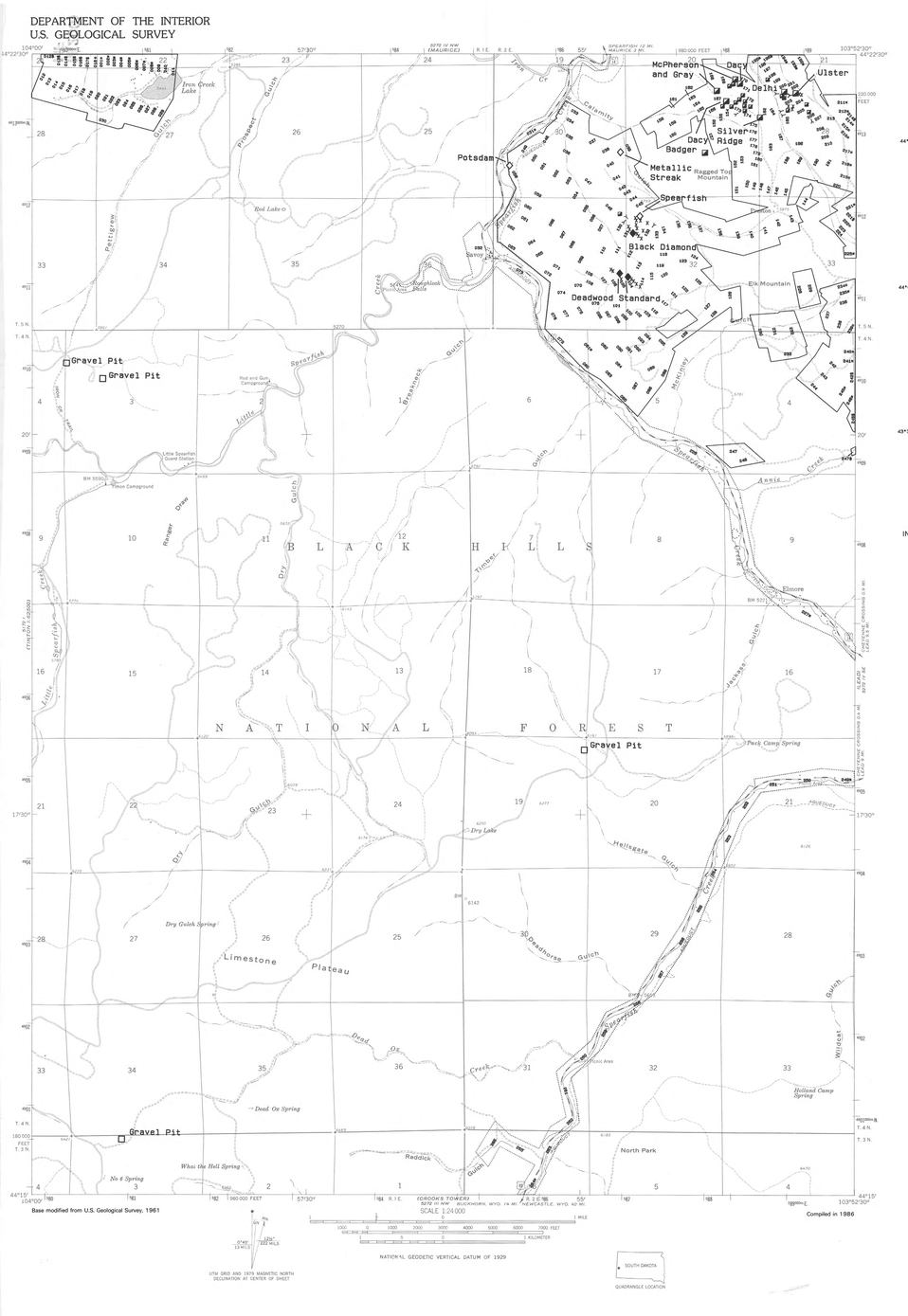
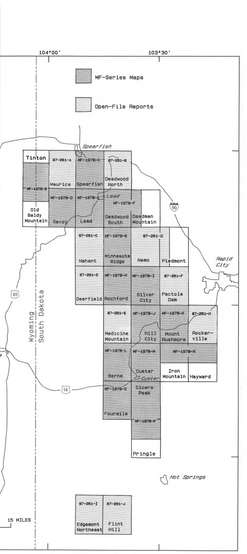
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



