Location and number 3/ 4/ 5/	Source and date of collection	Silica (SiO_2)	Iron (Fe) (in solution)	Iron (Fe) (total)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K) and Manganese (Mn) 6/	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Uranium (U) 7/	Vanadium (V) 8/	Copper (Cu) 8/	Lead (Pb) 8/	Selenium (Se)	Dissolved solids: Sum-p. p. m.	Dissolved solids: Sum-tons/acre ft.	Hardness as $CaCo_3$ 2/: Total	Hardness as $CaCo_3$ 2/: Noncarbonate	Specific conductance (Micromhos at 25° C.)	Percent sodium 9/	Laboratory pH	Remarks
50/17W-19D1 3812 B-2	Outlaw Mesa, dug well. 11/15/49	23	0.10	.16	84	88	65	7.6	620	105	64	0.7	0.2	0.04	0.0	<0.1	0.06	0.03	0.00	743	1.01	527	64	1,230	20	7.5	Ore-bearing sandstone, 30 ft. down dip from mined ore body. Sediment analyzed 10/.
50/18W-9A1 3811 B-4 11/ B-17 12/	Maverick Mesa, Matchless mine sump. 11/16/49 7/29/50	13/ 22	.07	14/ 99	524	389	58	15/ n.d.	479	2,310	165	.9	16/	17/	18.0 .82	95.0 11.8	.01 .00	.03 .00	12.50 3.13	3,700	5.03	2,910	2,510	4,410	4	6.8	Seep from mineralized sandstone. B-4 sediment analyzed 10/.
50/18W-9C1 3810 B-3	Maverick Mesa, spring. 11/16/49	15	.05	.12	56	50	129	13.0	483	119	69	.6	.9	.08	.1	<.1	.03	.17	.00	690	.94	345	0	1,100	44	8.0	Ore-bearing sandstone (?). Sediment analyzed 10/.
50/18W-9D1 4/51	Maverick Mesa, spring. 4/12/51	15	.01	n.d.	41	36	123	9.6	509	63	24	.7	3.3	.03	.05	.09	.00	.00	.05	566	.77	250	0	908	50	8.1	Basal conglomerate of Brushy Basin. Temp. 54° F.
50/18W-11C1 4536 B-5	Calamity Mesa, spring. 4/18/50	16	.03	.04	62	57	33	4.8	408	65	40	.5	4.7	.06	.3	<.1	.00	.00	.00	484	.66	389	54	820	15	7.5	Base of ore-bearing sandstone. Temp. 50° F.
50/18W-12C1 3813 B-1	Outlaw Mesa, spring. 11/16/49	20	.05	.06	82	49	32	4.2	417	59	36	.5	5.6	.02	.2	<.1	.07	.06	.00	494	.67	406	64	807	14	7.7	Ore-bearing sandstone 100 feet down dip from mined ore body. Sediment analyzed 10/.
50/18W-12D1 4537 B-6	Outlaw Mesa, Ronnie No. 1 mine, underground spring. 4/19/50	13	.03	n.d.	62	35	11	3.0	344	23	14	.3	4.1	.04	.0	<.1	.00	.00	.00	335	.46	298	16	584	7	7.9	Top of ore-bearing sandstone. Temp. 50° F.
49/17W-6B1 6321 2/51	Blue Mesa, spring. 3/31/51	11	.02	n.d.	30	37	68	8.0	18/ 391	32	18	.4	4.1	.03	.02	.16	.00	.00	.05	401	.55	227	0	669	38	8.1	Ore-bearing sandstone, 2,000 ft. down dip from nearest known ore body. Field pH 6 19/.
49/17W-6D1 6322 3/51	Blue Mesa, spring. 3/31/51	9.6	.07	.18	5.8	12	847	11.0	20/ 1,900	296	55	2.6	3.8	.40	.06	.30	.05	.00	.05	2,180	2.96	64	0	3,270	96	9.4	Brushy Basin sandstone. Field pH 9.
47/17W-15B1 4686 B-8	Long Park area, spring. 5/28/50	12.0	.07	.19	50	67	92	8.7	425	192	33	.2	1.2	.02	.6	<.1	.00	.00	.00	666	.91	400	52	1,030	33	7.9	Base of ore-bearing sandstone. Temp. 52° F.
