... .005-.006 M**3/S
TEMPERATURE..... 49. C
WATER-LIQUID FLOW RATE..... .0055 M**3/S

PRIMARY REFERENCE:

AUTHOR..... LLOYD, E.F.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION

RECORD NO..... 0000077
CROSS INDEX NO..
RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. AWAKERI
WELL NAME OR NUMBER.... M1
COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION

TYPE OF WELL..... ABANDONED
DEPTH OF HOLE..... 104. M

WELL PERFORMANCE CHARACTERISTICS

HIGH FLOW RATE MEASUREMENTS

SELF-DRIVING OR UNDER PUMP.. SELF DRIVING
FLOWING WELLHEAD PRESSURE... .0005 M**3/S
TEMPERATURE..... 49. C
WATER-LIQUID FLOW RATE..... .005 M**3/S

PRIMARY REFERENCE:

AUTHOR..... LLOYD, E.F.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

RECORD 00004

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE
RECORD IDENTIFICATION
RECORD NO..... 0000031 NAME..... COBB, JO A.
CROSS INDEX NO.. DATE..... 75/04
RECORD TYPE..... C ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
GEOTHERMAL FIELD-AREA.. BROADLANDS
WELL NAME OR NUMBER.... BR 7
COUNTRY CODE..... NZ COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
TYPE OF WELL..... PRODUCTION
PRODUCTION CASING
DIAMETER..... 8 5/8 IN

WELL PERFORMANCE CHARACTERISTICS
ENTHALPY (COMBINED PHASES): 2063000.00 J/KG 2063. J/GM

PRIMARY REFERENCE:
AUTHOR..... BROWNE, P.R.L.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

RECORD 00005

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION

RECORD NO..... 0000030
CROSS INDEX NO..
RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. BROADLANDS
WELL NAME OR NUMBER.... BR 16
COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION

DEPTH OF HOLE..... 1404. M
PRODUCTION CASING
DIAMETER..... 8 5/8 IN
COMMENTS (GENERAL DESCRIPTION): THIS WELL IS NON-PRODUCING

PRIMARY REFERENCE:

AUTHOR..... BROWNE, P.R.L.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000029
- CROSS INDEX NO..
- RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. BROADLANDS
- WELL NAME OR NUMBER.... BR 8
- COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... PRODUCTION
- DEPTH OF HOLE..... 776. M
- PRODUCTION CASING
  - DIAMETER..... 8 5/8 IN

PRIMARY REFERENCE:
- AUTHOR..... BROWNE, P.R.L.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00007

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000028
- CROSS INDEX NO..
- RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. BROADLANDS
- WELL NAME OR NUMBER.... BR 4
- COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... PRODUCTION
- PRODUCTION CASING
  - DIAMETER..... 8 5/8 IN

WELL PERFORMANCE CHARACTERISTICS
- INTERMEDIATE FLOW RATE MEASUREMENTS
  - MASS DISCHARGE..... 7.94 KG/S 28600. KG/HR
  - WELLHEAD PRESSURE... 10.40 KG/CM2 10.2 BARS

PRIMARY REFERENCE:
- AUTHOR..... BROWNE, P.R.L.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000027
- CROSS INDEX NO..
- RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. BROADLANDS
- WELL NAME OR NUMBER.... BR 15
- COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- DEPTH OF HOLE..... 2420. M
- PRODUCTION CASING
  - DIAMETER..... 9 5/8 IN
- COMMENTS (GENERAL DESCRIPTION): THIS WELL IS NON-PRODUCING

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 307. C
  - DEPTH OF MEASUREMENTS.. 2130. M

PRIMARY REFERENCE:
- AUTHOR..... BROWNE, P.R.L.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00009

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION

RECORD NO..... 0000026		NAME..... COBB, JO A.	
CROSS INDEX NO..		DATE..... 75/04	
RECORD TYPE..... C		ORGANIZATION.. USGS	

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. BROADLANDS			
WELL NAME OR NUMBER.... BR 25			
COUNTRY CODE..... NZ		COUNTRY NAME.....	NEW ZEALAND

GENERAL DESCRIPTION

TYPE OF WELL..... PRODUCTION

PRODUCTION CASING

DIAMETER..... 8 5/8 IN

WELL PERFORMANCE CHARACTERISTICS

SHUT IN MEASUREMENTS

DOWNHOLE PRESSURE.....	84.64	KG/CM2	83.	BARS

INTERMEDIATE FLOW RATE MEASUREMENTS

MASS DISCHARGE.....	92.22	KG/S	332000.	KG/HR
WELLHEAD PRESSURE...	11.22	KG/CM2	11.0	BARS
ENTHALPY.....	1333000.00	J/KG	1333.	J/GM

PRIMARY REFERENCE:

AUTHOR..... BROWNE, P.R.L.

DATE..... JULY 1974

TITLE..... MINERALS OF NEW ZEALAND

REFERENCE... REPORT N.Z.G.S. 38

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE
RECORD IDENTIFICATION
RECORD NO..... 0000116
CROSS INDEX NO..
RECORD TYPE..... C
NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
GEOTHERMAL FIELD-AREA.. GREAT BARRIER
WELL NAME OR NUMBER.... N35/960275
COUNTRY CODE..... NZ
COUNTRY NAME..... NEW ZEALAND
OTHER LOCALITY INFORMATION: DRILLED AT TRYPHENA

GENERAL DESCRIPTION
DEPTH OF HOLE..... 207. M

WELL PERFORMANCE CHARACTERISTICS
SHUT IN MEASUREMENTS
DOWNHOLE TEMPERATURE... 34.5 C

PRIMARY REFERENCE:
AUTHOR..... MOORE, P.R.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

RELATED REFERENCES:
1) G.E.K. THOMPSON (PERS. COMM.)

RECORD 00011

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000067
- CROSS INDEX NO..
- RECORD TYPE..... C
- NAME..... COBB, JO A.
- DATE..... 75/04
- ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. HOT WATER BEACH
- WELL NAME OR NUMBER.... NEW HOLE
- COUNTRY CODE..... NZ
- COUNTRY NAME..... NEW ZEALAND
- OTHER LOCALITY INFORMATION: 2 M DOWNSTREAM FROM FIRST WELL AT CAMPING GROUND

GENERAL DESCRIPTION
- WELLHEAD ELEVATION..... .5 M
- TYPE OF WELL..... EXPLORATORY
- PRODUCTION CASING
  - LENGTH..... 6 M
  - DIAMETER..... 7.5 CM

WELL PERFORMANCE CHARACTERISTICS
- HIGH FLOW RATE MEASUREMENTS
  - SELF-DRIVING OR UNDER PUMP.. UNDER K 3/4 IN B CENTRIFUGAL PUMP
  - TEMPERATURE..... 50. C
  - WATER-LIQUID FLOW RATE..... .002 M**3/S

PRIMARY REFERENCE:
- AUTHOR..... SKINNER, D.N.B.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S# 38

RECORD 00012

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE
RECORD IDENTIFICATION
RECORD NO..... 0000065
CROSS INDEX NO..
RECORD TYPE..... C
NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
GEOTHERMAL FIELD-AREA.. HOT WATER BEACH
WELL NAME OR NUMBER.... OLDER HOLE
COUNTRY CODE..... NZ
COUNTRY NAME..... NEW ZEALAND
OTHER LOCALITY INFORMATION: LOCATED ON CAMPING GROUND AT HOT WATER BEACH

GENERAL DESCRIPTION
TYPE OF WELL..... EXPLORATORY
PRODUCTION CASING
DIAMETER..... 10 CM
COMMENTS (GENERAL DESCRIPTION): 30 CM HEAD

WELL PERFORMANCE CHARACTERISTICS
SHUT IN MEASUREMENTS
WELLHEAD PRESSURE..... 48.5 C
HIGH FLOW RATE MEASUREMENTS
SELF-DRIVING OR UNDER PUMP.. SELF DRIVING
TEMPERATURE..... 48.5 C
WATER-LIQUID FLOW RATE..... .005-.007 M**3/S

PRIMARY REFERENCE:
AUTHOR..... SKINNER, D.N.B.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

RECORD 00013

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE
RECORD IDENTIFICATION
RECORD NO..... 0000033 NAME..... COBB, JO A.
CROSS INDEX NO.. DATE..... 75/04
RECORD TYPE..... C ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
GEOTHERMAL FIELD-AREA.. KAWERAU
WELL NAME OR NUMBER.... 8
DRILLED BY..... BROWN DRILLING COMPANY OF U.S.A.
COUNTRY CODE..... NZ COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
TYPE OF WELL..... PRODUCTION
COMPLETION DATE..... 1956
DEPTH OF HOLE..... 910. M

WELL PERFORMANCE CHARACTERISTICS
HIGH FLOW RATE MEASUREMENTS
DATE..... 61/01
STEAM-VAPOR FLOW RATE..... 17.766 KG/S

PRIMARY REFERENCE:
AUTHOR..... HEALY, J.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

RECORD 00014

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE
RECORD IDENTIFICATION
RECORD NO..... 0000003 NAME..... COBB, JO A.
CROSS INDEX NO.. DATE..... 75/04
RECORD TYPE..... C ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
GEOTHERMAL FIELD-AREA.. KAWERAU
WELL NAME OR NUMBER.... 7A
DRILLED BY..... BROWN DRILLING COMPANY OF U.S.A.
COUNTRY CODE..... NZ COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
TYPE OF WELL..... PRODUCTION
COMPLETION DATE..... 1956
DEPTH OF HOLE..... 910. M

WELL PERFORMANCE CHARACTERISTICS
HIGH FLOW RATE MEASUREMENTS
STEAM-VAPOR FLOW RATE..... 5.04 KG/S

PRIMARY REFERENCE:
AUTHOR..... HEALY, J.
DATE..... JULY, 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

RECORD 00015

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000114
- CROSS INDEX NO..
- RECORD TYPE..... C
- NAME..... COBB, JO A.
- DATE..... 75/04
- ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. NGAWHA
- WELL NAME OR NUMBER.... DEEP HOLE
- COUNTRY CODE..... NZ
- COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... EXPLORATION
- COMPLETION DATE..... 1965
- DEPTH OF HOLE..... 588. M

