

TABLE 2. AREAS OF PREDOMINANTLY HIGH THERMAL GRADIENTS (>35°C/km)

AREA NUMBER AND NAME	NUMBER OF WELLS		DEPTH TO ANOMALOUS BHTS <sup>1</sup>			MAXIMUM GRADIENT °C/km	STRATIGRAPHIC LOCATIONS OF ANOMALOUS BHTS	COMMENTS			
	TOTAL	ANOMALOUS	MINIMUM m	MAXIMUM m	AVERAGE m						
			C	O	L	O	R	A	O	(FIGURE 1)	
1. HIAWATHA	5	3	957	1,807	1,490	48	CRETACEOUS MESAVERDE FM. TO TERTIARY WASATCH FM.	BETWEEN AND WASHAKIE SAND WASH BASINS			
2. RANGELY	14	11	902	1,673	1,151	50	UPPER TRIASSIC TO CRETACEOUS DAKOTA SS.	ALL WELLS IN RANGELY OIL FIELD OUTCROPPING MANCOS SHALE OCCUPIES MOST OF AREA			
3. PICEANCE	5	4	1,281	2,725	1,728	47	CRETACEOUS MESAVERDE FM. AND TERTIARY WASATCH FM.	PICEANCE BASIN			
4. CRAIG	8	5	926	1,478	1,196	43	CRETACEOUS - PRINCIPALLY DAKOTA SS.	WHITE RIVER PLATEAU LATE TERTIARY INTRUSIVE ROCKS PRESENT			
5. RICO	4	4	1,238	2,025	1,735	54	MISSISSIPPIAN AND PENNSYLVANIAN	NEAR DUNTON-RICO HOT SPRINGS TERTIARY INTRUSIVE ROCKS PRESENT. MANCOS SHALE IN OUTCROP			
6. WALDEN	9	6	270	1,974	1,364	109	CRETACEOUS AND TERTIARY	NORTH PARK BASIN. SURROUNDED BY PRECAMBRIAN GRANITIC ROCKS. QUATERNARY - TERTIARY ANDESITES AND BASALTS			
7. BERTHOUD	4	3	934	1,107	998	45	CRETACEOUS	WESTERN EDGE OF DENVER BASIN. PRECAMBRIAN GRANITIC ROCKS TO WEST.			
8. WALSENBURG	9	8	512	1,885	1,087	59	JURASSIC, CRETACEOUS, AND TERTIARY	EAST FLANK OF SANGRE DE CRISTO RANGE. PRECAMBRIAN GRANITIC ROCKS IN NORTHWEST. TERTIARY INTRUSIVES AND EXTRUSIVES. PIERRE SHALE ABUNDANT IN OUTCROP.			
9. STERLING	23	17	1,496	2,361	1,855	48	CRETACEOUS DAKOTA SS.	DENVER BASIN			
10. AKRON	83	51	1,050	2,089	1,568	46	CRETACEOUS DAKOTA SS.	CENTRAL AND EASTERN DENVER BASIN			
11. WRAY	25	17	494	924	716	55	CRETACEOUS NIOBRARA FM.	EASTERN DENVER BASIN. CLASSIFIED SEPARATELY FROM AKRON AREA ON BASIS OF DISTINCTIVE DEPTHS AND FORMATION TESTED.			
12. LIMON	7	7	944	1,906	1,650	47	CRETACEOUS - PRINCIPALLY DAKOTA SS.	DENVER BASIN			
13. CHEYENNE CO.	5	5	979	1,489	1,245	44	PENNSYLVANIAN AND PERMIAN	EASTERN BOUNDARY OF DENVER BASIN - LAS ANIMAS ARCH. CORRESPONDS TO PIERRE SH. OUTCROP.			

TABLE 2. AREAS OF PREDOMINANTLY HIGH THERMAL GRADIENTS ( $>35^{\circ}\text{C}/\text{km}$ ) - continued