47/17W-27A1 6317	Long Park area, dug well. 3/23/51	15	.03	.07	97	104	318	16.0	354	798	171	.7	.2	.06	n.d.	n.d.	n.d.	n.d.	n.d.	1,690	2.30	670	380	2,360	50	8.0	Brushy Basin sandstone. Temp. 38° F. Field pH 6-7.
47/17W-27D1 4685 B-7	Long Park, ore chute No. 10 mine. 5/28/50	13	.82	1.24	62	33	17	3.2	245	77	18	.4	15.0	.00	.3	1.2	.00	.00	.00	360	.49	290	89	576	11	7.7	Ore-bearing sandstone. Temp. 53½° F.
47/17W-29A1 4687 B-10	Long Park, Henry Clay mine, underground spring. 5/27/50	14	.09	.15	86	43	19	5.9	406	43	34	.3	6.1	.01	.2	<.1	.00	.00	.00	451	.61	392	59	740	9	7.7	Mineralized sandstone. Temp. 45½° F.
47/17W-29A2 4688 B-9	Long Park, Henry Clay mine sump. 5/27/50	10	.11	.26	59	43	20	6.1	317	48	37	.3	6.2	.02	.6	<.1	.00	.00	.00	386	.52	324	64	655	12	7.7	Mineralized sandstone.
44/18W-33C1 6318	Joe Davis Canyon, spring. 3/24/51	9.9	.04	n.d.	41	13	360	8.8	528	435	61	1.0	.3	.07	n.d.	n.d.	n.d.	n.d.	n.d.	1,190	1.62	156	0	1,730	82	8.1	Brushy Basin sandy shale. Field pH 7.
43/19W-32C1 6319 1/51	Bishop Canyon, Strawberry Spring. 3/24/51	16	.05	n.d.	88	34	203	4.4	506	212	113	.3	.1	.09	.02	.12	.00	.00	.05	920	1.25	360	0	1,420	55	7.9	Basal conglomerate of Brushy Basin. Field pH 7.
43/18W-29C1 4733 B-11	Spud Patch, May Day mine sump. 6/26/50	17	.04	n.d.	64	16	27	4.8	226	42	30	.4	1.7	.04	<.1	<.1	.00	.33	.00	314	.43	226	40	523	20	7.7	Mineralized sandstone. Temp. 44° F. Field pH 6.
42/18W-6A1 6320	Spud Patch, dug well. 3/24/51	20	.07	n.d.	98	103	118	6.6	554	158	198	.3	14.0	.03	n.d.	n.d.	n.d.	n.d.	n.d.	989	1.35	668	214	1,610	27	7.7	Quaternary alluvium derived from Brushy Basin shale member (?). Field pH 7.
37/21E-10B1 4735 B-13	Blanding district, East Bank mine sump. 6/24/50	13	.11	.25	116	114	179	10.0	480	631	91	.4	1.9	n.d.	8.7	22.8	.00	.00	.00	1,400	1.90	758	364	1,990	34	7.4	Mineralized sandstone. Temp. 47° F. Field pH 7.
36/21E-26B1 4734 B-12	Blanding district, A.E.C. ddh No. B.A.6. 6/24/50	13	.02	n.d.	77	53	128	6.4	378	353	27	.2	.2	.00	<.1	.1	.00	.00	.00	844	1.15	410	100	1,250	40	7.7	Ore-bearing sandstone. Temp. 56° F. Field pH 6.5.
28/23E-3A1 4779 B-16	Yellow Circle district, Yellow Circle mine spring. 6/28/50	12	.03	n.d.	38	59	10	4.6	365	28	24	.4	5.4	.02	.2	<.1	.00	.50	.00	361	.49	338	38	647	6	8.3	Mineralized sandstone. Temp. 58° F.
23/22E-6B1 4777 B-15	Yellow Cat district, Telluride 18 mine sump. 6/29/50	11	.20	n.d.	89	20	129	6.1	202	388	13	.4	2.6	.04	.8	<.1	.00	.04	1.00	759	1.03	304	138	1,100	47	7.9	Mineralized sandstone. Temp. 50° F.
22/22E-33A1 4778 B-14	Cactus Rat mine, 20 foot adit. 6/29/50	10	.03	n.d.	101	15	343	3.4	205	806	47	.3	5.8	.02	.2	<.1	.00	.02	7.87	1,430	1.94	314	146	2,030	70	7.9	Ore-bearing sandstone, 50 ft. below mineralized sandstone. Temp. 56° F. Field pH 6.5-7.
Threshold of detection for the ions.		n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	.01	.01	.01	.01	.05								