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 236. C
  - DEPTH OF MEASUREMENTS.. 550. M
  - WELLHEAD PRESSURE..... 57.10 KG/CM2 5.6 MPA
- HIGH FLOW RATE MEASUREMENTS
  - FLOWING WELLHEAD PRESSURE... 7.14 KG/CM2 0.7 MPA
  - STEAM-VAPOR FLOW RATE..... 0.32 KG/S
  - WATER-LIQUID FLOW RATE..... 0.34 KG/S

PRIMARY REFERENCE:
- AUTHOR..... BOWEN, F.E.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00016

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000049
- CROSS INDEX NO..
- RECORD TYPE..... C
- NAME..... COBB, JO A.
- DATE..... 75/04
- ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. ORAKEIKORAKO
- WELL NAME OR NUMBER.... OK 2
- COUNTRY CODE..... NZ
- COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... EXPLORATORY
- DEPTH OF HOLE..... 1155. M

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 265. C
  - DEPTH OF MEASUREMENTS.. 1140. M
- HIGH FLOW RATE MEASUREMENTS
  - FLOWING WELLHEAD PRESSURE... 180-225 KPA
  - ENTHALPY OF STEAM-VAPOR.... 960000.00 J/KG 960. KJ/KG

PRIMARY REFERENCE:
- AUTHOR..... LLOYD, E.F.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00017

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000048
- CROSS INDEX NO..
- RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. ORAKEIKORAKO
- WELL NAME OR NUMBER.... OK 6
- COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... EXPLORATORY
- DEPTH OF HOLE..... 1220. M

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 259. C
  - DEPTH OF MEASUREMENTS.. 1097. M
- INTERMEDIATE FLOW RATE MEASUREMENTS
  - MASS DISCHARGE..... 7.5 KG/S

PRIMARY REFERENCE:
- AUTHOR..... LLOYD, E.F.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00018

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION

RECORD NO..... 0000047 NAME..... COBB, JO A.
CROSS INDEX NO.. DATE..... 75/04
RECORD TYPE..... C ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. ORAKEIKORAKO
WELL NAME OR NUMBER.... OK 4
COUNTRY CODE..... NZ COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION

TYPE OF WELL..... EXPLORATORY
DEPTH OF HOLE..... 1375. M

WELL PERFORMANCE CHARACTERISTICS

SHUT IN MEASUREMENTS

DOWNHOLE TEMPERATURE... 240. C
DEPTH OF MEASUREMENTS.. 305-427 M

COMMENTS (WELL PERFORMANCE): HIGH RANK HYDROTHERMAL ALTERATION IN 305-427 M ZONE

PRIMARY REFERENCE:

AUTHOR..... LLOYD, E.F.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

RECORD 00019

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000046
- CROSS INDEX NO..
- RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. ORAKEIKORAKO
- WELL NAME OR NUMBER.... OK 1
- COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... EXPLORATORY
- DEPTH OF HOLE..... 1405. M

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 221. C
  - DEPTH OF MEASUREMENTS.. 914. M

PRIMARY REFERENCE:
- AUTHOR..... LLOYD, E.F.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00020

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000010
- CROSS INDEX NO..
- RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. REPOROA
- WELL NAME OR NUMBER.... RP1
- COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... EXPLORATORY
- DEPTH OF HOLE..... 1338.4 M
- PRODUCTION CASING
  - LENGTH..... 580.7 M

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 213. C

PRIMARY REFERENCE:
- AUTHOR..... HEALY, J.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00021

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION A

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000040
- CROSS INDEX NO..
- RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. ROTOKAUA
- WELL NAME OR NUMBER.... RK1
- COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... EXPLORATORY
- DEPTH OF HOLE..... 1200. M

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 307. C
  - DEPTH OF MEASUREMENTS.. 1200. M
- INTERMEDIATE FLOW RATE MEASUREMENTS
  - MASS DISCHARGE..... 5.83 KG/S 21000. KG/HR
  - WELLHEAD PRESSURE... 14.07 KG/CM2 13.8 BARS
  - ENTHALPY..... 1396000.00 J/KG 1396. J/GM

PRIMARY REFERENCE:
- AUTHOR..... BROWNE, P.R.L.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00022

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000039
- CROSS INDEX NO..
- RECORD TYPE..... C
- NAME..... COBB, JO A.
- DATE..... 75/04
- ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. ROTOKAUA
- WELL NAME OR NUMBER.... RK2
- COUNTRY CODE..... NZ
- COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... EXPLORATORY
- DEPTH OF HOLE..... 885. M

WELL PERFORMANCE CHARACTERISTICS

SHUT IN MEASUREMENTS
- DOWNHOLE TEMPERATURE... 280. C
- DEPTH OF MEASUREMENTS.. 885. M

INTERMEDIATE FLOW RATE MEASUREMENTS

MASS DISCHARGE.....	2.08	KG/S	7500.	KG/HR
WELLHEAD PRESSURE...	14.07	KG/CM2	13.8	BARS
ENTHALPY.....	2093000.00	J/KG	2093.	J/GM

PRIMARY-REFERENCE:
- AUTHOR..... BROWNE, P.R.L.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00023

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION

RECORD NO..... 0000038
CROSS INDEX NO..
RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. ROTOKAUA
WELL NAME OR NUMBER.... RK1X
COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION

TYPE OF WELL..... EXPLORATORY
DEPTH OF HOLE..... 308. M

RECORD 00024

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION

RECORD NO..... 0000110
CROSS INDEX NO..
RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. TAUHARA
WELL NAME OR NUMBER.... TH 1
COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION

TYPE OF WELL..... EXPLORATION

WELL PERFORMANCE CHARACTERISTICS

HIGH FLOW RATE MEASUREMENTS

FLOWING WELLHEAD PRESSURE... 12.64 KG/CM2 1240. KPA
STEAM-VAPOR FLOW RATE..... 13. KG/S
WATER-LIQUID FLOW RATE..... 80. KG/S
ENTHALPY (COMBINED PHASES): 1097.E3 J/KG

PRIMARY REFERENCE:

AUTHOR..... GRINDLEY, G.W.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

RECORD 00025

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION

RECORD NO..... 0000092
CROSS INDEX NO..
RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. TE KOPIA
WELL NAME OR NUMBER.... TK 1
COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION

TYPE OF WELL..... EXPLORATION
DEPTH OF HOLE..... 914.7 M
PRODUCTION CASING
LENGTH..... 565.4 M

WELL PERFORMANCE CHARACTERISTICS

SHUT IN MEASUREMENTS
DOWNHOLE TEMPERATURE... 241. C
DEPTH OF MEASUREMENTS.. 518-670.5 M
HIGH FLOW RATE MEASUREMENTS
DATE..... 66/05
FLOWING WELLHEAD PRESSURE... 1004.8 KJ/KG
STEAM-VAPOR FLOW RATE..... 6.804 KG/S
WATER-LIQUID FLOW RATE..... 49.636 KG/S
INTERMEDIATE FLOW RATE MEASUREMENTS
ENTHALPY..... 1004799.75 J/KG 1004.8 KJ/KG

PRIMARY REFERENCE:

AUTHOR..... HEALY, J.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

RECORD 00026

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000094
- CROSS INDEX NO..
- RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. TE KOPIA
- WELL NAME OR NUMBER.... TK 2
- COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... EXPLORATION
- DEPTH OF HOLE..... 1251.2 M
- PRODUCTION CASING
  - LENGTH..... 597.4 M

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 227. C
  - DEPTH OF MEASUREMENTS.. 427. M

PRIMARY REFERENCE:
- AUTHOR..... HEALY, J.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00027

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000093
- CROSS INDEX NO..
- RECORD TYPE..... C
- NAME..... COBB, JO A.
- DATE..... 75/04
- ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. TE KOPIA
- WELL NAME OR NUMBER.... TK 1
- COUNTRY CODE..... NZ
- COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... EXPLORATION
- DEPTH OF HOLE..... 914.7 M
- PRODUCTION CASING
  - LENGTH..... 565.4 M

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 241. C
  - DEPTH OF MEASUREMENTS.. 518-670.5 M
- HIGH FLOW RATE MEASUREMENTS
  - DATE..... 65/09
  - FLOWING WELLHEAD PRESSURE... 8.618E5 PA
  - STEAM-VAPOR FLOW RATE..... 10.206 KG/SEC
  - WATER-LIQUID FLOW RATE..... 89.66 KG/S
- ENTHALPY (COMBINED PHASES): 960.6 KJ/KG
- INTERMEDIATE FLOW RATE MEASUREMENTS
  - ENTHALPY..... 960599.81 J/KG 960.6 KJ/KG
- COMMENTS (WELL PERFORMANCE): MAXIMUM DISCHARGE PRESSURE = 16.34E5 PA.

PRIMARY REFERENCE:
- AUTHOR..... HEALY J.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00028

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION

RECORD NO..... 0000059	NAME..... COBB, JO A.
CROSS INDEX NO..	DATE..... 75/04
RECORD TYPE..... C	ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY

GEOTHERMAL FIELD-AREA.. TIKITERE
WELL NAME OR NUMBER.... NEAR HAUPARU BAY IN LAKE ROTOITI
COUNTRY CODE..... NZ COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION

TYPE OF WELL..... EXPLORATORY
DEPTH OF HOLE..... 195. M

WELL PERFORMANCE CHARACTERISTICS

SHUT IN MEASUREMENTS
DOWNHOLE TEMPERATURE... 74. C

PRIMARY REFERENCE:

AUTHOR..... NAIRN, I.A.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

RECORD 00029

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE
RECORD IDENTIFICATION
RECORD NO..... 0000058 NAME..... COBB, JO A.
CROSS INDEX NO.. DATE..... 75/04
RECORD TYPE..... C ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
GEOTHERMAL FIELD-AREA.. TIKITERE
WELL NAME OR NUMBER.... HOLE NEAR HAUPARU BAY IN LAKE ROROITI
COUNTRY CODE..... NZ COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
TYPE OF WELL..... EXPLORATORY
DEPTH OF HOLE..... 218. M

WELL PERFORMANCE CHARACTERISTICS
SHUT IN MEASUREMENTS
DOWNHOLE TEMPERATURE... 39. C

PRIMARY REFERENCE:
AUTHOR..... NAIRN, I.A.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

