1112 ($mod\ 3^5$) (note that there is no number in the range from 1021 to 1520 which is $\equiv t_2$ ($mod\ 3^6$)).

We now construct our "sieve" for the prime 3 as follows. Starting from 1318, we take jumps of 3 down until we reach 1021 and up until we reach 1519, each time putting a 1 in the column, dividing the corresponding $t^2 - n$ by 3, and recording the result of the division. (Actually, for t odd, the number we divide by 3 is half of t^2-n, since we already divided t^2-n by 2 when we formed the column of alternating 0's and 1's under 2.) Then we do the same with jumps of 9, each time changing the 1 to 2 in the column under 3, dividing the quotient of $t^2 - n$ by another 3, and recording the result. We go through the analogous procedure with jumps of 27, 81, 243, and 729 (there is no jump possible for 729 — we merely change the 5 to 6 next to 1318 and divide the quotient of 1318^2—1042387 by another 3). Finally, we go through the same steps with $t_2 = 1112$ instead of $t_1 = 1318$, this time stopping with jumps of 243.

After going through this procedure for the remaining 6 primes in our factor base, we have a 500×8 array of exponents, each row corresponding to a value of t between 1021 and 1520. Now we throw out all rows for which $t^2 - n$ has not been reduced to 1 by repeated division by powers of p as we formed our table, i.e., we take only the rows for which t^2-n is a B-number. In the present example $n = 1042387$ we are left with the following table (here blank spaces denote zero exponents):

t	$t^2 - n$	2	3	11	17	19	23	43	47
1021	54	1	3	–	–	–	–	–	–
1027	12342	1	1	2	1	–	–	–	–
1030	18513	–	2	2	1	–	–	–	–
1061	83334	1	1	–	1	1	–	1	–
1112	194157	–	5	–	1	–	–	–	1
1129	232254	1	3	1	1	–	1	–	–
1148	275517	–	2	3	–	–	1	–	–
1175	338238	1	2	–	–	1	1	1	–
1217	438702	1	1	1	2	–	1	–	–
1390	889713	–	2	2	–	1	–	1	–
1520	1268013	–	1	–	1	–	2	–	1

Proceeding as we did in Example 9 in §3, we now look for relations modulo 2 between the rows of this matrix. That is, moving down from the first row, we look for a subset of the rows which sums to an even number in each column. The first such subset we find here is the first three rows, the sum of which is twice the row 1 3 2 1 – – – – . Thus, we obtain the congruence

$$(1021 \cdot 1027 \cdot 1030)^2 \equiv (2 \cdot 3^3 \cdot 11^2 \cdot 17)^2 \ (mod\ 1042387).$$