

LIST OF BASEMENT DRILLHOLES IN MISSOURI

by

EVA B. KISVARSANYI AND CHERYL M. SEEGER

1993

OPEN FILE REPORT SERIES

OFR-93-92-GS



Missouri
Department of
Natural Resources

Geological Survey and Resource Assessment Division

P.O. Box 250, Rolla, MO 65402-0250

PHONE (573) 368-2125 FAX (573) 368-2481

E-MAIL gsradpubs@dnr.state.mo.us

Integrity and excellence in all we do

CONTENTS

Introduction	1
Acknowledgments	1
Previous Work	1
Explanation of Table	1
Samples	1
References	2
Appendix A: County Codes	30
Appendix B: Selected Core Logs	32
F-9	34
Wr-2	37

LIST OF ILLUSTRATIONS AND TABLES

Figure 1. Number of basement tests by counties	31
Figure 2. Method of identifying drillhole locations	32
Table 1. List of drillholes to the Precambrian basement	3

INTRODUCTION

This report presents information relating to the buried Precambrian surface in Missouri. Data from 857 holes drilled to Precambrian basement and inventoried by the Division of Geology and Land Survey as of January 1, 1992 are tabulated by counties. Figure 1 shows the distribution of basement drillholes by counties.

ACKNOWLEDGMENTS

We thank Lois Jaquess and Sandy Miller for typesetting the manuscript, and Susan Dunn for the graphics and final layout.

PREVIOUS WORK

Interest in the buried Precambrian basement in Missouri intensified in the last 30 years. The first listing of basement drillholes totaled only 78 wells (Adams, 1959); most of these were churn- and rotary-drilled municipal water wells and oil and gas exploratory holes dating back to the 1920's and 1930's. During the 1960's, the search for metallic mineral deposits in both Precambrian and Upper Cambrian rocks resulted in an increase of exploration core holes. By 1975, the statewide Precambrian drillhole database included 545 wells (Kisvarsanyi, 1975). Subsequent inventories funded by DOSECC, Inc. (Deep Observation and Sampling of the Earth's Continental Crust) and administered through grants from The University of Kansas, identified an additional 312 basement holes (Kisvarsanyi, 1987; 1988).

Maps of the Precambrian surface at 1:1,000,000 and 1:500,000 scale show the distribution of major basement-rock provinces, principal tectonic zones, and structural contours (Kisvarsanyi, 1979; 1984 a & b). These data were compiled in a regional map of the northern midcontinent region under the U.S. Geological Survey's Midcontinent Strategic and Critical Minerals Program (Sims, 1990).

EXPLANATION OF TABLE

The basement drillholes are listed in Table 1 by counties, in alphabetical order. Each drillhole is assigned an Operation Basement identification number (O.B. No.) consisting of an abbreviated county code (i.e., Cm for Camden County, Appendix A) and a unique number. These identification numbers conform to the DGLS' Operation Basement

subsurface identification system (Kisvarsanyi, 1975).

The location of each drillhole is given in township (T), range (R), section (S), and quarter section (Q), in that order. As all Missouri townships are north of the reference base line, township numbers should all read "north"; range numbers are indicated either east (E) or west (W) of the Fifth Principal Meridian. Fractional quarter subdivisions of the section are indicated by the letters A for NE $\frac{1}{4}$, B for NW $\frac{1}{4}$, C for SW $\frac{1}{4}$, and D for SE $\frac{1}{4}$; the order is from largest to smallest, the reverse of the conventional. Thus, the location of a drillhole customarily given as NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 6, T. 36N., R. 3E. reads 36-3E:6BCA in Table 1 (fig. 2).

If a log of the sedimentary section is available, the location information is followed by the DGLS log number (Log No.). This is followed by the owner's name and number and the year drilling was completed (DATE), if known. Subsequent columns in Table 1 indicate the elevation of the well datum as ground level determined by surveying or estimated from topographic maps (Collar Elev.), depth to the top of the Precambrian surface (Top of Prec.), total depth of the drillhole (TD), thickness of Precambrian rock penetrated in the drillhole (Penetration), and the elevation of the Precambrian surface relative to sea level (Elev. top PC); the last five data are given in feet. The cumulative total thickness of Precambrian rock drilled in Missouri amounts to an estimated 58,174 feet. This figure does not include exploration and development drilling of the ore deposits such as Pea Ridge, Iron Mountain, and Boss. The last column in Table 1 gives a general field description of the Precambrian rock drilled in each hole (Rock Type).

The drillhole database is also available on D-Base.

SAMPLES

Samples are available for examination from most of the drillholes listed in Table 1, except from some of the very old holes and from those that only have drillers logs (compare with Kisvarsanyi, 1975). The available samples fall into two categories: cutting chip and core. The cuttings can be identified by DGLS log numbers and are stored in the subsurface residue repository. The core samples are stored in the DGLS core repository.

The rock type identification in Table 1 is based on logging of both cutting chips and core samples. Detailed petrographic descriptions were made on about 1,000 thin sections (Kisvarsanyi, 1981) and geochemical analyses were completed on several hundred samples (Erickson and others, 1981). Selected core logs are shown in Appendix B.

REFERENCES

- Adams, J.W., 1959, Rocks of the Precambrian basement and those immediately overlying it in Missouri and parts of adjacent states: unpubl. Masters thesis, University of Missouri-Columbia.
- Erickson, R. L., Mosier, E. L., Odland, S. K., and Erickson, M. S., 1981, A favorable belt for possible mineral discovery in subsurface Cambrian rocks in southern Missouri, *Economic Geology*, v. 76, p. 921-933.
- Kisvarsanyi, Eva B., 1975, Data on Precambrian in drillholes of Missouri including rock type and surface configuration (Contribution to Precambrian Geology No. 5): Missouri Department of Natural Resources, Division of Research and Technical Information, Geological Survey, Report of Investigations 56, 20 p., map scale 1:1,000,000.
- _____, 1979, Geologic map of the Precambrian of Missouri: Missouri Department of Natural Resources, Division of Geology and Land Survey, Contribution to Precambrian Geology No. 7, scale 1:1,000,000.
- _____, 1981, Geology of the Precambrian St. Francois terrane, southeastern Missouri (Contribution to Precambrian Geology No. 8): Missouri Department of Natural Resources, Division of Geology and Land Survey, Report of Investigations 64, 58 p., map scale 1:250,000.
- _____, 1984a, The Precambrian tectonic framework of Missouri as interpreted from the magnetic anomaly map: Missouri Department of Natural Resources, Division of Geology and Land Survey, Contribution to Precambrian Geology No. 14B, 19 p.
- _____, 1984b, Structure contour map of the Precambrian surface in Missouri (Contribution to Precambrian Geology No. 15): Missouri Department of Natural Resources, Division of Geology and Land Survey, OFM-84-207-GI, scale 1:500,000.
- _____, 1987, Inventory, logging, and sampling of basement cores (Contribution to Precambrian Geology No. 16): Missouri Department of Natural Resources, Division of Geology and Land Survey, OFR-87-58-GI, 11 p.
- _____, 1988, Inventory, logging, and sampling of basement cores (Phase II): Missouri Department of Natural Resources, Division of Geology and Land Survey, unpubl. report prepared for the University of Kansas Center for Research, Inc. (Purchase order 12755).
- Sims, Paul K., compiler, 1990, Precambrian basement map of the northern midcontinent, U.S.A.: U.S. Geological Survey, Miscellaneous Investigations, I-1853-A, scale 1:1,000,000.

Table 1. List of drillholes to the Precambrian basement in Missouri.

<u>OB No.</u>	<u>Location</u> <u>(T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar</u> <u>Elev.</u>	<u>Top of</u> <u>Prec.</u>	<u>Total</u> <u>Depth</u>	<u>Pentra-</u> <u>tion</u>	<u>Elev.</u> <u>Top</u> <u>Prec.</u>	<u>ROCK TYPE</u>
<u>Adair</u>										
A001	61-15W-08-BAB	11294	Oil and gas co., #1 LACKEY	1950	984	2985	3015	30	-2001	Biotite granite
<u>Andrew</u>										
AN001	61-34W-12-DD		Texas Pacific Oil Co., K WELLS #1	1977	1095	3515	3550	35	-2420	No samples
<u>Atchison</u>										
AT001	64-40W-33-DC	17861	Oil and gas co., #1 WEEDIN	1958	898	3710	3715	5	-2812	Biotite granite
AT002	63-40W-16-AA	28650	Oil and gas co., #1 SCHOOLER	1987	884	3650	3664	14	-2766	Granite
AT003	64-39W-05-CCCD	28643	Oil and gas co., McCARTNEY #1	1986	1039	3729	3736	7	-2690	Granite
AT004	64-40W-01-CACA	28666	Oil and gas co., McCARTNEY #1-11	1988	1065	3775	3800	25	-2710	Granite
<u>Audrain</u>										
AU001	50-07W-06-BC		St. Joe Minerals, 62-W-094, MX-1	1962	805	2453	3337	884	-1648	Gneiss and schist
AU002	50-07W-06-AA	25355	St. Joe Minerals, 63-W-025 MEXICO	1963	790	2546	2826	280	-1756	Gabbro and norite
AU003	51-07W-33-BA		St. Joe Minerals, 63-W-031	1963	790	2682	2954	272	-1892	Gabbro and norite
<u>Barry</u>										
B001	26-27W-32-BB	01980	Public Water Well, MONETT #2	1916	1345	1908	1908	0	-563	Granite porphyry
B002	24-26W-23-DB	02082	Oil and gas co., #1 JENKINS	1922	1065	1738	1932	194	-673	Rhyolite and trachyte
<u>Barton</u>										
BA001	32-30W-29-CC	01620	Oil and gas co., #1 FEE	1911	990	1840	1888	48	-850	Biotite granite
BA002	30-33W-01-CC	02234	Oil and gas co., #1 RODELL	1927	889	1685	1810	125	-796	Biotite granite
<u>Bates</u>										
BT001	38-33W-11-DCD	21594	Oil and gas co., #2 LA FARGE	1962	879	1985	2350	365	-1106	Rhyolite and syenite
BT002	38-31W-14-CC	02382	Oil and gas co., #2 PHILBRICK	1931	790	1640	1680	40	-850	Granite gneiss
BT003	38-31W-23-BA	02088	Oil and gas co., #1 PHILBRICK	1921	787	1585	3445	1860	-798	Schist and gneiss
BT004	40-31W-06-BDB		Oil and gas co., #1 SCULLY EST.	1919	857	1900	2008	108	-1043	Granite
BT005	38-29W-14-DB		Oil and gas co., #1 ROBINSON	1904	753	1485	1555	70	-732	Granite
BT006	38-31W-14-BAA		Oil and gas co., #1 MILLER	1982	795	1990	3500	1510	-1195	Biotite gneiss
<u>Benton</u>										
BE001	42-21W-35-CDD	28328	Gulf Minerals, LO-5	1979	940	1535	1547	12	-595	Biotite granite gneiss
BE002	42-22W-26-CDA		Gulf Minerals, LO-1	1979	950	1363	1376	13	-413	Biotite granite gneiss
BE003	42-21-15-DD		Noranda, FLN-2		980	1582	1612	30	-602	Metasediments, granite

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<i>Bollinger</i>										
BO001	30-08E-19-AAB		St. Joe Minerals, 51-W-150	1951	530	819	831	12	-289	Rhyolite breccia
BO002	32-08E-26-DA		St. Joe Minerals, 69-W-44	1969	788	1708	1719	11	-920	Granite
BO003	33-08E-35-AC		National Lead, FS-6	1956	856	1059	1064	5	-203	Rhyolite
BO005	31-09E-19-B		U.S. Borax, C		615	1775	1802	27	-1160	Not logged
BO006	29-08E-29-C		U.S. Borax, B		420	1848	1865	17	-1428	Not logged
BO007	32-09E-04-BDD		Coastal, M-BO-3-1	1979	835	1748	1758	10	-913	Rhyolite porphyry
BO008	32-09E-04-AC		Coastal, M-BO-3-2	1980	740	2011	2015	4	-1271	Red rhyolite, weath- ered
BO009	32-09E-09-ABB	28389	Coastal, M-BO-3-4	1980	820	1803	1805	2	-983	Red rhyolite porphyry
BO010	32-09E-15-BCC	28388	Coastal, M-BO-3-3	1980	820	2450	2462	12	-1630	Rhyolite ash-flow tuff, weathered, fractured
BO011	33-09E-33-CCC		Coastal, M-BO-3-7	1980	900	1427	1440	13	-527	Red rhyolite porphyry
BO012	32-09E-09-ABC		Coastal, M-BO-3-6	1980	780	2074	2091	17	-1294	Rhyolite porphyry, weathered
BO013	30-08E-36-DBBC		Exxon, PC-2	1980	520	1746	1760	14	-1226	Trachyte porphyry, slightly magnetic
BO014	31-09E-28-BDDD		Exxon, GA-1	1980	550	2213	2217	4	-1663	Red rhyolite porphyry
BO015	31-10E-30-DBAC		Exxon, MH-1	1980	550	2524	2533	9	-1974	Med gnd red rapakivi granite, porphyritic
BO016	31-09E-16-BD		Cominco, MQ-06	1974	540	1392	1403	11	-852	Rhyolite breccia
BO017	31-08E-13-AD		Cominco, MQ-08	1974	720	1600	1620	20	-880	Rhyolite ash-flow tuff
BO018	31-08E-13-AA		Cominco, MQ-11	1974	690	1757	1759	2	-1067	Rhyolite ash-flow tuff
BO019	30-08E-02-CD		Cominco, MQ-12	1974	740	2171	2176	5	-1431	Rhyolite ash-flow tuff
BO020	31-08E-13-BD		Cominco, MQ-15	1975	790	2108	2130	22	-1318	Rhyolite ash-flow tuff, eutaxitic, quartz veins
BO021	31-09E-05-CDCA		GRC, M-1	1981	760	2105	2119	14	-1345	Med gnd granite, porphyritic
BO022	31-09E-09-CB		GRC, M-2	1981	705	2271	2305	34	-1566	Red granite, weathered
BO023	31-09E-07-AABD		GRC, M-3	1981	720	2023	2037	14	-1303	Med gnd red rapakivi granite
BO024	31-08E-25-DBCA		Amax, 670-1		815	2247	2255	8	-1432	Grey granite porphyry
BO025	33-08E-24-BBB		U.S. Borax, MO-20	1981	930	1315	1346	31	-385	Rhyolite?, weathered
BO026	33-08E-24-BBB		U.S. Borax, MO-25		920	1335	1375	40	-415	Rhyolite porphyry
<i>Boone</i>										
BN001	50-12W-20-AB	18139	Oil and gas co., #1 MCALPINE	1958	882	2023	2025	2	-1141	Metarhyolite

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>Butler</u>										
BL001	25-05E-34-BCAB		Gulf Oil, PBW-1	1981	375	2559	2573	14	-2184	Granite porphyry
BL002	24-05E-03-BBB		Gulf Oil, PBW-4	1981	340	2681	2700	19	-2341	Granite porphyry
BL003	26-05E-10-A		Exxon, KN-1	1980	375	1828	1830	2	-1453	Med gnd red granite
BL004	25-04E-36-DBDB		Cominco, SF-44	1982	410	2732	2736	4	-2322	Porphyritic red granite, Butler Hill type
<u>Callaway</u>										
CA001	46-10W-34-CB		Noranda, FLN-9		620	1896	1915	19	-1276	Granite, low quartz, high feldspar
<u>Camden</u>										
CM001	37-16W-05-CB	28473	St. Joe Minerals, 63-W-034	1963	950	1481	1501	20	-521	Biotite gneiss
CM002	37-17W-14-AD	28602	Exxon, DB-1		750	1204	1211	7	-454	Gneissic granite
CM003	37-17W-28-CC	28596	Exxon, TD-1		1100	1584	1602	18	-484	Amphibole schist
CM004	37-17W-24-BDB		Newmont Exploration Ltd.	1981	978	1389	1439	50	-411	Granite gneiss and pegmatite
<u>Carter</u>										
CT001	28-01W-27-ACCC	23113	Kerr-McGee, VB-01	1964	500	1578	1581	3	-1078	Granite
CT002	27-02E-03-AAA	19731	Asarco, D-1	1961	720	1801	1802	1	-1080	Tuff
CT003	28-01W-33-BCA	20400	Asarco, P-13	1961	510	1345	1348	3	-835	No samples
CT004	27-01W-15-DAAA	21668	Phelps Dodge, 27-1W-15-1	1963	706	1338	1364	26	-632	Biotite granite
CT005	27-01W-12-BBBB	21589	Phelps Dodge, 27-1W-12-1A	1963	649	1736	1746	10	-1087	Biotite granite
CT006	27-02W-18-DDC		Bear Creek, TF-3	1960	750	2039	2042	3	-1289	Granite porphyry
CT007	27-02W-07-CC		Bear Creek, TF-1	1960	829	1545	1579	34	-716	Granite porphyry
CT008	27-02W-17-CDD		Bear Creek, TF-2	1960	741	1854	1863	9	-1113	Granite porphyry
CT010	27-01E-05-D		Exxon, DLH-1	1980	625	1344	1345	1	-719	Med gnd grey granite
CT011	27-02E-05-A		Exxon, DH-1	1980	710	1685	1695	10	-975	Red granite, Breadtray, intr. by grey granite
CT012	26-02W-03-DBDA		Cominco, SF-16	1981	650	1999	2008	9	-1349	Med gnd red porphy- ritic granite, Breadtray type
CT013	26-02W-01-DC		Cominco, SF-20	1981	800	1935	1944	9	-1135	Red porphyritic granite
CT015	27-01W-28-CACD		Cominco, VB-04	1975	515	767	807	40	-252	Fn gnd grey granite, weathered
CT017	26-01W-06-CCAC		Cominco, VB-08	1976	700	2126	2133	7	-1426	Med gnd pink granite, Butler Hill type
CT020	27-02W-30-ADAC		Cominco, WN-01	1976	735	1953	1970	17	-1218	Porphyritic red granite, Breadtray type