RECORD 00030

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000017
- CROSS INDEX NO..
- RECORD TYPE..... C
- NAME..... COBB, JO A.
- DATE..... 75/04
- ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. WAIHI
- WELL NAME OR NUMBER.... 16 (PROPERTY OF MR. DEMPSEY)
- COUNTRY CODE..... NZ
- COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... EXPLORATORY
- DEPTH OF HOLE..... 15.2 M

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 72. C
- COMMENTS (WELL PERFORMANCE): WELLHEAD TEMP. 72C

PRIMARY REFERENCE:
- AUTHOR..... HEGAN, B.D.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00031

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000100
- CROSS INDEX NO..
- RECORD TYPE..... C
- NAME..... COBB, JO A.
- DATE..... 75/04
- ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. WAIOTAPU
- WELL NAME OR NUMBER.... 3
- COUNTRY CODE..... NZ
- COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... PRODUCTION
- DEPTH OF HOLE..... 454.2 M
- PRODUCTION CASING
  - LENGTH..... 300.2 M
  - DIAMETER..... 152.4MM

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 203. C
  - DEPTH OF MEASUREMENTS.. 274.3 M
  - WELLHEAD PRESSURE..... 14.06 KG/CM2 1.379E6 P A
- HIGH FLOW RATE MEASUREMENTS
  - FLOWING WELLHEAD PRESSURE... 40.07 KG/CM2 3.93E6 P A
  - STEAM-VAPOR FLOW RATE..... 0.844 KG/S
  - WATER-LIQUID FLOW RATE..... 11.844 KG/S
- ENTHALPY (COMBINED PHASES): 772.2 KJ/KG

PRIMARY REFERENCE:
- AUTHOR..... HEALY, J.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00032

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000099
- CROSS INDEX NO..
- RECORD TYPE..... C
- NAME..... COBB, JO A.
- DATE..... 75/04
- ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. WAIOTAPU
- WELL NAME OR NUMBER.... 6
- COUNTRY CODE..... NZ
- COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... PRODUCTION
- DEPTH OF HOLE..... 914.7 M
- PRODUCTION CASING
  - LENGTH..... 309.3 M
  - DIAMETER..... 219.0 MM

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 285. C
  - DEPTH OF MEASUREMENTS.. 762. M
  - WELLHEAD PRESSURE..... 35.15 KG/CM2 34.474E5 P A
- HIGH FLOW RATE MEASUREMENTS
  - FLOWING WELLHEAD PRESSURE... 14.06 KG/CM2 13.79E5 P A
  - STEAM-VAPOR FLOW RATE..... 5.166 KG/S
  - WATER-LIQUID FLOW RATE..... 44.099 KG/S
- ENTHALPY (COMBINED PHASES): 1046.7 KJ/KG

PRIMARY REFERENCE:
- AUTHOR..... HEALY, J.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00033

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000107
- CROSS INDEX NO..
- RECORD TYPE..... C
- NAME..... COBB, JO A.
- DATE..... 75/04
- ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. WAIOTAPU
- WELL NAME OR NUMBER.... 5
- COUNTRY CODE..... NZ
- COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... PRODUCTION
- DEPTH OF HOLE..... 454.4 M
- PRODUCTION CASING
  - LENGTH..... 270.3 M
  - DIAMETER..... 114.3 MM

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 237. C
  - DEPTH OF MEASUREMENTS.. 454.4 M
  - WELLHEAD PRESSURE..... 4.08 KG/CM2 3.999E5 P A

PRIMARY REFERENCE:
- AUTHOR..... HEALY, J.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00034

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000106
- CROSS INDEX NO..
- RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA... WAIOTAPU
- WELL NAME OR NUMBER.... 1
- COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... PRODUCTION
- DEPTH OF HOLE..... 485.5 M
- PRODUCTION CASING
  - LENGTH..... 300.2 M
  - DIAMETER..... 152.4 MM

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 216. C
  - DEPTH OF MEASUREMENTS.. 365.7 M

PRIMARY REFERENCE:
- AUTHOR..... HEALY, J.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

RECORD 00035

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE
RECORD IDENTIFICATION
RECORD NO..... 0000104 NAME..... COBB, JO A.
CROSS INDEX NO.. DATE..... 75/04
RECORD TYPE..... C ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
GEOTHERMAL FIELD-AREA.. WAIOTAPU
WELL NAME OR NUMBER.... 4
COUNTRY CODE..... NZ COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
TYPE OF WELL..... PRODUCTION
DEPTH OF HOLE..... 1110.4 M
PRODUCTION CASING
LENGTH..... 358.1 M
DIAMETER..... 114.3 MM

WELL PERFORMANCE CHARACTERISTICS
SHUT IN MEASUREMENTS
DOWNHOLE TEMPERATURE... 279. C
DEPTH OF MEASUREMENTS.. 612.3 M
WELLHEAD PRESSURE..... 35.15 KG/CM2 34.47E5 P A
HIGH FLOW RATE MEASUREMENTS
FLOWING WELLHEAD PRESSURE... 14.06 KG/CM2 13.79E5 P A
STEAM-VAPOR FLOW RATE..... 1.134 KG/S
WATER-LIQUID FLOW RATE..... 2.898 KG/S
ENTHALPY (COMBINED PHASES): 1395.6 KJ/KG
COMMENTS (WELL PERFORMANCE): PRESSURE DUE TO DEPRESSION OF WATER COLUMN BY GAS

PRIMARY REFERENCE:
AUTHOR..... HEALY, J.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

RECORD 00036

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000102
- CROSS INDEX NO..
- RECORD TYPE..... C

NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. WAIOTAPU
- WELL NAME OR NUMBER.... 7
- COUNTRY CODE..... NZ

COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- TYPE OF WELL..... PRODUCTION
- DEPTH OF HOLE..... 1000. M
- PRODUCTION CASING
  - LENGTH..... 301.2 M
  - DIAMETER..... 219.0 MM

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 295. C
  - DEPTH OF MEASUREMENTS.. 1000. M
  - WELLHEAD PRESSURE..... 0.35 KG/CM2 0.345E5 P A
- HIGH FLOW RATE MEASUREMENTS
  - FLOWING WELLHEAD PRESSURE... 5.62 KG/CM2 5.516E5 P A
  - STEAM-VAPOR FLOW RATE..... 5.04 KG/S
  - WATER-LIQUID FLOW RATE..... 17.64 KG/S
- ENTHALPY (COMBINED PHASES): 1139.7 KJ/KG

PRIMARY REFERENCE:
- AUTHOR..... HEALY, J.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 39

RECORD 00037

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE
RECORD IDENTIFICATION
RECORD NO..... 000010B
CROSS INDEX NO..
RECORD TYPE..... C
NAME..... COBB, JO A.
DATE..... 75/04
ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
GEOTHERMAL FIELD-AREA.. WAIOTAPU
WELL NAME OR NUMBER.... 2
COUNTRY CODE..... NZ
COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
TYPE OF WELL..... PRODUCTION
DEPTH OF HOLE..... 455.3 M
PRODUCTION CASING
LENGTH..... 257.3 M
DIAMETER..... 114.3 MM

WELL PERFORMANCE CHARACTERISTICS
SHUT IN MEASUREMENTS
DOWNHOLE TEMPERATURE... 225. C
DEPTH OF MEASUREMENTS.. 335.3-396.3 M
WELLHEAD PRESSURE..... 2.04 KG/CM2 1.999E5 P A
COMMENTS (WELL PERFORMANCE): PRESSURE DUE TO DEPRESSION OF WATER COLUMN BY GAS.

PRIMARY REFERENCE:
AUTHOR..... HEALY, J.
DATE..... JULY 1974
TITLE..... MINERALS OF NEW ZEALAND
REFERENCE... REPORT N.Z.G.S. 38

GEOTHERMAL RESOURCES FILE (GEOTHERM) REVISION 8

SECTION C.- GEOTHERMAL WELL/DRILLHOLE

RECORD IDENTIFICATION
- RECORD NO..... 0000024
- CROSS INDEX NO..
- RECORD TYPE..... C
- NAME..... COBB, JO A.
- DATE..... 75/04
- ORGANIZATION.. USGS

GEOGRAPHIC LOCALITY
- GEOTHERMAL FIELD-AREA.. WAIRAKEI
- WELL NAME OR NUMBER.... 121
- COUNTRY CODE..... NZ
- COUNTRY NAME..... NEW ZEALAND

GENERAL DESCRIPTION
- DEPTH OF HOLE..... 2500. M

WELL PERFORMANCE CHARACTERISTICS
- SHUT IN MEASUREMENTS
  - DOWNHOLE TEMPERATURE... 275. C
  - DEPTH OF MEASUREMENTS.. 2500. M
- COMMENTS (WELL PERFORMANCE): AVG. H.P. WELL PRODUCED 6.5 KG/SEC STEAM & 39 KG/SEC WATER, AVG. I.P. WELL PRODUCED 5 KG/SEC STEAM & 14 KG/SEC WATER (1965).

PRIMARY REFERENCE:
- AUTHOR..... GRINDLEY, G.W.
- DATE..... JULY 1974
- TITLE..... MINERALS OF NEW ZEALAND
- REFERENCE... REPORT N.Z.G.S. 38

TABULAR REPORT

This report listing the geothermal fields of the United States illustrates the report-producing capability of the GEOTHERM file. Individual data items can be listed or printed in tabular form.

