

The findings, determinations, and assertions contained in this document are not final and subject to change following the public comment period.

Table 1: Permit Limits for Compliance Wells of Bingham Canyon Mine and Water Collection System GWDP, UGW350010

Well ID	Screen Lithology	Sampling Frequency	Northing (ft)	Easting (ft)	pH	TDS mg/L	SO ₄ mg/L	Diss. Cd mg/L	Diss. Cu mg/L	Diss. Zn mg/L
BRG287	Bedrock	Semi-annually	14559	16105	6.19-8.5	3283	912	0.001	0.325	1.25
BRG921	Bedrock	Semi-annually	13190	16540	6.5-8.5	2291	896	0.001	0.325	1.25
BRG999	Bedrock	Semi-annually	14479	17043	6.5-8.5	1614	580	0.001	0.325	1.25
COG2806A	Bedrock	Semi-annually	17605	8389	6.5-8.5	495	43	0.001	0.325	1.25
COG2806B	Bedrock	Semi-annually	17605	8389	6.5-8.5	462	41	0.001	0.325	1.25
ECG1100A	Bedrock	Semi-annually	16058	12362	6.5-8.5	4148	2581	0.003	0.650	3.01
ECG1100B	Bedrock	Semi-annually	16058	12362	6.5-8.5	397	85	0.001	0.325	1.25
ECG1186	Alluvium	Quarterly	9646	18578	6.5-8.5	2002	875	0.001	0.325	1.25
ECG1187	Alluvium	Quarterly	7539	18457	6.5-8.5	1589	169	0.001	0.325	1.25
ECG1188	Alluvium	Quarterly	16105	22493	6.5-8.5	4181	1975	0.001	0.325	1.25
ECG1189	Alluvium	Quarterly	13054	19989	6.5-8.5	780	22	0.001	0.325	1.25
ECG1190	Alluvium	Quarterly	11715	19026	6.5-8.5	1092	71	0.001	0.325	1.25
ECG299	Bedrock	Semi-annually	13807	17474	4.36-8.5	4670	3230	0.020	2.51	2.78
ECG2866A	Bedrock	Semi-annually	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
ECG2866B	Bedrock	Semi-annually	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
ECG901	Bedrock	Semi-annually	13734	17716	6.5-8.5	1634	173	0.001	0.33	1.25
ECG902	Bedrock	Semi-annually	12180	17214	6.5-8.5	1311	332	0.001	0.325	1.25
ECG905	Bedrock	Semi-annually	10839	16434	6.06-8.5	2614	1477	0.001	0.325	1.25
ECG906	Bedrock	Semi-annually	9121	17481	6.5-8.5	4941	2480	0.003	0.325	1.25
ECG907	Bedrock	Semi-annually	7087	17875	6.5-8.5	2004	278	0.001	0.325	1.25
ECG916	Bedrock	Semi-annually	9692	15269	6.5-8.5	857	249	0.001	0.325	1.25
ECG917	Alluvium	Quarterly	6289	18385	6.5-8.5	1467	197	0.001	0.325	1.25
ECG924	Bedrock	Semi-annually	661	16870	6.29-8.5	5850	2994	0.004	0.325	1.25
ECG925	Bedrock	Semi-annually	1343	17470	6.39-8.5	3498	1365	0.001	0.325	1.25
ECG928	Bedrock	Semi-annually	5126	18358	6.5-8.5	930	76	0.001	0.325	1.25
ECG931	Bedrock	Semi-annually	-708	16395	6.39-8.5	5914	650	0.005	0.325	1.25
ECG932	Bedrock	Semi-annually	-2325	14914	6.5-8.5	816	170	0.001	0.325	1.25
ECG934	Bedrock	Semi-annually	-4704	14177	6.5-8.5	1131	423	0.001	0.325	1.25
ECG935	Bedrock	Semi-annually	-6210	13555	6.47-8.5	4572	2661	0.001	0.325	1.25
ECG936	Bedrock	Semi-annually	-6303	12389	6.35-8.5	5118	3071	0.003	0.325	1.25
ECG937	Bedrock	Semi-annually	-8174	11378	6.5-8.5	1345	461	0.001	0.325	1.25
ECG938	Bedrock	Semi-annually	-8909	9785	6.5-8.5	1016	261	0.001	0.325	1.25
LTG1191	Alluvium	Quarterly	3749	20548	6.15-8.5	5888	3590	0.087	0.325	22.38
K93	Bedrock	Semi-annually	16021	13562	6.5-8.5	480	39	0.050	0.100	0.06
VWP220	Bedrock	Semi-annually	10999	16234	6.5-8.5	2352	1050	0.005	0.325	1.25
VWP225	Bedrock	Semi-annually	11920	16886	6.5-8.5	1107	344	0.001	0.325	1.25
VWP228	Alluvium	Quarterly	-1491	13963	5.59-8.5	10370	7076	0.057	0.376	4.17
VWP244A	Alluvium	Quarterly	2266	16139	3.39-8.5	28567	21279	0.643	37.4	40.9
VWP244B	Bedrock	Semi-annually	2278	16124	6.34-8.5	6959	2389	0.009	0.650	2.50
VWP244C	Bedrock	Semi-annually	2285	16110	6.5-8.5	3876	1235	0.008	0.325	1.25
VWP248A	Alluvium	Quarterly	15485	17875	3.52-8.5	12329	8980	0.219	151.3	34.5
VWP248B	Bedrock	Semi-annually	15491	17849	3.90-8.5	5888	4089	0.172	22.1	17.7
ECG2859	Bedrock	Semi-annually	3485	17125	5.62-8.5	4945	2612	0.001	0.325	1.25