INDEX MAP SHOWING MINES AND PROSPECTS MAPS (MF-SERIES MAPS AND OPEN-FILE REPORTS) IN THE BLACK HILLS REGION



EXPLANATION

Mine—Location known. Distinguished from prospect by name of mine next to symbol. Alternate names or synonyms(s) in parentheses. If there is enough space on the map, the entire mine name and synonym(s) are shown; otherwise, mine name may be abbreviated and synonym(s) deleted from map. Full mine names and all synonyms are shown in the "Alphabetic list of mines"

Adit

Shaft

Open pit or other type of opening

Gravel pit

Mine—Approximate location shown. Open pit, shaft, adit, or other type of opening

Prospect

Adit

Shaft

Pit

Patented claim—See alphabetic and numeric lists of patented claims. Asterisk (*) indicates part of claim extends into adjacent quadrangle. Dollar sign ($) indicates most of claim in adjacent quadrangle. Boundaries between claims not shown

Lode claim—Orientation of number parallel to long axis of claim

Placer claim—Number approximately in center of claim

INTRODUCTION

This map is one in a set of 26 maps (see index map) at 1:24,000 scale of the Black Hills region of South Dakota and Wyoming on which are shown a geologic classification of mines, a bibliography of mineral deposits, and locations of active and inactive mines, prospects, and patented mining claims. Some of these maps are published as U.S. Geological Survey Miscellaneous Field Studies Maps (MF series) and some as U.S. Geological Survey Open-File Reports (OF series); see index map. An earlier unpublished version of this set of maps was the basis from which plate 1 (scale 1:250,000) of DeWitt and others (1986) was compiled. Subsequent to that publication, the set has been revised and updated, and prospects and patented claims have been added. These revised and detailed 1:24,000-scale maps should be used for the equivalent areas of plate 4 of DeWitt and others (1986).

SOURCES OF INFORMATION

Outlines of patented mining claims were obtained from 1:24,000-scale Forest Service Status Plats available for inspection at the U.S. Forest Service, Rocky Mountains Region, 11,117 West 8th Avenue, Denver, CO 80225. Names of most patented claims were obtained from Wilhelm and others (1978). Other names were obtained from the Lawrence County Courthouse, Deadwood, South Dakota. Claims have been located as accurately as possible, but where conflict was resolved by comparing the name of the mine to adjacent patented claims, by comparing the description of the deposit to the known geology and topography of the area, or by communication with past owners of the property. In some instances, a unique location could not be determined using existing information; in that event, the most logical location was chosen. The location of some or many mines on this map may differ from those in present data bases such as the U.S. Bureau of Mines Mineral Inventory Location System (MILS) or the U.S. Geological Survey Mineral Resources Data System (MRDS), formerly the Computerized Resources Information Bank (CRIB).

Locations of prospects in this quadrangle were taken from Irving and Emmons (1904) and Shapiro and Gries (1970). Because many quadrangles, or parts of quadrangles, have not been mapped in as much detail as this quadrangle, comparison of the density of prospects from one quadrangle to another, or even within one quadrangle, should not be attempted. As an example, part of a quadrangle may be shown on the map as having more prospects than another part, but the first part may have been mapped in greater detail than the second part. Similarly, a part of a quadrangle may have many prospects that are not shown on this map because the original source of information did not map prospect pits. Geologic data for the map are from Allington (1962), Bayley (1972), Bayley and others (1970), Darton (1909), Fahey (1925), DeWitt and others (1986), Dolan (1977), Gries (1974), Irving (1899), Irving, Emmons, and Jaggar (1904), Jaggar (1901, 1904), Kirchner (1971), Kulik (1965), Lindgard and Roberts (1970), Lisenbee (1981, 1985), and others, data, 1986), Norton (1983), Owen (1976), Paige (1924), and Shapiro and Gries (1968, 1970).