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>Carter</u> (continued)										
CT022	26-02W-31-CDCA	28399	Amax, 801-026	1979	975	1914	1924	10	-939	Grey trachyte porphyry, altered, fractured
CT023	25-02W-06-AB		Amax, 801-105	1980	970	2190	2204	14	-1220	Grey trachyte porphyry
CT024	26-02W-30-CDDC		Amax, 801-089	1980	1000	2152	2165	13	-1152	Red rhyolite
CT025	26-02W-31-BACA		Amax, 801-091	1980	960	2169	2173	4	-1209	Red rhyolite porphyry
CT026	26-02W-31-CDC		Amax, 801-150	1981	975	1859	1870	11	-884	Grey granite porphyry
CT027	25-02W-12-CCB		Houston Oil, BR-112D	1982	827	1974	1978	4	-1147	Grey granite porphyry
CT028	25-02W-12-CCB		Houston Oil, BR-112G	1983	830	1979	1987	8	-1149	Rhyolite breccia, ash-flow tuffs
CT029	25-02W-01-CCB		Houston Oil, BR-113A	1981	862	2029	2030	1	-1167	Purple rhyolite ash-flow tuff
CT030	25-02W-11-DAC		Houston Oil, BF-122A	1982	866	2283	2290	7	-1417	Red granite, weathered
CT031	25-02W-12-BC		Houston Oil, BR-112E	1982	680	1750	1751	1	-1070	Purple rhyolite por-
CT032	25-02W-12-CB		Houston Oil, BR-112B	1981	847	1900	1905	5	-1053	Purple rhyolite ash-flow tuff
CT033	25-02W-11-DDD		Houston Oil, BR-112A	1981	681	1853	1854	1	-1172	Purple rhyolite ash-flow
CT034	25-02W-13-BCBC		Houston Oil, BR-111A	1981	804	2127	2128	1	-1323	Grey granite porphyry
CT035	26-03E-13-C		Kerr-McGee, W-6	1966	610	2576	2580	4	-1966	Granite
CT036	25-01E-05-ACDC		Noranda, BCN-1	1981	545	2438	2445	7	-1893	Volcaniclastic rhyolite tuff
CT037	26-03E-07-CCC		Noranda, DRN-1	1981	820	2754	2760	6	-1934	Rhyolite porphyry
<u>Cass</u>										
CS001	46-32W-29-ADDA	09118	Oil and gas co., #1 BUSH SR.	1946	992	2395	2572	177	-1403	Biotite granite
CS002	44-29W-21-AAA		Oil and gas co., #2 RATZLOFF	1920	802	1795	1808	13	-993	No samples
CS003	44-33W-04-LOT 5	15420	Oil and gas co., #1 SCHULZ	1957	972	2185	2191	6	-1213	No samples
<u>Cedar</u>										
CE001	34-26W-22-BC	28603	U.S.G.S., NS-2, STOCKTON #1	1983	890	1605	1685	80	-715	Metaarkose
<u>Clark</u>										
CL001	65-06W-05-CA	18404	St. Joe Minerals, 59-M-1	1959	565	2931	3315	384	-2366	Gabbro and diorite
<u>Cooper</u>										
CP001	46-17W-25-BC		Noranda, FLN-7		720	1697	1715	18	-977	Metasediments and granite

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>Crawford</u>										
CW001	37-02W-27-BDD	25802	Asarco, BE-01		820	1633	1657	24	-813	Trachybasalt
CW002	39-02W-15-CA		St. Joe Minerals, 58-W-51	1958	720	806	886	80	-86	Trachyte
CW003	40-02W-20-CBA		St. Joe Minerals, 56-W-045	1956	835	1142	1165	23	-307	Rhyolite porphyry
CW004	35-02W-14-BC	26096	St. Joe Minerals, 56-W-037	1956	1192	853	891	38	339	Syenite
CW005	37-02W-17-CAD		Asarco, BE-02		710	1561	1584	23	-851	Amphibole-biotite granite
CW006	36-02W-10-BCDA		Asarco, BE-04		840	1453	1458	5	-613	Granophyric granite
CW007	37-02W-21-AAD		Asarco, BE-05		780	1681	1693	12	-901	Syenite porphyry
CW008	36-02W-16-DAB		Asarco, BE-06		980	1204	1225	21	-224	Syenite
CW009	36-02W-33-CBA		Asarco, BE-10		1040	1216	1232	16	-176	Granite
CW010	36-02W-35-ACA		Asarco, BE-13		1000	1135	1140	5	-135	Granophyric granite
CW011	40-03W-34-DC		Azcon, B-14		0	0	0	0	-578	Rhyolite, mineralized
CW012	39-03W-03-C	08526	U.S. Bureau of Mines, DDH #1	1944	895	1482	1824	342	-587	Rhyolite porphyry
CW013	39-03W-03-BB		U.S. Bureau of Mines, DDH #2	1944	943	1406	2081	675	-463	Rhyolite porphyry
CW014	39-03W-03-BB		U.S. Bureau of Mines, DDH #3	1944	913	1470	2302	832	-557	Rhyolite porphyry
CW015	40-02W-34-DD	01899	Oil and gas co., LOCAL OIL CO #1	1893	740	1100	1200	100	-360	No samples
CW016	35-02W-16-AD	12302	Amax, A-230	1953	1056	745	757	12	311	Granite
CW017	35-02W-09-CA	12313	Amax, A-234	1953	1000	715	728	13	285	Granophyric granite
CW018	35-02W-09-ACD	12320	Amax, A-201	1952	1097	935	970	35	162	Granophyric granite
CW019	35-02W-09-CC	12309	Amax, A-231	1953	964	570	598	28	394	Granophyric granite
CW020	35-02W-17-AA	12446	Amax, A-236	1953	887	377	389	12	510	Granophyric granite
CW021	36-04W-22-CBB	18760	Asarco, L-1	1960	940	1128	1170	42	-188	Monzonite
CW022	39-02W-02-B	14998	Bear Creek, MR-3	1956	642	1230	1232	2	-588	Syenite porphyry
CW023	40-02W-34-CCD	14830	Bear Creek, MR-1	1956	649	1188	1201	13	-539	Syenite porphyry
CW024	40-02W-340-CA	15018	Bear Creek, MR-4	1956	707	1097	1107	10	-390	Syenite porphyry
CW025	40-02W-34-AD	14975	Bear Creek, MR-2	1956	708	1062	1081	19	-354	Syenite porphyry
CW026	35-02W-08-DC	12462	Amax, A-243	1953	882	578	0	0	304	No samples
CW027	35-02W-08-DD	12448	Amax, A-238	1953	986	644	0	0	342	No samples
CW028	36-03W-13-B		Hanna, 1130	1965	970	1251	1433	182	-281	Trachyandesite
CW029	40-03W-14-BCD		Homestake, BC-1		875	1723	1724	1	-848	Dark grey rhyolite with specularite
CW030	40-03W-13-CBB		Homestake, BC-1		945	1424	1425	1	-479	Trachyte porphyry
CW031	37-02W-36-CBB		Asarco, BE-11	1967	1020	1801	1813	12	-781	Rhyolite ash-flow tuff
<u>Dade</u>										
D001	31-26W-15-ADB		U.S.G.S., NS-3, GREENFIELD #1	1983	870	1538	1615	77	-668	Biotite granite

OB No.	Location (T-R-S-Q)	Log No.	Owner and Owner No.	Date	Collar Elev.	Top of Prec.	Total Depth	Pentra- tion	Elev. Top Prec.	ROCK TYPE
<u>Dallas</u>										
DA001	35-18W-05-DC	27480	St. Joe Minerals, 63-W-005	1963	880	1399	1450	51	-519	Granite
DA002	32-19W-05-DCC		U.S.G.S., NS-5, CHARITY #1	1984	1310	1984	2204	220	-674	Granite gneiss
<u>Dent</u>										
DN001	34-06W-03-BB	02246	Oil and gas co., #1 TOM HASTEN	1928	1181	1750	2616	876	-569	Diorite, syenite, trachyte
DN002	34-02W-17-ADB		Azcon, J-1		1205	1290	1971	681	-85	Rhyolite
DN003	34-02W-09-ADB		Azcon, USA-02, J-2		1280	823	2000	1177	457	Monzonite
DN004	35-04W-25-CDD	19225	Asarco, IT-1	1960	1340	1295	1316	21	45	Granite
DN005	34-04W-06-CB		Coastal, M-DT-3-1	1979	1180	1612	1629	17	-432	Fn gnd grey granite porphyry
DN006	34-07W-31-BBD		Coastal, M-DT-5-1	1980	1250	1819	1825	6	-569	Rhyolite, sheared and altered
DN007	35-05W-33-AB		Coastal, M-DT-3-2	1980	1100	1631	1658	27	-531	Fn gnd gneissic granite, metasediment?
<u>Douglas</u>										
DO001	27-15W-24-CA	25822	St. Joe Minerals, 63-W-106	1963	1000	1837	1901	64	-837	Diorite
<u>Franklin</u>										
F001	45-03W-31-CBAA	26253	Continental Ozark, C-O-06	1966	600	2080	2083	3	-1480	Granite
F002	44-02W-13-AAD	26270	Continental Ozark, C-O-09	1966	580	2236	2237	1	-1656	Granite
F003	40-02W-18-BBA	08746	U.S. Bureau of Mines, #2 FRED STADLER	1945	1035	70	109	39	965	Rhyolite
F004	40-02W-18-BA	08722	U.S. Bureau of Mines, #1 FRED STADLER	1945	1054	25	35	10	1029	Rhyolite
F005	41-02W-18-AC	17328	Private Water Well, G R DUNCAN #1	1958	735	1605	1906	301	-870	Granite
F006	43-01E-33-AAC		Coastal, M-FK-1-1	1980	580	1899	1921	22	-1319	Cse gnd red granite
F007	43-01E-11-DDD		Coastal, M-FK-2-1	1979	700	2209	2224	15	-1509	Cse gnd red granite
F008	43-01E-33-CCB		Coastal, M-FK-1-2	1980	510	1732	1746	14	-1222	Cse gnd red granite
F009	41-02E-17-CCD		Amselco, Inc., MH-1	1981	720	1875	2472	597	-1155	Granite
<u>Gasconade</u>										
G001	44-06W-19-BCD	26243	Continental Ozark, C-O-02	1966	555	1710	1712	2	-1155	Granite
G002	44-06W-34-DAD	26234	Continental Ozark, C-O-04	1966	555	1751	1760	9	-1196	Biotite granite, mylonitized
G003	44-04W-06-BDD	26246	Continental Ozark, C-O-05	1966	660	2160	2168	8	-1500	Granite
G004	45-04W-06-CAD	26254	Continental Ozark, C-O-07	1966	640	2247	2251	4	-1607	Syenite
G005	45-06W-31-CDA	26261	Continental Ozark, C-O-08	1966	520	1824	1828	4	-1304	Biotite granite

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>Gentry</u>										
GE001	63-31W-18-AD	27720	Anschutz, #1 QUINN	1974	990	3394	3420	26	-2404	Granite gneiss
<u>Greene</u>										
GR001	28-22W-07-BBC	27062	Public Water Well, SPRINGFIELD #1	1972	1252	2120	2190	70	-868	Granite
<u>Hickory</u>										
HI001	37-21W-02-CA	04580	Oil and gas co., #1 MAY WILSON	1938	1026	1500	1733	233	-474	Biotite granite
<u>Holt</u>										
HO001	63-40W-21-AA	18821	Oil and gas co., #1 CURRIE	1959	973	3138	3210	72	-2165	Biotite granite
HO002	63-40W-21-AC	19272	Oil and gas co., #1 CURRIE HUMBLE	1960	908	2993	3208	215	-2085	Granite
HO003	63-40W-20-DCAA	28642	Oil and gas co., #1 SHULTZ	1986	870	3230	3414	184	-2360	Orthoclase-rich granite
HO004	63-40W-20-DBAA	28656	Oil and gas co., #2 SHULTZ	1987	871	3490	3532	42	-2619	Pink granite
<u>Howard</u>										
HW001	51-17W-22-C	26695	Cerro Corp., GT-1	1970	675	2237	2243	6	-1562	Biotite granite
HW002	50-17W-02-AB	26916	Cerro Corp., GT-2	1971	820	2365	2375	10	-1545	Biotite granite
HW003	50-17W-13-AB	26796	Cerro Corp., GT-3	1971	800	2316	2336	20	-1516	Biotite granite
HW004	50-17W-27-BD	26836	Cerro Corp., GT-4	1971	770	2148	2160	12	-1378	Biotite granite
HW005	50-17W-33-AC	26863	Cerro Corp., GT-5A	1971	825	2325	2350	25	-1500	Schist
<u>Howell</u>										
HL001	26-08W-28-DB	03011	Oil and gas co., #1 POMONA	1929	1150	2500	3815	1315	-1350	Biotite granodiorite
HL002	24-08W-21-CA	03014	Public Water Well, WEST PLAINS #4	1923	958	2437	2692	255	-1479	Granite
<u>Iron</u>										
I001	34-02W-13-BC		Cominco, M-188		1277	1483	1545	62	-206	Trachyte
I002	35-01W-19-DAA		Amax, A-239	1953	1020	512	526	14	508	Granophyric granite
I003	35-01W-19-DDD		Amax, A-291	1954	1142	686	694	8	456	Granophyric granite
I004	35-01W-19-DDA		Amax, A-294	1954	1030	513	534	21	517	Granophyric granite
I005	35-01W-20-BC	13624	Amax, A-290	1954	1124	765	795	30	359	Granophyric granite
I006	35-01W-20-CDB	12293	Amax A-218	1953	1175	572	610	38	603	Granophyric granite
I007	35-01W-30-ACC		St. Joe Minerals, 58-VB-12	1958	1115	676	750	74	439	Porphyry
I008	35-01W-29-BBB		Amax, A-293	1954	1133	636	670	34	497	Granophyric granite
I009	35-01W-23-DBC	20254	Cominco, CT-06	1961	1260	896	917	21	364	Rhyolite
I010	35-01W-23-ABD	20248	Cominco, CT-07	1961	1246	874	882	8	372	Rhyolite porphyry
I011	35-01E-21-BBC	20380	Cominco, CT-12	1961	1297	578	595	17	719	Felsite porphyry
I012	35-01E-21-CBB	20378	Cominco, CT-14	1961	1343	822	840	18	521	Felsite porphyry

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<i>Iron</i> (continued)										
I013	35-01E-30-BCD	20207	Cominco, CT-16	1961	1292	530	541	11	762	Felsite porphyry
I014	35-01E-30-CCD	20363	Cominco, CT-15	1961	1183	856	862	6	327	Felsite porphyry
I015	35-01E-036-DB	03144	Private Water Well, #1 SWIFT	1934	1180	765	800	35	415	Porphyry
I016	34-02W-03-BBB		Amax, 430	1960	1210	978	988	10	232	No samples
I017	34-01W-06-BC	20970	New Jersey Zinc, 16-EE	1961	1109	752	775	23	357	Granite porphyry
I018	34-01W-06-BC		New Jersey Zinc, 17-EE	1961	1106	773	776	3	333	Granite porphyry
I019	34-01W-06-DBB	19514	Hanna, 1076	1960	1189	810	961	151	379	Felsite
I020	34-01W-06-DBC		Hanna, 1079	1961	1261	1178	1195	17	83	Felsite
I021	34-01W-03-B	19697	New Jersey Zinc, 10-EE	1961	1093	590	610	20	503	Rhyolite
I022	34-01W-02-BB	20967	New Jersey Zinc, 12-EE	1961	1198	577	586	9	621	Rhyolite
I023	34-01W-01-AD	20966	New Jersey Zinc, 11-EE	1961	1120	625	625	0	495	Conglomerate
I024	34-02E-04-CDC		Azcon, USA-03	1962	1340	663	665	2	677	Rhyolite porphyry
I025	34-02E-02-DCD		Azcon, USA-14A	1963	1130	619	629	10	511	Granite
I026	34-02E-08-CD		Azcon, USA-10	1962	1480	31	33	2	1449	Rhyolite
I027	34-02E-09-DBA		Azcon, USA-02	1962	1260	500	515	15	760	Rhyolite
I028	34-02E-09-DCB		Azcon, USA-07	1962	1240	374	393	19	866	Granite
I029	34-02E-10-CAA		Azcon, USA-12	1962	1180	631	638	7	549	Rhyolite
I030	34-02E-11-DBC	24247	Azcon, USA-11	1962	1180	641	690	49	539	Granite
I031	34-02E-17-BAD		Azcon, USA-01	1954	0	325	340	15	0	Porphyry
I032	34-02E-14-CCC		Azcon, USA-08	1962	1190	660	666	6	530	Rhyolite porphyry
I033	34-02E-22-ABB		Azcon, USA-06	1962	1325	310	313	3	1015	Rhyolite porphyry
I034	34-02E-23-BBD		Azcon, USA-05	1962	1325	591	603	12	734	Rhyolite porphyry
I035	34-03E-09-DBBB	02503	Private Water Well, #1 THOMAS	1931	1147	305	308	3	842	Granite
I036	34-04E-30-CB		Mining co., DDH #30	1896	950	280	294	14	670	Porphyry
I037	34-04E-30-DDC	13850	Private Water Well, #5 MOSES	1955	925	195	225	30	730	Rhyolite porphyry
I038	34-04E-32-AAD	06725	Private Water Well, KOELSCH	1940	930	115	120	5	815	Porphyry
I039	34-04E-32-ADD	06717	Private Water Well, J.W. WOOD	1940	915	115	131	16	800	Porphyry
I040	34-04E-32-CBA	02213	Public Water Well, IRONTON #1	1928	905	282	292	10	623	Rhyolite porphyry
I041	34-04E-32-CDD	08606	Public Water Well, IRONTON #4	1944	919	190	424	234	729	Porphyry
I042	33-03E-03-AAA	05205	Private Water Well, C.B. WILKES	1938	1084	75	77	2	1009	Porphyry
I043	33-04E-06-AC	02510	Private Water Well, #1 GOODMAN	1931	964	265	296	31	699	Granite and rhyolite
I044	33-04E-05-BB	10217	Public Water Well, IRONTON #5	1948	921	300	340	40	621	Porphyry
I045	33-04E-05-ACC	12433	Public Water Well, ARCADIA #3	1953	904	225	255	30	679	Porphyry
I046	33-04E-04-CB	02480	Private Water Well, #1 LEWIS	1931	958	280	294	14	678	No samples
I047	33-04E-04-ADD	14458	Private Water Well, #2 BAPTIST HOME	1956	935	165	180	15	770	Porphyry
I048	33-04E-20-AC	06066	Private Water Well, E. RENARD	1940	1080	460	480	20	620	Granite
I049	31-03E-14-BDA	09664	Park City Mining, 7	1947	820	610	616	6	210	Porphyry
I050	31-03E-14-BBD	09661	Park City Mining, 4	1947	785	255	260	5	530	Porphyry
I051	31-03E-14-BBA	09592	Park City Mining, 1	1947	785	430	450	20	355	Porphyry

