

TABLE 26.—Analyses of channel samples, Schwartzwalder mine, Ralston Buttes district

[Symbols: —, not looked for; 0, looked for but not detected; M, major constituent (> 10 percent); <, less than percentage shown (here, standard sensitivities do not apply); Trace, near threshold amount. U. S. Geol. Survey analysts: C. G. Angelo (eU); H. H. Lipp, J. S. Wahlberg, and J. P. Schuch (U); W. D. Goss (Cu, Pb); E. C. Mallory (MnO); J. S. Wahlberg (V₂O₅, Zn); C. Huffman, Jr., and R. F. Dufour (Ni, Co, Mo); D. L. Skinner (Au, Ag); N. M. Conklin (all spectrographic analyses)]

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Lab. No.	Field No.	Location of sample (pls. 3, 4)	Length of sample (ft)	Description of material	Radio-metric analyses, in percent	Chemical analyses, in percent except as indicated																		Semi-quantitative spectrographic analyses, in percent																																			
						eU	U	Cu ¹	MnO ²	V ₂ O ₅ ²	Ni ²	Co ²	Mo ²	Zn ²	Pb ³	Au ⁴ (oz per ton)	Ag ⁴ (oz per ton)	Si	Al	Fe	Mg	Ca	Na	K	Ti	Mn	Ag	As	B	Ba	Be	Bi	Cd	Co	Cr	Cu	Ga	Ge	La	Li	Mo	Nb	Ni	Pb	Sb	Sc	Sn	Sr	Tl	U	V	W	Y	Yb	Zn	Zr			
242517	SW-G-1	Minnesota level, SE drift on Nebraska vein, back.	1.5	Lower part of vein (mineralized fault breccia).	0.46	0.63	0.03	0.13	0.024	0.0065	<0.005	0.04	0.013	0.18	None	0.04	M	3	7	1.5	3	0.3	3	0.3	0.15	0.00015	0	0.007	0.07	0.0007	0.003	0	0.003	0.003	0.03	0.0007	<0.005	0.003	0	0.07	0.003	0.007	0.07	0	0.0007	<0.001	0.007	0	0.7	0.015	0	0.003	0.0003	0	0.015				
242518	SW-G-2	do	.6	Upper part of vein (mineralized fault breccia).	.44	.58	.15	.23	.049	.010	<.005	.22	.014	.50	None	.16	M	M	7	3	7	.3	7	.3	.3	.0015	0	0	.03	.0003	.07	0	.007	.007	.15	.0007	<.005	0	0	.3	.007	.015	.7	.015	.0015	<.001	.015	Trace	.7	.07	0	.003	.0003	0	.015				
242519	SW-G-3	do	2.3	Coarse breccia in hanging wall above vein.	.18	.26	.14	.16	.050	.0075	<.005	.038	.012	.21	None	.04	M	7	7	3	3	.3	7	.15	.3	.0015	0	0	.015	.0003	.003	0	.003	.007	.15	.0007	.0015	.003	0	.03	.003	.007	.07	0	.0007	<.001	.007	0	.3	.03	0	.0015	.0003	0	.015				
242520	SW-G-4	Minnesota level, NW drift on Nebraska vein, wall of drift.	3.1	Altered garnetiferous quartz-biotite gneiss in footwall.	.015	.017	² (95 ppm)	1.91	.013	.0065	<.005	.018	.020	.09	None	None	M	7	M	3	3	.15	1.5	.15	3	0	0	0	.015	.0007	0	0	.003	.007	.015	<.002	<.005	.003	0	.015	.0015	.007	.007	0	.0015	<.002	.007	0	0	.03	0	.003	.0007	Trace	.007				
242521	SW-G-5	do	.8	Vein (mineralized fault breccia)	4.4	5.57	.15	.53	.077	.006	.018	.60	.086	.69	None	1.36	M	3	M	3	7	0	7	.3	.7	.007	.3	0	.03	.0015	<.01	<.05	.015	.03	.15	0	.7	.015	.03	.3	.07	0	.0015	<.005	.007	0	7	.07	0	.003	<.007	.07							
