

**ANEJO Nº 4**

**DATOS DEL LEVANTAMIENTO TOPOGRÁFICO. REPLANTEO.**

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## **1.- TOPOGRAFÍA.**

### **1.1.- INTRODUCCIÓN.**

Para la obtención de la cartografía, se ha realizado un levantamiento mediante captura de coordenadas G.P.S. (Sistema de Posicionamiento Global) con el apoyo realizado sobre la R.A.P. (Red Andaluza de Posicionamiento) ya que la zona dispone de cobertura GPRS, salvo los aledaños de la caseta de bombeo con una vegetación de ribera espesa que dificulta la recepción de señal. Por lo que en esa zona se ha optado por una topografía clásica con Estación Total apoyada en bases locales del propio levantamiento GPS.

### **1.2.- INSTRUMENTOS DE MEDIDA UTILIZADOS**

El instrumental utilizado para el levantamiento GPS corresponde a un Leica GX1230 con sistema GPRS incorporado para recepción de datos RTCM.

Para el entorno de la estación de bombeo se ha utilizado una Estación Total Leica TCRM1203, de 3" de precisión angular.

### **1.3.- SISTEMA DE COORDENADAS**

El sistema de coordenadas elegido ha sido el ED`50, que continúa en vigor hasta el año 2.015.

#### TRANSFORMACIÓN ETRS89-ED50

La rejilla de transformación de datums constituye la herramienta oficial para la transformación de datums entre ED50 y ETRS89 en España. Fue avalada por el Grupo de Trabajo para la transición a ETRS89 compuesto por todas las Comunidades Autónomas y los Ministerios de Fomento (IGN) y Defensa. Consta de dos rejillas, una para la península (PENR2009.gsb, anteriormente llamada R2009v9.gsb siendo idéntica a ésta) y otra para Baleares denominada BALR2009.gsb. Ambas rejillas están en formato NTV2 y contienen los incrementos en longitud y latitud entre estos dos datums. Esta transformación no destruye topología alguna, es eficiente y continua con un grado de acuerdo de solo algunos centímetros sobre todo el territorio.

#### MODELO DE GEOIDE EGM08 REDNAP

Adaptación del geoide mundial EGM2008 del National Geospatial Intelligence Agency (<http://www.nga.mil>) al sistema de referencia vertical oficial en España (REDNAP). Incluye los datos de la zona geográfica comprendida entre los paralelos 44°N y 35°N y los

meridianos 9°30'W y 4°30'E y por tanto es aplicable en la península, Islas Baleares, Ceuta y Melilla.

#### 1.4.- LISTADO DE PUNTOS

El resultado es la nube de puntos que se lista a continuación.

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
1	488.025,27	4.209.642,15	394,59	CARRETERA
2	488.016,80	4.209.639,84	395,09	CARRETERA
3	488.009,07	4.209.636,80	395,69	CARRETERA
4	488.002,47	4.209.633,62	396,31	CARRETERA
5	487.994,79	4.209.629,04	396,99	CARRETERA
6	487.993,87	4.209.630,15	396,73	CUNETA
7	488.000,18	4.209.633,83	396,30	CUNETA
8	488.008,51	4.209.637,75	395,66	CUNETA
9	488.010,00	4.209.638,82	395,48	PT
10	488.011,01	4.209.641,25	395,36	PT
11	488.010,30	4.209.643,53	395,20	PT
12	488.012,09	4.209.644,21	395,09	PT
13	488.013,48	4.209.649,00	394,77	PT
14	488.014,12	4.209.654,91	394,66	PT
15	488.013,17	4.209.661,06	394,61	PT
16	488.011,73	4.209.665,79	394,71	PT
17	488.008,52	4.209.667,57	394,97	CT
18	488.007,88	4.209.662,31	395,69	CT
19	488.007,13	4.209.659,42	396,32	CT
20	488.007,63	4.209.656,64	396,35	CT
21	488.006,43	4.209.653,44	396,54	CT
22	488.002,67	4.209.651,61	396,46	CT
23	487.998,64	4.209.649,51	396,62	CT
24	487.993,51	4.209.648,93	396,56	CT
25	487.990,02	4.209.648,73	397,56	CT
26	487.988,98	4.209.650,91	397,87	CT
27	487.985,07	4.209.652,50	397,38	ROTURA
28	487.988,30	4.209.655,71	397,75	ROTURA
29	487.992,52	4.209.658,01	396,93	ROTURA
30	487.995,61	4.209.661,11	396,03	ROTURA
31	487.996,12	4.209.656,88	396,60	ROTURA
32	487.995,28	4.209.653,55	396,55	ROTURA
33	488.006,83	4.209.667,96	394,99	CAMINO
34	488.008,30	4.209.673,42	394,89	CAMINO
35	488.005,57	4.209.671,66	394,88	CAMINO
36	488.001,01	4.209.670,40	395,12	CAMINO
37	488.001,80	4.209.667,32	395,09	CAMINO
38	487.995,80	4.209.664,28	395,48	CAMINO
39	487.993,61	4.209.666,41	395,56	CAMINO

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
40	487.986,13	4.209.660,25	396,42	CAMINO
41	487.987,78	4.209.657,89	396,52	CAMINO
42	487.983,13	4.209.651,85	397,10	CAMINO
43	487.980,11	4.209.653,03	396,97	CAMINO
44	487.977,68	4.209.650,94	396,95	CAMINO
45	487.973,96	4.209.651,36	397,08	CAMINO
46	487.970,00	4.209.653,02	397,15	CAMINO
47	487.967,64	4.209.655,56	397,11	CAMINO
48	487.965,28	4.209.652,54	397,41	CAMINO
49	487.968,47	4.209.649,19	397,51	CAMINO
50	487.972,63	4.209.647,41	397,20	CAMINO
51	487.975,81	4.209.646,66	397,30	CAMINO
52	487.973,53	4.209.640,63	397,65	CAMINO
53	487.975,52	4.209.639,86	397,56	CAMINO
54	487.978,04	4.209.644,67	397,33	CAMINO
55	487.980,57	4.209.648,51	397,12	CAMINO
56	487.983,30	4.209.650,02	397,06	ROTURA
57	487.984,65	4.209.647,26	397,07	ROTURA
58	487.985,95	4.209.645,01	396,77	ROTURA
59	487.983,47	4.209.643,43	397,22	ROTURA
60	487.979,79	4.209.642,39	397,17	ROTURA
61	487.977,66	4.209.640,31	397,29	ROTURA
62	487.977,24	4.209.638,48	397,40	ROTURA
63	487.977,39	4.209.636,51	397,79	ROTURA
64	487.979,38	4.209.635,97	398,23	ROTURA
65	487.979,35	4.209.634,22	398,16	ROTURA
66	487.976,84	4.209.632,99	398,32	ROTURA
67	487.973,72	4.209.631,00	398,95	ROTURA
68	487.972,15	4.209.629,81	399,30	ROTURA
69	487.978,89	4.209.624,54	400,24	ROTURA
70	487.979,72	4.209.626,57	400,06	ROTURA
71	487.980,13	4.209.629,49	399,90	ROTURA
72	487.981,64	4.209.632,72	399,74	ROTURA
73	487.982,56	4.209.635,19	399,53	ROTURA
74	487.985,61	4.209.636,40	399,28	ROTURA
75	487.989,23	4.209.636,84	398,76	ROTURA
76	487.992,03	4.209.638,43	398,19	ROTURA
77	487.996,78	4.209.640,25	397,61	ROTURA
78	488.002,02	4.209.642,07	397,03	ROTURA
79	488.005,63	4.209.643,32	396,64	ROTURA
80	488.008,18	4.209.643,58	396,50	CT
81	488.004,53	4.209.638,85	396,86	CT
82	487.997,53	4.209.636,13	398,12	CT
83	487.993,96	4.209.634,50	398,32	CT
84	487.990,00	4.209.632,49	399,80	CT
85	487.986,55	4.209.629,88	400,90	CT
86	487.982,35	4.209.626,05	401,46	CT
87	487.980,25	4.209.622,70	400,81	CT