1/ Analyses for U, V, Cu, Pb, Se, and of sediment by George J. Petretic or Lewis F. Rader, Jr., Geochemistry and Petrology Branch, Geologic Division, U. S. Geological Survey. Analyses for other constituents by E. L. Singleton, W. M. Webster, and E. F. Williams, Quality of Water Branch, Water Resources Division, U. S. Geological Survey.

2/ Total hardness is the sum of all the constituents causing hardness; noncarbonate hardness is the sum of all the constituents but carbonate causing hardness. The two hardnesses are, by common practice, expressed as "Hardness as $CaCO_3$."

3/ Field number (example: 50/17W-19D), Geologic Division, U. S. Geological Survey, indicating township (50), range (17 west), section (19), and quarter section (A, B, C, or D lettered counter-clockwise from the NE¼).

4/ Salt Lake City Laboratory number (example: 3812), Quality of Water Branch, U. S. Geological Survey.

5/ Denver Trace Elements Laboratory number (example: B-2 or 1/51), Geochemistry and Petrology Branch, U. S. Geological Survey.

6/ 0.29 p. p. m. manganese detected in sample, 42/18W-6A1. Other samples 0.00 p. p. m.

7/ Method of determination: Fluorimetric.

8/ Method of determination: Colorimetric.

9/ Percent sodium is obtained by dividing the total milligram equivalents into the sodium milligram equivalents.

10/

Lab. No.	Sediment (p. p. m.)	UO_3 %	V_2O_5 %	Fe_2O_3 %*	CaO %**	K_2O %**
B-1	5.4	0.5	1.7	4.9	1.0	1.4
B-2	2.2	0.11	1.4	9.4	5.6	2.5
B-3	7.7	0.1	1.8	1.7	0.2	0.5
B-4	39.5	6.4	14.4	3.9	0.2	1.3

* Method of determination: Colorimetric.
** Method of determination: Flame photometric.

11/ Sample collected from sludge pit in drift. Water contaminated by drill sludge. Source: Underground seep from face of ore.

12/ Sample collected from flooded winze. Water uncontaminated by drill sludge. Source: Underground seep from face of ore.

13/ On addition of HCl, yellow color developed, but faded after standing.

14/ Iron and aluminum oxide Fe_2O_3+Al_2O_3. Total includes 2.4 p. p. m. Fe_2O_3.

15/ n.d. - not determined.

16/ Deep blue color developed on addition of phenodisulphonic acid to evaporated sample. Color disappears with addition of H_2O. Deep yellow developed with NH_4OH.

17/ Unable to determine (B) green-yellow color.

18/ Includes 7.9 p. p. m. CO_3.

19/ Field pH as determined by "Hydrion" paper.

20/ Includes 311 p. p. m. CO_3.

Compiled by David A. Phoenix

TABLE I. ANALYSES OF GROUND WATER FROM WELLS, SPRINGS, AND MINES IN THE SALTWASH SANDSTONE AND BRUSHY BASIN SHALE MEMBERS OF THE MORRISON FORMATION 1/