GEOTHERMAL FIELDS OF ALASKA

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
	BELL ISLAND HOT SPRINGS	55-56-00N	131-34-00W
	BAILEY HOT SPRINGS	55-59-00N	131-39-30W
	GODDARD HOT SPRINGS	56-50-00N	135-22-00W
	BARANOF HOT SPRINGS	57-05-00N	134-50-00W
	FISH BAY AREA	57-22-00N	135-23-00W
	TENAKEE HOT SPRINGS	57-47-00N	135-13-00W
	HOONIAH HOT SPRINGS (WHITE SULPHUR SPRINGS)	57-48-00N	136-20-00W
	NEAR NORTH END TENAKEE INLET	58-00-00N	135-55-00W
	EAST COLD BAY	55-13-00N	162-29-00W
	CIRCLE	65-29-00N	144-39-00W
	CHENA	65-03-00N	146-03-00W
	MANLEY HOT SPRINGS (BAKER HOT SPRINGS)	65-00-00N	150-38-00W
	KANUTI	66-20-00N	150-48-00W
	LITTLE MELOZITNA	65-28-00N	153-19-00W
	MELOZI HOT SPRINGS (MELOZITNA HOT SPRINGS)	65-08-00N	154-40-00W
	SOUTH	66-09-00N	157-07-00W
	GRANITE MOUNTAIN (SWEEPSTAKES)	65-22-00N	161-15-00W
	CLEAR CREEK AREA	64-51-00N	162-18-00W
	LAVA CREEK AREA	65-13-00N	162-54-00W
	SERPENTINE SPRINGS (ARCTIC)	65-51-00N	164-42-00W
	PILGRIM HOT SPRING	65-06-00N	164-55-00W
	GREAT SITKIN ISLAND	52-04-00N	176-05-00W
	OKMOK CALDERA, UMNAK ISLAND	53-29-00N	168-06-00W
	HOT SPRINGS BAY, AKUTAN ISLAND	54-10-00N	165-50-00W
	SHAKES SPRINGS (CHIEF SHAKES)	56-43-00N	132-02-00W
	HOT SPRINGS COVE, UMNAK ISLAND	53-14-00N	168-21-00W
	TOLOVANA	65-16-00N	148-50-00W
	GEYSER BIGHT	53-13-00N	168-28-00W

GEOTHERMAL FIELDS OF ARIZONA

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
	POWER RANCHES INC. WELLS	33-17-06N	111-41-12W
GRAHAM	MT. GRAHAM HOT MINERAL WELL	32-51-24N	109-44-54W
GREENLEE	EAGLE CREEK SPRING	33-02-48N	109-28-36W
GREENLEE	HOT SPRING N. OF CLIFTON	33-04-42N	109-18-12W
GREENLEE	CLIFTON HOT SPRINGS	33-03-12N	109-17-48W
GREENLEE	GILLARD HOT SPRINGS	32-58-30N	109-21-00W
YAVAPAI	CASTLE HOT SPRINGS	33-59-06N	112-21-36W
YAVAPAI	VERDE HOT SPRINGS	34-21-30N	111-42-30W

GEOTHERMAL FIELDS OF CALIFORNIA

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
	GEYSERS	38-50 N	122-52 W
ALPINE	GROVERS HOT SPRINGS	38-41-54N	119-51-36W
COLUSA	DEADSHOT SPRING	39-05-06N	122-27-24W
COLUSA	WILBUR HOT SPRINGS AREA	39-02-12N	122-05-12W
COLUSA	COOKS SPRINGS	39-15-12N	122-31-24W
COLUSA	FOUTS SPRING (CHAMPAGNE)	39-20-30N	122-39-24W
COLUSA	FOUTS SPRING (REDEYE)	39-21-00N	122-40-06W
FRESNO	BLAYNEY MEADOWS HOT SPRINGS	37-14-06N	118-53-00W
FRESNO	MONO HOT SPRING	37-19-30N	119-01-00W
FRESNO	MERCEY HOT SPRINGS	36-42-12N	120-51-36W
GLENN	SALT SPRING	39-25-50N	122-32-15W
IMPERIAL	DUNES	32-49-00N	115-01-00W
IMPERIAL	GLAMIS (EAST)	33-59-00N	115-04-00W
IMPERIAL	GLAMIS OR EAST BRAWLEY	32-58-00N	115-11-00W
IMPERIAL	BORDER	32-44-00N	115-07-36W
IMPERIAL	EAST MESA	32-47-00N	115-15-00W
IMPERIAL	HEBER	32-43-00N	115-31-42W
IMPERIAL	BRAWLEY	33-01-00N	115-31-00W
IMPERIAL	SALTON SEA	33-12-00N	115-36-00W
INYO	COSO HOT SPRINGS	36-03-00N	117-47-00W
LAKE	SULFUR BANK HOT SPRINGS (CLEAR LAKE, HOT BOLATA)	39-01-00N	122-39-00W
LAKE	SARATOGA SPRINGS	39-10-32N	122-58-43W
LAKE	BAKER SODA SPRING	38-53-33N	122-31-54W
LAKE	SEIGLER SPRINGS (INCLUDING GEYSER SPRING)	38-52-30N	122-41-18W
LAKE	CRABTREE HOT SPRINGS	39-17-26N	122-49-16W
LAKE	SODA SPRING	39-24-48N	122-58-36W
LASSEN	WENDEL - AMEDEE	40-18-00N	120-11-00W
MADERA	REDS MEADOW HOT SPRINGS	37-37-00N	119-04-30W
MENDOCINO	VICHY SPRINGS (DOOLINS UKIAH VICHY SPRINGS)	39-09-56N	123-09-22W
MENDOCINO	ORRS HOT SPRINGS	39-13-45N	123-21-51W
MENDOCINO	ORNBAUM SPRINGS	38-54-41N	123-18-22W
MENDOCINO	POINT ARENA HOT SPRINGS	38-52-38N	123-30-33W
MODOC	SURPRISE VALLEY	41-40-00N	120-12-00W
MODOC	KELLY HOT SPRING	41-27-30N	120-50-00W
MONO	PAOHA ISLAND	37-59-48N	119-01-12W
MONO	FALES HOT SPRINGS	38-20-00N	119-24-00W
MONO	BLACK POINT HOT SPRING	38-02-24N	119-05-00W
MONO	TRAVERTINE HOT SPRINGS (MARBLE QUARRY)	38-14-48N	119-12-06W
MONO	BENTON HOT SPRINGS	37-48-00N	118-31-48W
MONO	BUCKEYE HOT SPRING	38-14-18N	119-19-36W
MONO	LONG VALLEY	37-40-00N	118-52-00W
NAPA	CALISTOGA	38-34-56N	122-34-26W
NAPA	NAPA SODA SPRINGS (JACKSONS NAPA SODA SPRINGS)	38-23-23N	122-16-39W
NAPA	AETNA SPRINGS	38-39-29N	122-28-44W
NAPA	ONE SHOT MINING CO.	38-50-00N	122-21-24W
NAPA	NAPA ROCK SODA SPRINGS (PRIEST SODA SPRINGS)	38-31-07N	122-15-35W
NAPA	WALTER SPRINGS (WALTERS MINERAL SPRINGS)	38-39-14N	122-21-26W
PLACER	BROCKWAY HOT SPRINGS (CARNELIAN HOT SPRINGS)	39-13-30N	120-04-00W
RIVERSIDE	PILGER ESTATES HOT SPRINGS	33-26-00N	115-41-06W
SAN BERNARDINO	RANDSBURG	35-23-00N	117-32-12W
SAN BERNARDINO	ARROWHEAD HOT SPRINGS AREA	34-08-36N	117-15-12W
SAN DIEGO	WARNER HOT SPRINGS	33-17-00N	116-38-24W
SHASTA	SALT SPRING	40-40-12N	122-38-40W
SHASTA	BIG BEND HOT SPRINGS	41-01-20N	121-55-07W
SHASTA	HUNT HOT SPRINGS	41-02-03N	121-55-07W

SHASTA-PLUMAS-TEHAMA	LASSEN	40-26-00N	121-26-00W
SONOMA	SKAGGS HOT SPRINGS	38-41-33N	123-01-32W
SONOMA	LOS GUILICOS WARM SPRINGS (MORTONS WARM SPRINGS)	38-23-40N	122-33-00W
SONOMA	MARK WEST SPRINGS	38-32-56N	122-43-12W
TEHAMA	MORGAN SPRINGS	40-23-00N	121-31-00W
TEHAMA	TUSCAN SPRINGS (LICK SPRINGS)	40-14-30N	122-08-24W
VENTURA	SESPE HOT SPRINGS	34-35-42N	118-59-54W

GEOTHERMAL FIELDS OF COLORADO

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
ARCHULETA	PAGOSA AREA	37-15-30N	107-00-30W
CHAFFEE	MT. PRINCETON SPRINGS	38-43-54N	106-10-12W
CHAFFEE	PONCHA HOT SPRINGS	38-29-54N	106-04-30W
CHAFFEE	COTTONWOOD SPRINGS	38-48-42N	106-13-30W
CLEAR CREEK	IDAHO SPRINGS	39-44-12N	105-30-12W
GARFIELD	GLENWOOD SPRINGS	39-33-00N	107-19-18W
GUNNISON	CEBOLLA HOT SPRINGS (POWDERHORN HOT SPRINGS)	38-16-30N	107-05-54W
GUNNISON	WAUNITA HOT SPRINGS	38-31-00N	106-29-06W
MINERAL	WAGON WHEEL GAP	37-45-00N	106-49-15W
OURAY	ORVIS HOT SPRING (RIDGWAY HOT SPRING)	38-05-00N	107-44-00W
PITKIN	AVALANCHE SPRINGS	39-13-54N	107-13-30W
ROUTT	STEAMBOAT SPRINGS	40-29-06N	106-50-18W
ROUTT	ROUTT HOT SPRING	40-33-36N	106-51-00W
SAGUACHE	MINERAL HOT SPRINGS (CHAMBERLAIN HOT SPRINGS)	38-10-06N	105-55-00W

GEOTHERMAL FIELDS OF HAWAII

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
HAWAII	UPPER KAU AREA	19-23-42N	155-17-18W
HAWAII	PUULENA AREA (EAST RIFT)	19-28-18N	154-53-00W
HAWAII	1955 ERUPTION AREA (EAST RIFT)	19-26-30N	154-51-00W
HAWAII	STEAMING FLATS AREA (SULPHUR BANK AREA)	19-26-30N	155-16-00W