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
88	487.981,72	4.209.629,24	400,25	ROTURA
89	487.985,20	4.209.631,50	400,25	ROTURA
90	487.988,75	4.209.633,81	399,54	ROTURA
91	487.992,01	4.209.635,54	398,54	ROTURA
92	487.993,26	4.209.635,21	398,25	ROTURA
93	487.997,41	4.209.625,17	396,73	CARRETERA
94	488.003,81	4.209.628,88	396,17	CARRETERA
95	488.010,25	4.209.632,05	395,72	CARRETERA
96	488.017,39	4.209.634,99	394,98	CARRETERA
97	488.011,19	4.209.653,86	394,73	ROTURA
98	488.009,14	4.209.650,27	394,68	ROTURA
99	488.007,94	4.209.647,25	394,74	ROTURA
100	488.005,31	4.209.646,40	394,89	ROTURA
101	488.007,84	4.209.649,89	394,77	ROTURA
102	488.004,57	4.209.647,97	394,80	ROTURA
103	488.000,88	4.209.647,06	394,83	ROTURA
104	488.000,96	4.209.645,41	394,96	ROTURA
105	487.995,25	4.209.643,93	395,26	ROTURA
106	487.994,57	4.209.645,47	395,16	ROTURA
107	487.989,88	4.209.643,87	395,50	ROTURA
108	487.989,99	4.209.642,30	395,55	ROTURA
109	487.987,43	4.209.641,79	395,87	ROTURA
110	487.988,01	4.209.643,37	395,83	ROTURA
112	487.984,50	4.209.640,77	396,69	ROTURA
113	487.984,89	4.209.643,76	396,71	ROTURA
114	487.979,51	4.209.639,04	396,79	ROTURA
115	487.979,81	4.209.641,05	396,83	ROTURA
116	487.981,47	4.209.643,54	397,20	ROTURA
117	487.973,49	4.209.636,04	397,97	CAMINO
118	487.971,41	4.209.637,19	398,05	CAMINO
119	487.968,53	4.209.632,98	399,00	CAMINO
120	487.970,39	4.209.630,81	399,22	CAMINO
121	487.966,33	4.209.626,85	400,38	CAMINO
122	487.964,03	4.209.628,93	400,09	CAMINO
123	487.963,12	4.209.630,29	400,21	CT
124	487.966,25	4.209.635,17	399,20	CT
125	487.966,44	4.209.637,84	398,91	CT
126	487.964,10	4.209.641,07	398,64	CT
127	487.963,78	4.209.643,93	398,41	CT
128	487.962,25	4.209.648,65	397,96	CT
129	487.960,16	4.209.651,27	397,88	CT
130	487.961,95	4.209.653,35	397,31	PT
131	487.964,30	4.209.649,30	397,68	PT
132	487.967,22	4.209.646,00	398,02	PT
133	487.969,08	4.209.642,58	398,38	PT
134	487.970,37	4.209.638,23	398,19	PT
135	487.971,84	4.209.640,29	397,71	ROTURA
136	487.970,83	4.209.642,92	397,62	ROTURA

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
137	487.969,15	4.209.646,88	397,63	ROTURA
138	487.972,55	4.209.644,16	397,36	R
139	487.947,79	4.209.646,92	403,10	CT
140	487.952,78	4.209.644,75	401,99	CT
141	487.957,76	4.209.642,15	400,97	CT
142	487.961,20	4.209.639,06	400,26	CT
143	487.963,17	4.209.634,65	400,17	CT
144	487.961,10	4.209.633,10	400,87	CT
145	487.959,58	4.209.630,79	401,15	CT
146	487.960,15	4.209.628,48	400,98	ROTURA
147	487.962,79	4.209.630,87	400,36	ROTURA
148	487.963,39	4.209.633,17	400,18	ROTURA
149	487.961,83	4.209.632,73	401,03	ROTURA
150	487.960,51	4.209.630,72	401,26	ROTURA
151	487.960,40	4.209.644,95	399,57	ROTURA
152	487.955,92	4.209.649,59	399,87	ROTURA
153	487.951,54	4.209.647,98	401,34	ROTURA
154	487.956,91	4.209.645,35	400,42	ROTURA
155	487.958,33	4.209.634,93	401,02	R
156	487.956,43	4.209.637,36	401,26	R
157	487.951,79	4.209.639,77	402,22	R
158	487.943,96	4.209.643,19	403,96	R
159	487.938,59	4.209.648,25	404,62	R
160	487.932,85	4.209.643,47	405,44	R
161	487.936,44	4.209.638,17	405,10	R
162	487.941,86	4.209.632,49	404,27	R
163	487.946,34	4.209.626,97	403,29	R
164	487.949,69	4.209.623,09	402,62	R
165	487.952,81	4.209.619,35	402,27	R
166	487.949,11	4.209.632,90	402,91	R
167	487.952,17	4.209.628,01	402,21	R
168	487.955,78	4.209.624,44	401,70	R
169	487.946,61	4.209.612,97	403,37	R
170	487.942,60	4.209.617,44	403,85	R
171	487.937,69	4.209.622,76	404,82	R
172	487.933,35	4.209.627,78	405,52	R
173	487.929,65	4.209.633,26	405,86	R
174	487.925,54	4.209.637,62	406,23	R
175	487.914,64	4.209.628,95	407,32	R
176	487.919,93	4.209.623,11	406,78	R
177	487.924,57	4.209.616,37	406,34	R
178	487.929,39	4.209.611,10	405,63	R
179	487.931,93	4.209.604,48	405,21	R
184	487.920,35	4.209.632,20	406,71	R
185	487.918,31	4.209.631,33	406,92	R
186	487.923,06	4.209.601,63	406,16	R
187	487.919,71	4.209.607,00	406,51	R
188	487.915,53	4.209.612,43	406,99	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
189	487.911,89	4.209.617,96	407,46	R
190	487.908,04	4.209.622,79	407,95	R
191	487.903,31	4.209.619,54	408,43	CAMINO
192	487.901,51	4.209.617,41	408,39	CAMINO
193	487.904,40	4.209.614,42	408,03	CAMINO
194	487.906,43	4.209.615,61	407,97	CAMINO
195	487.911,98	4.209.607,21	407,19	CAMINO
196	487.910,30	4.209.605,59	407,27	CAMINO
197	487.916,09	4.209.595,68	406,52	CAMINO
198	487.918,41	4.209.596,69	406,43	CAMINO
199	487.910,69	4.209.590,97	406,78	R
200	487.906,79	4.209.598,11	407,31	R
201	487.902,40	4.209.603,62	407,67	R
202	487.899,46	4.209.617,31	408,70	PT
203	487.900,54	4.209.614,22	408,27	PT
204	487.899,32	4.209.608,19	408,05	PT
205	487.895,45	4.209.599,76	408,14	PT
206	487.891,84	4.209.591,86	408,12	PT
207	487.890,06	4.209.586,43	408,12	PT
208	487.887,42	4.209.589,65	409,70	CT
209	487.890,10	4.209.595,26	409,55	CT
210	487.892,52	4.209.599,66	409,53	CT
211	487.895,13	4.209.605,83	409,56	CT
212	487.897,63	4.209.611,74	409,28	CT
213	487.898,98	4.209.615,71	409,04	CT
214	487.897,50	4.209.617,46	409,31	CT
215	487.896,45	4.209.617,23	409,72	CASETA RIEGO
216	487.896,86	4.209.616,62	409,35	CASETA RIEGO
217	487.895,83	4.209.613,45	409,47	CASETA RIEGO
218	487.895,08	4.209.613,30	409,53	CASETA RIEGO
219	487.892,88	4.209.613,99	410,12	CASETA RIEGO
220	487.892,33	4.209.612,23	410,13	CASETA RIEGO
221	487.890,85	4.209.612,67	410,15	CASETA RIEGO
223	487.892,25	4.209.618,17	410,70	CASETA RIEGO
224	487.892,14	4.209.617,88	410,66	ACEQUIA
225	487.890,68	4.209.618,30	410,70	ACEQUIA
227	487.890,00	4.209.615,46	410,64	ACEQUIA
228	487.887,39	4.209.607,02	410,41	ACEQUIA
229	487.888,79	4.209.606,43	410,50	ACEQUIA
230	487.890,40	4.209.611,82	410,52	ACEQUIA
231	487.885,75	4.209.596,38	410,35	ACEQUIA
232	487.884,35	4.209.596,89	410,40	ACEQUIA
233	487.881,92	4.209.589,00	410,31	ACEQUIA
234	487.883,34	4.209.588,53	410,28	ACEQUIA
235	487.882,02	4.209.584,49	410,30	ACEQUIA
236	487.880,61	4.209.585,11	410,29	ACEQUIA
237	487.878,66	4.209.581,07	410,22	ACEQUIA
238	487.877,08	4.209.578,61	410,29	ACEQUIA