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<i>Iron</i> (continued)										
I052	31-03E-14-BAB	09577	Park City Mining, 3	1947	835	535	545	10	300	Porphyry
I053	31-03E-14-DAC	09544	Park City Mining, 9	1947	705	500	508	8	205	Porphyry
I054	31-03E-14-DAD	11707	St. Joe Minerals, 51-W-142, AN-7	1951	669	458	459	1	211	No samples
I055	31-03E-14-DAA	09859	Park City Mining, 25	1947	739	610	615	5	129	Porphyry
I056	31-03E-13-CCC	09665	Park City Mining, 16	1947	670	550	560	10	120	Porphyry
I057	31-03E-13-CCB	09666	Park City Mining, 14	1947	645	540	565	25	105	Porphyry
I058	31-03E-13-CD	09944	Park City Mining, 29	1948	824	280	300	20	544	Porphyry
I059	31-03E-13-CDD	09946	Park City Mining, 27	1948	0	380	415	35	0	Porphyry
I060	31-03E-23-BCA	09553	Park City Mining, 3	1947	616	385	391	6	231	Porphyry
I061	31-03E-23-CAB	11637	St. Joe Minerals, 51-W-130, AN-17	1951	700	395	412	17	305	Porphyry
I062	31-03E-24-CD	03596	Private Water Well, #1 WARNEKE	1936	598	420	427	7	178	No samples
I063	31-03E-24-AB	09766	Park City Mining, 19N	1947	0	265	285	20	0	Porphyry
I064	31-03E-24-ABA	09767	Park City Mining, 20N	1947	0	405	411	6	0	Porphyry
I065	30-04E-08-BC	03393	Private Water Well, DH-A-22, BOLCH		515	265	281	16	250	Diabase
I066	34-01W-06-D		Azcon, FED-3	1973	1306	1418	1838	420	-112	Biotite granite
I067	34-01W-06-D		Azcon	1973	0	0	0	0	0	Biotite granite
I068	34-01W-06-D		Azcon	1973	0	0	0	0	0	Biotite granite
I069	34-01W-30-CCC		Amax, 1109	1973	1321	1583	1585	2	-262	Red biotite granite
I070	33-03E-25-D		Azcon, K-11		1217	1217	565	565	1217	Bedded tuff and limestone
I071	34-02W-14-ACC		Cominco, W-26	1974	250	478	0	0	-228	Biotite granite
I072	34-01W-06-DB		Azcon, FED-1	1973	1290	907	1338	431	383	Rhyolite, mineralized
I073	34-01W-06-D		Azcon, FED-2	1973	1307	1156	1548	392	151	Rhyolite, mineralized
I074	30-03E-09-BA	24241	New Jersey Zinc, 2-AN		760	799	825	26	-39	No samples
I075	30-03E-03-DA	02445	St. Louis Smelting Co., 12	1931	719	435	460	25	284	No samples
I076	30-03E-02-DB	02410	St. Louis Smelting Co., 11	1931	665	750	785	35	-85	Granite porphyry
I077	30-04E-04-CA	02473	St. Louis Smelting Co., 24	1931	608	560	571	11	48	Porphyry
I078	30-04E-04-CDD	02458	St. Louis Smelting Co., 21	1931	592	640	650	10	-48	Felsite
I079	30-04E-05-DCB	02417	St. Louis Smelting Co., 3	1931	564	395	440	45	169	Porphyry
I080	30-04E-05-CBD	02412	St. Louis Smelting Co., 5 GOODMAN	1930	615	710	743	33	-95	Porphyry
I081	30-04E-08-ACB	02416	St. Louis Smelting Co., 7	1930	523	380	400	20	143	Porphyry
I082	30-04E-08-AB	02418	St. Louis Smelting Co., 6	1930	540	310	327	17	230	Porphyry
I083	30-04E-09-AB	02444	St. Louis Smelting Co., 20	1931	550	150	255	105	400	Felsite
I084	34-03E-15-CD		Private Water Well, DDH-12, SWEENEY	1896	1300	320	348	28	980	Porphyry
I085	33-03E-28-BDB	23937	Private Water Well, PHELPS	1965	1208	25	200	175	1183	Rhyolite
I086	33-04E-12-ADD	22704	Private Water Well, BROWERS	1963	1120	0	158	158	1120	Porphyry

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>Jackson</u>										
J001	50-29W-17-AAA	19211	Azcon, #1 DIECKMANN	1960	708	2268	3962	1694	-1560	Biotite granite
J002	50-30W-17-DD	03061	Oil and gas co., #1 PERRIN	1924	772	2281	4200	1919	-1509	Granite
J003	48-32W-07-BA	01534	Oil and gas co., #1 FEE, BLAIR	1888	929	2350	2401	51	-1421	Biotite gneiss
J004	47-31W-27-DB	02096	Oil and gas co., #1 GREENWOOD	1921	967	2214	2520	306	-1247	Rhyolite
J005	49-29W-09-DD		Oil and gas co., #1 GUY	1926	765	2180	2276	96	-1415	Granite
J006	49-29W-06-DC		Oil and gas co., #1 STEINHOUSER	1926	932	2400	2465	65	-1468	Granite
<u>Jasper</u>										
JA001	28-31W-03-CAA	01872	Public Water Well, CARTHAGE #06 FEE	1915	955	1810	1854	44	-855	Granite
JA002	28-32W-36-DCB	06507	Private Water Well, #4 ATLAS POWDER	1941	970	1735	1747	12	-765	Granite
JA003	28-31W-10-ADD	27235	Public Water Well, CARTHAGE #10	1972	1012	1825	1865	40	-813	Biotite granite
JA004	28-31W-02-CBA	19161	Public Water Well, CARTHAGE #09	1978	963	1790	1825	35	-827	Biotite granite
<u>Jefferson</u>										
JE001	39-04E-33-BAAD	25800	Asarco, DS-02		680	858	884	26	-178	Trachybasalt
JE002	39-05E-18-DAB		Asarco, DS-12		600	1718	1724	6	-1118	Magnetite trachyte
JE003	38-04E-02-CAD		Asarco, DS-03		860	1042	1056	14	-182	Trachyte
JE004	39-04E-27-DAC		Asarco, DS-06		880	850	858	8	30	Trachyte porphyry
JE005	39-04E-11-AAD		Asarco, DS-11		720	1809	1815	6	-1089	Trachyte
JE006	40-04E-10-CA		Homestake, HH1-1	1976	801	2248	2264	16	-1447	Trachyte? porphyry, sheared and altered
<u>Johnson</u>										
JO001	44-25W-20-DDB	28077	Public Water Well, LEETON #2	1977	932	1265	1300	35	-333	Muscovite schist
<u>Laclede</u>										
L001	33-15W-23-DBD	25717	Azcon, B-01	1968	1178	1837	2838	1001	-659	Gabbro and granite
L002	33-15W-23-DB	17510	St. Joe Minerals, 57-M-2	1957	1160	1808	2150	342	-648	Gabbro and diorite
L003	35-14W-09-BCDD	28477	St. Joe Minerals, 63-W-029	1963	885	1647	1726	79	-762	Sillimanite schist
L004	33-13W-33-BA	28495	St. Joe Minerals, 63-W-089	1963	996	1818	1840	22	-822	Biotite gneiss
L005	34-15W-34-DB	24490	Mofero, Inc., #1	1966	1070	1641	1716	75	-571	Gabbro and diorite
L006	33-14W-20-CABB	24544	Mofero, Inc., #2	1966	1183	1825	1995	170	-642	Gabbro and diorite
L007	33-15W-14-BBC	24670	Mofero, Inc., #3	1966	1183	1825	1960	135	-642	Gneissic granite and gabbro
L008	34-16W-14-DA	27178	Public Water Well, LEBANON #5	1972	1305	1715	1760	45	-410	Biotite granite

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>Laclede</u> (continued)										
L009	34-16W-03-C	28322	Public Water Well, LEBANON #6	1979	1265	1815	1825	10	-550	No samples
L010	36-17W-13-DCD		Newmont Exploration Ltd.	1981	1107	1533	1583	50	-426	Granite (protomylonite)
<u>Lafayette</u>										
LA001	49-29W-01-BCC	20186	Oil and gas co., #1 DRECKTRAH	1961	776	2175	2257	82	-1399	Granite
<u>Macon</u>										
M001	56-15W-28-DDA	01632	Oil and gas co., POWELL #1 FEE	1907	810	2610	3000	390	-1800	Granite
<u>Madison</u>										
MA001	32-08E-07-DAC		St. Joe Minerals, 62-W-081	1962	1000	6	610	604	994	Rhyolite
MA002	31-07E-03-DAB		St. Joe Minerals, 51-W-090	1951	670	457	466	9	213	Granite porphyry
MA003	31-08E-08-DAB	11615	St. Joe Minerals, 51-W-155	1951	620	791	800	9	-171	Granite porphyry
MA004	33-06E-21-AC		St. Joe Minerals, 51-W-151	1951	650	79	107	28	571	Amphibole granite
MA005	31-08E-18-CDB	11559	St. Joe Minerals, 51-W-102	1951	535	791	816	25	-256	Rhyolite tuff
MA006	31-07E-11-AAD	11557	St. Joe Minerals, 51-W-110	1951	595	672	686	14	-77	Granite porphyry
MA007	32-08E-21-DCC	11848	St. Joe Minerals, 51-W-191	1951	605	999	1056	57	-394	Biotite granite
MA008	32-08E-32-CCC	11874	St. Joe Minerals, 52-W-035	1952	765	1266	1286	20	-501	Granite porphyry
MA009	32-07E-36-DBA	11549	St. Joe Minerals, 51-W-095	1951	655	741	756	15	-86	Rhyolite porphyry
MA010	31-06E-18-DCC		St. Joe Minerals, 51-W-119	1951	515	744	774	30	-229	Rhyolite
MA011	31-05E-13-ACC	11636	St. Joe Minerals, 51-W-123	1951	500	669	670	1	-169	Rhyolite
MA012	34-07E-35-AAA		St. Joe Minerals, 52-W-110	1952	1000	815	818	3	185	Granite
MA013	34-07E-25-CAD		St. Joe Minerals, 52-W-180	1952	945	740	753	13	205	Biotite granite
MA014	34-07E-34-CCD		St. Joe Minerals, 53-W-38	1953	836	315	320	5	521	Amphibole granite
MA015	34-07E-35-AA		St. Joe Minerals, 52-W-116	1952	1045	683	684	1	362	Granite
MA016	34-07E-35-CB		St. Joe Minerals, 52-W-125	1952	1016	815	826	11	201	Granite
MA017	34-08E-30-CBA		St. Joe Minerals, 54-W-141	1954	819	780	786	6	39	Amphibole granite
MA018	34-07E-35-BBB		St. Joe Minerals, 54-W-146	1954	949	653	661	8	296	Granite
MA019	34-07E-34-AD	08409	St. Joe Minerals, 40-M-80	1940	925	700	705	5	225	Granite
MA020	34-07E-25-DC		Private Water Well, #1 SHELDON-DOUGLAS	1926	860	572	575	3	288	Granite
MA021	34-05E-20-D	22668	Private Water Well, #1 MARY BONE	1963	776	105	300	195	671	Granite
MA022	34-05E-29-CCB	21100	Private Water Well, #1 HARRINGTON	1962	791	0	158	158	791	Granite and diabase
MA023	34-08E-33-DDA	14746	National Lead, WRG-1	1956	834	470	475	5	364	Granite
MA024	33-05E-12-ADDD	23058	U.S. Forest Service, #1	1964	712	10	100	90	702	Granite
MA025	33-05E-13-AA	23073	U.S. Forest Service, #3	1964	591	25	35	10	566	Granite
MA026	33-06E-01-BD	08413	Fredericktown Lead, 19C	1943	907	132	134	2	775	Granite
MA027	33-06E-02-AD	09703	Fredericktown Lead, 158C	1947	895	56	60	4	839	Rhyolite

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<i>Madison</i> (continued)										
MA028	33-06E-12-BA	09761	Park City Mining, 2L	1947	795	200	203	3	595	Porphyry
MA029	33-06E-12-DB	09857	Park City Mining, L-14	1947	752	105	125	20	647	Porphyry
MA030	33-06E-12-AB	09854	Park City Mining, L-07	1947	776	45	50	5	731	Porphyry
MA031	33-06E-12-AC	09850	Park City Mining, L-12	1948	758	60	70	10	698	Porphyry
MA032	33-06E-12-ABCC	09853	Park City Mining, L-06	1947	776	45	55	10	731	Porphyry
MA033	33-06E-12-ABCC	09849	Park City Mining, L-11	1947	782	75	80	5	707	Porphyry
MA034	33-06E-12-ACC	09768	Park City Mining, L-04	1947	775	73	75	2	702	Porphyry
MA035	33-07E-06-CBC	09329	Fredericktown Lead, 93C	1946	784	122	125	3	662	Porphyry
MA036	33-07E-08-CD	04939	Public Water Well, FREDERICKTOWN 6	1938	733	230	237	7	503	Porphyry
MA037	33-07E-13-CAD	08391	Eagle-Picher, #1 WHITE	1943	815	420	425	5	395	Porphyry
MA038	33-07E-13-CDA	08396	Eagle-Picher, #5 WHITE	1943	822	380	408	28	442	Porphyry
MA039	33-07E-13-DDC	08356	Eagle-Picher, J-2	1943	833	394	405	11	439	Porphyry
MA040	33-07E-15-CAA	10245	Park City Mining, E-13	1948	774	205	208	3	569	Porphyry
MA041	33-07E-15-CB	10253	Park City Mining, E-04	1948	794	190	195	5	604	Porphyry
MA042	33-07E-15-CCD	10525	Park City Mining, E-21	1948	830	280	290	10	550	Granite
MA043	33-07E-15-BCA	10248	Park City Mining, E-16	1948	791	165	170	5	626	Porphyry
MA044	34-07E-26-CCD	08492	Mine La Motte Corp., 43-M-283	1943	915	655	665	10	260	Granite
MA045	33-07E-20-BCB	05392	Public Water Well, FREDERICKTOWN 8	1939	787	498	500	2	289	Porphyry
MA046	33-07E-22-BBC	02384	National Lead, 1 NEWCUM		910	400	405	5	510	Porphyry
MA047	33-07E-14-DD	09835	National Lead, MC-1	1947	852	445	455	10	407	Porphyry
MA048	33-07E-23-DC	09817	National Lead, RY-2	1947	988	520	560	40	468	Porphyry
MA049	33-07E-24-BD	09820	National Lead, ME-2	1948	935	680	697	17	255	Porphyry
MA050	33-07E-24-AD	09826	National Lead, CO-1	1948	894	225	235	10	669	Porphyry
MA051	33-07E-24-AA	08392	Eagle-Picher, J-3	1943	849	310	333	23	539	Porphyry
MA052	33-07E-24-BBA	08355	Eagle-Picher, W-2	1943	830	487	495	8	343	Porphyry
MA053	33-07E-24-AB	08393	Eagle-Picher, W-4	1943	791	340	365	25	451	Porphyry
MA054	33-07E-26-BA	09827	National Lead, RY-3	1947	978	580	660	80	398	Porphyry
MA055	33-07E-26-AC	09822	National Lead, TH-3	1947	991	505	515	10	486	Granite
MA056	33-07E-26-DB	09821	National Lead, TH-2	1947	794	250	275	25	544	Porphyry
MA057	33-07E-26-BAC	11734	National Lead, RY-8	1951	987	625	630	5	362	Granite
MA058	33-07E-27-CB	02316	National Lead, 86 SCHULTE		915	670	682	12	245	No samples
MA059	33-07E-28-BCC	02228	National Lead, 64 SCHULTE		834	308	309	1	526	No samples
MA060	33-07E-28-AA	10083	National Lead, PA-2	1948	983	600	601	1	383	Porphyry
MA061	33-07E-30-AAB	09116	Park City Mining, H-1	1946	770	285	286	1	485	Porphyry
MA062	33-07E-30-BD	09296	Park City Mining, PER-10	1946	745	260	261	1	485	Porphyry
MA063	33-07E-30-AC	09042	Park City Mining, PER-05	1945	748	305	310	5	443	Porphyry
MA064	33-07E-30-AB	09117	Park City Mining, PER-07	1946	750	320	330	10	430	Porphyry