PRECISION OF LOCATION INFORMATION

All mine symbols except the unfilled diamond (◇) indicate that the location of the deposit is known within a 200-foot radius. The type of opening at a mine (adit, shaft, open pit, trench, and others) is designated by one of ten different symbols. The unfilled diamond symbol indicates that the location is known only to within a 1/4 mile radius and that the type of mine opening is unknown.

Mines and prospects whose locations could not be verified to within closer than a 1/4 mile radius were not plotted on the map.

PATENTED CLAIM AND MINE LISTS

Patented mining claims are listed both numerically and alphabetically. Mines are listed alphabetically. For ease in locating the claim or mine on the map, the legal description (section, township, range) is given.

Each patented claim on the map is represented by a number keyed to the numeric and alphabetic listings. Where possible, the claim numbers are plotted approximately in the center of the claim and parallel to its long axis. Boundaries between adjacent claims are not shown. An asterisk (*) following a claim number indicates that most of the claim is in this quadrangle, but it extends into the adjacent quadrangle. A dollar sign ($) following a claim number indicates that most of the claim is in the adjacent quadrangle, but part of it is in this quadrangle. Claims outlined with a solid line are patented lode claims; claims outlined with a dotted line are patented placer claims. Many placer workings on ungpatented claims have not been plotted on the maps, principally because the workings lacked a name.

On the map, the most common or most used name of a mine is normally next to its mine symbol. If there is space, any alternate names or synonyms are to parentheses following the most common name. On some maps, where space does not permit showing the first name or any alternate names, the names are shown by a single letter, two letters, or an abbreviation of the name; the mines are keyed to that letter or abbreviation in the alphabetic and numeric lists. Mines with more than one name have the alternate name(s) or synonym(s) shown in parentheses in the alphabetic lists. The first alternate name or synonym is also alphatized in the alphabetic list of mines; second or third alternate names may not be alphabetized. Uncertain alternate names are not alphabetized and are followed by a query (?).

CLASSIFICATION OF MINES AND DEPOSITS

Mines and deposits are categorized according to geologic criteria of age, environment of formation, and contained metals, as in DeWitt and others (1986, p. 52-53). Deposit-type letter designations (S, T, and so on), corresponding to those in DeWitt and others (1986), are used in the alphabetic list of mines. The criteria used for the deposit types are briefly summarized below and are explained more fully in DeWitt and others (1986).

PRINCIPAL TYPES OF DEPOSITS

S and T--Paleozoone or Eocene vein and replacement deposits are predominantly in Paleozoic strata as discordant to concordant bodies containing base and precious metals. Mineralization took place in an epithermal environment about 50-60 Ma by hydrothermal alteration and metallization of wall rocks near Tertiary intrusive bodies. S, base metal-rich deposits containing lead, zinc, and silver, and minor amounts of copper and gold. T, precious metal-rich deposits containing gold and minor amounts of silver, lead, zinc, and copper.

U and P--Paleozoone or Eocene disseminated and porphyry-type deposits are fracture-filling, vein, and disseminated concentrations of base and precious metals formed in a plutonic to subvolcanic environment about 50-60 Ma. Fracturing and hydrothermal alteration of Tertiary quartz-bearing igneous rocks resulted in precipitation of sulfide minerals rich in base and precious metals. U, base metal-rich deposits containing molybdenum, lead, and minor amounts of silver and copper. V, precious metal-rich deposits containing gold, copper, and minor amounts of silver and lead.

