

Gold in Till, Archean Greenstone Belt Northeastern Itasca County, Minnesota



Eighteen new till samples have been collected by the Minnesota DNR and analyzed by Overburden Drilling Management, Ltd for gold grain counts. The samples of till and till over ice contact sediment (as mapped by Meyer and Jirsa, 2005) were located in an Archean greenstone belt in Northeastern Itasca County, and north and northeast of a previously identified 50 square mile area with anomalously high gold grain counts (informally identified as the Bigfork East Project Area).

The new data expands the area with anomalously high total gold grain counts to the northeast, within an area of Rainy Lobe till. Anomalously high values were not observed within samples of the NW-SE trending ice-contact sediment moraine ridge.

As shown on the table to the right, anomalously high total gold grain counts previously obtained in this area have consisted almost entirely of "reshaped" gold grains. This makes newly obtained sample BF-131 (located in Section 3 of T60N R22W) significant, in that more than half of its gold grains were either "modified" (18 of 36 normalized) or "pristine" (1 of 36 normalized).

Sample Number	UTME	UTMN	Normalized (to 10kg) Counts			
			Total Gold Grains	Number of Reshaped Grains	Number of Modified Grains	Number of Pristine Grains
BF-103	489749	5283671	6	3	3	0
BF-105	490496	5284080	33	27	5	2
BF-106	489266	5283999	8	6	3	0
BF-107	488886	5284807	8	6	2	0
BF-108	489527	5284454	5	5	0	0
BF-110	488175	5286585	2	1	0	1
BF-112	488412	5286090	1	0	1	0
BF-113	488170	5286952	15	13	1	1
BF-114	488726	5286666	6	6	0	0
BF-115	489150	5286943	18	18	0	0
BF-116	489713	5286390	15	14	1	0
BF-119	490687	5287531	12	12	0	0
BF-120	491166	5287296	5	5	0	0
BF-122	488969	5287286	5	5	0	0
BF-125	492117	5284705	0	0	0	0
BF-127	488319	5284966	3	2	0	1
BF-128	488736	5284359	15	11	4	1
BF-131	491340	5284156	36	17	18	1
Previously Reported Results						
BF-01	480276	5277367	4	4	0	0
BF-03	481954	5279968	35	35	0	0
BF-04	482862	5279711	38	35	3	0
BF-05	483468	5279347	47	46	1	0
BF-06	483883	5278637	6	5	1	0
BF-07	484379	5278108	38	35	3	0
BF-08	484401	5275454	144	135	5	3
BF-09	485284	5275521	9	8	1	0
BF-11	485394	5278037	48	47	1	0
BF-12	485393	5278431	5	5	0	0
BF-13	485370	5200235	22	22	0	0
BF-14	485332	5281676	17	16	1	0
BF-15	485462	5282632	3	3	0	0
BF-16	485719	5202007	4	3	1	0
BF-17	486270	5282776	1	1	0	0
BF-18	486932	5282943	25	23	1	1
BF-20	487517	5283149	11	9	1	1
BF-21	488018	5283321	24	22	1	1
BF-23	490917	5283516	3	3	0	0
BF-24	491206	5279975	42	41	1	0
BF-25	490454	5280199	51	49	1	0
BF-26	491767	5279887	8	8	0	0
BF-27	491399	5281321	7	7	0	0
BF-28	491308	5281833	5	4	1	0
BF-29	490673	5281820	13	13	0	0
BF-30	490576	5278294	78	77	1	0
BF-31	489970	5277910	16	15	1	0
BF-32	489506	5277725	29	29	0	0
BF-33	488824	5277817	6	4	2	0
BF-34	488762	5277031	7	6	1	0
BF-35	487836	5280138	4	2	1	1
BF-36	488420	5280161	53	50	2	1
BF-37	487607	5279368	2	2	0	0
BF-38	486332	5279504	114	111	4	0
BF-39	486288	5278695	97	92	3	2
BF-40	486431	5277170	15	14	2	0
BF-41	486251	5277870	49	48	0	1
BF-42	486547	5282022	18	16	1	0
BF-43	488086	5283740	9	8	1	0
BF-44	480556	5276656	76	75	2	0
BF-45	483945	5275236	10	10	0	0
BF-46	486317	5281253	84	78	5	1
BF-47	486376	5280202	95	89	5	1
BF-48	488615	5281176	3	2	1	0
BF-49	489129	5280360	2	2	0	0
BF-50	489429	5281530	1	1	0	0
BF-51	489975	5281098	40	37	3	0
BF-52	489710	5282250	90	82	6	2
LL-02	499299	5276280	4	2	1	1
LL-03	500563	5276625	111	106	3	2
LL-04	500711	5276114	6	6	0	0
LL-07	497525	5275892	4	4	0	0
LL-09	498076	5268792	3	3	0	0
LL-11	495941	5269525	2	2	0	0
LL-16	496304	5276980	2	1	1	0
LL-30	491983	5268551	7	6	1	0
LL-35	504503	5265739	0	0	0	0
LL-40	504153	5266958	1	1	0	0
LL-49	499698	5280775	8	8	0	0
LL-78	491898	5266956	6	6	0	0
LL-80	492215	5269621	10	7	2	1
LL-82	493618	5272140	1	1	0	0
LL-83	493772	5274312	93	80	11	2
LL-84	501625	5274852	10	10	0	0
LL-85	494189	5275204	30	29	1	0
LL-86	501304	5275696	2	1	1	0
LL-87	494838	5276481	15	14	1	0
LL-88	494773	5277226	5	5	0	0
LL-89	499400	5277886	32	29	2	1
LL-91	494214	5279321	1	1	0	0
LL-92	493068	5285241	11	10	1	0
LL-94	492426	5286935	4	2	2	0
LL-96	492824	5270905	9	9	0	0
LL-97	490898	5265710	4	4	0	0