<u>OB No.</u>	<u>Location</u> <u>(T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar</u> <u>Elev.</u>	<u>Top of</u> <u>Prec.</u>	<u>Total</u> <u>Depth</u>	<u>Pentra-</u> <u>tion</u>	<u>Elev.</u> <u>Top</u> <u>Prec.</u>	<u>ROCK TYPE</u>
<i>Madison</i> (continued)										
MA065	33-07E-30-BC	09288	Park City Mining, PER-08	1946	755	305	310	5	450	Porphyry
MA066	33-07E-35-B	09603	Sweetwater, SW-3	1947	947	742	747	5	205	Porphyry
MA067	33-07E-35-DB	09608	National Lead, VB-2	1947	756	370	385	15	386	Porphyry
MA068	33-07E-35-AAD	09695	National Lead, VB-1	1947	849	236	255	19	613	Porphyry
MA069	33-08E-03-BDD	14623	National Lead, WW-1	1956	989	932	934	2	57	Granite
MA070	33-08E-03-CAA	17455	National Lead, WW-3	1957	840	1350	1374	24	-510	No samples
MA071	33-08E-06-BDD		National Lead, 11	1925	680	380	382	2	300	Porphyry
MA072	33-08E-18-DBC		National Lead, 18	1926	820	431	432	1	389	Porphyry
MA073	33-08E-19-DDD		National Lead, 21	1926	920	777	779	2	143	Porphyry
MA074	33-08E-20-AAAC		National Lead, 19	1926	760	612	625	13	148	Porphyry
MA075	33-08E-27-AAB	09823	National Lead, GM-1	1948	870	475	475	0	395	Porphyry
MA076	33-08E-29-BBC		National Lead, US-18	1952	878	880	890	10	-2	Porphyry
MA077	33-08E-29-BCB		National Lead, US-16	1952	893	875	885	10	18	No samples
MA078	33-08E-29-B		National Lead, US-13	1951	774	805	815	10	-31	Porphyry
MA079	33-08E-29-BCC		National Lead, MI-7	1952	883	850	852	2	33	Porphyry
MA080	33-08E-29-ABC		National Lead, US-11	1951	727	730	735	5	-3	Porphyry
MA081	33-08E-29-AAB		National Lead, US-10	1951	824	865	870	5	-41	Porphyry
MA082	33-08E-29-BDDA		National Lead, US-14	1951	889	790	805	15	99	Porphyry
MA083	33-08E-29-DBB		National Lead, US-08	1950	879	795	800	5	84	Porphyry
MA084	33-08E-30-ABC		National Lead, US-04, MI-3	1950	764	695	731	36	69	Porphyry
MA085	33-08E-30-ADC		National Lead, US-09, MI-4	1950	873	860	870	10	13	Porphyry
MA086	33-08E-30-ADD		National Lead, US-19	1953	909	819	821	2	90	Granite
MA087	33-08E-31-ADB		National Lead, 8	1925	680	230	231	1	450	Granite
MA088	32-05E-25-ABB	09046	Amax, A-044	1946	660	515	540	25	145	Porphyry
MA089	32-05E-26-DACC	09083	Amax, A-007	1946	580	325	338	13	255	Porphyry
MA090	32-06E-18-DD	09079	Amax, A-011	1946	740	160	176	16	580	Porphyry
MA091	32-06E-18-DCD	09009	Amax, A-001	1945	700	185	205	20	515	Felsite
MA092	32-06E-18-DC	09078	Amax, A-101	1946	750	10	20	10	740	Porphyry
MA093	32-06E-19-BCB	09016	Amax, A-002	1945	620	240	269	29	380	Granite porphyry
MA094	32-07E-01-CB		National Lead, 12 ALBRIGHT	1925	720	338	339	1	382	Porphyry
MA095	32-07E-04-BB	09818	National Lead, KI-2	1947	991	632	640	8	359	Porphyry
MA096	32-07E-04-CD	09518	National Lead, SW-1	1947	997	635	640	5	362	Porphyry
MA097	32-07E-08-AB	09833	National Lead, SW-7	1947	876	715	810	95	161	No samples
MA098	32-07E-09-AB	09516	National Lead, PR-1	1947	990	620	626	6	370	Porphyry
MA099	32-08E-15-DDC	25310	Private Water Well, #1 COOK, MALONEY	1967	699	524	530	6	175	Rhyolite
MA100	32-08E-27-DCA	11704	St. Joe Minerals, 51-W-182	1951	600	1321	1322	1	-721	Granite
MA101	32-08E-32-CDD	11610	St. Joe Minerals, 51-W-113	1951	805	1440	1441	1	-635	Porphyry

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>Madison</u> (continued)										
MA102	31-05E-09-DD	02151	National Lead, 10 SACO		520	201	201	0	319	Porphyry
MA103	31-05E-15-DA	02155	National Lead, 9 SACO		490	321	321	0	169	Porphyry
MA104	31-05E-13-BB	02159	National Lead, 13 SACO		500	485	523	38	15	Porphyry
MA105	31-05E-27-AC	02152	National Lead, 11 SACO		590	460	465	5	130	Porphyry
MA106	31-05E-31-BBBA	02158	National Lead, 7 BRUNOT		730	547	547	0	183	Porphyry
MA107	31-06E-07-D	11592	St. Joe Minerals, 51-W-088	1951	555	646	646	0	-91	Conglomerate
MA108	31-06E-17-CA		National Lead		530	699	719	20	-169	Porphyry
MA109	31-07E-04-DD	11556	St. Joe Minerals, 51-W-087	1951	740	940	940	0	-200	Porphyry
MA110	31-07E-05-AA	11533	St. Joe Minerals, 51-W-067	1951	805	865	870	5	-60	Porphyry
MA111	31-08E-160-AA	11702	St. Joe Minerals, 51-W-161	1951	550	1605	1646	41	-1055	Porphyry
MA112	31-08E-30-BAB	11553	St. Joe Minerals, 51-W-100	1951	490	1470	1470	0	-980	Conglomerate
MA113	33-08E-34-BB		St. Joe Minerals, 68-W-24	1969	870	717	751	34	153	Trachyte porphyry
MA114	33-08E-34-BC		St. Joe Minerals, 68-W-28	1968	895	898	909	11	-3	Granite
MA115	33-08E-34-DA		St. Joe Minerals, 68-W-22	1968	842	1167	1173	6	-325	Trachyte porphyry
MA116	32-08E-09-AA		St. Joe Minerals, 68-W-52	1968	781	878	934	56	-97	Andesite porphyry
MA117	32-08E-10-DB		St. Joe Minerals, 68-W-55	1968	803	691	716	25	112	Andesite porphyry
MA118	32-08E-10-CD		St. Joe Minerals, 68-W-36	1968	826	0	230	0	0	Felsite porphyry
MA119	33-07E-35-BCA		Anschutz, #1 BOTKIN	1980	1045	769	782	13	276	Amphibole-biotite granite
MA120	33-07E-35-BA		Anschutz, #2 BOTKIN	1980	1000	453	468	15	547	Magnetite trachyte
MA121	33-07E-13-CDC		Anschutz, #1 BENNET	1980	810	334	352	18	476	Rhyolite porphyry
MA122	33-07E-13-CDD		Anschutz, #2 BENNET	1980	810	391	411	20	419	Rhyolite
MA127	31-08E-22-AC		Cominco, MQ-09	1974	650	1184	1186	2	-534	Rhyolite breccia
MA128	31-08E-16-CB		Cominco, MQ-16	1975	710	1491	1495	4	-781	Rhyolite porphyry, sheared and altered
MA129	31-08E-15-CBB		Cominco, MQ-17	1975	515	1472	1486	14	-957	Trachyte porphyry, slightly magnetic
MA130	33-05E-05-B	21099	Private Water Well, GIBBONS	1962	806	0	220	220	806	Pink granite
MA131	32-05E-19-BCB	23006	U.S. Forest Service	1964	678	0	95	95	678	Rhyolite
<u>Maries</u>										
MR001	40-08W-30-C LO	27448	St. Joe Minerals, 63-W-072	1963	630	1521	1547	26	-891	Biotite gneiss
MR002	39-09W-32-D	00490	Oil and gas co., L. E. DAVIS	1909	900	1690	1800	110	-790	Granite
<u>McDonald</u>										
MC001	21-31W-28-ABB	25812	St. Joe Minerals, 66-W-084	1966	940	1461	1474	13	-521	Granite porphyry
MC002	21-34W-27-CA	25160	Amex, HC-1	1967	1025	1895	1905	10	-870	Granophyric granite
MC003	22-34W-21-CC	26287	New Jersey Zinc, W-1		776	1506	1516	10	-730	Granite porphyry
MC004	21-34W-10-ACD	15388	Oil and gas co., #1 CHRISCO	1956	1013	1448	1502	54	-435	Granophyric granite

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>Miller</u>										
ML001	39-14W-06-BB		Oil and gas co., #1 WILLIAMS	1920	650	1350	1487	137	-700	Granite
<u>Moniteau</u>										
MN001	45-14W-08-AB		Noranda, FLN-8	1983	660	1600	1607	7	-940	Granite
<u>Morgan</u>										
MG001	40-17W-27-BB	28526	St. Joe Minerals, 62-W-153	1962	740	1350	1372	22	-610	Biotite granite
MG002	42-16W-24-BC		St. Joe Minerals, 62-W-126	1962	893	1726	1862	136	-833	Diorite
MG003	42-19W-04-DD	08405	Oil and gas co., #1 FISHER	1942	1061	1465	1960	495	-404	Biotite adamellite
MG004	42-18W-24-ACCB	28301	Gulf Minerals, LO-2, LO-2A	1979	980	1465	1477	12	-485	Gneissic granite
MG005	45-19W-30-CB		Noranda, FLN-1		760	1535	1543	8	-775	Metasediments
MG006	43-19W-04-BB		Noranda, FLN-3		1000	1617	1631	14	-617	Metasediments, granite
MG007	45-19W-19-DBAA		Noranda, FLN-5		810	1586	1606	20	-776	Metasediments, granite
MG008	44-19W-03-BB		Noranda, FLN-6		800	1655	1675	20	-855	Metasediments
<u>Newton</u>										
NE001	26-33W-07-BDC	28305	Private Water Well, LOMA LINDA EST.	1979	1070	1675	1685	10	-605	Granite porphyry
<u>Nodaway</u>										
NO001	63-36W-31-CB	28297	Texas Pacific Oil Co., #1 A. FELTON	1977	989	3730	3740	10	-2741	Biotite gneiss
<u>Oregon</u>										
O001	25-06W-07-CAA	25689	Azcon, L-1	1968	730	2197	3000	803	-1467	Gabbro and norite
O002	25-06W-07-CBA	26580	Azcon, L-2	1970	882	2344	3008	664	-1462	Gabbro and norite
O003	25-06W-07-C	26610	Azcon, L-4	1970	778	2250	3000	750	-1472	Gabbro and norite
<u>Osage</u>										
OS001	45-07W-20-CAA	26236	Continental Ozark, C-O-01	1966	610	1879	1882	3	-1269	Granite porphyry
OS002	44-08W-03-AAA	26288	Continental Ozark, C-O-10	1966	630	1841	1955	114	-1211	Rhyolite tuff
<u>Petis</u>										
PT001	45-21W-22-BB	12283	Public Water Well, SEDALIA #09	1953	791	1530	1530	0	-739	Muscovite gneiss
PT002	45-21W-22-BC	12960	Public Water Well, SEDALIA #11	1954	769	1517	1517	0	-748	Muscovite gneiss
PT003	45-21W-15-CC	16376	Public Water Well, SEDALIA #12	1957	781	1480	1506	26	-699	Muscovite gneiss
PT004	45-21W-33-CCD	21765	Public Water Well, SEDALIA #13	1963	812	1463	1465	2	-651	Biotite granite
PT005	45-21W-03	00283	Public Water Well, SEDALIA		909	1580	1612	32	-671	Granite
PT006	45-20W-26-DA		Noranda, FLN-4		730	1517	1550	33	-787	Metasediments, granite

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<i>Phelps</i>										
PH001	36-07W-36-AD	26041	St. Joe Minerals, 61-W-48	1961	1140	1384	2601	1217	-244	Trachyte
PH002	36-06W-31-CAC	19636	Amax, 434	1960	1115	1303	1635	332	-188	Magnetite trachyte porphyry
<i>Platte</i>										
PL001	53-36W-15-DCD	11469	Oil and gas co., #1 KIRK	1950	777	2749	2849	100	-1972	Granite
PL002	52-34W-29-CBB	02063	Oil and gas co., #1 HARTSOOK	1918	883	2370	2420	50	-1487	No samples
<i>Polk</i>										
PO001	33-23W-25-CC	02084	Oil and gas co., #1 KARLAN	1921	1140	1750	1833	83	-610	Granite
PO002	35-21W-18-AAB		Union Carbide, MHR-1	1982	925	1626	1707	81	-701	Biotite granite
PO003	32-22W-28-BDD		U.S.G.S., NS-4, BRIGHTON #1	1983	1135	1903	1976	73	-768	Biotite granite
<i>Pulaski</i>										
PU001	37-10W-31-CCA	28474	St. Joe Minerals, 63-W-082	1963	725	1434	1473	39	-709	Biotite granite
<i>Ralls</i>										
R 001	55-04W-28-AA	02341	Atlas-Portland Cement Co., #1 JONES	1923	502	2185	2205	20	-1683	Rhyolite
R 002	55-05W-34-AD	14138	Oil and gas co., #1 LAIRD	1955	721	1680	1685	5	-959	Granite
<i>Reynolds</i>										
RE001	33-03W-26-ACB	19190	Asarco, M-1	1960	1050	1411	1430	19	-361	Felsite
RE002	29-02W-01-CDD	18271	Amax, 403A	1959	790	1555	1560	5	-765	Trachyte
RE003	32-01E-10-DDA	18432	Amax, 408	1959	790	435	450	15	355	Porphyry
RE004	29-01W-02-AA	18409	Amax, 407	1959	740	1109	1119	10	-369	Granite
RE005	31-02W-25-CBC		St. Joe Minerals, 60-W-183	1960	941	1071	1081	10	-130	Granite
RE006	33-02W-01-CC		Amax, 468		0	0	0	0	140	Rhyolite
RE007	33-02W-01-DCA	24585	Amax, 438		1320	1049	0	0	271	Rhyolite
RE008	33-02W-13-AA	24596	Amax, 441		1165	954	966	12	211	Rhyolite
RE009	33-01W-06-C		Amax, 447		676	669	0	0	7	Rhyolite
RE010	33-01W-07-CBB	18630	Amax, 415	1959	1095	619	665	46	476	Rhyolite porphyry
RE011	33-01W-07-C		Amax, 456		0	0	0	0	40	Granite
RE012	33-01W-07-CD	24592	Amax, 455		0	0	0	0	94	Porphyry
RE013	33-01W-07-ADB		Amax, 454		0	0	0	0	171	Porphyry
RE014	33-01W-07-B	24593	Amax, 446		1070	930	951	21	140	Rhyolite porphyry
RE015	33-01W-13-CAD	20974	New Jersey Zinc, 6-MR	1961	997	556	566	10	441	Rhyolite porphyry
RE016	33-01W-31-CD	19430	Asarco, BF-27	1960	965	1211	1232	21	-246	Breccia
RE017	33-01E-08-DD	02199	National Lead, 11 BELL	1928	890	677	677	0	213	Porphyry