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
239	487.880,49	4.209.581,03	410,24	ACEQUIA
240	487.877,87	4.209.577,24	410,27	ACEQUIA
241	487.875,19	4.209.574,40	410,26	ACEQUIA
242	487.874,01	4.209.575,33	410,28	ACEQUIA
243	487.871,47	4.209.572,95	410,29	ACEQUIA
244	487.872,32	4.209.571,64	410,29	ACEQUIA
245	487.872,57	4.209.571,56	409,70	ROTURA
246	487.875,43	4.209.574,38	409,59	ROTURA
247	487.878,08	4.209.577,14	409,61	ROTURA
248	487.880,65	4.209.580,83	409,56	ROTURA
249	487.882,20	4.209.584,36	409,68	ROTURA
250	487.882,92	4.209.586,61	409,94	ROTURA
251	487.894,49	4.209.587,85	407,82	R
252	487.904,10	4.209.587,35	407,03	R
253	487.899,40	4.209.592,62	407,49	R
254	487.888,77	4.209.617,89	410,83	CT
255	487.885,64	4.209.607,58	411,28	CT
256	487.882,71	4.209.599,43	411,32	CT
257	487.879,70	4.209.590,24	411,20	CT
258	487.877,78	4.209.584,42	411,09	CT
259	487.879,06	4.209.584,14	410,37	PT
260	487.881,37	4.209.590,09	410,46	PT
261	487.883,79	4.209.598,35	410,53	PT
262	487.889,01	4.209.616,10	410,53	PT
263	487.884,04	4.209.617,60	411,14	R
264	487.881,12	4.209.611,14	411,55	R
265	487.879,40	4.209.604,60	411,63	R
266	487.878,25	4.209.596,39	411,42	R
267	487.875,16	4.209.588,79	411,27	R
268	487.870,71	4.209.582,60	411,14	R
269	487.866,11	4.209.587,45	411,67	R
270	487.861,71	4.209.592,53	412,64	R
271	487.857,24	4.209.597,17	413,66	R
272	487.850,86	4.209.601,67	414,87	R
273	487.858,31	4.209.607,69	414,38	R
274	487.863,98	4.209.602,23	413,15	R
275	487.867,15	4.209.596,58	412,26	R
276	487.871,08	4.209.592,41	411,57	R
277	487.872,85	4.209.600,06	411,87	R
278	487.871,22	4.209.605,88	412,42	R
279	487.868,48	4.209.611,23	413,04	R
280	487.844,37	4.209.594,73	414,85	R
281	487.848,01	4.209.587,04	413,57	R
282	487.851,18	4.209.578,92	412,26	R
283	487.854,45	4.209.572,90	411,29	R
284	487.862,03	4.209.577,29	411,26	R
285	487.859,15	4.209.583,00	412,01	R
286	487.854,30	4.209.590,28	413,35	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
287	487.850,03	4.209.595,76	414,45	R
288	487.834,97	4.209.590,51	415,22	R
289	487.839,55	4.209.584,62	414,11	R
290	487.841,65	4.209.577,41	412,94	R
291	487.844,66	4.209.571,47	411,93	R
292	487.839,59	4.209.567,58	411,86	R
293	487.835,67	4.209.573,04	412,86	R
294	487.831,80	4.209.579,24	414,04	R
295	487.828,33	4.209.585,17	415,08	R
296	487.824,81	4.209.589,22	415,96	R
297	487.814,72	4.209.583,02	415,98	R
298	487.818,47	4.209.576,93	414,92	R
299	487.823,92	4.209.570,41	413,67	R
300	487.827,08	4.209.563,75	412,55	R
301	487.831,63	4.209.557,84	411,55	R
302	487.834,53	4.209.552,69	411,05	R
303	487.797,28	4.209.514,75	410,47	CAMINO
304	487.799,13	4.209.513,07	410,47	CAMINO
305	487.802,80	4.209.516,22	410,43	CAMINO
306	487.801,17	4.209.518,13	410,45	CAMINO
307	487.802,88	4.209.520,50	410,52	CAMINO
308	487.805,17	4.209.519,84	410,47	CAMINO
309	487.807,35	4.209.524,22	410,65	CAMINO
310	487.805,34	4.209.525,74	410,72	CAMINO
311	487.808,48	4.209.530,69	410,92	CAMINO
312	487.810,98	4.209.529,53	410,82	CAMINO
313	487.814,84	4.209.533,17	410,87	CAMINO
314	487.813,57	4.209.535,66	410,99	CAMINO
315	487.816,77	4.209.538,35	411,00	CAMINO
316	487.818,94	4.209.536,56	410,83	CAMINO
317	487.826,11	4.209.540,77	410,82	CAMINO
318	487.824,86	4.209.543,33	410,97	CAMINO
319	487.830,74	4.209.546,96	410,92	CAMINO
320	487.832,78	4.209.545,03	410,84	CAMINO
321	487.839,56	4.209.550,62	410,97	CAMINO
322	487.838,46	4.209.552,94	411,01	CAMINO
323	487.844,72	4.209.557,02	411,06	CAMINO
324	487.846,35	4.209.555,43	410,97	CAMINO
325	487.851,61	4.209.558,82	410,82	CAMINO
326	487.850,24	4.209.560,85	410,92	CAMINO
327	487.867,83	4.209.569,59	410,28	ACEQUIA
328	487.868,98	4.209.568,64	410,28	ACEQUIA
329	487.853,25	4.209.556,19	410,31	ACEQUIA
330	487.853,84	4.209.554,75	410,27	ACEQUIA
331	487.840,70	4.209.544,75	410,24	ACEQUIA
332	487.841,56	4.209.543,51	410,26	ACEQUIA
333	487.828,33	4.209.533,47	410,24	ACEQUIA
334	487.829,12	4.209.532,24	410,25	ACEQUIA