NOTES:

All units are mg/L; pH standard units

- 1) Compliance limits are based on 1.25 times the background concentration for TDS for class II and III ground water
- 2) For many wells cadmium, copper, and zinc were predominantly non detects, compliance limits determined from the ground water quality standard.
- 3) Where the background concentration is < detection, compliance limits are based on 0.25 times the ground water quality standard for Class II ground water and 0.50 times the ground water quality standard for Class III ground water for cadmium, copper, and zinc
- 4) If background value exceeds the ground water quality standard; therefore, the Protection Level equals the background value
- 5) The Compliance Limits for IV ground water are the higher of the ground water quality standard, the mean *1.25 or the mean + 2 std. dev.
- 6) There is not a ground water quality standard for SO₄
- 7) Compliance limits for sulfate were calculated as the higher of the mean+2 std. dev. or 1.25 times the mean
- 8) Range of pH values for Compliance Limits are based on the higher and lower limit of 6.5-8.5 and/or mean + and - 2 std. dev.
- 9) Coordinate system in KUCC True North southend map drawn in 1927 State Plane Utah central Zone
- 10) Limits were set using all available data for each individual well through 2008
- 11) If data shows an upward trend for Tds over past five years, the compliance limit as calculated in 2008 has been maintained

Table 3: Informational Wells for Permit #UGW350010**Table 3. Informational Wells for Permit #UGW350010**

Well ID	Site Description	Screen Lithology	Sampling Frequency	Northing (ft)	Easting (ft)
ECG2787	Extraction well at the Mouth of Bingham Canyon	Alluvium	Annually	16133	12382
ECG1185	Copperton Channel Extraction Well	Alluvium	Annually	16909	14862
ECG1184	the Mouth of Butterfield Canyon	Alluvium	Annually	-1537	17816
ECG933	Saints Rest Drainage	Bedrock	Annually	-2975	14227
COP2701 (Mid Valley)	Upper Dry Fork Extraction Well	Alluvium	Annually	20135	2199
COG2865 (Replacement for COG1172)	Second Upper Dry Fork Extraction Well	Bedrock	Annually	20580	200
COG995 A&B	Monitor well at the Mouth of Bingham Canyon	Bedrock	Annually	16814	11056
ECG1106A	Monitor well at the Mouth of Bingham Canyon	Bedrock	Annually	16554	12240
P272	the Upper Keystone Drainage	Bedrock	Annually	3964	16571
K83 (Curtis Springs)	Extraction well at the mouth of Bingham Canyon	Alluvium	Annually	16031	14582

Note

1) Coordinate system in KUCC True North southend map drawn in 1927 State Plane Utah Central Zone