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
Reynolds (continued)										
RE018	33-01E-10-CB	02196	National Lead, 8 GALLAHER	1928	830	363	363	0	467	Porphyry
RE019	33-01E-26-B	02190	National Lead, 2 ROBINETT	1928	810	693	694	1	117	Porphyry
RE020	33-02E-27-CDD	11885	Mining co., #1 OLD MINES	1951	750	85	115	30	665	Rhyolite
RE021	33-02E-33-AAB	11887	Mining co., #1 GRAVES	1951	724	345	370	25	379	Rhyolite
RE022	32-02W-24-DCBD	19676	Asarco, BF-36	1961	966	915	921	6	51	Rhyolite porphyry
RE023	32-02W-24-DCD	19020	Asarco, BF-15	1960	953	1030	1040	10	-77	Granite
RE024	32-02W-33-CD	19937	Asarco, BF-26	1961	1293	1874	1881	7	-581	Rhyolite porphyry
RE025	32-01W-08-BB	19008	Asarco, BF-10	1960	898	946	955	9	-48	Rhyolite porphyry
RE026	32-01W-18-AD	19007	Asarco, BF-08	1960	1265	1193	1204	11	72	Felsite porphyry
RE027	32-01W-19-ADB	19441	Asarco, BF-30	1960	980	1109	1124	15	-129	Porphyry
RE028	32-01W-29-CCD	19019	Asarco, BF-09	1960	1166	1670	1722	52	-504	Granite
RE029	320-01W-32-BBD				0	0	0	0	-52	
RE030	32-02E-04-BB	11886	Mining co., #1 LEE	1951	704	150	158	8	554	Rhyolite
RE031	32-02E-06-AD	09193	Private Water Well, WIGGINS CAMP	1946	771	185	190	5	586	Porphyry
RE032	32-02E-14-BDD	24737	Private Water Well, H.W. PERHALL	1966	742	105	220	115	637	Porphyry
RE033	32-02E-17-ACD	23788	Public Water Well, LESTERVILLE #1	1965	717	572	605	33	145	Rhyolite
RE034	31-02E-32-CD	21246	Phelps Dodge, 31N-2E-32-1A	1962	952	1472	1488	16	-520	Granite porphyry
RE035	30-02W-23-BBB		Amax, 504		906	1728	1750	22	-822	Rhyolite
RE036	30-02E-07-DAD	18562	Amax, 409	1959	630	615	650	35	15	Porphyry
RE037	30-01E-04-AB	21245	Phelps Dodge, 30N-1E-4-1	1962	832	1466	1495	29	-634	Granite porphyry
RE038	30-02E-03-DBD	21057	Phelps Dodge, 30N-2E-3-1	1962	856	1472	1490	18	-616	Biotite granite
RE039	30-03E-06-DC	02409	National Lead		539	425	432	7	114	Porphyry
RE040	29-01E-18-BBD	21389	Phelps Dodge, 29N-1E-18-1	1962	1039	1229	1235	6	-190	Albite granite
RE041	29-01E-27-ADB	21656	Phelps Dodge, 29N-1E-27-1	1963	900	1151	1169	9	-251	Albite granite
RE042	29-01E-28-CCC	21597	Phelps Dodge, 29N-1E-28-1	1963	893	1034	1063	29	-141	Biotite granite
RE043	29-01E-30-CC	21555	Phelps Dodge, 29N-1E-30-1	1963	821	1215	1238	23	-394	Biotite granite
RE044	28-01W-12-CC	19737	Asarco, P-03	1961	870	1683	1685	2	-813	Granite
RE045	28-01E-04-B	21521	Phelps Dodge, 28N-1E-4-1	1963	866	1404	1418	14	-538	Biotite granite
RE046	28-01E-08-CCC	21545	Phelps Dodge, 28N-1E-8-1	1963	737	1310	1326	16	-573	Albite granite
RE047	28-02E-04-CB		Bear Creek, HL-3	1961	560	1248	1253	5	-688	Granite
RE048	28-02E-24-BB		Bear Creek, HL-1	1961	780	1866	1910	44	-1086	Biotite granite
RE049	32-02W-13-AC		St. Joe Minerals, #30 MINE SHAFT		1186	1272	0	0	-86	Rhyolite porphyry
RE050	31-01E-26-CAA	21247	Phelps Dodge, 31N-1E-26-1	1962	857	937	960	23	-80	Granite porphyry
RE051	29-01E-32-BDD	21388	Phelps Dodge, 29N-1E-32-1	1962	924	1095	1095	0	-171	Biotite granite
RE052	29-01E-24-DCCA	21377	Phelps Dodge, 29N-1E-24-1	1962	731	1374	1378	4	-643	Albite granite
RE053	29-02E-29-DCC	21325	Phelps Dodge, 29N-2E-29-1	1962	669	1062	1081	19	-393	Albite granite
RE054	30-02E-03-DDC	21324	Phelps Dodge, 30N-2E-3-2	1962	769	1328	1355	27	-559	Granite porphyry
RE055	31-02W-22-DBC		Bear Creek, MILLIKEN MINE		1185	1227	1485	258	-42	Biotite granite
RE056	32-01W-18-CAB		Amax, 1026	1969	1180	1142	1155	13	38	No samples

<u>OB No.</u>	<u>Location</u> <u>(T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar</u> <u>Elev.</u>	<u>Top of</u> <u>Prec.</u>	<u>Total</u> <u>Depth</u>	<u>Pentra-</u> <u>tion</u>	<u>Elev.</u> <u>Top</u> <u>Prec.</u>	<u>ROCK TYPE</u>
<i>Reynolds</i> (continued)										
RE057	33-02W-13-CB		St. Joe Minerals, 60-W-176	1960	1276	740	764	24	536	No samples
RE058	33-02W-13-BA		St. Joe Minerals, 61-W-09	1961	1259	977	0	0	282	No samples
RE059	28-01E-33-CB	20185	National Lead, WN-1	1960	665	1180	1185	5	-515	Granite
RE060	29-01W-03-ADC	24578	New Jersey Zinc, 1-EX		720	992	1040	48	-272	Granite
RE061	28-01E-12-A	20541	New Jersey Zinc, 1-RU		660	788	863	75	-128	Granite and gabbro
RE062	32-02E-22-AB		Hanna, 1068	1960	650	556	812	256	94	Trachyte porphyry
RE063	28-02E-10-AAACD		Texasgulf Western, Inc., 80-M0-08	1980	820	894	906	12	-74	Granite
RE064	28-02E-08-ABAC		Texasgulf Western, Inc., 80-M0-09	1980	765	1286	1297	11	-521	Granite
RE065	28-02E-11-BBCB		Texasgulf Western, Inc., 81-M0-2	1981	790	825	830	5	-35	No samples
RE066	28-02E-10-BAAC		Texasgulf Western, Inc., 81-M0-3	1981	725	1048	1052	4	-323	No samples
RE067	28-02E-17-CAAC		Exxon, RH-1		700	1509	1515	6	-809	Med gnd pink granite, fractured
RE068	29-01W-14-BADB		Kerr-McGee, VB-30	1976	860	1234	1245	11	-374	Rhyolite porphyry
RE069	29-01W-14-AABD		Kerr-McGee, VB-36	1979	1000	1439	1452	13	-439	Granite
RE070	29-01W-23-DC		Kerr-McGee, VB-25	1976	980	1697	1701	4	-717	Granite
RE071	29-01W-14-BDA		Kerr-McGee, VB-27	1976	860	1314	1320	6	-454	Granite
RE072	29-01W-23-DDA		Kerr-McGee, VB-28	1976	880	1597	1600	3	-717	Granite
RE073	29-01W-11-CCD		Kerr-McGee, VB-31	1979	840	1135	1142	7	-295	Rhyolite porphyry
RE074	29-01E-19-CCB		Kerr-McGee, VB-32	1979	1020	1407	1410	3	-387	Granite porphyry
RE075	29-01W-25-DD		Kerr-McGee, VB-33	1979	960	1342	1351	9	-382	Granite
RE076	29-01W-14-BB		Kerr-McGee, VB-34	1979	859	1281	1296	15	-422	Rhyolite porphyry
RE077	29-01W-11-CC		Kerr-McGee, VB-37	1979	837	1080	1084	4	-243	Granite
RE078	29-01W-11-CCA		Kerr-McGee, VB-38	1979	960	1115	1122	7	-155	Rhyolite porphyry
RE079	29-03E-17		Kerr-McGee, P-1	1965	580	701	716	15	-121	Rhyolite (high knob)
RE080	30-01E-29-AA		Kerr-McGee, E-1	1964	800	1537	1630	93	-737	Granite porphyry
<i>Ripley</i>										
RI001	25-03E-33-DD		Asarco	1982	635	2005	1995	10	-1370	Granite
RI002	25-04E-29-BCD		Gulf Oil, PBW-2	1981	505	2434	2440	6	-1929	Granite porphyry
RI003	25-04E-32-ABB		Gulf Oil, PBW-3	1981	465	2705	2722	17	-2240	Granite
RI004	25-02E-28-B		Cominco, VB-18	1980	645	2791	2795	4	-2146	Biotite granite
RI005	25-04E-20-B		Cominco, VB-19	1980	405	2430	2437	7	-2025	Granite porphyry
RI006	25-04E-31-ACAA		Cominco, SF-04	1981	600	2486	2501	15	-1886	Porphyritic red granite
RI007	24-03E-09-DABA		Cominco, SF-07	1981	485	2140	2145	5	-1655	Porphyritic pink granite
RI008	25-03E-34-DDBD		Cominco, SF-26	1981	606	2363	2369	6	-1757	Porphyritic red granite
RI009	24-03E-17-AAAC		Cominco, SF-34	1982	615	2924	2948	24	-2309	Porphyritic red granite
RI010	24-04E-05-BCDD		Cominco, SF-43	1982	560	2964	2982	18	-2404	Med gnd pink leucogranite

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
Ripley (continued)										
RI011	24-03E-15-ADDB		Cominco, SF-45	1982	525	2950	2988	38	-2425	Cse gnd red rapakivi granite
Saline										
SA001	48-23W-08-AA	12328	Oil and gas co., #1 HEATER	1953	704	1960	2117	157	-1256	Biotite-hornblende granite
Shannon										
SH001	29-06W-26-DC	23001	Kerr-McGee, SV-1	1964	1080	2121	2130	9	-1041	Rhyolite porphyry
SH002	30-04W-31-BAA	23114	Kerr-McGee, SV-2	1964	755	1444	1459	15	-689	Granite porphyry
SH003	29-04W-04-B		Kerr-McGee, SV-3	1964	820	1653	1676	23	-833	Granite porphyry
SH004	28-01W-16-CDD		Kerr-McGee, VB-02	1964	520	1358	1380	22	-838	Biotite granite
SH005	31-04W-29-CCA		Asarco, RS-02	1967	1050	1605	1626	21	-555	Granite
SH006	31-04W-31-AD		Asarco, RS-12	1967	1020	1569	1578	9	-549	Granite
SH007	30-05W-13-BBCB		Asarco, RS-14	1968	1090	1477	1484	7	-387	Granite
SH008	31-03W-04-BDD		Azcon, HA-31	1966	1210	1167	1172	5	43	Biotite granite
SH009	31-03W-04-BDA		Azcon, HA-36	1967	1100	964	1003	39	136	Biotite granite
SH010	28-01W-07-CCA	19649	Asarco, P-01	1961	530	1412	1425	13	-882	Granite porphyry
SH011	28-02W-13-AD	20241	Asarco, P-05	1961	600	1447	1455	8	-847	Granite porphyry
SH012	28-01W-06-BAB	20412	Asarco, P-08	1961	560	1468	1475	7	-908	Granite porphyry
SH013	31-04W-28-CCB		Asarco, AIA-1	1969	790	1333	5004	3671	-543	Biotite granite
SH014	29-02W-11-DDB	21516	Phelps Dodge, 29N-2W-11-1	1962	1000	1660	1675	15	-660	Granite porphyry
SH015	29-02W-13-CDB	21514	Phelps Dodge, 29N-2W-13-1	1962	710	1500	1510	10	-790	Granite porphyry
SH016	29-02W-23-CA	21591	Phelps Dodge, 29N-2W-23-1	1963	957	1679	1712	33	-722	Granite porphyry
SH017	29-02W-24-AD		Bear Creek, BH-2		678	1640	1662	22	-962	Granite porphyry
SH018	29-02W-25-ACA		Bear Creek, BH-1		610	1318	1337	19	-708	Rhyolite porphyry
SH019	29-02W-36-ACC	21392	Phelps Dodge, 29N-2W-36-1		970	1910	1910	0	-940	Rhyolite porphyry
SH020	29-01W-07-DDA	21595	Phelps Dodge, 29N-1W-7-1		808	1655	1670	15	-847	Rhyolite porphyry
SH021	28-04W-14-DBC	15044	Bear Creek, PO-1	1956	1085	1663	1673	10	-578	Rhyolite porphyry
SH022	28-04W-22-BBA		Bear Creek, PO-3	1956	852	1747	1751	4	-895	Rhyolite porphyry
SH023	28-04W-22-AA		Bear Creek, PO-2	1956	871	1484	1493	9	-613	Rhyolite porphyry
SH024	28-04W-25-CBD	20976	New Jersey Zinc, 1-EW	1961	999	1698	1706	8	-699	No samples
SH025	28-03W-18-BD	08765	Mining co., #7 TOM KNOBEL	1943	859	61	62	1	798	Porphyry
SH026	28-03W-18-AD	08764	Mining co., #6 TOM KNOBEL	1943	865	53	58	5	812	Conglomerate
SH027	28-03W-18-BD	08760	Mining co., #2 TOM KNOBEL	1943	875	37	37	0	838	Porphyry
SH028	28-03W-18-BD	08763	Mining co., #5 TOM KNOBEL	1943	863	55	62	7	808	Conglomerate
SH029	28-03W-18-BAA	22127	Mining co., A.E.M. #1	1958	822	171	244	73	651	Rhyolite porphyry
SH030	28-03W-18-BDA	22124	Mining co., A.E.M. #2	1958	820	33	125	92	787	Rhyolite porphyry
SH031	28-01W-04-AAA	20398	Asarco, P-12	1961	530	1170	1173	3	-640	Porphyry
SH032	28-01W-08-CBC	20118	Asarco, P-04	1961	860	1642	1655	13	-782	Rhyolite porphyry
SH033	28-01W-09-DC	19669	Asarco, P-02	1961	510	871	914	43	-361	Granite

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<i>Shannon</i> (continued)										
SH034	28-01W-09-CCD		Asarco, P-07	1961	520	1161	1167	6	-641	Granite
SH035	28-01W-14-BBC		Asarco, P-11	1961	580	1380	1384	4	-800	Granite
SH036	27-04W-01-CAA	21915	Phelps Dodge, 27N-4W-1-1	1963	1030	2060	2086	26	-1030	Granite porphyry
SH037	27-03W-08-CAA	21946	Phelps Dodge, 27N-3W-08-1	1963	1056	1443	1478	35	-387	Trachyte porphyry
SH038	27-03W-08-DDD	21974	Phelps Dodge, 27N-3W-08-2	1963	918	1557	1563	6	-639	Granite porphyry
SH039	27-03W-14-DDD	21908	Phelps Dodge, 27N-3W-14-1	1963	914	1957	1976	19	-1043	Granite porphyry
SH040	27-03W-17-ACC	22097	Phelps Dodge, 27N-3W-17-1	1963	921	1910	1917	7	-989	Granite porphyry
SH041	28-03W-17-CA	27233	Mining co., MANNMO RD-2	1973	1080	1183	1187	4	-103	Rhyolite
SH042	28-03W-15-BBA	27282	Mining co., MANNMO RD-3	1973	1040	990	995	5	50	Rhyolite
SH043	28-03W-16-ACBB	27584	Mining co., MANNMO RD-4	1973	1050	1200	1215	15	-150	Rhyolite
SH044	29-03W-30-AAC	23904	New Jersey Zinc, 1-SC		640	1305	1313	8	-665	Rhyolite porphyry
SH045	29-04W-02-C		Bear Creek, SC-14	1978	1099	1464	1479	15	-365	Granite porphyry
SH046	29-04W-02-D		Bear Creek, SC-15	1978	1096	1484	1499	15	-388	Rhyolite porphyry
SH047	29-04W-02-D		Bear Creek, SC-16	1978	919	1394	1404	10	-475	Diabase
SH048	29-04W-02-AD		Bear Creek, SC-17	1978	972	1355	1373	18	-383	Porphyry
SH049	29-04W-02-C		Bear Creek, SC-18	1978	1090	1462	1473	11	-372	Granite porphyry
SH050	29-04W-02-C		Bear Creek, SC-19	1978	1074	1398	1400	2	-324	Granite porphyry
SH051	29-04W-02-C		Bear Creek, SC-21	1978	1095	1472	1490	18	-377	Granite
SH052	29-04W-02-C		Bear Creek, SC-22	1978	1077	1478	1490	12	-401	Granite porphyry
SH053	29-04W-02-AD		Bear Creek, SC-23	1979	1021	1435	1457	22	-414	Granite porphyry
SH054	29-04W-02-C		Bear Creek, SC-24	1979	1057	1491	1493	2	-434	Granite porphyry
SH055	29-04W-02-C		Bear Creek, SC-25	1979	1086	1459	1475	16	-373	Granite porphyry
SH056	29-04W-02-C		Bear Creek, SC-26	1979	888	1330	1365	35	-442	Granite porphyry
SH057	29-04W-02-D		Bear Creek, SC-27	1979	1021	1217	1252	35	-196	Granite porphyry
SH058	29-04W-03-D		Bear Creek, SC-28	1979	1029	1526	1567	41	-497	Granite porphyry
SH059	29-04W-03-C		Bear Creek, SC-29	1979	1070	1721	1752	31	-651	Granite porphyry
SH060	29-04W-03-D		Bear Creek, SC-30	1979	1100	1520	1534	14	-420	Granite
SH061	29-04W-02-C		Bear Creek, SC-31	1979	953	1463	1480	17	-510	No samples
SH062	29-04W-02-D		Bear Creek, SC-32	1979	858	1201	1225	24	-343	Granite porphyry
SH063	29-04W-10-AA		Bear Creek, SC-33	1979	1017	1684	1704	20	-667	Rhyolite porphyry
SH064	29-04W-02-DB		Bear Creek, SC-34	1979	877	1375	1413	38	-498	Granite porphyry
SH065	29-04W-02-DD		Bear Creek, SC-35	1979	1055	1350	1368	18	-295	Granite porphyry
SH066	29-04W-03-DA		Bear Creek, SC-36	1979	780	1458	1474	16	-678	Granite porphyry
SH067	29-04W-02-CA		Bear Creek, SC-37	1980	1002	1413	1446	33	-411	Granite porphyry
SH068	29-04W-02-AD		Bear Creek, SC-38	1980	982	1416	1470	54	-434	Granite porphyry
SH069	29-04W-03-CA		Bear Creek, SC-39	1980	836	1327	1385	58	-491	Granite porphyry
SH070	29-04W-10-DD		Bear Creek, SC-40	1980	1113	1227	1598	371	-114	Rhyolite porphyry
SH071	29-04W-03-AD		Bear Creek, SC-41	1980	794	1419	1475	56	-625	Granite porphyry