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
335	487.818,95	4.209.522,92	410,26	ACEQUIA
336	487.817,86	4.209.523,92	410,21	ACEQUIA
337	487.813,68	4.209.524,21	411,34	PT
338	487.825,60	4.209.534,00	411,11	PT
339	487.832,47	4.209.539,83	410,97	PT
340	487.833,24	4.209.540,83	411,47	PT
341	487.835,59	4.209.544,52	411,22	PT
342	487.841,80	4.209.550,33	411,01	PT
343	487.851,04	4.209.556,72	410,77	PT
350	487.840,73	4.209.561,35	411,29	R
351	487.825,53	4.209.551,03	411,48	R
352	487.820,69	4.209.556,56	412,49	R
353	487.816,77	4.209.562,45	413,59	R
354	487.812,21	4.209.568,46	414,67	R
355	487.808,44	4.209.574,12	415,66	R
356	487.804,15	4.209.579,81	416,63	R
357	487.796,08	4.209.575,37	416,87	R
358	487.801,57	4.209.568,55	415,64	R
359	487.805,82	4.209.562,28	414,59	R
360	487.810,48	4.209.555,49	413,33	R
361	487.814,90	4.209.549,02	412,12	R
362	487.817,97	4.209.543,83	411,31	R
363	487.808,09	4.209.538,98	411,71	R
364	487.801,96	4.209.545,30	412,91	R
365	487.797,00	4.209.552,24	414,19	R
366	487.792,48	4.209.558,71	415,26	R
367	487.788,43	4.209.565,60	416,35	R
368	487.780,37	4.209.558,61	416,01	R
369	487.777,78	4.209.563,34	416,71	R
370	487.783,93	4.209.552,35	415,06	R
371	487.788,49	4.209.543,01	413,71	R
372	487.793,97	4.209.535,05	412,31	R
373	487.798,70	4.209.528,04	411,19	R
374	487.791,24	4.209.518,18	410,82	R
375	487.786,14	4.209.524,47	411,64	R
376	487.781,46	4.209.530,30	412,59	R
377	487.777,78	4.209.536,23	413,56	R
378	487.773,94	4.209.542,58	414,47	R
379	487.769,84	4.209.547,56	415,26	R
380	487.767,30	4.209.552,64	415,97	R
381	487.765,26	4.209.558,53	416,85	R
382	487.757,13	4.209.553,26	416,68	R
383	487.761,73	4.209.545,30	415,50	R
384	487.768,07	4.209.534,90	413,89	R
385	487.772,53	4.209.526,07	412,64	R
386	487.761,63	4.209.517,20	412,76	R
387	487.757,02	4.209.522,99	413,65	R
388	487.751,41	4.209.530,54	414,72	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
389	487.747,10	4.209.537,37	415,77	R
390	487.743,29	4.209.542,77	416,62	R
391	487.735,44	4.209.537,29	417,00	R
392	487.740,53	4.209.528,91	415,76	R
393	487.744,96	4.209.521,99	414,85	R
394	487.750,23	4.209.514,59	413,72	R
395	487.755,03	4.209.507,19	412,71	R
396	487.744,55	4.209.498,72	413,14	R
397	487.739,04	4.209.506,48	414,36	R
398	487.734,75	4.209.513,28	415,32	R
399	487.730,99	4.209.518,58	416,06	R
400	487.727,69	4.209.523,28	416,81	R
401	487.716,31	4.209.514,78	417,32	R
402	487.720,67	4.209.506,94	416,30	R
403	487.725,50	4.209.499,55	415,18	R
404	487.729,61	4.209.493,06	414,30	R
405	487.734,48	4.209.485,55	413,10	R
406	487.745,92	4.209.489,86	412,24	R
407	487.757,00	4.209.497,13	411,75	R
408	487.724,47	4.209.480,56	413,80	R
409	487.720,23	4.209.486,69	414,68	R
410	487.715,84	4.209.492,78	415,64	R
411	487.711,45	4.209.499,82	416,64	R
412	487.707,38	4.209.506,46	417,48	R
413	487.695,63	4.209.500,28	418,00	R
414	487.701,85	4.209.490,27	416,83	R
415	487.706,35	4.209.483,81	415,91	R
416	487.710,30	4.209.477,72	415,05	R
417	487.714,52	4.209.471,42	414,13	R
418	487.705,21	4.209.466,29	414,70	R
419	487.700,76	4.209.473,83	415,74	R
420	487.696,67	4.209.479,85	416,53	R
421	487.692,92	4.209.485,29	417,24	R
422	487.688,05	4.209.493,34	417,95	R
423	487.677,50	4.209.486,24	417,88	R
424	487.682,46	4.209.478,23	417,19	R
425	487.686,95	4.209.471,26	416,51	R
426	487.691,09	4.209.464,87	415,74	R
427	487.694,74	4.209.458,87	415,01	R
428	487.683,94	4.209.452,46	415,09	R
429	487.679,97	4.209.459,12	415,81	R
430	487.677,04	4.209.464,75	416,34	R
431	487.673,01	4.209.471,82	416,98	R
432	487.667,37	4.209.479,06	417,58	R
433	487.656,75	4.209.473,04	416,97	R
434	487.662,48	4.209.464,42	416,23	R
435	487.666,66	4.209.457,82	415,70	R
436	487.670,55	4.209.451,69	415,16	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
437	487.674,94	4.209.445,28	414,61	R
438	487.663,14	4.209.434,97	413,36	R
439	487.658,30	4.209.441,80	413,87	R
440	487.653,65	4.209.449,29	414,54	R
441	487.649,77	4.209.455,15	414,95	R
442	487.644,12	4.209.463,50	415,62	R
443	487.631,22	4.209.455,86	414,25	R
444	487.635,33	4.209.447,45	413,67	R
445	487.639,72	4.209.441,13	413,22	R
446	487.644,13	4.209.434,04	412,69	R
447	487.648,50	4.209.427,48	412,23	R
448	487.634,91	4.209.420,13	411,49	R
449	487.629,43	4.209.428,44	411,91	R
450	487.625,90	4.209.433,77	412,29	R
451	487.622,42	4.209.439,22	412,58	R
452	487.617,37	4.209.446,44	413,04	R
453	487.607,63	4.209.441,08	412,42	R
454	487.612,24	4.209.433,76	412,14	R
455	487.615,75	4.209.427,92	411,88	R
456	487.619,48	4.209.422,28	411,70	R
457	487.622,71	4.209.416,59	411,54	R
458	487.614,32	4.209.411,45	411,64	R
459	487.609,68	4.209.417,77	411,78	R
460	487.605,54	4.209.423,61	411,88	R
461	487.601,55	4.209.428,86	412,10	R
462	487.597,71	4.209.434,55	412,23	R
463	487.590,70	4.209.430,11	412,56	R
464	487.593,00	4.209.425,87	412,53	R
465	487.596,62	4.209.419,47	412,35	R
466	487.600,31	4.209.414,02	412,14	R
467	487.603,48	4.209.408,49	411,99	R
468	487.606,20	4.209.404,28	411,72	R
469	487.597,12	4.209.397,87	412,50	R
470	487.592,45	4.209.405,72	412,89	R
471	487.588,24	4.209.413,86	413,19	R
472	487.583,22	4.209.420,41	413,64	R
473	487.579,54	4.209.425,88	413,86	R
474	487.568,85	4.209.418,98	415,11	R
475	487.572,28	4.209.413,32	415,01	R
476	487.576,80	4.209.405,52	414,77	R
477	487.581,20	4.209.398,28	414,43	R
478	487.586,63	4.209.389,73	413,82	R
479	487.577,45	4.209.382,95	414,85	R
480	487.572,69	4.209.392,22	415,27	R
481	487.568,08	4.209.398,78	415,63	R
482	487.562,94	4.209.406,17	416,02	R
483	487.558,22	4.209.414,79	416,24	R
484	487.553,81	4.209.422,97	416,47	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
485	487.550,30	4.209.430,29	416,59	R
486	487.564,08	4.209.430,57	415,13	R
487	487.540,05	4.209.422,00	417,99	R
488	487.544,06	4.209.413,22	417,71	R
489	487.548,96	4.209.405,59	417,41	R
490	487.552,50	4.209.398,55	417,17	R
491	487.557,89	4.209.391,91	416,68	R
492	487.562,56	4.209.383,77	416,21	R
493	487.553,57	4.209.376,38	417,03	R
494	487.551,03	4.209.379,84	417,28	R
495	487.547,49	4.209.386,15	417,65	R
496	487.543,52	4.209.392,54	418,01	R
497	487.538,93	4.209.399,63	418,43	R
498	487.534,76	4.209.406,64	418,69	R
499	487.530,54	4.209.413,40	419,00	R
500	487.520,81	4.209.407,68	419,97	R
501	487.526,14	4.209.397,98	419,52	R
502	487.530,06	4.209.391,08	419,11	R
503	487.533,87	4.209.384,55	418,79	R
504	487.537,66	4.209.378,37	418,44	R
505	487.542,49	4.209.370,50	417,93	R
506	487.526,46	4.209.367,89	419,06	R
507	487.520,62	4.209.375,94	419,67	R