GEOTHERMAL FIELDS OF IDAHO

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
ADA	NE BOISE THERMAL AREA	43-36-08N	116-09-56W
ADAMS	STARKEY HOT SPRINGS	44-51-11N	116-25-45W
ADAMS	KRIGBAUM HOT SPRINGS	44-58-07N	116-11-26W
ADAMS	WHITE LICKS HOT SPRINGS	44-40-55N	116-13-45W
ADAMS	ZIMS RESORT HOT SPRINGS (YOGHANN HOT SPRINGS)	45-02-34N	116-17-01W
BLAINE	MAGIC RESERVOIR AREA	43-19-44N	114-23-11W
BLAINE	CLARENDON HOT SPRINGS	43-33-38N	114-24-53W
BLAINE	GUYER HOT SPRINGS	43-40-31N	114-24-36W
BLAINE	HAILEY HOT SPRINGS	43-30-20N	114-22-01W
BOISE	BONNEVILLE HOT SPRINGS	44-09-28N	115-18-23W
BOISE	KIRKHAM HOT SPRINGS	44-04-19N	115-32-38W
BOISE	GRIMES PASS AREA	44-02-46N	115-51-07W
BOISE	PAYETTE RIVER AREA	44-05-08N	116-02-59W
BUTTE	WELL NEAR BROCKIE AIRPORT	43-32-26N	113-30-07W
CAMAS	PUNKIN CORNER AREA	43-18-08N	114-54-24W
CAMAS	WARDROP HOT SPRINGS	43-23-00N	114-55-54W
CAMAS	ELK CREEK HOT SPRINGS	43-25-23N	115-37-38W
CAMAS	BARRONS HOT SPRINGS	43-18-08N	114-54-24W
CAMAS	WORSWICK HOT SPRINGS (WASEWICK HOT SPRINGS)	43-33-29N	114-47-10W
CASSIA	RAFT RIVER	42-06-06N	113-22-48W
CASSIA	OAKLEY WARM SPRING	42-10-25N	113-51-39W
CASSIA	BRIDGER SPRING AREA	42-28-41N	113-37-28W
CUSTER	STANLEY HOT SPRINGS	44-13-27N	114-55-37W
CUSTER	SUNBEAM HOT SPRINGS	44-16-04N	114-44-52W
CUSTER	SLATE CREEK HOT SPRINGS	44-10-08N	114-37-27W
ELMORE	LATTY HOT SPRINGS	43-06-58N	115-18-20W
ELMORE	RYEGRASS CREEK AREA	43-05-45N	115-24-35W
ELMORE	WELL NEAR GRAVEL PITS	42-54-16N	115-29-28W
ELMORE	PARADISE HOT SPRINGS	43-33-14N	115-16-17W
ELMORE	WELL NEAR RADIO TOWERS	43-02-14N	115-27-27W
ELMORE	DUTCH FRANKS SPRING	43-47-44N	115-25-32W
ELMORE	NEINMEYER HOT SPRINGS	43-45-29N	115-34-40W
ELMORE	BENNET CREEK AREA	43-06-53N	115-27-56W
FRANKLIN	MAPLE GROVE HOT SPRINGS	42-18-14N	111-42-14W
FRANKLIN	WAYLAND HOT SPRINGS	42-08-14N	111-56-51W
FRANKLIN	WELL NEAR RIVERDALE	42-09-52N	111-50-23W
FREMONT	ASHTON WARM SPRING	44-05-42N	111-27-32W
FREMONT	NEWDALE AREA	43-53-09N	111-35-25W
GEM	ROYSTONE HOT SPRING AREA	43-57-12N	116-18-00W
GOODING	WHITE ARROW HOT SPRINGS	43-02-56N	114-57-14W
GOODING	CLOVER CREEK AREA	43-01-22N	115-00-33W
GOODING	WELL NEAR CHALK MINE	43-02-56N	114-55-00W
IDAHO	RED RIVER HOT SPRINGS	45-47-15N	115-08-49W
IDAHO	BURGDORF HOT SPRING	45-16-44N	115-55-11W
IDAHO	RIGGINS HOT SPRING	45-24-42N	116-28-29W
LEMHI	SHARKEY HOT SPRINGS	45-00-56N	113-51-05W
LEMHI	BIG CREEK HOT SPRINGS	45-18-46N	114-19-14W
OWYHEE	MURPHY HOT SPRINGS	42-02-12N	115-32-24W
OWYHEE	BRUNEAU-GRANDVIEW	42-56-00N	115-56-00W
TWIN FALLS	CEDAR HILL AREA	42-24-55N	114-18-05W
TWIN FALLS	BANBURY AREA	42-41-24N	114-50-00W
VALLEY	HOT CREEK SPRINGS	44-38-28N	116-02-41W
VALLEY	MOLLYS HOT SPRINGS	44-38-16N	115-41-34W
VALLEY	BOILING SPRINGS	44-21-52N	115-51-25W
VALLEY	VULCAN HOT SPRINGS	44-34-03N	115-41-32W

VALLEY	CABARTON HOT SPRINGS	44-25-02N	116-01-41W
WASHINGTON	WELL NEAR MIDVALE AIRPORT	44-28-12N	116-45-53W
WASHINGTON	WEISER	44-17-54N	117-02-54W
WASHINGTON	WELL NEAR MIDVALE	44-28-20N	116-43-53W
WASHINGTON	DEER CREEK AREA	44-32-22N	116-45-00W
WASHINGTON	SPRINGS NEAR COVE SCHOOL	44-35-00N	116-37-44W
WASHINGTON	CAMBRIDGE AREA	44-34-23N	116-40-40W
WASHINGTON	CRANE CREEK	44-18-18N	116-44-42W

GEOTHERMAL FIELDS OF MONTANA

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
BEAVERHEAD	JARDINE (JACKSON OR BIG HOLE HOT SPRINGS)	45-21-48N	113-24-42W
JEFFERSON	ALHAMBRA HOT SPRINGS	46-27-00N	111-59-00W
JEFFERSON	BOULDER HOT SPRINGS	46-12-00N	112-05-36W
JEFFERSON	PIPESTONE SPRINGS	45-53-48N	112-13-54W
LEWIS AND CLARK	HELENA HOT SPRINGS (BROADWATER)	46-36-30N	112-05-00W
MADISON	BARKELS (SILVER STAR) HOT SPRINGS	45-41-30N	112-17-12W
MADISON	NORRIS HOT SPRINGS (HAPGOOD HOT SPRINGS)	45-34-36N	111-41-00W
MEAGHER	WHITE SULPHUR SPRINGS	46-32-48N	110-54-12W
SILVER BOW	GREGSON HOT SPRINGS	46-02-36N	112-48-24W

GEOTHERMAL FIELDS OF NEVADA

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
CHURCHILL	SODA LAKE	39-34-00N	118-49-00W
CHURCHILL	DIXIE HOT SPRINGS	39-47-52N	118-04-02W
CHURCHILL	BRADY HOT SPRINGS	39-47-13N	119-00-00W
CHURCHILL	STILLWATER AREA	39-31-17N	118-33-08W
CHURCHILL	LEE HOT SPRINGS	39-12-33N	118-43-23W
DOUGLAS	WALLEYS HOT SPRINGS (GENOA HOT SPRINGS)	38-58-52N	119-49-55W
ELKO	HOT HOLE (ELKO HOT SPRINGS)	40-49-07N	115-46-32W
ELKO	MINERAL HOT SPRINGS (SAN JACINTO HOT SPRINGS)	41-47-16N	114-43-19W
ELKO	CARLIN AREA	40-41-58N	116-07-58W
ELKO	HOT SULPHUR SPRINGS (SULPHUR SPRINGS)	41-09-24N	114-59-06W
ELKO	SULPHUR HOT SPRINGS (HOT SULPHUR SPRINGS)	40-35-12N	115-17-05W
ELKO	WELLS AREA	41-10-55N	114-59-22W
ELKO	HOT SULPHUR SPRINGS (TUSCARORA)	41-28-12N	116-09-00W
EUREKA	BARTHOLOMAE HOT SPRINGS (GLOBE HOT SPRINGS)	39-24-19N	116-20-47W
EUREKA	WALTI HOT SPRINGS	39-54-05N	116-35-13W
EUREKA	HOT SPRINGS POINT	40-24-13N	116-31-00W
EUREKA	BEOWAWE	40-34-12N	116-34-48W
HUMBOLDT	THE HOT SPRING	41-25-24N	117-22-58W
HUMBOLDT	SOLDIERS MEADOW AREA	41-21-29N	119-13-13W
HUMBOLDT	DYKE HOT SPRINGS	41-34-01N	118-33-44W
HUMBOLDT	HOWARD HOT SPRINGS	41-43-16N	118-30-16W
HUMBOLDT	PINTO HOT SPRINGS AREA	41-21-00N	118-47-00W
HUMBOLDT	BALTAZOR HOT SPRINGS	41-55-20N	118-42-39W
HUMBOLDT	UNNAMED HOT SPRINGS (HOT SPRINGS RANCH)	40-45-41N	117-29-32W
HUMBOLDT	HOT POT (BLOSSOM HOT SPRING)	40-55-20N	117-06-31W
HUMBOLDT	GOLCONDA HOT SPRINGS	40-57-41N	117-29-38W
HUMBOLDT	BOG HOT SPRINGS	41-55-31N	118-48-08W
HUMBOLDT	DOUBLE HOT SPRING	41-02-58N	119-02-49W
LANDER	SPENCER HOT SPRINGS	39-19-00N	116-51-00W
LANDER	BUFFALO VALLEY HOT SPRINGS	40-22-06N	117-19-31W
LANDER	SMITH CREEK VALLEY AREA	39-21-21N	117-32-48W
LYON	WABUSKA HOT SPRINGS	39-09-41N	119-10-58W
LYON	NEVADA HOT SPRINGS (HINDS HOT SPRINGS)	38-53-58N	119-24-42W
NYE	WARM SPRINGS AREA	38-11-17N	116-22-29W
NYE	DARROUGH HOT SPRINGS	38-49-17N	117-10-49W
PERSHING	LEACH HOT SPRINGS	40-36-13N	117-38-44W
PERSHING	JERSEY VALLEY AREA	40-10-44N	117-29-24W
PERSHING	SOU HOT SPRINGS (GILBERTS HOT SPRINGS)	40-05-22N	117-43-29W
PERSHING	KYLE HOT SPRINGS	40-24-27N	117-52-52W
PERSHING	BUTTE SPRINGS(TREGO)	40-46-00N	119-07-00W
PERSHING	BLACK ROCK POINT AREA	40-57-00N	118-58-00W
WASHOE	GREAT BOILING SPRINGS (GERLACH HOT SPRINGS)	40-39-43N	119-21-44W
WASHOE	PYRAMID LAKE (THE NEEDLES)	40-08-46N	119-40-29W
WASHOE	STEAMBOAT SPRINGS	39-23-00N	119-45-00W
WASHOE	FLY RANCH (WARDS HOT SPRINGS)	40-52-02N	119-20-56W