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
Shannon (continued)										
SH072	29-04W-03-BD		Bear Creek, SC-42	1980	1018	1644	1694	50	-626	Granite porphyry
SH073	29-04W-03-BC		Bear Creek, SC-43	1980	1156	1455	1496	41	-299	Granite porphyry
SH074	29-04W-03-BC		Bear Creek, SC-44	1980	1085	1558	1588	30	-473	Granite porphyry
SH079	27-04W-01-DCDB		Cominco, WN-03	1976	1030	1914	1939	25	-884	Porphyritic dark grey granite, altered, sheared
SH080	27-03W-26-BBAA		Cominco, WN-08	1976	800	1871	1900	29	-1071	Grey granite porphyry, altered, sheared
SH081	27-03W-06-DCBA		Cominco, WN-09	1976	1090	1069	1090	21	21	Dark grey granite porphyry
SH082	27-03W-18-BACB		Cominco, WN-10	1976	990	2050	2070	20	-1060	Grey granite porphyry, altered, Cu?
SH083	27-03W-07-DDDA		Cominco, WN-13	1977	990	1941	1960	19	-951	Dark grey granite porphyry
SH084	27-03W-07-AAA		Cominco, WN-17	1977	1018	1949	1998	49	-931	Grey granite porphyry, altered, jointed
SH085	27-03W-07-ABC		Cominco, WN-21B	1979	1080	1547	1564	17	-467	Grey granite or syenite porphyry
SH086	27-03W-08-BBBB		Cominco, WN-22	1980	1060	1850	1904	54	-790	Grey granite porphyry, pyrite, xenoliths
SH087	26-03W-20-DBD		Amax, 801-020	1979	925	2020	2026	6	-1095	Grey trachyte porphyry
SH088	26-03W-21-DAA		Amax, 801-021	1979	960	2105	2111	6	-1145	Trachyte porphyry, fractured and sheared
SH089	26-03W-20-ADCC		Amax, 801-044	1980	970	1738	1784	46	-768	Grey granite porphyry, pyrite
SH090	26-04W-13-AAAD		Amax, 801-063	1980	980	1972	1980	8	-992	Rhyolite breccia and red rhyolite porphyry
SH091	26-03W-17-CBC		Amax, 801-108	1980	840	1879	1882	3	-1039	Red rhyolite porphyry
SH092	26-03W-17-BCDB		Amax, 801-103	1980	940	1845	1854	9	-905	Rhyolite ash-flow tuff, eutaxitic
SH093	26-03W-18-DDA		Amax, 801-109	1980	910	1731	1832	101	-821	Grey trachyte or syenite porphyry, epidote, chlor.
SH094	26-03W-18-DDC		Amax, 801-110		900	1942	1944	2	-1042	Grey trachyte porphyry
SH095	27-03W-14-CAAC		Amax, 801-001	1976	1022	1573	1586	13	-551	Grey granite or syenite porphyry
SH096	26-03W-20-AAD		Amax, 801-036	1979	970	1981	1983	2	-1011	Red rhyolite porphyry

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>Shannon</u> (continued)										
SH097	26-03W-20-ADB		Amax, 801-037	1979	1035	2087	2090	3	-1052	Grey trachyte porphyry, sheared, calcite veins
SH098	26-03W-21-DDAA		Amax, 801-040	1979	975	1931	1945	14	-956	Trachyte porphyry, oxidized
SH099	27-05W-07-DAA		Houston Oil, BR-124-14A	1981	1065	2330	2335	5	-1265	Cse gnd granite,
SH100	27-05W-07-CA		Houston Oil, BR-124-14C	1982	1112	2380	2388	8	-1268	Cse gnd red granite
SH101	26-03W-07-AADD		Amax, 801-112	1980	930	1857	1884	27	-927	Rhyolite ash-flow tuff
SH102	28-01W-17-AA		Kerr-McGee, VB-07	1965	810	1374	1386	12	-564	Granite
SH103	28-01W-04-AC		Kerr-McGee, VB-13	1965	525	767	797	30	-242	Granite porphyry
SH104	28-01W-04-AC		Kerr-McGee, VB-15	1965	525	925	951	26	-400	Granite porphyry
SH105	30-05W-14-ADAA		Kerr-McGee, SV-4	1976	1100	1555	1559	4	-455	Granite
SH106	28-01W-16-AD		Kerr-McGee, VB-03	1965	500	850	854	4	-350	Granite
SH107	28-01W-16-BA		Kerr-McGee, VB-04	1965	500	920	926	6	-420	Granite
SH108	28-01W-17-AA		Kerr-McGee, VB-05	1965	900	1557	1566	9	-657	Granite
SH109	28-01W-17-AA		Kerr-McGee, VB-06	1965	900	1590	1596	6	-690	Granite
SH110	28-01W-17-AA		Kerr-McGee, VB-08	1965	885	1522	1531	9	-637	Granite
SH111	28-01W-17-AA		Kerr-McGee, VB-09	1965	865	1499	1505	6	-634	Granite
SH112	28-01W-17-AA		Kerr-McGee, VB-10	1965	825	1451	1456	5	-626	Granite
SH113	28-01W-17-AA		Kerr-McGee, VB-11	1965	708	1298	1304	6	-590	Granite
SH114	28-01W-16-B		Kerr-McGee, VB-12	1965	519	958	969	11	-439	Granite
SH115	28-01W-17-AA		Kerr-McGee, VB-14	1965	825	1294	1298	4	-469	Granite
SH116	28-01W-17-AA		Kerr-McGee, VB-16	1965	750	1408	1411	3	-658	Granite
SH117	28-01W-16-D		Kerr-McGee, VB-18	1965	515	1357	1370	13	-842	Granite
SH118	28-01W-04-CA		Kerr-McGee, VB-17	1965	628	831	841	10	-203	Granite
SH119	28-01W-16-BBD		Kerr-McGee, VB-19	1966	519	1310	1315	5	-791	Granite
SH120	28-01W-16-ADD		Kerr-McGee, VB-21	1966	720	1119	1127	8	-399	Granite
SH121	29-01W-33-CB		Kerr-McGee, VB-23	1966	865	1643	1650	7	-778	Granite
SH122	28-01W-03-AD		Kerr-McGee, VB-29	1976	1000	1322	1326	4	-322	Rhyolite porphyry
SH123	30-05W-10-CAC		Kerr-McGee, SV-5	1976	780	1083	1097	14	-303	Granite
<u>Shelby</u>										
SE001	58-11W-03-DDD		Oil and gas co., A. VON TUNE #1	1920	773	2067	2080	13	-1294	Granite
<u>St. Charles</u>										
SCH01	48-01E-34-CBB	19247	National Lead, XT-1	1953	557	3120	4000	880	-2563	Norite and gabbro
SCH02	45-02E-23-CB		Cominco, CO-14		525	2531	2539	8	-2006	Red rhyolite porphyry, weathered

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>St. Charles</u> (continued)										
SCH03	45-02E-35-B		Cominco, CO-16		463	2236	2242	6	-1773	Rhyolite porphyry, trace pyrite
SCH04	45-02E-26-A		Cominco, DF-1	1971	465	1948	1953	5	-1483	Red rhyolite ash-flow tuff, Fe
SCH05	45-02E-35-A		Cominco, DF-6	1971	460	1843	1857	14	-1383	Red rhyolite porphyry, hematite seams, agglomerate
SCH06	45-02E-26-A		Cominco, DF-8	1978	465	2057	2058	1	-1592	Red rhyolite porphyry
SCH07	45-02E-35-A		Cominco, DF-7	1978	470	1408	1417	9	-938	Rapakivi porphyry, high angle quartz seams
<u>St. Clair</u>										
SC001	38-25W-21-BD	01822	Oil and gas co., #1 LOVE	1905	832	1661	1800	139	-829	Granite
SC002	37-26W-01-DD		U.S.G.S., NS-1, ROSCOE #1	1983	740	1501	1745	244	-761	Granite gneiss
<u>St. Francois</u>										
SF001	38-04E-25-DB	26598	State of Missouri, ST. FRANCOIS PK	1970	828	775	785	10	53	Granite
SF002	37-05E-31-BDD	26280	Public Water Well, DESLOGE #1	1969	808	764	765	1	44	Rhyolite porphyry
SF003	36-04E-02-BAD	26542	Public Water Well, ST. FRANCOIS #1	1970	806	565	565	0	241	No samples
SF004	36-04E-04-ADB	26536	Public Water Well, LEADWOOD #2	1969	800	726	750	24	74	Rhyolite porphyry
SF005	36-04E-14-CDDD	02331	St. Joe Minerals		859	494	495	1	365	Felsite
SF006	36-04E-15-CBB	02276	National Lead		1000	485	488	3	515	Porphyry
SF007	36-04E-22-BCA	02275	National Lead		940	805	820	15	135	Felsite
SF008	36-05E-06-CD	01568	St. Joe Minerals	1902	805	631	662	31	174	Porphyry
SF009	36-05E-06-AD		National Lead, 641	1911	791	850	853	3	-59	No samples
SF010	36-05E-25-BCC	04718	Public Water Well, FARMINGTON #6	1938	969	637	638	1	332	Granite
SF011	36-05E-36-BDA	19012	Public Water Well, FARMINGTON #8	1960	938	620	622	2	318	Granite
SF012	36-05E-36-CC	11414	Public Water Well, FARMINGTON #7	1950	925	640	640	0	285	Porphyry
SF013	36-06E	23943	Private Water Well, PADECHARD	1966	0	65	200	135	0	Granite and diabase
SF015	35-04E-31-CC	08524	Hanna, IRON MOUNTAIN 1	1944	1063	355	385	30	708	Porphyry
SF016	35-05E-01-ABB	01680	Public Water Well, FARMINGTON #3	1913	967	675	724	49	292	Granite
SF017	35-05E-02-DAD	09244	State of Missouri, #6 STATE HOSP 4	1946	885	760	761	1	125	Porphyry
SF018	35-05E-02-DDD	05254	State of Missouri, #5 STATE HOSP 4	1939	888	659	660	1	229	Granite
SF019	35-05E-02-BCD	24236	State of Missouri, STATE HOSP 4	1966	938	785	790	5	153	Granite
SF020	35-05E-17-ADB	07458	Private Water Well, #1 CARRIE HANKS	1941	925	35	55	20	890	Granite
SF021	34-05E-17-ADD		Mining co., #1 MERRYMAN	1896	980	320	321	1	660	Granite
SF022	35-05E-17-ADB	26394	Private Water Well, DOE RUN SCHOOL	1969	916	210	210	0	706	No samples
SF023	34-04E-10-BCB	23934	Private Water Well, JOHN DALEY	1966	1116	45	225	180	1071	Rhyolite

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>St. Francois</u> (continued)										
SF024	34-04E-16-CC	05447	Private Water Well, HENRY FERICKS	1939	1097	70	75	5	1027	Porphyry
SF025	34-06E-10-DCC	07450	Private Water Well, JACK BAYLESS	1941	908	65	75	10	843	Granite
SF026	37-05E-31-BDD	26280	Private Water Well		808	762	765	3	46	?
SF027	35-05E-33-ADC	26707	Private Water Well, SEBASTIAN & LADMAN	1971	918	0	420	420	918	Granite, similar to Breadtray type
SF028	35-05E-30-BCBB	21126	Private Water Well, PINKLEY	1962	1157	0	160	160	1157	Red granite
SF029	34-05E-14-CDC	26886	Private Water Well, CAMPFIRE CLUB	1971	777	0	102	102	777	Granite
<u>St. Louis</u>										
SL001	47-07E-07-BAA	12584	Laclede Gas, #3 LANGE	1953	585	3226	3234	8	-2641	Granite
<u>Ste. Genevieve</u>										
SG001	35-07E-15-DB		St. Joe Minerals, 57-M-1	1957	1080	674	1094	420	406	Gabbro and diorite
SG003	38-06E-05-DDCC		Getty Oil, SG-5		900	1781	1800	19	-881	Med gnd pink rapakivi granite
SG004	37-07E-04-BCCC		Getty Oil, SG-6		840	1846	1859	13	-1006	Med gnd dark reddish granite, monzonite
SG006	36-07E-27-C	25558	State of Missouri, PARK BOARD	1968	0	45	103	58	0	Granite
<u>Taney</u>										
TA001	24-20W-15-CA	25827	St. Joe Minerals, 64-W-58	1964	750	1870	1880	10	-1120	Granite
<u>Texas</u>										
TE001	32-10W-25-DA	25824	St. Joe Minerals, 63-W-121	1963	961	1565	1584	19	-604	Granite
<u>Vernon</u>										
V001	34-29W-06-A	27471	St. Joe Minerals, 62-W-161	1962	875	1825	1874	49	-950	Granite
V002	37-32W-31-ADA	01861	Oil and gas co., #1 HENSHAW	1921	803	1005	2018	1013	-202	Biotite granite
V003	37-32W-31-CDB	08617	Oil and gas co., #1 STUBBLEFIELD	1944	800	1405	2331	926	-605	Syenite
V004	35-33W-12-ABB		Oil and gas co., #1 MANZER	1922	775	2094	2114	20	-1319	Granite
V005	35-33W-36-D		Oil and gas co., #1 MEAD	1920	775	1616	1870	254	-841	Metasediments
V006	37-30W-02-ACB	23680	Oil and gas co., #1 PROUGH	1965	770	1890	2001	111	-1120	Rhyolite
V007	36-33W-08-DDB	22801	Shell Oil Co., B-1	1964	832	1800	1820	20	-968	Rhyolite porphyry
V008	36-32W-06-AA	28279	Oil and gas co., I-6	1978	795	1300	1520	220	-505	Quartzite
<u>Washington</u>										
WA001	37-01W-28-CBC		Cominco, CN-252	1966	1095	1160	1163	3	-65	Rhyolite porphyry
WA002	36-01W-07-BB		Asarco, BE-03		860	1446	1453	7	-586	Granophyric granite

<u>OB No.</u>	<u>Location</u> <u>(T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar</u> <u>Elev.</u>	<u>Top of</u> <u>Prec.</u>	<u>Total</u> <u>Depth</u>	<u>Pentra-</u> <u>tion</u>	<u>Elev.</u> <u>Top</u> <u>Prec.</u>	<u>ROCK TYPE</u>
<i>Washington</i> (continued)										
WA003	37-01W-16-CCA		Asarco, BE-08		820	1564	1578	14	-744	Trachyte porphyry
WA005	38-01E-01-BCD		Asarco, IC-1		840	1410	1482	72	-570	No samples
WA006	38-01E-01-ACC		Asarco, IC-3		800	1298	1497	199	-498	No samples
WA007	38-01W-23-CAA		Missouri Cliffs, 1-23-38-1W	1959	0	0	1601	1601	0	Felsite porphyry
WA008	38-01W-23-CAA		Missouri Cliffs, 2-23-38-1W	1959	0	12	867	855	0	Felsite porphyry
WA009	38-01W-22-BCB		Missouri Cliffs, 1-22-38-1W	1959	0	5	345	340	0	Felsite porphyry
WA010	38-01W-22-BCB		Missouri Cliffs, 1A-22-38-1W	1959	0	0	2003	2003	0	Felsite porphyry
WA011	38-01E-01-DAD	19688	Missouri Cliffs, 1-01-38-1E	1961	767	1173	1352	179	-406	Trachyandesite
WA012	38-01E-12-AAD	19687	Missouri Cliffs, 1-12-38-1E	1961	805	1365	1446	81	-560	No samples
WA013	38-02E-07-AAD	20366	Missouri Cliffs, 1-07-38-2E	1961	714	1250	1430	180	-536	Granite
WA014	37-02E-32-ABC	19971	Missouri Cliffs, 1-32-37-2E	1961	1211	1262	1485	223	-51	Trachyandesite porphyry
WA015	37-02E-32-BCC	19964	Missouri Cliffs, 2-32-37-2E	1961	1073	1264	1555	291	-191	Trachyandesite porphyry
WA016	37-02E-32-BCB	21181	Missouri Cliffs, 3-32-37-2E	1961	1151	1281	1460	179	-130	Trachyte porphyry
WA017	37-02E-32-ACA		Missouri Cliffs, 4-32-37-2E	1961	1136	1239	1283	44	-103	Trachyandesite porphyry
WA018	39-01W-04-CCC		St. Joe Minerals, PEA RIDGE SHAFT #1	1957	880	1249	2505	1256	-369	Rhyolite
WA019	39-01E-11-DC		Bear Creek, RI-3	1956	1120	917	927	10	203	Rhyolite porphyry
WA020	39-01E-12-D	15339	Bear Creek, RI-1	1956	1058	1687	1697	10	-629	Rhyolite porphyry
WA021	38-01E-18-CC	12287	Amax, A-108	1952	1000	450	480	30	550	Porphyry
WA022	38-01E-18-AC	12316	Amax, A-114	1952	985	1093	1114	21	-108	Porphyry
WA023	38-01E-19-DA	12318	Amax, A-113	1953	1112	1065	1079	14	47	Porphyry
WA024	38-01E-20-BC	12319	Amax, A-106	1952	960	1115	1132	17	-155	Porphyry
WA025	38-01E-28-CB	12324	Amax, A-110	1952	1070	1095	1100	5	-25	Porphyry
WA026	38-01E-29-ABC	12288	Amax, A-104	1952	1207	634	0	0	573	Porphyry
WA027	38-01E-29-DC	12317	Amax, A-112	1953	1118	1045	1063	18	73	Porphyry
WA028	38-01E-31-AD	12306	Amax, A-103	1952	1130	1115	1145	30	15	Porphyry
WA029	38-03E-27-CD	22394	Private Water Well, BUCKMAN #1	1964	873	1258	1259	1	-385	Biotite granite
WA030	37-01W-27-DCC		Cominco, CN-236	1965	1125	1019	1022	3	106	No samples
WA031	37-01W-33-BCA		Cominco, CN-237	1965	1023	1074	1078	4	-51	Rhyolite porphyry
WA032	37-01W-33-ACA		Cominco, CN-235	1965	1109	1038	1066	28	71	Trachyte porphyry
WA033	37-01W-34-CBD		Cominco, CN-220	1965	1063	1255	1256	1	-192	No samples
WA034	37-01E-09-DCC		St. Joe Minerals, 55-W-200	1955	1016	1068	1112	44	-52	Conglomerate
WA035	37-01E-13-CDB		St. Joe Minerals, 56-W-102	1956	1088	1056	1098	42	32	Porphyry
WA036	37-01E-13-CDA		St. Joe Minerals, 55-W-190	1955	1109	945	973	28	164	No samples
WA037	37-01E-13-CAD		St. Joe Minerals, 56-W-083	1956	1101	868	938	70	233	Porphyry
WA038	37-01E-13-CDA		St. Joe Minerals, 56-W-086	1956	1086	885	889	4	201	Porphyry