ACKNOWLEDGMENTS

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Alphabetic list of mines

[Deposit-type letter designations are explained in the text]

Deposit Type	Name of Mine	Location
T?,V?	Badger	Sec. 29 T5N R2E
T,?	Black Diamond	
	[Spearfish Gold Mining]	Sec. 32 T5N R2E
T	Balmoral No.8 (Silver Ridge)	Sec. 28 T5N R2E
T	Dacy	Sec. 29 T5N R2E
T	Deadwood Standard	Sec. 13 T5N R2E
T,V?	Delhi (Ulster)	Sec. 28 T5N R2E
T	Doyle Vertical	Sec. 23 T5N R2E
	(McPherson and Gray)	Sec. 29 T5N R2E
	Gravel Pit	Sec. 3 T3N R1E
	Gravel Pit	Sec. 3 T4N R1E
	Gravel Pit	Sec. 3 T5N R1E
	Gravel Pit	Sec. 19 T4N R2E
T	McPherson and Gray	
	(Doyle Vertical)	Sec. 29 T5N R2E
T	Metallic Streak	
	[Spearfish Gold Mining]	Sec. 30 T5N R2E
T	Potsdam	Sec. 30 T5N R2E
T	Silver Ridge (Balmoral No.8)	Sec. 28 T5N R2E
T	Spearfish	Sec. 32 T5N R2E
T,V	Ulster (Delhi)	Sec. 28 T5N R2E

Alphabetic list of patented claims

[Asterisk (*) indicates that part of claim extends into adjacent quadrangle; dollar sign ($) indicates that most of claim is in the adjacent quadrangle]