GEOTHERMAL FIELDS OF NEW MEXICO

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
CATRON	LOWER FRISCO HOT SPRINGS	33-15-00N	108-47-00W
DONA ANA	RADIUM HOT SPRINGS	32-30-00N	106-55-30W
GRANT	GILA HOT SPRINGS	33-12-00N	108-12-00W
HIDALGO	LIGHTNING DOCK AREA	32-08-30N	108-50-00W
SANDOVAL	JEMEZ SPRINGS (OJOS CALIENTES)	35-47-00N	106-41-00W
SANDOVAL	VALLES CALDERA	35-43-00N	106-32-00W

GEOTHERMAL FIELDS OF OREGON

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
BAKER	RADIUM HOT SPRINGS	44-55-48N	117-56-24W
CLACKAMAS	CAREY HOT SPRINGS (AUSTIN HOT SPRINGS)	45-01-12N	122-00-36W
GRANT	WEBERG HOT SPRING	44-00-00N	119-38-48W
GRANT	RITTER HOT SPRINGS	44-53-42N	119-08-36W
GRANT	BLUE MOUNTAIN HOT SPRINGS	44-21-18N	118-34-24W
HARNEY	HOT LAKE	42-20-08N	118-35-58W
HARNEY	MICKEY SPRINGS	42-40-32N	118-20-40W
HARNEY	TROUT CREEK	42-11-18N	118-09-12W
HARNEY	HARNEY LAKE	43-10-54N	119-06-12W
HARNEY	CRANE HOT SPRINGS	43-26-26N	118-38-21W
HARNEY	ALVORD HOT SPRING	42-32-34N	118-31-38W
KLAMATH	KLAMATH FALLS	42-15-00N	121-45-00W
LAKE	FISHER HOT SPRINGS	42-17-52N	119-46-32W
LAKE	SUMMER LAKE HOT SPRING	42-43-29N	120-38-44W
LAKE	LAKEVIEW (HUNTERS, BARRY RANCH)	42-12-00N	120-21-36W
LAKE	CRUMPS SPRING	42-15-00N	119-53-00W
LANE	BELKNAP HOT SPRING	44-11-37N	122-03-11W
MALHEUR	MC DERMITT	42-04-06N	117-30-00W
MALHEUR	NEAL HOT SPRINGS	44-01-24N	117-27-36W
MALHEUR	RIVERSIDE AREA	43-27-58N	118-11-17W
MALHEUR	VALE HOT SPRINGS	43-59-23N	117-14-04W
MALHEUR	BEULAH HOT SPRINGS	43-56-42N	118-08-12W
MALHEUR	LITTLE VALLEY AREA	43-53-29N	117-30-00W
MARION	BREITENBUSH HOT SPRINGS	44-46-52N	121-58-32W
UNION	HOT LAKE	45-14-37N	117-57-38W
UNION	MEDICAL HOT SPRINGS	45-01-04N	117-37-31W
WASCO	KAHNEETAH HOT SPRINGS	44-51-54N	121-12-54W
WASCO/CLACKAMAS	MT HOOD	45-22-30N	121-42-30W

GEOTHERMAL FIELDS OF UTAH

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
BEAVER	ROOSEVELT HOT SPRING	38-30-00N	112-50-00W
BEAVER	THERMO HOT SPRINGS	38-11-00N	113-12-12W
DAVIS	HOOPER	41-08-00N	112-11-18W
JUAB	BAKER HOT SPRING (ABRAHAM OR CRATER SPRING)	39-36-48N	112-43-54W
MILLARD	MEADOW HOT SPRINGS	38-51-48N	112-30-00W
MILLARD (& BEAVER)	COVE FORT - SULPHURDALE	38-36-00N	112-33-00W
SALT LAKE	CRYSTAL HOT SPRINGS	40-29-00N	110-54-00W
SEVIER	JOSEPH HOT SPRINGS	38-36-42N	112-11-12W
SEVIER	MONROE HOT SPRINGS (COOPER HOT SPRINGS)	38-38-12N	112-06-24W

GEOTHERMAL FIELDS OF WASHINGTON

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
CLALLAM	SOL DUC HOT SPRING	47-58-06N	123-52-06W
CLALLAM	OLYMPIC HOT SPRINGS	47-58-54N	123-41-12W
LEWIS	OHANAPECOSH HOT SPRINGS	46-44-12N	121-33-36W
LEWIS	SUMMIT CREEK MINERAL SPRINGS (SODA SPRINGS)	46-42-12N	121-29-00W
PIERCE	LONGMIRE	46-45-06N	121-48-42W
SNOHOMISH	SULPHUR CREEK HOT SPRINGS	48-15-18N	121-10-48W
SNOHOMISH	GARLAND HOT SPRINGS (SAN JUAN HOT SPRINGS)	47-20-30N	121-53-24W
SNOHOMISH	GAMMA HOT SPRING	48-10-00N	121-02-00W
SNOHOMISH	KENNEDY	48-07-06N	121-11-42W
WHATCOM	BAKER HOT SPRING	48-45-54N	121-40-12W

GEOTHERMAL FIELDS OF WYOMING

COUNTY	GEOTHERMAL FIELD	LATITUDE	LONGITUDE
LINCOLN	AUBURN AREA	42-49-30N	111-00-00W
TETON	HUCKLEBERRY	44-07-00N	110-41-00W
YELLOWSTONE	MUD VOLCANO(YELLOWSTONE)	44-37-30N	110-26-00W
YELLOWSTONE	YELLOWSTONE PARK	44-36-00N	110-30-00W

EXTENDED APPLICATION

Information from GEOTHERM can be used in user-written programs. In this example, sodium, potassium, calcium, and silica concentrations from chemical analysis records are used in a program to calculate sodium-potassium-calcium and silica geothermeters. The program data was retrieved from GEOTHERM, formatted, output to disk, and then used as input to a PL/I Program for calculations and output.

GEOTHERMAL FIELD	COUNTY	SAMPLE TYPE	SOLUTE ANALYSIS				TEMPERATURE (C)					
							GEOCHEMICAL					MEASURED
			NA	K	CA	SIO2	NA-K-CA 1/3	NA-K-CA 4/3	SIO2 AD	SIO2 COND	SIO2 CHAL	
ALASKA												
BAILEY HOT SPRINGS		SURFACE			13.0	142.0			150	156	132	85
BARANOF HOT SPRINGS		SURFACE	51.0	1.2	2.5	70.0	111	66	117	119	88	51
BELL ISLAND HOT SPRINGS		SURFACE			4.6	105.0			135	140	112	72
CHENA		SURFACE	110.0	3.3	1.3	85.0	137	129	125	129	99	57
CIRCLE		SURFACE	230.0	9.8	20.8	95.0	143	108	130	135	106	54
EAST COLD BAY		SURFACE	780.0	34.0	229.0	68.0	144	110	115	117	86	54
FISH BAY AREA		SURFACE			13.0	110.0			137	143	115	47
GEYSER RIGHT		SURFACE	441.0	33.0	.1	303.0	236	493	192	210	194	100
GODWIN HOT SPRINGS		SURFACE	1500.0	61.0	380.0	120.0	147	129	141	148	121	67
GRANITE MOUNTAIN (SWEEPST		SURFACE	51.0	1.3	2.0	75.0	116	75	120	122	92	49
HOODIAH HOT SPRINGS (WHIT		SURFACE			85.0	98.0			132	136	108	44
HOT SPRINGS BAY, AKUTAN I		SURFACE	284.0	21.0	9.9	128.0	179	167	145	152	125	83
HOT SPRINGS CREEK, UMNAK I		SURFACE	503.0	33.0	163.0	68.0	153	115	127	131	101	89
KAGUTI		SURFACE	111.0	3.7	2.7		136	114				66
LITTLE MELOZITNA		SURFACE				80.0			122	126	96	
MANLEY HOT SPRINGS (MAKER		SURFACE	130.0	4.5	4.0	65.0	137	113	113	115	84	56
MELOZI HOT SPRINGS (MELOZ		SURFACE			11.0	78.0			121	124	94	55
NEAR NORTH END TENAKEE IN		SURFACE	137.0	4.1	21.0	119.0	120	72	141	147	120	82
UMNAK CALDERA, UMNAK ISLA		SURFACE	53.0	5.6	14.0	59.0	164	75	109	110	79	22
PILGRIM HOT SPRING		SURFACE	1450.0	61.0	530.0	100.0	146	120	133	138	109	55
SERPENTINE SPRINGS (ARCTI		SURFACE	800.0	41.0	75.0	90.0	161	151	128	132	103	77
SUSSEX SPRINGS (CHIEF SHA		SURFACE	87.0	9.2	13.0	108.0	175	105	136	142	114	52
SUSIE		SURFACE	83.0	2.1	5.9	65.0	115	72	113	115	64	
TENAKEE HOT SPRINGS		SURFACE	190.0	3.3	28.0	60.0	101	63	110	111	80	42
TOLOVANA		SURFACE	321.0	23.0	82.0	75.0	162	110	120	122	92	60
ARIZONA												
CLIFTON HOT SPRINGS	GREENLEE	SURFACE	1500.0	82.0	430.0	55.0	160	139	106	107	75	39
GILLARD HOT SPRINGS	GREENLEE	SURFACE	450.0	14.0	22.0	95.0	138	130	130	135	106	82
HOT SPRING N. OF CLIFTON	GREENLEE	SURFACE	2600.0	170.0	740.0	100.0	174	165	133	139	109	59
CALIFORNIA												
AETNA SPRINGS	NAPA	SURFACE	353.0	6.0	22.0	96.0	110	94	131	135	107	21
ARROWHEAD HOT SPRINGS ARE	SAN BERNARDINO	SURFACE	255.0	12.0	27.0	90.0	147	111	128	132	103	
BAKER SODA SPRING	LAKE	SURFACE	2630.0	189.0	69.0	81.0	202	271	123	126	96	24
BIG BEND HOT SPRINGS	SHASTA	SURFACE	565.0	20.0	98.0	73.0	137	110	118	121	90	82
CALISTOGA	NAPA	SURFACE	193.0	4.8	4.5	139.0	155	144	149	157	131	98
COOKS SPRINGS	COLUSA	SURFACE	710.0	50.0	21.0	91.0	187	204	128	132	103	
COSO HOT SPRINGS	INYO	SURFACE	1630.0	244.0	74.0	150.0	238	275	153	161	136	
CRABTREE HOT SPRINGS	LAKE	SURFACE	1550.0	34.0	50.0	154.0	133	167	154	163	138	40
DEADSHOT SPRING	COLUSA	SURFACE	2190.0	199.0	167.0	97.0	203	228	131	136	107	
FALES HOT SPRINGS	MONO	SURFACE	550.0	31.0	42.0	118.0	164	150	141	147	120	59
FOUTS SPRING (CHAMPAGNE)	COLUSA	SURFACE	13.0	1.4	135.0	68.0	128	4	115	117	86	
FOUTS SPRING (REDEYE)	COLUSA	SURFACE	3800.0	56.0	104.0	125.0	125	182	143	150	124	17
GROVERS HOT SPRINGS	ALPINE	SURFACE	429.0	11.0	34.0	96.0	126	108	131	135	107	