<u>OB No.</u>	<u>Location</u> <u>(T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar</u> <u>Elev.</u>	<u>Top of</u> <u>Prec.</u>	<u>Total</u> <u>Depth</u>	<u>Pentra-</u> <u>tion</u>	<u>Elev.</u> <u>Top</u> <u>Prec.</u>	<u>ROCK TYPE</u>
<i>Washington</i> (continued)										
WA039	37-01E-13-DBC		St. Joe Minerals, 56-W-136	1956	1107	1140	1172	32	-33	Porphyry
WA040	37-01E-16-ABC		St. Joe Minerals, 56-W-081	1956	1015	1215	1221	6	-200	Rhyolite porphyry
WA041	37-01E-26-DCC		St. Joe Minerals, 55-W-118	1955	1122	1234	1259	25	-112	Diabase
WA042	37-01E-26-DAB		St. Joe Minerals, 55-W-146	1955	1125	1232	1280	48	-107	Rhyolite porphyry
WA043	37-01E-26-DAB		St. Joe Minerals, 55-W-210	1955	1087	1234	1245	11	-147	No samples
WA044	37-01E-35-CCA		St. Joe Minerals, 54-W-177	1954	1088	1381	1389	8	-293	Rhyolite porphyry
WA045	36-01W-01-DDD	09375	Amax, A-007	1946	1092	830	857	27	262	Porphyry/conglomerate
WA046	36-01W-03-BDC		Cominco, CN-241	1965	970	968	972	4	2	Rhyolite tuff
WA047	36-01W-03-BDA		Cominco, CN-230	1965	1063	1030	1034	4	33	Rhyolite porphyry
WA048	36-01W-04-ABD		Cominco, CN-224	1965	970	939	942	3	31	Rhyolite porphyry
WA049	36-01W-12-AAD	-09487	Amax, A-008	1946	1110	1052	1084	32	58	Porphyry
WA050	36-01E-03				0	0	0	0	-23	
WA051	36-01E-04-CAA		St. Joe Minerals, 55-W-083	1955	1201	1339	1366	27	-138	Diabase
WA052	36-01E-07-AA	09374	Amax, A-003	1946	1174	1080	1099	19	94	Porphyry
WA053	36-01E-07-AAB	09486	Amax, A-006	1946	1182	1075	1078	3	107	Porphyry
WA054	36-01E-07-AAA	09488	Amax, A-009	1946	1156	1041	1054	13	115	Porphyry
WA055	36-01E-07-AAD	09379	Amax, A-014	1946	1086	1004	1004	0	82	Porphyry
WA056	36-01E-08-CCA	09492	Amax, A-019	1946	1087	847	864	17	240	Porphyry
WA057	36-01E-08-ACCC	09493	Amax, A-021	1946	1185	951	976	25	234	Porphyry
WA058	36-01E-10-DAC		St. Joe Minerals, 54-W-151	1954	1155	1275	1276	1	-120	Rhyolite porphyry
WA059	36-01E-17-BBA	09381	Amax, A-023	1947	1165	739	754	15	426	Porphyry
WA060	36-01E-31-CBDD		Cominco, D-2	1959	1189	1322	1336	14	-133	Granite
WA061	36-02E-35-ACC	11812	Mining co., #3 MONTGOMERY	1951	0	115	127	12	0	Rhyolite
WA062	36-02E-36-CAA	08286	Private Water Well, C.H. HIGGINS	1951	914	25	39	14	889	Porphyry
WA063	36-03E-14-DB	02309	Private Water Well, #1 BSA SLC	1930	897	870	874	4	27	Felsite
WA064	35-01W-01-AAC		Cominco, D-3	1959	1130	1128	1136	8	2	Granite
WA065	35-01W-09-ABBA	20388	Cominco, D-4	1960	940	933	990	57	7	Granite
WA066	35-01W-11-BAC	20353	Cominco, CT-10	1961	1149	1156	1172	16	-7	Rhyolite porphyry
WA067	35-01W-11-CAB	20382	Cominco, CT-11	1961	1023	980	991	11	43	Rhyolite porphyry
WA068	35-01W-14-BABB	20330	Cominco, CT-09	1961	1067	1015	1020	5	52	Rhyolite
WA069	35-01W-14-DB	20229	Cominco, CT-08	1961	1251	1030	1071	41	221	Felsite porphyry
WA070	35-01W-16-BDB	20182	Cominco, CT-01	1960	1009	496	505	9	513	Granite
WA071	35-01W-16-CDC	20154	Cominco, CT-03	1961	1077	485	504	19	592	Rhyolite porphyry
WA072	35-01E-03-CCB		Amax, A-240	1953	1168	495	506	11	673	Dacite
WA073	35-01E-08-DA	20385	Cominco, CT-17	1961	1318	756	766	10	562	Felsite porphyry
WA074	35-01E-16-BCB	20386	Cominco, CT-13	1961	1158	649	671	22	509	Felsite porphyry
WA075	35-01E-16-AAB	12451	Amax, A-220	1953	1246	712	714	2	543	Rhyolite
WA076	35-02E-01-CA	23804	State of Missouri, #1 CALEDONIA	1965	956	95	240	145	861	Rhyolite porphyry
WA077	37-01W-03-BD		St. Joe Minerals, 65-W-176	1965	1188	0	836	0	0	Trachyte porphyry

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<i>Washington</i> (continued)										
WA078	37-01W-06-CD		St. Joe Minerals, 68-W-32	1968	849	1043	1049	6	-194	Rhyolite porphyry
WA079	37-01W-08-DB		St. Joe Minerals, 66-W-049	1966	1122	1209	1225	16	-87	Trachyte porphyry
WA080	37-01W-08-BB		St. Joe Minerals, 66-W-132	1966	1013	1238	1259	21	-225	Trachyte porphyry
WA081	37-01W-09-BB		St. Joe Minerals, 66-W-006	1966	1176	1146	1161	15	30	Trachyte porphyry
WA082	37-01W-11-AB		St. Joe Minerals, 66-W-018	1966	1024	1187	1193	6	-163	Trachyte porphyry
WA083	37-01W-18-CD		St. Joe Minerals, 66-W-015	1966	1109	1256	1273	17	-147	Rhyolite porphyry
WA084	38-01W		Inspiration Copper, BC-1	1972	1185	1185	1200	1200	1185	Trachyte
WA085	35-02W-01-DB		St. Joe Minerals, 59-V-146	1959	1231	815	0	0	416	No samples
WA086	37-01E-26-DCA		St. Joe Minerals, 75-W-10	1975	1149	1301	0	0	-152	Porphyry
WA087	35-01E-04-CCC		Cominco, D-1	1960	1247	1006	1016	10	241	Granite
WA088	37-01E-33-CCD		Cominco, CN-263	1966	1140	1321	1336	15	-181	No samples
WA089	37-01E-29-DDD		Cominco, CN-264	1966	1120	1437	1451	14	-317	No samples
WA090	37-01W-12-BBBB		Cominco, CN-274	1967	1170	1084	1125	41	86	Felsite porphyry
WA091	38-01W-34-DCC		Cominco, CN-275	1967	1170	1286	1299	13	-116	Felsite porphyry
WA092	38-01E-21-BAAD		Cominco, CN-277	1967	1050	962	981	19	88	No samples
WA093	38-01W-30-AAA		Cominco, CN-287	1968	980	1200	1210	10	-220	No samples
WA094	38-01W-30-CC		Cominco, CN-288	1968	1110	1140	1142	2	-30	Felsite
WA095	38-01W-31-CCC		Cominco, CN-298	1969	980	1158	1164	6	-178	Felsite porphyry
WA096	38-01W-29-ACC		Cominco, CN-303	1969	1100	927	941	14	173	Felsite porphyry
WA097	38-01W-20-BD		Cominco, CN-304	1969	980	891	916	25	89	Felsite porphyry
WA098	37-01E-25-DCB		Getty Oil, BCC-6	1984	1090	1295	1301	6	-205	Rhyolite ash-flow tuff
WA099	37-01W-08-ABA		Getty Oil, B-4	1984	1100	1437	1466	29	-337	Trachyte porphyry, oxidized
WA100	37-01W-09-DAA		Getty Oil, B-1	1984	1110	1637	1661	24	-527	Trachyte porphyry, oxidized, chlorite- epidote
WA101	36-02E-05-BAC		Getty Oil, BCC-2	1984	1130	1606	1627	21	-476	Med gnd red granite
WA102	36-01E-12-DAB		Getty Oil, MR-3	1984	1298	1534	1571	37	-236	Rhyolite ash-flow tuff and bedded tuff
WA103	36-01E-02-CAAB		Getty Oil, MR-2	1984	1250	1492	1495	3	-242	Rhyolite ash-flow tuff
WA104	36-02E-02-ABD		Getty Oil, MR-4	1984	1150	1364	1377	13	-214	Trachyte porphyry, oxidized
WA105	36-01E-03-CCAC		Getty Oil, MR-1	1984	1165	1313	1369	56	-148	Aphanitic rhyolite, fractured, altered
WA106	37-01W-34-AA		Getty Oil, MH-2	1984	1120	1241	1263	22	-121	Mixed rhyolite-trachyte agglomerate
WA107	35-03E-14-CCA	24685	Private Water Well, LEWIS	1966	998	30	325	295	968	Rhyolite porphyry

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>Wayne</u>										
WY001	27-03E-10-DBBC	22812	Kerr-McGee, W-1	1964	720	2408	2428	20	-1688	Biotite granite
WY002	27-04E-24-DA		Kerr-McGee, W-3	1964	420	1719	1722	3	-1299	Granophyric granite
WY003	27-04E-26-DA	22751	Kerr-McGee, W-4	1964	510	2051	2055	4	-1541	Biotite granite
WY004	27-04E-14-DAA		Kerr-McGee, W-2	1964	680	1771	1783	12	-1091	Granophyric granite
WY005	27-03E-24-CD		Kerr-McGee, W-5	1964	735	2064	2071	7	-1329	Granite
WY006	27-06E-06-B		St. Joe Minerals, 62-W-020	1962	440	1976	1998	22	-1536	Biotite granite
WY007	28-04E-17-BCC	19415	Asarco, OC-1	1960	659	1799	1804	5	-1140	No samples
WY008	30-07E-02-BCC		St. Joe Minerals, 51-W-146	1951	550	1322	1325	3	-772	Rhyolite
WY009	27-03E-03-B		Bear Creek, HL-2	1961	570	1596	1612	16	-1026	Rhyolite porphyry
WY010	30-05E-06-DD	02161	National Lead	1930	560	65	80	15	495	Granite
WY011	30-05E-19-DCB	03185	USCCC, #740	1935	620	365	366	1	255	
WY012	30-05E-28-CAB	02743	State of Missouri, #1 FEE BAKER PK	1933	413	125	250	125	288	Rhyolite
WY013	30-05E-15-BAD	26232	Private Water Well	1969	586	45	160	115	541	Diabase
WY014	29-05E-11-DCC	05876	Private Water Well, #1 EVANS	1939	487	447	477	30	40	Porphyry
WY015	29-05E-28-AB	20081	Asarco, LC-1	1961	400	757	767	10	-357	No samples
WY016	28-05E-04-AAB	22047	Asarco, LC-3	1961	440	1288	1292	4	-848	No samples
WY017	28-03E-01-BA	19730	Asarco, OC-2	1961	657	1124	1128	4	-467	Conglomerate
WY018	29-06E-01-CAC	23857	New Jersey Zinc, 1-CL		570	1635	1640	5	-1065	Granite
WY019	28-06E-08-DB	23878	New Jersey Zinc, 1-GR	1960	555	1540	1564	24	-985	
WY020	30-07E-15-DAA		Cominco, W-01	1974	600	620	630	10	-20	Granite
WY021	29-07E-09-BCB		Cominco, W-02	1974	680	1397	1403	6	-717	Granite porphyry
WY022	29-07E-12-CDD		U.S. Borax, A		410	1905	1963	58	-1495	Granite porphyry
WY023	30-07E-21-BDCD		Texasgulf Western, Inc., 81-M0-1	1981	720	953	956	3	-233	No samples
WY024	29-04E-34-BDCC		Texasgulf Western, Inc., 80-M0-10	1980	740	1496	1510	14	-756	Rhyolite
WY025	30-06E-36-BBDD		Texasgulf Western, Inc., 80-M0-11	1980	725	1810	1825	15	-1085	No samples
WY026	30-07E-09-CDCC		Texasgulf Western, Inc., 80-M0-12	1980	760	1609	1615	6	-849	Rhyolite
WY027	27-05E-02-CC		Gulf Oil, MT-02	1981	640	2313	2317	4	-1673	Granite
WY028	28-05E-36-BBD		Gulf Oil, MT-04	1981	620	2269	2276	7	-1649	Granite
WY029	28-05E-29-DB		Gulf Oil, MT-09	1981	715	2175	2204	29	-1460	Granite porphyry
WY030	28-05E-34-BB		Gulf Oil, MT-10	1981	670	2266	2311	45	-1596	Granite
WY031	27-05E-01-BA		Gulf Oil, MT-01	1981	600	2282	2301	19	-1682	Granite
WY032	28-04E-07-AAD		Gulf Oil, MT-03	1981	720	1664	1672	8	-944	Granite porphyry
WY033	28-04E-13-DCB		Gulf Oil, MT-05	1981	730	2118	2130	12	-1388	Granite porphyry
WY034	28-04E-11-BCD		Gulf Oil, MT-06	1981	760	1894	1900	6	-1134	Granite porphyry
WY035	28-04E-14-CD		Gulf Oil, MT-07	1981	760	1905	1916	11	-1145	Granite porphyry
WY036	28-05E-19-CDD		Gulf Oil, MT-08	1981	720	1976	1998	22	-1256	Granite porphyry
WY037	28-04E-15-ADDC		Gulf Oil, MT-11	1981	765	2085	2100	15	-1320	Granite porphyry
WY038	28-04E-23-CCD		Gulf Oil, MT-12	1981	790	1983	2011	28	-1193	Granite porphyry
WY039	28-04E-13-ABBD		Gulf Oil, MT-13	1981	525	1846	1846	0	-1321	Conglomerate

<u>OB No.</u>	<u>Location (T-R-S-Q)</u>	<u>Log No.</u>	<u>Owner and Owner No.</u>	<u>Date</u>	<u>Collar Elev.</u>	<u>Top of Prec.</u>	<u>Total Depth</u>	<u>Pentra- tion</u>	<u>Elev. Top Prec.</u>	<u>ROCK TYPE</u>
<u>Wayne</u> (continued)										
WY040	27-05E-12-C		Exxon, CC-1	1980	440	2146	2149	3	-1706	Med gnd pink rapakivi granite
WY041	27-07E-06-B		Exxon, HF-1	1980	590	2064	2080	16	-1474	Dark grey granite porphyry, high-angle quartz vein
WY042	29-07E-09-BCB		Cominco, MQW-2	1974	680	1398	1403	5	-718	Dark grey granite porphyry
WY043	27-05E-09-B		Exxon, DC-1		480	2040	2044	4	-1560	Med gnd red granite
WY044	27-05E-18-BD		GRC, GP-02	1980	520	1908	1931	23	-1388	Med gnd light grey granite
WY045	28-04E-35-BAA		GRC, GP-03	1980	575	1700	1711	11	-1125	Grey granite porphyry
WY046	28-06E-28-A		GRC, GP-05	1980	460	1882	1892	10	-1422	Dark grey granite porphyry
WY047	28-06E-17-DD		GRC, GP-06	1980	495	1704	1724	20	-1209	Rhyolite porphyry
WY048	28-07E-31-BDAC		GRC, GP-07	1981	415	2003	2013	10	-1588	Red rhyolite, weathered, jointed
WY049	27-07E-04-ABAD		GRC, GP-08A	1981	620	1702	1727	25	-1082	Red rhyolite porphyry, high angle quartz veins
WY050	27-07E-03-ACBA		GRC, GP-09	1981	430	2217	2240	23	-1787	Red rhyolite, weathered
WY051	27-08E-05-DCAC		GRC, GP-10	1982	375	2676	2715	39	-2301	Rhyolite porphyry, iron-stained
WY052	27-07E-11-ACAD		GRC, GP-11	1982	565	3035	3057	22	-2470	Red rhyolite porphyry
WY053	29-08E-34-BCAC		Noranda, CWN-1	1982	560	2788	2823	35	-2228	Porphyry gabbro
<u>Webster</u>										
WE001	31-18W-27-DBA		Union Carbide, M1J1	1982	1394	1895	2211	316	-501	Granite gneiss
<u>Wright</u>										
WR001	31-15W-08-DDDC		U.S.G.S., NS-6, GROVESPRING #1	1984	1340	1857	1994	137	-517	Metarhyolite
WR002	30-14W-33-BACD		Amselco, Inc., HV-1	1981	1160	1943	2161	218	-783	Diorite with granite