242522	SW-G-6	Minnesota level, NW drift on Nebraska vein, back	2.3	Coarse breccia in hanging wall	.23	.33	.02	1.42	.058	.002	<.005	.060	.027	.27	None	None	M	7	M	3	3	.3	7	.3	1.5	.0003	0	0	.015	.0007	0	0	.007	.007	.015	<.002	<.0015	.003	0	.07	.003	.007	.015	0	.0015	<.002	.015	0	.3	.03	0	.003	<.003	.07					
242523	SW-G-7	Minnesota level, SE drift on Kansas vein, old breast.	.6	Vein (mineralized fault breccia)	.41	.58	.09	.52	.075	.011	<.005	.18	.030	.24	None	.40	M	3	3	3	3	.3	7	.15	.7	.0015	0	0	.015	.0003	0	0	.007	.003	.07	.0007	<.005	0	0	.15	.0015	.007	.3	.015	.0007	<.001	.007	Trace	.3	.03	0	.0015	.0003	0	.007				
242524	SW-G-8	do	1.5	Coarse breccia in hanging wall immediately above vein.	.58	.66	.08	.59	.030	.0075	<.005	.072	.023	.10	None	.20	M	7	7	1.5	3	.3	7	.3	.7	.0015	0	.003	.015	.0007	0	0	.007	.007	.07	.0015	<.005	.003	0	.07	.003	.007	.07	.015	.0015	<.001	.007	0	.07	.03	0	.003	.0003	0	.015				
242525	SW-G-9	do	1.3	Coarse breccia above sample SW-G-8.	.052	.067	.03	4.77	.028	.0085	<.005	.062	.019	.11	Trace	Trace	7	3	M	3	3	.3	3	.15	3	Trace	0	0	.003	.003	.03	<.002	0	.007	0	.003	.03	<.002	0	.007	0	.003	.015	0	.0007	<.002	.015	0	.07	.015	0	.003	.0007	0	.007				
242526	SW-G-10	Minnesota level, NW drift on Kansas vein, wall of drift.	3.5	Coarse breccia and veinlets in hanging wall.	.076	.084	.03	.75	.046	.0080	<.005	.060	.022	.14	None	.04	M	3	M	3	3	.3	7	.3	.7	.0003	0	.015	.003	.0007	0	0	.003	.003	.03	<.002	0	.007	0	.003	.03	<.002	0	.007	0	.003	.03	0	.0015	<.001	.007	0	.07	.03	0	.003	.0003	0	.007
242527	SW-G-11	Minnesota level, SE drift on Walder vein, back.	2.5	Mineralized fault breccia	.70	.79	.87	.08	.035	.022	.017	.56	.19	1.07	None	1.82	M	7	7	1.5	3	.3	7	.3	.15	.007	.3	.007	.03	.0003	0	0	.015	.007	1.5	.0015	<.005	.003	0	.7	.0015	.03	1.5	.07	.0015	<.002	.007	Trace	.7	.03	0	.007	.0007	.07	.007				
242528	SW-G-12	Minnesota level, SE drift on Walder vein, wall of drift.	3.0	Series of mineralized fault breccias, each 0.2 ft thick, cutting schist.	1.8	1.95	.14	.06	.032	.011	.008	.43	.056	.35	None	1.24	M	M	7	1.5	3	.3	7	.3	.07	.007	.15	.003	.03	.0007	<.002	<.01	.015	.007	.15	.0015	<.005	.007	-----	.3	.0015	.015	.7	.03	.003	<.002	.007	Trace	1.5	.03	0	.007	.0007	.03	.03				
242529	SW-G-13	Minnesota level, SE drift on Walder vein, back.	1.8	Schist and veinlets between samples 11 and 12.	.034	.033	.11	.03	.017	.0065	<.005	.04	.062	.13	None	.04	M	7	7	1.5	.7	.3	7	.3	.07	.0007	0	.007	.03	.0007	0	0	.003	.003	.15	.0007	0	.007	0	.03	.0015	.007	.07	0	.0015	<.001	.003	0	.07	.015	0	.003	.0003	.03	.015				
242530	SW-G-14	Minnesota level, NW drift on Walder vein, wall of drift.	3.0	Mineralized fault breccias, each 0.2 ft thick, with intervening fractured schist.	.63	.72	.19	.07	.018	.016	.012	.14	.16	.52	None	.44	M	3	7	1.5	3	.15	3	.3	.15	.003	.15	0	.015	.0007	.003	0	.015	.003	.3	Trace	<.005	0	0	.15	0	.015	.7	.03	.0015	<.002	.003	Trace	.7	.015	0	.007	.0007	.15	.015				