508	487.516,73	4.209.382,50	420,10	R
509	487.511,78	4.209.389,65	420,58	R
510	487.507,75	4.209.396,50	421,03	R
511	487.503,20	4.209.403,04	421,53	R
512	487.497,50	4.209.411,58	422,12	R
513	487.492,34	4.209.419,98	422,67	R
514	487.503,30	4.209.429,13	421,67	R
515	487.509,58	4.209.418,44	421,03	R
516	487.521,76	4.209.427,19	419,80	R
517	487.531,69	4.209.434,03	418,57	R
518	487.471,89	4.209.416,15	424,56	R
519	487.475,79	4.209.410,85	424,03	R
520	487.480,22	4.209.403,36	423,45	R
521	487.484,88	4.209.395,29	422,87	R
522	487.490,09	4.209.386,69	422,23	R
523	487.495,52	4.209.379,94	421,57	R
524	487.498,19	4.209.372,67	421,18	R
525	487.481,01	4.209.377,01	422,53	R
526	487.475,17	4.209.386,17	423,45	R
527	487.471,12	4.209.393,05	423,97	R
528	487.466,56	4.209.400,01	424,67	R
529	487.463,36	4.209.406,22	425,14	R
530	487.458,64	4.209.414,23	425,95	R
531	487.454,25	4.209.421,69	426,64	R
532	487.449,41	4.209.430,44	427,45	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
533	487.460,13	4.209.435,98	426,42	R
534	487.466,18	4.209.427,09	425,43	R
535	487.480,32	4.209.434,11	424,17	R
536	487.484,84	4.209.427,43	423,58	R
537	487.442,80	4.209.442,36	428,67	R
538	487.424,80	4.209.438,94	430,70	R
539	487.429,08	4.209.430,65	429,76	R
540	487.433,47	4.209.424,08	428,99	R
541	487.438,34	4.209.416,76	428,14	R
542	487.443,04	4.209.408,75	427,33	R
543	487.446,76	4.209.402,84	426,73	R
544	487.451,23	4.209.395,43	425,98	R
545	487.454,96	4.209.389,41	425,33	R
546	487.459,93	4.209.381,18	424,48	R
547	487.447,63	4.209.372,26	425,27	R
548	487.441,30	4.209.382,72	426,45	R
549	487.437,43	4.209.389,45	427,16	R
550	487.432,62	4.209.396,75	427,98	R
551	487.427,91	4.209.402,95	428,76	R
552	487.423,08	4.209.409,97	429,62	R
553	487.418,63	4.209.417,15	430,45	R
554	487.415,22	4.209.423,07	431,12	R
555	487.410,36	4.209.431,68	432,21	R
556	487.405,71	4.209.438,69	433,30	R
557	487.390,39	4.209.433,36	435,24	R
558	487.395,02	4.209.425,82	434,13	R
559	487.399,01	4.209.419,33	433,17	R
560	487.402,84	4.209.413,39	432,27	R
561	487.407,01	4.209.406,76	431,45	R
562	487.411,87	4.209.399,30	430,47	R
563	487.416,54	4.209.391,68	429,58	R
564	487.420,57	4.209.384,94	428,77	R
565	487.425,67	4.209.376,23	427,73	R
566	487.410,65	4.209.369,68	429,11	R
567	487.405,14	4.209.378,36	430,25	R
568	487.401,68	4.209.384,78	431,03	R
569	487.397,15	4.209.391,54	431,96	R
570	487.393,02	4.209.399,12	433,01	R
571	487.388,98	4.209.405,71	433,97	R
572	487.384,66	4.209.412,59	435,07	R
573	487.380,91	4.209.419,72	436,13	R
574	487.377,04	4.209.426,71	437,18	R
575	487.371,92	4.209.433,76	438,43	R
576	487.355,71	4.209.427,57	441,03	R
577	487.359,72	4.209.421,61	439,91	R
578	487.364,73	4.209.415,14	438,56	R
579	487.369,29	4.209.407,82	437,29	R
580	487.373,48	4.209.400,94	436,12	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
581	487.377,47	4.209.395,00	435,06	R
582	487.381,13	4.209.388,62	434,06	R
583	487.385,15	4.209.381,05	433,04	R
584	487.390,02	4.209.373,74	431,85	R
585	487.393,73	4.209.367,69	431,04	R
586	487.375,53	4.209.365,26	433,33	R
587	487.369,27	4.209.375,56	435,04	R
588	487.366,15	4.209.381,42	435,95	R
589	487.362,29	4.209.388,19	437,12	R
590	487.358,36	4.209.395,00	438,34	R
591	487.354,92	4.209.400,93	439,45	R
592	487.350,11	4.209.408,13	440,89	R
593	487.346,61	4.209.414,66	442,12	R
594	487.341,13	4.209.422,55	443,76	R
595	487.337,27	4.209.428,58	444,89	R
596	487.323,88	4.209.421,88	447,34	R
597	487.329,48	4.209.411,93	445,56	R
598	487.333,91	4.209.404,04	443,98	R
599	487.338,16	4.209.398,16	442,63	R
600	487.342,26	4.209.391,48	441,18	R
601	487.346,81	4.209.384,75	439,61	R
602	487.350,35	4.209.377,83	438,38	R
603	487.354,10	4.209.370,90	437,12	R
604	487.358,40	4.209.363,97	435,87	R
605	487.336,37	4.209.368,82	440,09	R
606	487.332,10	4.209.376,68	441,74	R
607	487.328,30	4.209.383,14	443,20	R
608	487.324,38	4.209.389,87	444,79	R
609	487.320,53	4.209.396,47	446,24	R
610	487.316,97	4.209.403,06	447,61	R
611	487.312,40	4.209.409,76	449,10	R
612	487.307,50	4.209.416,43	450,56	R
613	487.303,05	4.209.424,10	451,66	R
614	487.313,41	4.209.431,60	449,74	R
615	487.306,75	4.209.443,63	450,96	R
616	487.295,77	4.209.437,73	453,15	R
617	487.290,35	4.209.444,98	453,79	R
618	487.300,44	4.209.451,96	451,70	R
619	487.294,11	4.209.464,00	451,69	R
620	487.282,06	4.209.458,26	454,16	R
621	487.269,36	4.209.449,29	456,52	R
622	487.274,18	4.209.440,38	456,38	R
623	487.279,30	4.209.433,38	455,85	R
624	487.283,31	4.209.426,48	455,07	R
625	487.286,61	4.209.420,38	454,35	R
626	487.290,59	4.209.413,16	453,25	R
627	487.295,51	4.209.406,49	451,89	R
628	487.299,90	4.209.399,83	450,44	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
629	487.303,81	4.209.393,65	449,08	R
630	487.307,51	4.209.386,87	447,54	R
631	487.312,24	4.209.380,32	445,86	R
632	487.316,23	4.209.374,17	444,38	R
633	487.319,85	4.209.367,23	442,79	R
634	487.301,92	4.209.363,37	444,92	R
635	487.297,60	4.209.371,86	446,77	R
636	487.293,51	4.209.378,67	448,24	R
637	487.289,00	4.209.385,13	449,59	R
638	487.284,37	4.209.392,42	451,17	R
639	487.280,52	4.209.399,61	452,46	R
640	487.276,79	4.209.405,14	453,43	R
641	487.271,95	4.209.412,20	454,59	R
642	487.268,40	4.209.418,48	455,70	R
643	487.264,32	4.209.424,98	456,53	R
644	487.259,70	4.209.432,32	457,28	R
645	487.255,98	4.209.438,53	457,68	R
646	487.250,87	4.209.447,77	458,65	R
647	487.243,41	4.209.459,30	459,49	R
648	487.235,06	4.209.471,79	460,71	R
649	487.232,96	4.209.482,99	460,29	SONDEO1
650	487.223,00	4.209.468,47	462,12	R
651	487.228,11	4.209.460,71	461,03	R
652	487.234,52	4.209.452,46	459,97	R
653	487.239,97	4.209.445,66	459,13	R
654	487.248,62	4.209.439,17	458,34	CT
655	487.239,45	4.209.433,04	457,87	CT
656	487.227,95	4.209.425,05	455,72	CT
657	487.217,30	4.209.418,55	453,93	CT
658	487.209,21	4.209.413,69	452,39	CT
659	487.201,19	4.209.408,08	450,75	CT
660	487.193,21	4.209.402,14	449,22	CT
661	487.189,25	4.209.400,15	448,84	CT
662	487.182,27	4.209.400,25	448,55	CT
663	487.179,94	4.209.400,44	448,49	CT
664	487.182,34	4.209.397,98	447,42	CT
665	487.184,15	4.209.397,28	447,01	CT
666	487.177,07	4.209.393,27	446,24	CT
667	487.173,39	4.209.392,39	445,83	CT
668	487.166,84	4.209.386,01	443,97	CT
669	487.159,09	4.209.380,16	442,31	CT
670	487.151,41	4.209.375,24	440,75	CT
671	487.145,54	4.209.371,39	438,91	CT
672	487.140,32	4.209.369,20	437,76	CT
673	487.142,01	4.209.368,18	437,17	PT
674	487.147,42	4.209.370,47	438,31	PT
675	487.152,72	4.209.374,19	439,78	PT
676	487.159,93	4.209.379,22	441,46	PT