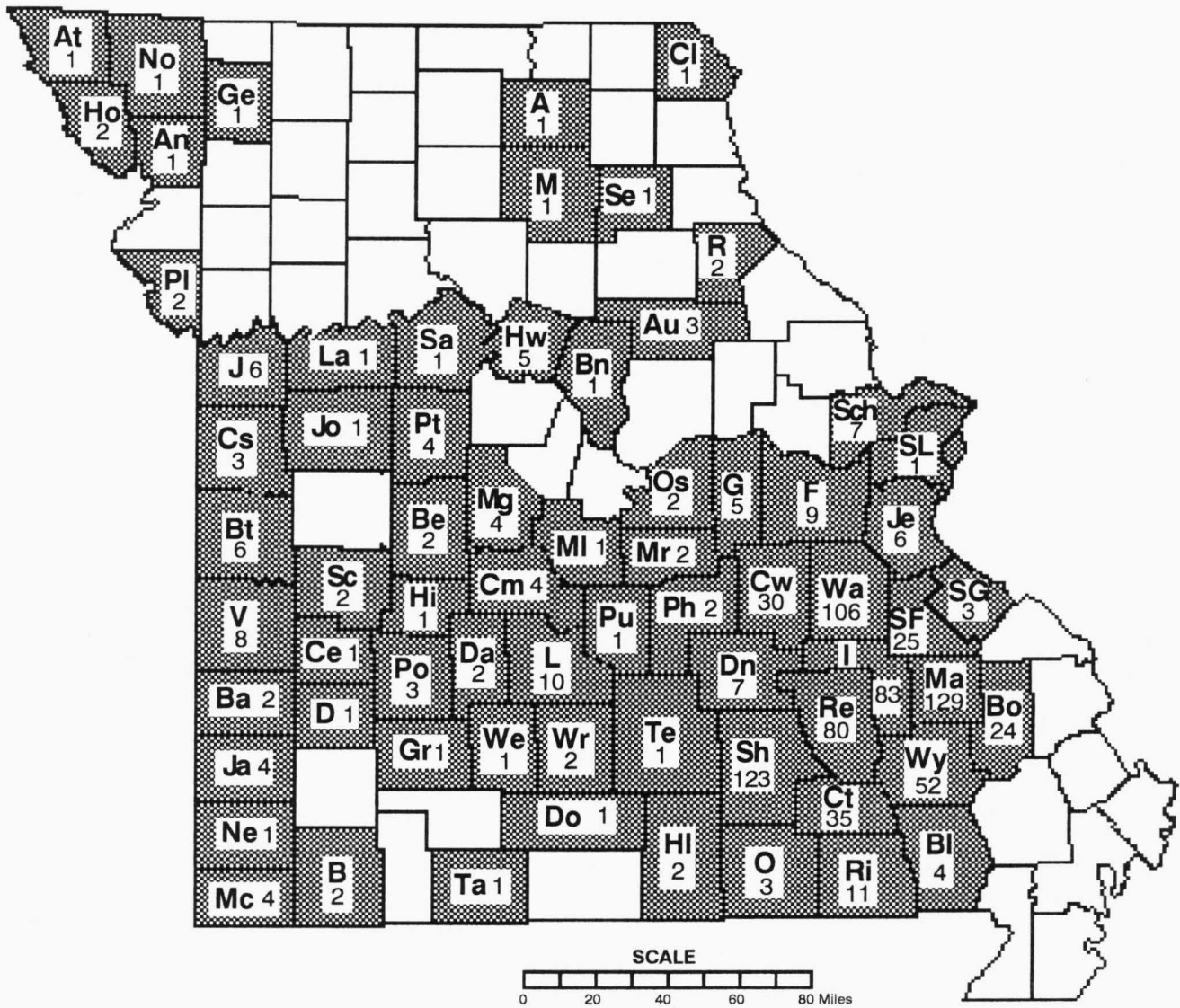


Figure 1. Status of Operation Basement drillhole database shows number of basement tests by counties as of January 1, 1992. The numbers include cored, churn-drilled, and rotary-drilled holes and represent the cumulative total number of wells catalogued to date.

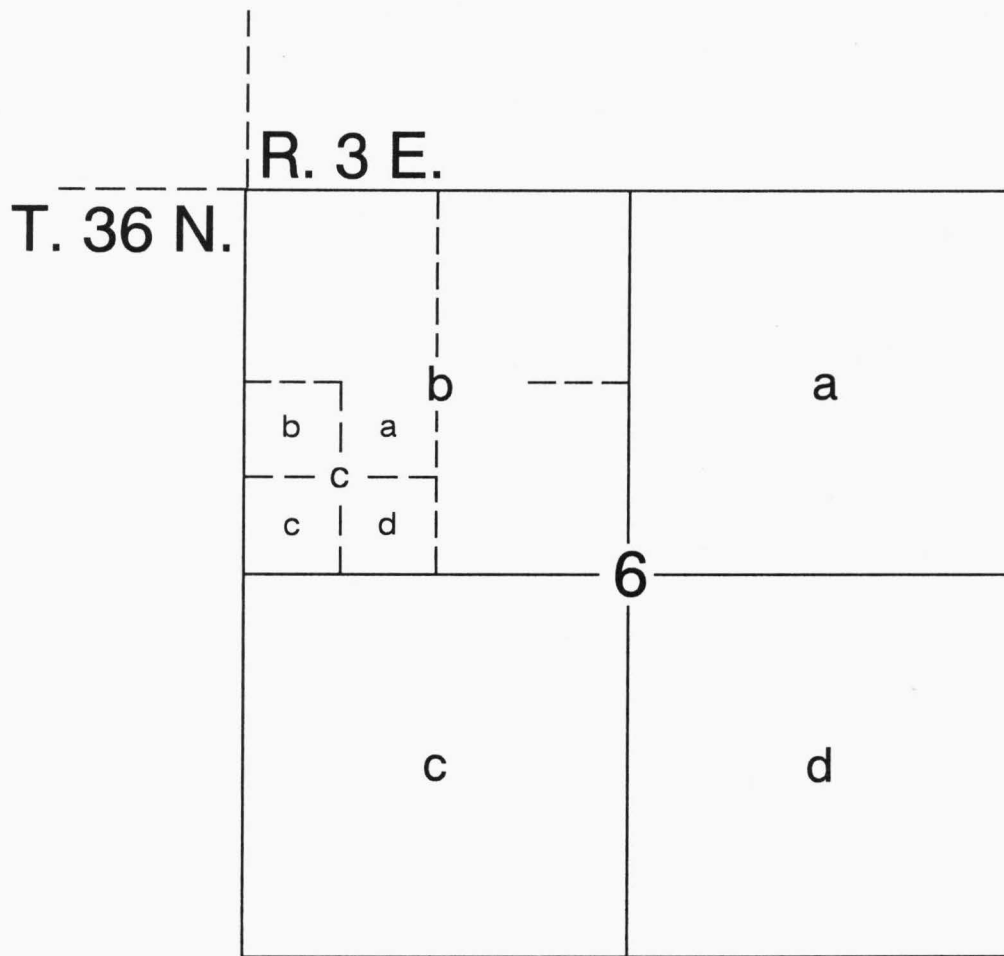


Figure 2. Method of identifying drillhole locations by township, range, and section in Missouri.

Appendix A: County Codes

(number in parenthesis indicates number of basement drillholes in county)

A	Adair	(1)		L	Laclede	(10)
An	Andrew	(1)		La	Lafayette	(1)
At	Atchison	(1)		M	Macon	(1)
Au	Audrain	(3)		Ma	Madison	(129)
B	Barry	(2)		Mr	Maries	(2)
Ba	Barton	(2)		Mc	McDonald	(4)
Bt	Bates	(6)		MI	Miller	(1)
Be	Benton	(1)		Mg	Morgan	(4)
Bo	Bollinger	(24)		Ne	Newton	(1)
Bn	Boone	(1)		No	Nodaway	(1)
Bl	Butler	(4)		O	Oregon	(3)
Cm	Camden	(4)		Os	Osage	(2)
Ct	Carter	(35)		Pt	Pettis	(4)
Cs	Cass	(3)		Ph	Phelps	(2)
Ce	Cedar	(1)		PI	Platte	(2)
Cl	Clark	(1)		Po	Polk	(3)
Cw	Crawford	(30)		Pu	Pulaski	(1)
D	Dade	(1)		R	Ralls	(2)
Da	Dallas	(2)		Re	Reynolds	(80)
Dn	Dent	(7)		Ri	Ripley	(11)
Do	Douglas	(1)		Sh	Shannon	(123)
F	Franklin	(9)		Se	Shelby	(1)
G	Gasconade	(5)		Sch	St. Charles	(7)
Ge	Gentry	(1)		Sc	St. Clair	(2)
Gr	Greene	(1)		SF	St. Francois	(25)
Hi	Hickory	(1)		SL	St. Louis	(1)
Ho	Holt	(2)		SG	Ste. Genevieve	(4)
Hw	Howard	(5)		Ta	Taney	(1)
Hl	Howell	(2)		Te	Texas	(1)
I	Iron	(83)		V	Vernon	(8)
J	Jackson	(6)		Wa	Washington	(106)
Ja	Jasper	(4)		Wy	Wayne	(52)
Je	Jefferson	(6)		We	Webster	(1)
Jo	Johnson	(1)		Wr	Wright	(2)

APPENDIX B: Selected Core Logs

Megascopic Core Description of Precambrian Section from Drillhole F-9

Iron stained, arkosic Lamotte Sandstone containing maroon shaley intervals rests on the Precambrian section.

Top of Precambrian at 1875' from collar.

<u>Depth</u>	<u>Thickness</u>	<u>Rock Description</u>
1875-1885	10'	Weathered, in situ granite grus
1885-1901	16'	Weathered, coarse grained granite with high-angle jointing.
1901-1940 sample interval: 1911-1915'	39'	Coarse grained, red granite, up to 15 mm pink alkali feldspars, bluish milky quartz, 5-10% mafics (biotite, sphene). Texture has porphyritic aspect, some of the large feldspars are mantled (rapakivi). Graniteville type?
1940-2026 sample interval: 1947-1953' (granite) 2011-2015' (porphyry)	86'	Rapakivi granite and rapakivi porphyry (continuation of the granite above, but locally the porphyritic aspect is more pronounced in this lower interval). Alkali feldspars range up to 20-30 mm in size, milky quartz is smaller. In the porphyry sections the groundmass is dark gray, medium grained, granite.
2026-2076 sample interval: 2050-2056'	50'	Fine grained, gray, equigranular syenite dike, locally contains small phenocrysts. In the lower 2' of this interval, the dike is split in two; the lower dikelet has sharp contact with the coarse grained granite below.
2076-2169 sample interval: 2095-2097' (granite) 2145-2149' (porphyry)	93'	Very coarse grained (20 mm) porphyritic granite and rapakivi porphyry. Large alkali feldspar insets (many mantled) in dark gray, finer groundmass. Mafic clots rare.
2169-2177	8'	Fine grained, equigranular, gray syenite(?) dike. Mafic rich, no visible quartz, but alkali feldspars abound. Sample interval: 2172-2174'
2177-2235 sample interval: 2220-2225'	58'	Very coarse grained porphyritic rapakivi granite, as at upper part, bluish quartz, locally 30 mm mantled feldspars, 5-10% mafics (biotite).
2235-2279 sample interval: 2240-2244'	44'	Rapakivi porphyry: lower and upper 3 feet of this interval is groundmass-dominated; central portion is phenocryst-dominated. Upper contact with granite is sharp. Transition from groundmass-dominated to phenocryst-dominated section is gradational. Lower contact is sharp against diabase dike.
2279-2280	1'	Black, slightly magnetic basalt or diabase dike with sharp contacts.
2280-2292	12'	Fine grained syenite, equigranular, locally contains small phenocrysts.

APPENDIX B: Selected Core Logs

Megascopic Core Description of Precambrian Section from Drillhole F-9

<u>Depth</u>	<u>Thickness</u>	<u>Rock Description</u>
2292-2300 sample interval: 2295-2297'	8'	Black, slightly magnetic basalt or diabase dike. Upper contact shows effects of assimilation of the syenite above; xenoliths of coarse granite observed near the lower contact of the dike.
2300-2368 sample interval: 2331-2335'	68'	Very coarse grained, porphyritic granite, containing local, 1-2-foot sections of rapakivi porphyry with gradational contacts. At 2350', there is a 6-inch vein of pink granite aplite.
2368-2369	1'	Syenite dike
2369-2372	3'	Rapakivi granite
2372-2382	10'	Granite porphyry
2382-2385	3'	Rapakivi porphyry
2385-2390	5'	Granite porphyry
2390-2408 sample interval: 2396-2398	18'	Dark gray, fine grained, equigranular syenite dike, locally contains small feldspar phenocrysts.
2408-2409	1'	Granite porphyry
2409-2414	5'	Fine grained, equigranular, gray syenite
2414-2421	7'	Rapakivi porphyry
2421-2459 sample interval: 2432-2436'	38'	Dark gray, fine grained, equigranular, locally slightly magnetic trachyte(?) dike.
2459-2472(TD) sample interval: 2467-2471'	13'	Intrusive upper contact of pink, fine grained aplite. The hole bottomed in this rock type.

APPENDIX B: Selected Core Logs

Megascopic Core Description of Precambrian Section from Drillhole Wr-2

Arkosic Lamotte Sandstone rests on the Precambrian section.

Top of Precambrian 1943' from collar.

<u>Depth</u>	<u>Thickness</u>	<u>Rock Description</u>
1943-1955	12'	Weathered igneous rock: mostly fine grained, reddish colored, equigranular diorite(?) At 1946' there is a 6" quartz vein; at 1954' there is a 1-foot mafic dike.
1955-1960 sample interval: 1956-1958'	5'	Dark gray, equigranular, fine grained biotite diorite; core is slightly magnetic; contains disseminated yellow sulfides in addition to magnetite. At 1959' there is a 2" vein of granite pegmatite.
1960-1974 sample intervals: 1962-1966' 1970-1972'	14'	Hybrid section. Large, up to 20 mm pink alkali feldspars, some mantled, blue-milky quartz, in a dark gray, mafic (biotite)-rich groundmass. Rock has porphyritic aspect. Xenoliths of diorite, up to 6" in size are preserved. At 1971' there is a 6" pegmatite with coarse muscovite flakes along which the core has parted.
1974-2010 sample intervals: 1976-1982' 1996-1998'	36'	Mostly fine grained, equigranular, dark gray diorite. Non-magnetic. Locally contains 2- to 6-inch lenses of granitic material, as in the above section, not as distinct dikes but as diffuse mottlings and hybrid products.
2010-2012	2'	Vertical granite pegmatite vein swelling from 3 mm to 50 mm (entire width of core). Clearly illustrates the intrusive relationship of the granite to the diorite.
2012-2036	24'	Several small granite veinlets in biotite diorite. At 2029' there is a 15 mm pegmatite.
2036-2038	2'	Vein of pink, fine grained, equigranular granite
2038-2051	13'	Mottled (hybrid) diorite
2051-2090 sample intervals: 2066-2074' 2085-2087'	39'	Medium grained, pink, equigranular granite. Sharp contacts with the diorite. Graniteville type?
2090-2091	1'	Diorite xenolith
2091-2113	22'	Mottled section: diorite-granite hybrid. Sample interval: 2104-2105'
2113-2114	1'	Vein of pink medium grained granite with sharp contacts.
2114-2118	4'	Diorite
2118-2120	2'	Granite vein, as above

APPENDIX B: Selected Core Logs

Megascopic Core Description of Precambrian Section from Drillhole Wr-2

<u>Depth</u>	<u>Thickness</u>	<u>Rock Description</u>
2120-2123	3'	Diorite
2123-2124	1'	Mottled hybrid granite-diorite
2124-2131	7'	Diorite. Sample interval: 2125-2126'
2131-2136	5'	Mottled hybrid section
2136-2141	5'	Diorite
2141-2151	10'	Mottled hybrid. There are short sections (5-6 inches) of pure, dark gray, equigranular diorite alternating with coarsely mottled hybrid sections containing large (10-15 mm) alkali feldspar "porphyroblasts". At 2148' there is a calcite seam about 2 mm wide. Granite sometimes occurs as 20 mm thick veins, coarse grained. Diorite occurs as irregular xenoliths.
2151-2158 (T.D.)	7'	Mostly diorite. Sample interval: 2152-2154'