Claim number	Name of Claim	Location
138	Acta No.1	Sec. 32 T5N R2E
206	Albany	Sec. 28 T5N R2E
146	Anchor No.1	Sec. 28 T5N R2E
147	Anchor No.2	Sec. 28 T5N R2E
148	Anchor No.3	Sec. 28 T5N R2E
149	Anchor No.4	Sec. 29 T5N R2E
150	Anchor No.5	Sec. 29 T5N R2E
139	Annie E. No.1	Sec. 32 T5N R2E
140	Annie E. No.2	Sec. 32 T5N R2E
141	Annie E. No.4	Sec. 33 T5N R2E
233	April	Sec. 4 T4N R2E
219#	Aztec No.1	Sec. 28 T5N R2E
218#	Aztec No.2	Sec. 28 T5N R2E
217#	Aztec No.3	Sec. 28 T5N R2E
190	Baby	Sec. 28 T5N R2E
186	Baby Brinole No.2 (same as 188)	Sec. 28 T5N R2E
188	Baby Brinola No.2 (same as 186)	Sec. 28 T5N R2E
231	Bald Hill	Sec. 33 T5N R2E
181	Balmoral Lode	Sec. 29 T5N R2E
180	Balmoral No.1	Sec. 29 T5N R2E
179	Balmoral No.2	Sec. 29 T5N R2E
178	Balmoral No.3	Sec. 29 T5N R2E
177	Balmoral No.4	Sec. 29 T5N R2E
176	Balmoral No.5	Sec. 29 T5N R2E
175	Balmoral No.6	Sec. 29 T5N R2E
174	Balmoral No.7	Sec. 29 T5N R2E
173	Balmoral No.8	Sec. 29 T5N R2E
221$	Bascroft	Sec. 33 T5N R2E
110	Belmont No.1	Sec. 31 T5N R2E
108	Ben Hur	Sec. 31 T5N R2E
057	Betty	Sec. 31 T5N R2E
106	Black	Sec. 31 T5N R2E
131	Black Diamond	Sec. 32 T5N R2E
130	Black Diamond Fr.	Sec. 32 T5N R2E
063	Blaine	Sec. 31 T5N R2E
062	Blaine Fr.	Sec. 31 T5N R2E
224	Blue Joy	Sec. 33 T5N R2E
052	Bluff No.1	Sec. 30 T5N R2E
051	Bluff No.2	Sec. 30 T5N R2E
050	Bluff No.3	Sec. 30 T5N R2E
142	Bongoula No.1	Sec. 33 T5N R2E
143	Bongoula No.3	Sec. 33 T5N R2E
063	Brasa	Sec. 5 T4N R2E
234	Brady No.1	Sec. 29 T4N R2E
253	Brady No.2	Sec. 21 T4N R2E
234*	Buffalo	Sec. 33 T5N R2E
037	Calamity Fr.	Sec. 30 T5N R2E
035	Calamity No.1	Sec. 30 T5N R2E
034	Calamity No.3	Sec. 30 T5N R2E
033	Calamity No.4	Sec. 30 T5N R2E
041	Calamity Streak No.1	Sec. 30 T5N R2E
040	Calamity Streak No.4	Sec. 30 T5N R2E
031#	Cascade Placer	Sec. 30 T5N R2E
228	Comstock	Sec. 30 T5N R2E
255	Constitutor No.1	Sec. 29 T5N R2E
039	Coupler	Sec. 29 T5N R2E
091	Dalmazia	Sec. 5 T4N R2E
092	Dalmazia No.1	Sec. 5 T4N R2E
210	Dead Pine	Sec. 28 T5N R2E
201	Delaware	Sec. 28 T5N R2E
202	Delhi	Sec. 28 T5N R2E
136	Denver	Sec. 32 T5N R2E
223#	Dolphin	Sec. 33 T5N R2E
100	Dom Fr.	Sec. 31 T5N R2E
096	Dom No.1	Sec. 31 T5N R2E
097	Dom No.2	Sec. 31 T5N R2E
098	Dom No.3	Sec. 31 T5N R2E
099	Dom No.4	Sec. 31 T5N R2E
056	Donna	Sec. 31 T5N R2E
137	Elk	Sec. 32 T5N R2E
132	Ella	Sec. 32 T5N R2E
247	Ennisty Non	Sec. 4 T4N R2E
248	Ennisty Non No.2	Sec. 4 T4N R2E
171	Eva B.	Sec. 29 T5N R2E
213#	Excelsior	Sec. 28 T5N R2E
214#	Excelsior Fr.	Sec. 28 T5N R2E
154	Far West No.1	Sec. 29 T5N R2E
155	Far West No.2	Sec. 29 T5N R2E
239#	Fargo	Sec. 33 T5N R2E