GEOTHERMAL FIELD	COUNTY	SAMPLE TYPE	SOLUTE ANALYSIS				TEMPERATURE (C)					
							GEOCHEMICAL					MEASURED
			NA	K	CA	SIO2	NA-K-CA 1/3	NA-K-CA 4/3	SIO2 AD	SIO2 COND	SIO2 CHAL	
HUNT HOT SPRINGS	SHASTA	SURFACE	300.0	6.5	53.0	49.0	111	75	102	101	69	58
KELLY HOT SPRING	MODOC	SURFACE	231.0	6.4	29.0	127.0	122	85	144	151	125	95
LONG VALLEY	MONO	SURFACE	390.0	45.0	.9	340.0	238	344	200	219	205	94
LOS GUILICOS WARM SPRINGS	SONOMA	SURFACE	104.0	13.0	19.0	86.0	184	111	126	129	100	29
MARK WEST SPRINGS	SONOMA	SURFACE	29.0	3.9	31.0	105.0	161	48	135	140	112	30
MERCEY HOT SPRINGS	FRESNO	SURFACE	830.0	7.1	43.0	75.0	91	94	120	122	92	46
MORGAN SPRINGS	TEHAMA	SURFACE	1398.0	196.0	79.0	233.0	229	251	177	191	171	
NAPA ROCK SODA SPRINGS (P	NAPA	SURFACE	136.0	5.6	22.0	111.0	133	81	138	143	116	26
NAPA SODA SPRINGS (JACKSO	NAPA	SURFACE	49.0	9.6	82.0	126.0	182	50	144	151	124	
ONE SHOT MINING CO.	NAPA	SURFACE	604.0	34.0	218.0	95.0	152	108	130	135	106	22
ORNBAUN SPRINGS	MENDOCINO	SURFACE	15.0	1.3	117.0	81.0	122	3	123	126	96	16
ORPS HOT SPRINGS	MENDOCINO	SURFACE	140.0	1.3	4.8	61.0	86	57	111	112	81	40
PILGER ESTATES HOT SPRING	RIVERSIDE	SURFACE	388.0	33.0	107.0	79.0	145	132	122	125	95	82
POINT ARENA HOT SPRINGS	MENDOCINO	SURFACE	185.0	.4	.9	53.0	63	52	103	105	73	44
SALT SPRING	GLENN	SURFACE	8400.0	90.0	115.0	140.0	123	222	149	157	131	25
SALT SPRING	SHASTA	SURFACE	5030.0	16.0	1180.0	55.0	62	55	106	107	75	20
SARATOGA SPRINGS	LAKE	SURFACE	224.0	7.9	280.0	99.0	116	46	132	137	109	16
SEIGLER SPRINGS (INCLUDIN	LAKE	SURFACE	162.0	20.0	30.0	170.0	188	122	159	169	146	52
SESPE HOT SPRINGS	VENTURA	SURFACE	320.0	16.0	23.0	92.0	155	130	129	133	104	90
SKAGGS HOT SPRINGS	SONOMA	SURFACE	945.0	29.0	14.0	124.0	152	194	143	150	123	55
SODA SPRING	LAKE	SURFACE	1310.0	60.0	153.0	120.0	158	154	141	148	121	17
SOLEDAD BANK HOT SPRINGS (	LAKE	SURFACE	1340.0	44.0	26.0	203.0	156	201	159	181	159	99
SURPRISE VALLEY	MODOC	SURFACE	343.0	16.3	11.0	182.0	159	154	163	174	151	86
TRAVERTINE HOT SPRINGS (M	MONO	SURFACE	1109.0	35.0	60.0	89.0	145	155	127	131	102	
TUSCAN SPRINGS (LICO SPR	TEHAMA	SURFACE	4080.0	51.0	22.0	99.0	112	258	132	137	109	30
VICHY SPRINGS (DOOLINS IN	MENDOCINO	SURFACE	924.0	30.0	49.0	91.0	145	151	129	132	103	29
WALTER SPRINGS (WALTERS M	NAPA	SURFACE	232.0	5.6	28.0	94.0	116	81	130	134	105	
WARNER HOT SPRINGS	SAN DIEGO	SURFACE	97.0	1.0	.4	107.0	100	111	136	141	113	
WENDEL - AMEDEE	LASSEN	SURFACE	227.0	6.8	16.0	96.0	129	101	131	135	107	
WILBUR HOT SPRINGS AREA	COLUSA	SURFACE	8500.0	440.0	2.8	200.0	240	781	168	180	158	53
COLORADO												
AVALANCHE SPRINGS	PITKIN	SURFACE	337.0	90.0	382.8	98.0	223	124	132	136	108	53
CERRILLA HOT SPRINGS (POWD	GUNNISON	SURFACE	267.2	74.7	133.3	79.5	233	144	122	125	95	45
COTTONWOOD SPRINGS	CHAFFEE	SURFACE	108.0	2.6	5.6	55.0	117	83	105	107	75	57
GLENWOOD SPRINGS	GARFIELD	SURFACE	7585.5	477.5	853.1	99.6	190	242	133	137	109	41
IDAHO SPRINGS	CLEAR CREEK	SURFACE	600.0	77.0	138.0	58.0	207	154	109	109	78	50
MINERAL HOT SPRINGS (CHAM	SAGUACHE	SURFACE	140.0	14.0	56.0	51.0	168	91	103	103	71	63
MT. PRINCETON SPRINGS	CHAFFEE	SURFACE	57.0	1.7	10.0	61.0	113	52	111	112	81	54
ORVIS HOT SPRING (RIDGWAY	OURAY	SURFACE	374.0	102.0	274.1	57.5	230	141	108	109	77	57
PAGOSA AREA	ARCHULETA	WELL	607.0	260.0	230.2	160.2	277	209	135	165	141	60
PONCHA HOT SPRINGS	CHAFFEE	SURFACE	200.0	8.6	16.0	86.0	143	108	126	129	100	66
ROUTT HOT SPRING	ROUTT	SURFACE	162.2	11.1	7.5	88.4	168	137	127	131	102	64
STEAMBOAT SPRINGS	ROUTT	SURFACE	2047.0	155.0	113.0	84.8	195	227	125	129	99	24
WAGON WHEEL GAP	MINERAL	SURFACE	462.0	46.0	65.0	86.0	188	152	126	129	100	57
WAUNITA HOT SPRINGS	GUNNISON	SURFACE	154.6	2.5	5.4	85.7	106	87	126	129	100	70

GEOTHERMAL FIELD	COUNTY	SAMPLE TYPE	SOLUTE ANALYSIS				TEMPERATURE (C)					
							GEOCHEMICAL					MEASURED
			NA	K	CA	SIO2	NA-K-CA 1/3	NA-K-CA 4/3	SIO2 AD	SIO2 COND	SIO2 CHAL	
IDAHO												
ASHTON WARM SPRING	FREMONT	SURFACE	36.0	1.6	1.1	110.0	139	91	137	143	115	41
BANBURY AREA	TWIN FALLS	SURFACE	100.0	1.5	1.1	97.0	108	101	131	136	107	59
BARRONS HOT SPRINGS	CAMAS	SURFACE	99.0	2.5	3.6	77.0	121	91	121	124	93	70
BENNET CREEK AREA	ELMORE	WELL	47.0	.8	1.5	86.0	87	71	126	129	100	68
BIG CREEK HOT SPRINGS	LEMHI	SURFACE	220.0	14.0	5.3	150.0	173	163	153	161	136	93
BOILING SPRINGS	VALLEY	SURFACE	71.0	1.7	1.9	94.0	118	88	130	134	105	85
BONNEVILLE HOT SPRINGS	BOISE	SURFACE	67.0	2.9	2.2	100.0	142	103	133	139	109	85
BRIDGER SPRING AREA	CASSIA	WELL	110.0	3.9	8.2	60.0	131	98	110	111	80	60
BRUNEAU-GRANDVIEW	OWYHEE	SURFACE	25.0	6.4	6.8	100.0	206	93	133	138	109	36
BURGDORF HOT SPRING	IDAHO	SURFACE	49.0	.8	2.3	73.0	98	57	118	121	90	45
CASARTON HOT SPRINGS	VALLEY	SURFACE	100.0	1.9	1.7	78.0	114	99	121	124	94	70
CAMBRIDGE AREA	WASHINGTON	WELL	73.0	6.8	2.6	70.0	180	134	117	119	88	26
CEDAR HILL AREA	TWIN FALLS	WELL	16.0	6.0	18.0	67.0	213	65	115	116	86	38
CLARENDON HOT SPRINGS	BLAINE	SURFACE	81.0	1.7	2.2	80.0	114	87	122	126	96	47
CLOVER CREEK AREA	GOODING	WELL	90.0	.8	1.6	62.0	86	70	111	113	81	43
CRANE CREEK	WASHINGTON	SURFACE	290.0	19.0	26.0	180.0	165	132	162	173	150	77
DEER CREEK AREA	WASHINGTON	SURFACE	80.0	1.9	8.0	55.0	110	63	106	107	75	50
DUTCH FRANKS SPRING	ELMORE	SURFACE	57.0	1.2	2.2	72.0	109	71	118	120	90	65
ELK CREEK HOT SPRINGS	CAMAS	SURFACE	87.0	1.4	2.3	63.0	104	80	112	113	82	53
GRIMES PASS AREA	BOISE	SURFACE	69.0	1.1	1.9	59.0	103	74	109	110	79	55
GUYER HOT SPRINGS	BLAINE	SURFACE	84.0	2.1	2.9	86.0	119	88	126	129	100	70
HAILEY HOT SPRINGS	BLAINE	SURFACE	69.0	1.5	2.0	85.0	114	92	125	129	99	59
HOT CREEK SPRINGS	VALLEY	SURFACE	60.0	.6	1.3	60.0	86	61	110	111	80	34
KIRKHAM HOT SPRINGS	BOISE	SURFACE	66.0	1.3	1.9	69.0	110	79	116	118	87	55
KRIGBAUM HOT SPRINGS	ADAMS	SURFACE	140.0	3.3	5.3	73.0	120	96	118	121	90	43
LATTY HOT SPRINGS	ELMORE	SURFACE	54.0	1.7	.4	100.0	137	124	133	138	109	55
MAGIC RESERVOIR AREA	BLAINE	WELL	330.0	19.0	22.0	100.0	162	139	133	138	109	
MAPLE GROVE HOT SPRINGS	FRANKLIN	SURFACE	490.0	110.0	89.0	55.0	236	187	105	107	75	76
MOLLYS HOT SPRINGS	VALLEY	SURFACE	70.0	1.5	2.0	87.0	113	83	126	130	101	59
MURPHY HOT SPRINGS	OWYHEE	SURFACE	30.0	2.0	.6	83.0	160	112	124	127	98	51
NE BOISE THERMAL AREA	ADA	SURFACE	75.0	1.3	2.0	78.0	106	79	121	124	94	75
NEIMEYER HOT SPRINGS	ELMORE	SURFACE	67.0	1.8	1.1	100.0	126	103	133	138	109	76
NEWDALE AREA	FREMONT	WELL	78.0	8.6	28.0	75.0	169	84	120	122	92	36
OAKLEY WARM SPRING	CASSIA	SURFACE	87.0	2.2	2.7	70.0	121	92	117	119	88	47
PARADISE HOT SPRINGS	ELMORE	SURFACE	50.0	1.0	1.5	69.0	108	72	115	118	87	56
PAYETTE RIVER AREA	BOISE	SURFACE	130.0	4.8	4.5	120.0	139	113	141	148	121	80
PUMKIN CORNER AREA	CAMAS	WELL	92.0	1.3	3.2	76.0	98	71	120	123	93	35
RAFT RIVER	CASSIA	SURFACE	1110.0	35.0	130.0	97.0	139	132	131	136	107	96
RED RIVER HOT SPRINGS	IDAHO	SURFACE	81.0	1.6	2.7	76.0	110	80	120	123	93	55
RIGGINS HOT SPRING	IDAHO	SURFACE	160.0	3.4	6.2	72.0	116	95	118	120	90	42
ROYSTONE HOT SPRING AREA	GEM	SURFACE	160.0	7.7	8.7	120.0	150	117	141	148	121	55
RYEGRASS CREEK AREA	ELMORE	WELL	82.0	.8	.9	85.0	91	81	125	129	99	62
SHARKEY HOT SPRINGS	LEMHI	SURFACE	270.0	17.0	7.3	91.0	173	166	128	132	103	52
SLATE CREEK HOT SPRINGS	CUSTER	SURFACE	83.0	4.5	8.1	86.0	145	90	126	129	100	50
SPRINGS NEAR COVE SCHOOL	WASHINGTON	SURFACE	200.0	3.8	17.0	72.0	108	78	118	120	90	70
STANLEY HOT SPRINGS	CUSTER	SURFACE	60.0	.5	2.2	55.0	77	46	106	107	75	41
STARKEY HOT SPRINGS	ADAMS	SURFACE	86.0	1.6	4.5	56.0	105	70	107	108	76	56

