| AREA | Systems in <br> Park (790\#) | Energy (Quads) | 40 mile radius (790\#) | Energy (Quads) | Reference |
| :---: | :---: | :---: | :---: | :---: | :---: |
| John D. Rockefeller (cont) |  |  | $\begin{aligned} & \text { \#116 } \\ & \# 215 A \\ & \# 215 \end{aligned}$ | $\begin{aligned} & .69 \pm .27 \\ & 4.6-1.0 \\ & 1240^{ \pm}-410 \end{aligned}$ |  |
| EXAS |  |  |  |  |  |
| Big Bend Natl Park | $\begin{gathered} \text { \#34 (Big Bend } \\ \text { \#2) } \\ \# 35 \text { (Hot Spr) } \\ \# 36 \text { (Rio } \\ \text { Grande) } \end{gathered}$ | $\begin{aligned} & <1 \\ & <1 \\ & <1 \end{aligned}$ | - | $<1$ | 790 Table 13 |
| ARKANSAS |  |  |  |  |  |
| Hot Springs Natl Park | \#26 (Hot Spr) | $<1$ | \#27 | $<1$ | 790 Table 13 |
| TOTAL |  | 39,977 |  | 38,267 |  |

\#216 (Huckleberry

H. S.) $\quad$| $1.06-.30$ | USGS Circ 790 |
| :--- | :--- |
| \#217 (Granite H.S.) | $.70^{ \pm}-.21$ |

Yellowstone Natl

```
#215 (Yellow.-
                        stone 
# #215A(Mud Vol- 
WY 1 36,100
```

John D. Rockefeller Memorial Pkwy

| \# <br> Huckleberry <br> H. S.) | $1.06 \pm .30$ |
| :---: | :---: |

\#116 (Ashton H. S.) :69さ. 27
\#117 (Newdale)
$20-8$
ID $1 \quad 16,850$

USGS Circ 790
20-0

$$
16,850
$$

$$
\begin{array}{rlll}
\text { \#216 (Huckle-. } \\
\text { berry H.S.) } 1.06-.30 & \text { WY } 1 & 36,100 & \text { USGS Circ. } 790 \\
& \text { ID } 1 & 16,850 & \\
& \# 217 & .70^{+}-21 & \\
& \# 117 & 20 \pm 8 &
\end{array}
$$

|  | In Park | Energy (Quads) | 40 mile radius (790 \#) | Energy (Quads) | References |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NEVADA |  |  |  |  |  |
| Lake Mead Nat. Recreation Area | - | - | Warm wells in Boulder City | <1 | NBM \& G Bull. 91 |
| WASHINGTON |  |  |  |  |  |
| Mount Ranier Natl Park | \#214 <br> (Ohanapecosh H. S.) | $1.00 \pm .29$ | WA 4 | $>35$ | USGS Circ 790 |
| O1ympic Natl Park |  | . 4 |  |  | USGS Circ 726 |
| IDAHO |  |  |  |  |  |
| :Bruneau River Area (possible Wild and Scenic River) |  | ```100 (portion of Bruneau-Grad- view)``` | \#102 (BruncanGradview) | $450 \pm 110$ | USGS Circ 790 |


| AREA | In Park | Energy (Quads) | 40 miles | Energy (Quads) | References |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CALIFORNIA |  |  |  |  |  |
| Lassen Volcanic National Park, | \#040 (Lassen) | 42 ${ }^{+}$- ${ }^{\text {d }}$ | \#42 (Susanville) <br> \#36 (W. Valley Res) <br> \#38 (Kelly H.S.) | $\begin{aligned} & 3.2 \pm .9 \\ & 1: 15^{ \pm} .32 \\ & .93^{ \pm} .27 \end{aligned}$ | USGS Circ 790 |
| Sequoia National Park | - | - | $\begin{aligned} & \text { \#56 (Long Valley) } \\ & \text { \#57 (Coso) } \end{aligned}$ | $\begin{aligned} & 78^{+}-21 \\ & 25^{+}-7 \end{aligned}$ | $\begin{gathered} \text { USGS } 790 \\ " \end{gathered}$ |
| HAWAII |  |  |  |  |  |
| Haleakala National Park |  | . 4 (est.) | - |  |  |
| Hawaii Volcanoes Natl. Park | $\begin{aligned} & \text { H1 } \\ & \# 83 \text { (Steaming } \\ & \text { Flats) } \end{aligned}$ | $\begin{aligned} & 96 \\ & 1.33 \pm .46 \end{aligned}$ | \#84 (Kamaili) <br> \#85 (Kapoho) | $\begin{aligned} & 6.7 \pm 3.1 \\ & 1.3^{+} .52 \end{aligned}$ | USGS - Circ 790 |
| NEW MEXICO |  |  |  |  |  |
| Valles caldera (possible natl monument) | \#171 <br> (Valles Caldera) | $87 \pm+39$ | 173 (Spence Spr) <br> 172 (Jemez Spr) | $\begin{aligned} & .79 \pm .26 \\ & .81 \pm .24 \end{aligned}$ | USGS Circ 790 |