AREA NUMBER AND NAME	NUMBER OF WELLS		DEPTHS TO ANOMALOUS BHTs			MAXIMUM GRADIENT $^{\circ}\text{C}/\text{km}$	STRATIGRAPHIC LOCATIONS OF ANOMALOUS BHTs	COMMENTS
	TOTAL	ANOMALOUS	MINIMUM	MAXIMUM	AVERAGE			
M O N T A N A (FIGURE 8)								
14. HAVRE	83	62	88	716	357	171	CRETACEOUS	WEST OF LITTLE ROCKY MOUNTAINS. SHALLOW WELLS OVER BEAR PAW ARCH AND TO THE NORTH. TERTIARY INTRUSIVE AND EXTRUSIVE ROCKS PRESENT. ✓
15. MALTA	12	12	290	410	353	101	CRETACEOUS	SHALLOW WELLS. CORRESPONDS CLOSELY WITH APEX OF BOWDOIN DOME. LARGE EXPOSURES OF CRETACEOUS SHALE. ✓
16. WOLF POINT	93	78	1,158	2,344	2,064	66	PRINCIPALLY DEVONIAN AND MISSISSIPPIAN	CORRESPONDS, IN PART, WITH DOMING WEST OF THE WILLISTON BASIN. ✓
17. PLENTYWOOD	12	11	2,066	3,267	2,342	43	ORDOVICIAN, DEVONIAN, AND MISSISSIPPIAN	NORTHWESTERN WILLISTON BASIN. ✓
18. REHLAND CO.	24	20	2,570	3,773	2,952	47	ORDOVICIAN, DEVONIAN AND MISSISSIPPIAN	WESTERN WILLISTON BASIN. ✓
19. MILES CITY	7	7	1,401	1,556	1,449	40	CRETACEOUS KOOTENAI AND MUDDY FORMATIONS	MILES CITY ARCH
20. EKALAKA	7	7	1,255	1,444	1,357	53	CRETACEOUS GREENHORN AND MUDDY FORMATIONS	NORTH END OF BLACK HILLS UPLIFT.
21. NW ROSEBUD CO.	16	12	1,472	1,742	1,549	46	MISSISSIPPIAN AND PENNSYLVANIAN	OVER SUMATRA SYNCLINE AND SUMATRA ANTICLINE. ✓
22. MUSSELSHELL CO.	53	43	787	1,790	1,244	53	PRINCIPALLY MISSISSIPPIAN AND PENNSYLVANIAN	INCLUDES PARTS OF <del>EMMA MOUNTAIN</del> PALE CREEK ANTICLINE, AND WILLOW CREEK SYNCLINE. ✓
23. LAUREL	23	22	202	994	513	90	PRINCIPALLY CRETACEOUS	SHALLOW WELLS. EXTENDS ACROSS BIG COULEE-HAIRSTONE DOME TO FROMBERG FAULT ZONE.
N E W M E X I C O (FIGURE 9)								
24. CHACO MESA	15	10	1,198	1,949	1,565	41	JURASSIC AND CRETACEOUS	SOUTHERN SAN JUAN BASIN. AT AREA CONSIDERED GENERALLY FAVORABLE FOR THE RECOVERY OF THERMAL WATERS.

TABLE 2. AREAS OF PREDOMINANTLY HIGH THERMAL GRADIENTS ( $>35^{\circ}\text{C}/\text{km}$ ) continued

AREA NUMBER AND NAME	NUMBER OF WELLS		DEPTH TO ANOMALOUS BHT'S <sup>1</sup>			MAXIMUM GRADIENT $^{\circ}\text{C}/\text{km}$	STRATIGRAPHIC LOCATIONS OF ANOMALOUS BHT'S	COMMENTS
	TOTAL	ANOMALOUS	MINIMUM	MAXIMUM	AVERAGE			
			U T A H (FIGURE 10)					
25. RANDOLPH	4	3	105	1,416	714	22.8	JURASSIC TWIN CREEK FM.	WEST FRONT OF CRAWFORD MOUNTAINS IN THE GREEN RIVER BASIN. BHT OF $65.6^{\circ}\text{C}$ AT 1,416 M. ONE MILE SOUTH OF RANDOLPH*
26. PRICE	4	4	370	608	480	4.8	PROBABLY CRETACEOUS	SHALLOW WELLS. MAXIMUM BHT, $40^{\circ}\text{C}$ AT 608 M. * MANGOS SHALE PRESENT IN OUTCROP.
27. PETERS POINT	11	7	405	998	789	13.7	TERTIARY	UINTA BASIN. ALL WELLS IN PETERS POINT OIL FIELD.
28. GRAND CO	180	136	154	1,404	659	9.8	TRIASSIC, JURASSIC AND CRETACEOUS	ASSOCIATED WITH MANGOS SH. OUTCROP AND UNCOMPAGHRE UPLIFT. BHT OF $72.8^{\circ}\text{C}$ AT 867 M. TWELVE MILES WEST OF CISCO*

\* TEMPERATURES AND DEPTHS FROM THE UTAH DIVISION OF OIL, GAS, AND MINING.