242531	SW-G-15	do	2.0	Coarsely brecciated schist in footwall below SW-G-14.	.012	.009	.03	.11	.020	.009	<.005	.006	.11	.08	None	None	M	7	7	3	3	.15	3	.3	.15	Trace	0	.003	.015	.0007	0	0	.003	.003	.03	.0015	0	0	.03	.007	0	.007	.03	0	.0015	<.001	.003	0	0	.015	0	.003	.0003	.07	.007				
242532	SW-G-16	Minnesota level, NW drift on Colorado vein, wall of drift.	.7	Vein (mineralized fault breccia)	1.3	1.59	.23	.08	.041	.039	.021	.31	.088	.61	None	1.82	M	3	M	1.5	3	.15	7	.3	.15	.007	.15	0	.015	.0003	<.003	<.01	.015	.007	.3	<.002	<.005	0	-----	.7	.0015	.03	.7	.07	.0015	<.002	.003	.07	1.5	.03	0	.007	.0007	.07	.015				
242533	SW-G-17	Minnesota level, SE slusher drift on Colorado vein, old breast.	1.3	do	3.7	4.59	.09	.45	.063	.022	.007	.42	.020	.41	None	1.40	M	3	7	3	M	0	0	.3	.7	.007	.3	0	.03	.0003	<.01	<.07	.015	.003	.15	0	<.02	0	0	.7	.007	.03	.3	.03	0	<.005	.007	0	7	.03	0	.015	.0015	0	.07				
242534	SW-G-18	do	2.3	Coarsely brecciated garnetiferous gneiss, hanging wall.	.41	.50	.09	2.01	.033	.009	<.005	.058	.046	.16	Trace	Trace	M	3	M	3	.7	.3	3	.15	3	.0015	0	.015	.015	.0015	0	0	.003	.003	.07	<.002	<.005	0	0	.07	0	.007	.07	0	.0007	<.002	.015	0	.3	.03	0	.007	.0007	Trace	.007				
242535	SW-G-19	Upper level, old breast at bottom of inclined winze (section A-A', pl. 3).	.6	Vein (mineralized fault breccia) near floor of workings.	3.3	3.61	1.07	.18	.072	.035	.040	.22	.11	.53	None	5.24	M	7	M	1.5	3	.15	7	.15	.15	.015	.7	0	.015	.0007	<.005	<.01	.03	.003	1.5	<.002	<.005	0	-----	.3	.003	.03	.7	.07	.0015	<.002	.007	.03	3	.07	.015	.015	<.01	.07	.03				
242536	SW-G-20	do	.9	Coarse breccia in hanging wall adjacent to SW-G-19.	.26	.28	.22	.09	.032	.0085	<.005	.054	.044	.08	Trace	Trace	M	7	7	1.5	3	.15	7	.3	.15	.0015	.3	0	.03	.0007	0	0	.007	.003	.3	.0007	<.005	0	0	.15	.003	.015	.07	.03	.0015	<.001	.007	Trace	.3	.03	0	.003	.0003	.03	.015				
242537	SW-G-21	do	4.3	Breccia and coarse breccia above SW-G-19 and SW-G-20.	.46	.58	.95	.11	.046	.018	.018	.21	.092	.32	None	1.66	M	7	7	1.5	3	.15	7	.3	.15	.015	.3	0	.03	.0003	Trace	0	.015	.003	1.5	.0007	<.005	0	0	.3	.007	.015	.3	.07	.0015	<.002	.007	.015	.7	.03	0	.003	.0003	.07	.015				
242538	SW-G-22	Upper level, wall at bottom of inclined winze (section D-D', pl. 3).	.8	Vein (mineralized fault breccia) near floor of workings.	1.5	1.15	.62	.04	.042	.018	.016	.15	.082	.45	None	2.80	M	7	7	.15	.3	.07	7	.3	.07	.015	.3	.003	.03	.0007	Trace	0	.015	.003	.7	0	<.005	0	0	.3	.007	.03	.7	.07	.0015	<.002	.003	Trace	1.5	.03	Trace	.015	.0015	.07	.03				
242539	SW-G-23	do	3.8	Coarsely brecciated schist between SW-G-21 and SW-G-23.	.11	.11	.46	.02	.030	.014	.006	.07	.076	.12	None	.36	M	M	7	.7	.15	.15	7	.3	.03	.003	.15	.015	.07	.0007	0	0	.007	.007	.7	.0015	<.005	.003	0	.15	.0015	.015	.15	.03	.0015	<.002	.007	0	.15										