| AREA | In Park (790 \#) | Energy <br> (Quads) | 40 mile radius ( 790 \# ) | Energy (Quads) | Reference |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Yukon Charley | - | - | \#15 Circle | $1.02 \pm .29$ | USGS 790 |
| Wrangell-St. Elias | AK 84 AK 86 AK 87 | $\begin{aligned} & 840 \\ & 120 \\ & 190 \end{aligned}$ |  |  | USGS OFR " " |
| Gates of Arctic | $\begin{gathered} \# 010(\text { Reed River } \\ \text { H.S.) } \end{gathered}$ | . $92 \pm .26$ |  |  | USGS 790 |
| Glacier Bay |  |  | \#22 (Terakei Inlet) <br> \#23 (Hooniah H.S.) <br> \#24 (Fish Bay) <br> AK 88 | $\begin{aligned} & 1.03^{+} .29 \\ & 1.01^{ \pm} .29 \\ & .93^{ \pm} .31 \\ & 602 \end{aligned}$ |  |
| Bering Land Bridge | \#2 (Serpentine) <br> \#3 (Pilgrim H.S.) | $\begin{aligned} & 1.05{ }^{+} .31 \\ & 1.04^{+} .30 \end{aligned}$ | \#4 (Lava Ck) | . $79 \pm .24$ | $\begin{gathered} \text { USGS } 790 \\ " \\ " \end{gathered}$ |


| AREA |  | 790 NUMBERS AND ENERGY |  | REFERENCE |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | In Park | Energy <br> (Quads) | 40 mile radius | Energy (Quads) |  |
| Katmai | AK 64 | 120 50 $(50)$ $(50)$ $(50)$ $(50)$ $(50)$ 38 $(38)$ $(38)$ | $78$ $\begin{aligned} & 62 \\ & 89 \end{aligned}$ | $\begin{gathered} (38) \\ \\ (71) \\ 71 \\ (71) \end{gathered}$ | USGS Circ. 790 <br> estimate-near Katmai <br> " <br> II <br> It 11 <br> USGS Circ. 790 <br> estimate-near Kaguyak <br> estimate-active, near Kaguyak <br> estimate-near \#63 <br> estimate-near \#63 <br> USGS Circ. 790 <br> estimate-near \#63 |
| Aniakchak | AK 60 | 540 | $\begin{aligned} & 59 \\ & 58 \\ & 63 \end{aligned}$ | $\begin{aligned} & 50 \\ & 481 \\ & 71 \end{aligned}$ | $\begin{gathered} \text { USGS Circ. } 790 \\ " \\ " \\ " \end{gathered}$ |
| Lake Clark | $\text { AK } 80$ $\text { AK } 79$ | $\begin{aligned} & 38 \\ & 38 \end{aligned}$ | $\begin{aligned} & \text { AK } 90 \\ & \text { AK } 93 \end{aligned}$ | $\begin{aligned} & 38 \\ & 38 \end{aligned}$ | USGS Circ. 790 estimates based on nearest system w/data |
| Mt. McKinley | - | - | - | - | no available data |
| Denali | - | - | - | - | no available data |


| - STATE | AREA NAME | IDENTIFIED THERMAL FEATURES | USE POTENTIAL | COMMENT |
| :---: | :---: | :---: | :---: | :---: |
| - Alaska | Bering Land Bridge Nat'l Monument | Hot springs, recent lava fields and maars | Minor direct heat | 50 mile radius could prohibit development of Serpentine Springs area (1320). Resource information sparse. Exact location of Nat'l Monument unknown. |
| Alaska | Gates of the Arctic Nat'1 monument | Hot springs | Unknown | Not yet a Nat'1 Monument, location unknown. |
| Alaska | Yukon-Charley National Monument | Hot springs | 1 | 11 |
| Alaska | Katmai Nat'1 Monument | Active volcanoes, steam vents, hot springs | Electric potential | Sparsely populated, remote area. |
| Alaska | Aniakchak Nat'l Monument | Hot springs, steam vents active under cones | Electric potential | Sparsely populated, remote area. |
| Alaska | Wrangell - St. Elias Nat'l Monument | Hot springs, active volcano w/steam vents | Electric potential (?) | Very remote area |
| Alaska | Glacier Bay Nat'1 Monument | Hot Springs | Moderate direct heat potential | Within 50 miles of Hooniah Hot Springs, near Fish Bay Hot Springs, Juneau area. Reservoir temperatures up to $127^{\circ} \mathrm{C}$. |
| Alaska | Denali Nat'l Monument | Hot springs | Minor direct heat | Needs additional. resource assessment. |
| Alaska | Mount McKinley Nat'l park | Gas emissions along Denali fault. | Minor direct heat | Needs additional resource assessment. |
| Alaska | Lake Clark Nat'l Monument | Active volcanoes, steam vents | Moderate direct heat | Needs additional resource assessment. |
| Arkansas | Hot Springs NP | 47 hot springs in park, avg $T=64^{\circ} \mathrm{C}$; other springs and thermal features in area. | Good direct heat potential | Part of Ouachita structural belt, good discovery and development potential in similar geologic settings along trend. |