199	Favorite	Sec. 28 T5N R2E
194*	Favorite Fr.	Sec. 21 T5N R2E
198	Favorite No.2	Sec. 28 T5N R2E
161	Flora E. Fr.	Sec. 29 T5N R2E
166	Flora E. No.1	Sec. 29 T5N R2E
165	Flora E. No.2	Sec. 29 T5N R2E
164	Flora E. No.3	Sec. 29 T5N R2E
163	Flora E. No.4	Sec. 29 T5N R2E
105	Friar Hill	Sec. 31 T5N R2E
236	Frost	Sec. 33 T5N R2E
227#	Fuanton	Sec. 33 T5N R2E
222#	Galena and Galena Fr.	Sec. 33 T5N R2E
243	Genesee	Sec. 4 T4N R2E
241*	Giddings	Sec. 4 T4N R2E
133	Gold Brick Fr.	Sec. 32 T5N R2E
135	Gold Brick No.1	Sec. 32 T5N R2E
134	Gold Brick No.2	Sec. 32 T5N R2E
1963	Good Luck	Sec. 21 T5N R2E
172	Gossan	Sec. 29 T5N R2E
169	Gossan Fr.	Sec. 29 T5N R2E
242	Grenada	Sec. 4 T4N R2E
128	Hamburg No.1	Sec. 32 T5N R2E
129	Hamburg No.2	Sec. 32 T5N R2E
102	Hanschka No.1	Sec. 32 T5N R2E
103	Hanschka No.2	Sec. 32 T5N R2E
045	Hermitage	Sec. 32 T5N R2E
046	Hermitage Fr.	Sec. 32 T5N R2E
044	Hermitage No.2	Sec. 32 T5N R2E
043	Hermitage No.3	Sec. 32 T5N R2E
042	Hermitage No.4	Sec. 32 T5N R2E
113	Hesitation	Sec. 32 T5N R2E
211*	Hibernia	Sec. 27 T5N R2E
030	Highland	Sec. 27 T5N R2E
264*	Iowa	Sec. 6 T3N R2E
160	Iron Gulch	Sec. 29 T5N R2E
168	Iron Fr.	Sec. 29 T5N R2E
036	Jane No.1	Sec. 30 T5N R2E
117	John No.2	Sec. 32 T5N R2E
116	John No.3	Sec. 32 T5N R2E
195#	Jumbo Fr.	Sec. 28 T5N R2E
183	Juvanta	Sec. 28 T5N R2E
182	Juvanta Fr.	Sec. 28 T5N R2E
014	Kildonan	Sec. 28 T5N R1E
013	Kildonan Fr.	Sec. 28 T5N R1E
012	Kildonan Fr. No.4	Sec. 28 T5N R1E
015	Kildonan No.1	Sec. 28 T5N R1E
016	Kildonan No.2	Sec. 28 T5N R1E
017	Kildonan No.3	Sec. 28 T5N R1E
018	Kildonan No.4	Sec. 28 T5N R1E
019	Kildonan No.5	Sec. 28 T5N R1E
020	Kildonan No.6	Sec. 28 T5N R1E
021	Kildonan No.7	Sec. 28 T5N R1E
022	Kildonan No.8	Sec. 27 T5N R1E
023	Kildonan No.9	Sec. 27 T5N R1E
024	Kildonan No.10	Sec. 27 T5N R1E
025	Kildonan No.11	Sec. 27 T5N R1E
026	Kildonan No.12	Sec. 27 T5N R1E
027	Kildonan No.13	Sec. 27 T5N R1E
028	Kildonan No.14	Sec. 27 T5N R1E
029	Kildonan No.15	Sec. 27 T5N R1E
220	Little Darling	Sec. 27 T5N R1E
033	Little Spearfish Placer	Sec. 30 T5N R2E
032	Lucky Boy	Sec. 30 T5N R2E
031	Lucky No.1	Sec. 30 T5N R2E
030	Lucky No.2	Sec. 30 T5N R2E
069	Spearfish Falls	Sec. 31 T5N R2E
136	Spotted Elk No.1	Sec. 29 T5N R2E
157	Spotted Elk No.2	Sec. 29 T5N R2E
014$	Summer	Sec. 21 T5N R1E
015$	Summer No.1	Sec. 21 T5N R1E
016	Summer No.2	Sec. 21 T5N R1E
017	Summer No.3	Sec. 21 T5N R1E
017$	Summer No.3	Sec. 21 T5N R1E
018	Summer No.4	Sec. 21 T5N R1E
018*	Summer No.4	Sec. 21 T5N R1E
019	Summer No.5	Sec. 21 T5N R1E
020	Summer No.6	Sec. 21 T5N R1E