GEOTHERMAL FIELD	COUNTY	SAMPLE TYPE	SOLUTE ANALYSIS				TEMPERATURE (C)					
							GEOCHEMICAL					MEASURED
			NA	K	CA	SIO2	NA-K-CA 1/3	NA-K-CA 4/3	SIO2 AD	SIO2 COND	SIO2 CHAL	
SUNBEAM HOT SPRINGS	CUSTER	SURFACE	85.0	2.4	1.5	91.0	129	109	128	132	103	76
VULCAN HOT SPRINGS	VALLEY	SURFACE	94.0	3.0	1.8	120.0	135	114	141	148	121	87
WARDROP HOT SPRINGS	CAMAS	SURFACE	54.0	3.0	1.4	73.0	154	113	118	121	90	66
WAYLAND HOT SPRINGS	FRANKLIN	SURFACE	3100.0	640.0	160.0	80.0	270	336	122	126	96	77
WEISER	WASHINGTON	SURFACE	140.0	5.0	2.9	140.0	142	127	149	157	131	
WELL NEAR BROCKIE AIRPORT	BUTTE	WELL	72.0	21.0	74.0	55.0	213	91	106	107	75	41
WELL NEAR CHALK MINE	GOODING	WELL	100.0	5.4	9.8	92.0	151	98	129	133	104	47
WELL NEAR GRAVEL PITS	ELMORE	WELL	320.0	11.0	9.1	58.0	144	141	109	109	78	34
WELL NEAR MIDVALE AIRPORT	WASHINGTON	SURFACE	46.0	.7	3.5	73.0	78	50	118	121	90	28
WELL NEAR MIDVALE	WASHINGTON	SURFACE	73.0	23.0	8.7	84.0	242	153	125	128	99	28
WELL NEAR RADIO TOWERS	ELMORE	WELL	160.0	3.7	3.2	86.0	124	114	125	129	100	38
WELL NEAR RIVERDALE	FRANKLIN	WELL	360.0	24.0	25.0	80.0	170	147	122	126	96	45
WHITE ARROW HOT SPRINGS	GOODING	SURFACE	91.0	1.6	1.2	97.0	112	100	131	136	107	65
WHITE LICKS HOT SPRINGS	ADAMS	SURFACE	420.0	17.0	39.0	110.0	145	122	137	143	115	65
WORSWICK HOT SPRINGS (WAS	CAMAS	SURFACE	69.0	1.9	1.8	96.0	124	93	131	135	107	81
ZIMS RESORT HOT SPRINGS (	ADAMS	SURFACE	190.0	3.6	12.0	64.0	110	83	113	114	83	65
NEVADA												
BRADY HOT SPRINGS	CHURCHILL	SURFACE				242.0			179	193	174	
DARROUGH HOT SPRINGS	NYE	SURFACE	110.0	2.6	1.3	98.0	126	119	132	136	108	95
HOT SULPHUR SPRINGS (TUSC	ELKO	SURFACE	160.0	16.0	12.0	165.0	184	139	158	167	143	90
SODA LAKE	CHURCHILL	SURFACE	1000.0	48.0	82.0	160.0	161	159	156	165	141	90
NEW MEXICO												
GILA HOT SPRINGS	GRANT	SURFACE	130.0	3.0	9.9	74.0	114	77	119	121	91	68
JEMEZ SPRINGS (BLAS CALIE	SANDOVAL	SURFACE	572.0	70.0	138.0	93.0	196	151	129	134	105	66
LIGHTNING DOCK AREA	HIDALGO	SURFACE	324.0	21.0	21.5	138.0	168	144	148	156	130	99
LOWER FRISCO HOT SPRINGS	CATRON	SURFACE	280.0	15.0	46.0	84.0	150	107	125	128	99	37
RADIUM HOT SPRINGS	DONA ANA	SURFACE	1100.0	160.0	120.0	78.0	222	213	121	124	94	52
UTAH												
BAKER HOT SPRING (ABRAHAM	JUAB	SURFACE	850.0	57.0	345.0	69.0	163	121	116	118	87	84
COVE FORT - SULPHURDALE	MILLARD (& BEAVER)	SURFACE			158.0	124.0			143	150	123	
CRYSTAL HOT SPRINGS	SALT LAKE	SURFACE	405.0	55.0	141.0	50.0	196	134	103	102	70	58
HOOPER	DAVIS	SURFACE	8290.0	803.0	536.0	48.0	223	310	101	100	68	32
JOSEPH HOT SPRINGS	SEVIER	SURFACE	1500.0	50.0	260.0	92.0	141	132	129	133	104	63
MEADOW HOT SPRINGS	MILLARD	SURFACE	1020.0	13.8	433.0	47.0	96	68	100	99	67	41
MONROE HOT SPRINGS (COOPE	SEVIER	SURFACE	600.0	52.0	295.0	59.0	171	117	109	110	79	61
ROOSEVELT HOT SPRING	BEAVER	SURFACE	2500.0	498.0	22.0	313.0	284	446	195	213	197	55
THERMO HOT SPRINGS	BEAVER	SURFACE	400.0	52.0	71.0	113.0	200	153	139	144	117	89
WASHINGTON												
BAKER HOT SPRING	WHATCOM	SURFACE	165.0	10.0	7.9	140.0	162	131	149	157	131	42
GAMMA HOT SPRING	SNOHOMISH	SURFACE	491.0	77.0	47.0	150.0	219	191	153	161	136	60
GARLAND HOT SPRINGS (SAN	SNOHOMISH	SURFACE	1592.0	130.0	336.0	120.0	184	170	141	148	121	21
KENNEDY	SNOHOMISH	SURFACE	655.0	64.0	37.0	136.0	199	195	148	155	129	30

GEOTHERMAL FIELD	COUNTY	SAMPLE TYPE	SOLUTE ANALYSIS				TEMPERATURE (C)					
							GEOCHEMICAL					MEA-SURED
			NA	K	CA	SIO2	NA-K-CA 1/3	NA-K-CA 4/3	SIO2 AD	SIO2 COND	SIO2 CHAL	
LONGMIRE	PIERCE	SURFACE	402.0	37.2	298.0	170.0	168	99	159	169	146	21
OHANAPECOSH HOT SPRINGS	LEWIS	SURFACE	991.0	50.9	85.0	80.0	164	160	122	126	96	40
OLYMPIC HOT SPRINGS	CLALLAM	SURFACE	78.0	1.3	1.4	80.0	107	87	122	126	96	47
SOL DUC HOT SPRING	CLALLAM	SURFACE	84.0	1.6	1.6	120.0	113	92	141	148	121	50
SULPHUR CREEK HOT SPRINGS	SNOHOMISH	SURFACE	103.0	1.7	1.0	75.0	113	108	120	122	92	30
SUMMIT CREEK MINERAL SPRI	LEWIS	SURFACE	1790.0	86.7	278.0	170.0	161	157	159	169	146	13
WYOMING												
AUBURN AREA	LINCOLN	SURFACE	1500.0	180.0	252.0	110.0	208	197	137	143	115	16
HUCKLEBERRY	TETON	SURFACE	201.0	7.8	12.0	124.0	141	112	143	150	123	71