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
677	487.167,05	4.209.384,41	443,11	PT
678	487.176,32	4.209.390,26	444,47	PT
679	487.181,80	4.209.392,44	445,23	PT
680	487.186,73	4.209.396,07	446,50	PT
681	487.191,43	4.209.399,35	447,71	PT
682	487.194,47	4.209.401,37	448,41	PT
683	487.201,88	4.209.407,05	450,04	PT
684	487.209,95	4.209.412,72	451,59	PT
685	487.217,71	4.209.417,48	452,91	PT
686	487.228,73	4.209.424,24	454,88	PT
687	487.240,08	4.209.431,97	457,14	PT
688	487.246,95	4.209.436,76	457,98	PT
689	487.243,86	4.209.429,98	457,11	R
690	487.248,77	4.209.422,15	455,75	R
691	487.252,68	4.209.415,58	454,33	R
692	487.255,99	4.209.408,89	453,14	R
693	487.259,92	4.209.402,61	452,23	R
694	487.264,09	4.209.395,95	451,69	R
695	487.267,90	4.209.389,73	450,88	R
696	487.272,71	4.209.382,43	449,59	R
697	487.276,99	4.209.375,15	448,27	R
698	487.264,30	4.209.365,88	445,97	R
699	487.258,03	4.209.373,90	447,15	R
700	487.250,89	4.209.385,87	448,62	R
701	487.246,14	4.209.394,33	449,51	R
702	487.242,14	4.209.400,55	450,25	R
703	487.237,64	4.209.406,89	451,22	R
704	487.231,89	4.209.414,80	452,97	R
705	487.218,89	4.209.407,43	450,92	R
706	487.224,58	4.209.399,49	449,18	R
707	487.229,26	4.209.391,55	447,83	R
708	487.233,05	4.209.384,50	446,80	R
709	487.240,96	4.209.371,92	445,00	R
710	487.222,93	4.209.370,28	442,21	R
711	487.218,26	4.209.377,41	443,69	R
712	487.213,64	4.209.384,22	445,20	R
713	487.210,16	4.209.390,17	446,47	R
714	487.205,91	4.209.397,88	448,23	R
715	487.191,58	4.209.390,53	445,57	R
716	487.197,76	4.209.381,63	443,63	R
717	487.204,33	4.209.370,80	441,42	R
718	487.187,75	4.209.366,82	439,95	R
719	487.182,93	4.209.373,66	441,44	R
720	487.178,80	4.209.380,30	442,80	R
721	487.165,15	4.209.372,94	440,51	R
722	487.169,65	4.209.366,37	439,41	R
723	487.153,47	4.209.369,14	438,75	R
724	487.147,54	4.209.381,16	441,66	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
725	487.139,64	4.209.392,32	443,00	R
726	487.132,54	4.209.400,79	443,90	R
727	487.127,98	4.209.408,78	444,90	R
728	487.138,17	4.209.416,68	448,12	R
729	487.146,82	4.209.405,62	446,41	R
730	487.155,53	4.209.394,07	444,80	R
731	487.172,19	4.209.403,28	448,10	R
732	487.159,53	4.209.418,45	450,64	R
733	487.151,86	4.209.427,90	452,03	R
734	487.142,22	4.209.439,68	453,69	R
735	487.133,05	4.209.453,11	454,81	R
736	487.119,99	4.209.441,71	451,67	R
737	487.129,66	4.209.428,03	449,67	R
738	487.111,74	4.209.454,35	452,59	R
739	487.103,63	4.209.466,55	453,64	R
740	487.095,00	4.209.479,28	454,59	R
741	487.086,42	4.209.492,58	455,32	R
742	487.078,99	4.209.502,97	456,44	R
743	487.072,18	4.209.512,87	456,95	R
744	487.064,51	4.209.524,18	457,33	R
745	487.057,87	4.209.536,07	457,56	R
746	487.051,43	4.209.546,60	457,91	R
747	487.059,64	4.209.562,73	460,62	R
748	487.070,18	4.209.550,68	460,34	R
749	487.077,34	4.209.539,49	459,69	R
750	487.084,67	4.209.528,84	459,39	R
751	487.094,03	4.209.515,01	459,10	R
752	487.103,69	4.209.499,39	458,30	R
753	487.112,03	4.209.486,87	457,28	R
754	487.118,61	4.209.476,97	456,86	R
755	487.125,74	4.209.466,12	456,21	R
756	487.180,76	4.209.412,11	450,64	R
757	487.169,94	4.209.426,04	453,00	R
758	487.161,47	4.209.438,73	455,13	R
759	487.154,27	4.209.449,80	456,33	R
760	487.146,15	4.209.461,74	457,55	R
761	487.138,21	4.209.473,77	458,86	R
762	487.130,30	4.209.485,56	459,72	R
763	487.123,72	4.209.496,55	460,34	R
764	487.113,90	4.209.509,43	460,66	R
765	487.105,71	4.209.521,41	460,90	R
766	487.097,71	4.209.533,15	461,35	R
767	487.090,61	4.209.545,44	461,67	R
768	487.084,28	4.209.556,74	462,40	R
769	487.077,09	4.209.567,54	463,04	R
770	487.068,73	4.209.579,53	463,56	R
771	487.062,23	4.209.589,22	463,88	R
772	487.054,89	4.209.576,68	461,84	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
773	487.067,82	4.209.597,82	465,87	R
774	487.077,90	4.209.585,33	465,17	R
775	487.086,69	4.209.583,18	465,74	R
776	487.095,73	4.209.565,58	464,91	R
777	487.102,84	4.209.551,61	463,72	R
778	487.110,99	4.209.538,73	463,25	R
779	487.119,15	4.209.527,77	462,71	R
780	487.126,95	4.209.515,61	462,38	R
781	487.134,12	4.209.504,26	462,21	R
782	487.142,12	4.209.492,44	462,06	R
783	487.148,10	4.209.482,71	461,21	R
784	487.156,31	4.209.470,86	460,05	R
785	487.164,66	4.209.459,67	458,91	R
786	487.173,40	4.209.446,76	457,51	R
787	487.180,36	4.209.437,28	456,43	R
788	487.180,20	4.209.428,56	454,51	ROTURA
789	487.177,90	4.209.430,82	455,24	ROTURA
790	487.175,36	4.209.432,32	455,63	ROTURA
791	487.173,17	4.209.432,12	455,24	ROTURA
792	487.168,83	4.209.428,07	453,38	ROTURA
793	487.176,31	4.209.429,11	454,15	ROTURA
794	487.178,65	4.209.427,75	454,08	ROTURA
795	487.188,68	4.209.423,11	453,51	R
796	487.195,05	4.209.415,82	452,20	R
797	487.209,62	4.209.427,95	455,81	ROTURA
798	487.203,04	4.209.425,07	454,64	ROTURA
799	487.198,13	4.209.425,18	454,43	ROTURA
800	487.193,61	4.209.431,04	455,25	ROTURA
801	487.190,59	4.209.432,58	455,40	ROTURA
802	487.188,70	4.209.434,75	456,07	ROTURA
803	487.181,43	4.209.437,02	456,47	ROTURA
804	487.185,15	4.209.439,85	457,75	ROTURA
805	487.189,63	4.209.439,28	458,47	ROTURA
806	487.195,43	4.209.436,65	458,66	ROTURA
807	487.199,07	4.209.435,05	458,45	ROTURA
808	487.202,23	4.209.431,08	457,34	ROTURA
809	487.204,52	4.209.430,31	457,28	ROTURA
810	487.208,81	4.209.432,39	457,27	ROTURA
811	487.204,61	4.209.435,46	458,11	ROTURA
812	487.206,75	4.209.443,23	459,11	ROTURA
813	487.212,46	4.209.439,07	458,20	ROTURA
814	487.218,97	4.209.437,28	457,98	ROTURA
815	487.219,76	4.209.441,04	458,91	ROTURA
816	487.213,85	4.209.445,08	459,79	ROTURA
817	487.209,13	4.209.444,61	459,75	ROTURA
818	487.210,78	4.209.423,85	455,02	R
819	487.219,67	4.209.429,37	456,46	R
820	487.227,78	4.209.433,66	457,63	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
821	487.221,48	4.209.448,45	460,07	R
822	487.215,10	4.209.457,19	461,37	R
823	487.207,09	4.209.468,39	462,66	R
824	487.198,42	4.209.479,98	463,85	R
825	487.190,93	4.209.490,81	464,47	R
826	487.182,53	4.209.502,11	464,85	R
827	487.173,94	4.209.513,82	465,01	R
828	487.165,57	4.209.525,43	465,09	R
829	487.157,62	4.209.536,88	465,13	R
830	487.149,82	4.209.547,54	465,78	R
831	487.142,43	4.209.557,93	466,93	R
832	487.128,92	4.209.573,92	468,87	RIEGO
833	487.128,25	4.209.578,90	469,33	PT
834	487.118,44	4.209.584,81	469,79	PT
835	487.108,54	4.209.588,98	469,35	PT
836	487.100,14	4.209.591,10	468,82	PT
837	487.092,10	4.209.593,82	468,04	PT
838	487.087,49	4.209.594,59	467,29	PT
839	487.077,17	4.209.602,82	467,27	PT
840	487.076,81	4.209.609,14	469,88	CT
841	487.085,99	4.209.602,56	469,79	CT
842	487.093,88	4.209.596,52	469,95	CT
843	487.101,95	4.209.593,50	469,94	CT
844	487.106,00	4.209.593,68	470,55	CT
845	487.113,41	4.209.590,11	470,21	CT
846	487.119,47	4.209.586,11	470,23	CT
847	487.126,85	4.209.581,71	470,13	CT
849	487.101,62	4.209.619,80	471,19	R
850	487.089,33	4.209.612,79	471,12	R
851	487.098,06	4.209.607,04	470,85	R
852	487.105,70	4.209.600,10	470,56	R
853	487.111,91	4.209.595,40	470,50	R
854	487.123,00	4.209.589,05	470,43	R
855	487.129,19	4.209.582,08	469,93	CAMINO
856	487.131,03	4.209.583,10	469,90	CAMINO
857	487.129,29	4.209.587,60	470,35	CAMINO
858	487.127,22	4.209.587,25	470,34	CAMINO
859	487.123,45	4.209.590,85	470,39	CAMINO
860	487.120,13	4.209.598,17	470,81	CAMINO
861	487.109,49	4.209.607,91	471,17	CAMINO
862	487.106,97	4.209.606,60	471,17	CAMINO
863	487.094,78	4.209.617,19	471,46	CAMINO
864	487.096,34	4.209.619,48	471,47	CAMINO
865	487.105,55	4.209.621,56	470,98	CT
866	487.121,70	4.209.605,11	470,47	CT
867	487.125,07	4.209.598,05	470,49	CT
868	487.130,61	4.209.585,45	470,35	CT
869	487.134,52	4.209.576,81	470,34	CT