| California | Lassen | Vapor dominated system (Circ. 790), T $237^{\circ} \mathrm{C}$; active volcano, several fumaroles. | Good potential for electric and direct heat, near many small population centers. | Good discovery potential in area adjacent to park - for both electric and direct heat utilization. 50 mile radius could affect Susanville projects, Alturus district. Overall restriction w/in 50 miles could have major impact. USGS assessment in area ongoing. |
| :---: | :---: | :---: | :---: | :---: |
| California | Sequoia | Springs | Long Valley ( $\mathrm{T}=227^{\circ} \mathrm{C}$ ) is w/in 50 mi N - excellent development potential, industry interest, Mammoth district heating project. Other active volcanos w/in 50 mi - Coso area is w/in $50 \mathrm{mi} \mathrm{S}\left(\mathrm{T}=220^{\circ} \mathrm{C}\right)$. All of these are active volcanic systems, and are geologically distinct from the granites o Sequoia NP. |  |
| Hawaii | Haleakala NP | Active volcano, rift system | Island is well populated | 50 mi radius would eliminate geothermal development on island (as well as a favorable area w/user interest on Hawaii island). |
| Hawaii | Hawaii Volcano NP | Active volcano and rift systems | Hilo is close; other small towns. | 50 mi radius would rule out development over most of island. Many favorable geothermal sites on island. |
| Idaho | Bruneau River | Numerous hot springs | Major direct heat (Mtn. Home, Bruneau-Grandview). | Margin of western Snake River Plain - Circ. 790 favorable area. 50 mile radius could prohibit development in this portion of the Snake River Plain, especially BruneauGrandview Mtn. Home areas. |

New Mexico
-Texas

Washington

Washington

Wyoming
-Wyoming

Wyoming


Big Bend NP

Mt. Rainier NP

O1ympic NP

Grand Teton NP MP

Yellowstone NP

Volcanic terrain, hot springs in vicinity, but none in Bandelier NM.

Springs in part $36-41^{\circ} \mathrm{C}$, other in area to $32^{\circ} \mathrm{C}$.

Active volcano, hot springs, etc.

Two springs, $26-56^{\circ} \mathrm{C}$ vents.

Hot springs in park, Ashton, Newdale, Huckleberry springs in area, also Granite HS.

Huckleberry HS, Flagg Ranch HS.

Many

Direct heat in Boulder City, other small towns.

Within 50 mi radius is Las Vegas. Discovery potential good along Basin \& Range faults.

Good electric potential. DOE funding 50 mw demonstration plant in area. Mostly private land in geothermally favorable area. HDR experiments w/in 50 mi . Excellent exploration and discovery potential.

Stratigraphic control, sparsely populated area; w/in 50 mi radius of Trans Pecos (Circ. 790) region.

Major metropolitan areas w/in 50 mi of park.

Minor direct heat potential.

Springs are in remote portion of park, small population centers in area.

Direct heat potential, geothermometry to $133^{\circ} \mathrm{C}$.

Area w/in 50 mi has other active volcanos, KGRA, excellent discovery potential outside nat'l park.

Topography might inhibit development, low heat flow area.

50 mi radius includes towns of Jackson, Snake Plain PON projects, Rexberg, Island Park, thermally attractive drilling targets in geologically distinct overthrust belt.

Between Grand Teton and Yellowstone NP; see Grand Teton for comments. Adjacent to proposed RARE II area outside Yellowstone Caldera.

50 mi radius may prohibit direct heat utilization in $W$. Yellowstone. Needs to be studied in detail. May also prohibit development in NE Idaho (see Grand Teton NP comments).