021	Summer No.7	Sec. 21 T5N R1E
022	Summer No.8	Sec. 21 T5N R1E
023	Summer No.9	Sec. 21 T5N R1E
024	Summer No.10	Sec. 21 T5N R1E
025	Summer No.11	Sec. 21 T5N R1E
026	Summer No.12	Sec. 21 T5N R1E
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028	Summer No.14	Sec. 21 T5N R1E
029	Summer No.15	Sec. 21 T5N R1E
030	Summer No.16	Sec. 21 T5N R1E
031	Summer No.17	Sec. 21 T5N R1E
032	Summer No.18	Sec. 21 T5N R1E
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039	Summer No.25	Sec. 21 T5N R1E
040	Summer No.26	Sec. 21 T5N R1E
041	Summer No.27	Sec. 21 T5N R1E
042	Summer No.28	Sec. 21 T5N R1E
043	Summer No.29	Sec. 21 T5N R1E
044	Summer No.30	Sec. 21 T5N R1E
045	Summer No.31	Sec. 21 T5N R1E
046	Summer No.32	Sec. 21 T5N R1E
047	Summer No.33	Sec. 21 T5N R1E
048	Summer No.34	Sec. 21 T5N R1E
049	Summer No.35	Sec. 21 T5N R1E
050	Summer No.36	Sec. 21 T5N R1E
051	Summer No.37	Sec. 21 T5N R1E
052	Summer No.38	Sec. 21 T5N R1E
053	Summer No.39	Sec. 21 T5N R1E
054	Summer No.40	Sec. 21 T5N R1E
055	Summer No.41	Sec. 21 T5N R1E
056	Summer No.42	Sec. 21 T5N R1E
057	Summer No.43	Sec. 21 T5N R1E
058	Summer No.44	Sec. 21 T5N R1E
059	Summer No.45	Sec. 21 T5N R1E
060	Summer No.46	Sec. 21 T5N R1E
061	Summer No.47	Sec. 21 T5N R1E
062	Summer No.48	Sec. 21 T5N R1E
063	Summer No.49	Sec. 21 T5N R1E
064	Summer No.50	Sec. 21 T5N R1E
065	Summer No.51	Sec. 21 T5N R1E
066	Summer No.52	Sec. 21 T5N R1E
067	Summer No.53	Sec. 21 T5N R1E
068	Summer No.54	Sec. 21 T5N R1E
069	Summer No.55	Sec. 21 T5N R1E
070	Summer No.56	Sec. 21 T5N R1E
071	Summer No.57	Sec. 21 T5N R1E
072	Summer No.58	Sec. 21 T5N R1E
073	Summer No.59	Sec. 21 T5N R1E
074	Summer No.60	Sec. 21 T5N R1E
075	Summer No.61	Sec. 21 T5N R1E
076	Summer No.62	Sec. 21 T5N R1E
077	Summer No.63	Sec. 21 T5N R1E
078	Summer No.64	Sec. 21 T5N R1E
079	Summer No.65	Sec. 21 T5N R1E
080	Summer No.66	Sec. 21 T5N R1E
081	Summer No.67	Sec. 21 T5N R1E
082	Summer No.68	Sec. 21 T5N R1E
083	Summer No.69	Sec. 21 T5N R1E
084	Summer No.70	Sec. 21 T5N R1E
085	Summer No.71	Sec. 21 T5N R1E
086	Summer No.72	Sec. 21 T5N R1E
087	Summer No.73	Sec. 21 T5N R1E
088	Summer No.74	Sec. 21 T5N R1E
089	Summer No.75	Sec. 21 T5N R1E
090	Summer No.76	Sec. 21 T5N R1E
091	Summer No.77	Sec. 21 T5N R1E
092	Summer No.78	Sec. 21 T5N R1E
093	Summer No.79	Sec. 21 T5N R1E
094	Summer No.80	Sec. 21 T5N R1E
095	Summer No.81	Sec. 21 T5N R1E
096	Summer No.82	Sec. 21 T5N R1E
097	Summer No.83	Sec. 21 T5N R1E
098	Summer No.84	Sec. 21 T5N R1E
099	Summer No.85	Sec. 21 T5N R1E
100	Summer No.86	Sec. 21 T5N R1E
101	Summer No.87	Sec. 21 T5N R1E