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
870	487.138,81	4.209.568,79	469,40	CT
871	487.140,89	4.209.565,06	468,85	CT
872	487.139,49	4.209.562,61	468,70	CT
873	487.142,23	4.209.563,14	467,71	PT
874	487.143,76	4.209.564,78	466,21	PT
875	487.143,88	4.209.568,79	465,51	PT
876	487.143,08	4.209.577,45	465,24	PT
877	487.142,67	4.209.583,48	464,72	PT
878	487.138,00	4.209.593,49	465,06	PT
879	487.135,56	4.209.598,95	465,24	PT
880	487.130,59	4.209.607,88	465,14	PT
881	487.127,21	4.209.613,91	464,64	PT
882	487.107,32	4.209.635,04	464,48	PT
883	487.114,23	4.209.628,72	464,50	PT
884	487.116,95	4.209.631,34	463,50	ROTURA
885	487.123,19	4.209.627,66	463,54	ROTURA
886	487.133,35	4.209.609,94	464,56	ROTURA
887	487.138,54	4.209.603,96	464,83	ROTURA
888	487.141,59	4.209.602,61	464,41	ROTURA
889	487.148,43	4.209.600,89	462,36	ROTURA
890	487.144,07	4.209.606,05	462,13	ROTURA
891	487.139,77	4.209.610,95	462,61	ROTURA
892	487.135,76	4.209.614,99	462,91	ROTURA
893	487.132,38	4.209.619,84	462,81	ROTURA
894	487.128,48	4.209.626,57	462,53	ROTURA
895	487.124,91	4.209.632,10	462,24	ROTURA
896	487.131,44	4.209.631,41	461,61	R
897	487.137,73	4.209.633,90	460,43	R
898	487.144,94	4.209.624,53	460,81	R
899	487.140,28	4.209.620,67	461,77	R
900	487.146,55	4.209.610,16	461,82	R
901	487.153,58	4.209.612,38	460,97	R
902	487.159,53	4.209.602,30	460,95	R
903	487.153,10	4.209.597,76	462,22	R
904	487.160,14	4.209.586,00	461,83	R
905	487.169,75	4.209.588,80	460,11	ROTURA
906	487.168,18	4.209.595,73	460,73	ROTURA
907	487.165,40	4.209.603,34	460,15	ROTURA
908	487.167,95	4.209.601,14	459,66	ROTURA
909	487.170,36	4.209.596,51	458,99	ROTURA
910	487.171,77	4.209.593,10	458,63	ROTURA
911	487.173,68	4.209.589,54	458,78	ROTURA
912	487.168,62	4.209.608,39	458,83	ROTURA
913	487.163,94	4.209.610,57	460,08	ROTURA
914	487.161,26	4.209.616,92	460,50	ROTURA
915	487.155,06	4.209.625,14	460,65	ROTURA
916	487.151,30	4.209.631,55	460,35	ROTURA
917	487.148,62	4.209.637,51	459,95	ROTURA