102	Summer No.88	Sec. 21 T5N R1E
103	Summer No.89	Sec. 21 T5N R1E
104	Summer No.90	Sec. 21 T5N R1E
105	Summer No.91	Sec. 21 T5N R1E
106	Summer No.92	Sec. 21 T5N R1E
107	Summer No.93	Sec. 21 T5N R1E
108	Summer No.94	Sec. 21 T5N R1E
109	Summer No.95	Sec. 21 T5N R1E
110	Summer No.96	Sec. 21 T5N R1E
111	Summer No.97	Sec. 21 T5N R1E
112	Summer No.98	Sec. 21 T5N R1E
113	Summer No.99	Sec. 21 T5N R1E
114	Summer No.100	Sec. 21 T5N R1E
115	Summer No.101	Sec. 21 T5N R1E
116	Summer No.102	Sec. 21 T5N R1E
117	Summer No.103	Sec. 21 T5N R1E
118	Summer No.104	Sec. 21 T5N R1E
119	Summer No.105	Sec. 21 T5N R1E
120	Summer No.106	Sec. 21 T5N R1E
121	Summer No.107	Sec. 21 T5N R1E
122	Summer No.108	Sec. 21 T5N R1E
123	Summer No.109	Sec. 21 T5N R1E
124	Summer No.110	Sec. 21 T5N R1E
125	Summer No.111	Sec. 21 T5N R1E
126	Summer No.112	Sec. 21 T5N R1E
127	Summer No.113	Sec. 21 T5N R1E
128	Summer No.114	Sec. 21 T5N R1E
129	Summer No.115	Sec. 21 T5N R1E
130	Summer No.116	Sec. 21 T5N R1E
131	Summer No.117	Sec. 21 T5N R1E
132	Summer No.118	Sec. 21 T5N R1E
133	Summer No.119	Sec. 21 T5N R1E
134	Summer No.120	Sec. 21 T5N R1E
135	Summer No.121	Sec. 21 T5N R1E
136	Summer No.122	Sec. 21 T5N R1E
137	Summer No.123	Sec. 21 T5N R1E
138	Summer No.124	Sec. 21 T5N R1E
139	Summer No.125	Sec. 21 T5N R1E
140	Summer No.126	Sec. 21 T5N R1E
141	Summer No.127	Sec. 21 T5N R1E
142	Summer No.128	Sec. 21 T5N R1E
143	Summer No.129	Sec. 21 T5N R1E
144	Summer No.130	Sec. 21 T5N R1E
145	Summer No.131	Sec. 21 T5N R1E
146	Summer No.132	Sec. 21 T5N R1E
147	Summer No.133	Sec. 21 T5N R1E
148	Summer No.134	Sec. 21 T5N R1E
149	Summer No.135	Sec. 21 T5N R1E
150	Summer No.136	Sec. 21 T5N R1E
151	Summer No.137	Sec. 21 T5N R1E
152	Summer No.138	Sec. 21 T5N R1E
153	Summer No.139	Sec. 21 T5N R1E
154	Summer No.140	Sec. 21 T5N R1E
155	Summer No.141	Sec. 21 T5N R1E
156	Summer No.142	Sec. 21 T5N R1E
157	Summer No.143	Sec. 21 T5N R1E
158	Summer No.144	Sec. 21 T5N R1E
159	Summer No.145	Sec. 21 T5N R1E
160	Summer No.146	Sec. 21 T5N R1E
161	Summer No.147	Sec. 21 T5N R1E
162	Summer No.148	Sec. 21 T5N R1E
163	Summer No.149	Sec. 21 T5N R1E
164	Summer No.150	Sec. 21 T5N R1E
165	Summer No.151	Sec. 21 T5N R1E
166	Summer No.152	Sec. 21 T5N R1E
167	Summer No.153	Sec. 21 T5N R1E
168	Summer No.154	Sec. 21 T5N R1E
169	Summer No.155	Sec. 21 T5N R1E
170	Summer No.156	Sec. 21 T5N R1E
171	Summer No.157	Sec. 21 T5N R1E
172	Summer No.158	Sec. 21 T5N R1E
173	Summer No.159	Sec. 21 T5N R1E
174	Summer No.160	Sec. 21 T5N R1E
175	Summer No.161	Sec. 21 T5N R1E
176	Summer No.162	Sec. 21 T5N R1E