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
918	487.152,90	4.209.642,99	456,53	ROTURA
919	487.155,36	4.209.636,20	457,23	ROTURA
920	487.158,14	4.209.628,53	458,13	ROTURA
921	487.161,26	4.209.624,33	458,35	ROTURA
922	487.165,27	4.209.619,48	457,72	ROTURA
923	487.167,44	4.209.615,25	457,94	ROTURA
924	487.169,47	4.209.609,96	458,38	ROTURA
925	487.165,91	4.209.621,24	457,45	ROTURA
926	487.164,87	4.209.626,58	456,82	ROTURA
927	487.163,26	4.209.630,11	456,57	ROTURA
928	487.159,64	4.209.636,04	456,52	ROTURA
929	487.157,18	4.209.637,32	456,80	ROTURA
930	487.158,90	4.209.631,01	457,72	ROTURA
931	487.161,67	4.209.626,57	458,49	ROTURA
932	487.163,67	4.209.623,95	457,80	ROTURA
933	487.169,64	4.209.637,72	454,68	R
934	487.177,06	4.209.626,86	454,80	R
935	487.169,89	4.209.623,00	457,11	R
936	487.175,02	4.209.613,43	457,21	R
937	487.186,35	4.209.619,03	454,04	R
938	487.194,19	4.209.607,94	453,35	R
939	487.183,79	4.209.602,26	456,32	R
940	487.147,00	4.209.597,27	463,13	ROTURA
941	487.140,03	4.209.598,21	464,65	ROTURA
942	487.145,03	4.209.589,52	464,11	ROTURA
943	487.148,88	4.209.579,29	464,04	R
944	487.150,41	4.209.568,84	464,31	R
945	487.157,60	4.209.555,92	463,33	R
946	487.106,09	4.209.584,14	468,86	R
947	487.113,45	4.209.574,19	468,43	R
948	487.120,75	4.209.562,77	467,80	R
949	487.104,76	4.209.568,12	466,45	R
950	487.112,41	4.209.556,50	465,87	R
951	487.121,43	4.209.543,57	465,31	R
952	487.130,22	4.209.546,29	466,61	R
953	487.138,88	4.209.536,00	466,11	R
954	487.132,03	4.209.529,50	464,64	R
955	487.137,79	4.209.519,31	464,10	R
956	487.147,95	4.209.522,17	465,48	R
957	487.155,77	4.209.512,57	465,22	R
958	487.147,38	4.209.505,70	463,77	R
959	487.154,16	4.209.495,28	463,59	R
960	487.164,01	4.209.499,10	464,65	R
961	487.171,43	4.209.489,72	464,08	R
962	487.164,10	4.209.483,16	462,56	R
963	487.171,09	4.209.472,70	461,41	R
964	487.178,27	4.209.476,62	462,66	R
965	487.185,96	4.209.467,71	461,70	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
966	487.180,33	4.209.462,71	460,51	R
967	487.186,32	4.209.451,19	459,21	R
968	487.193,15	4.209.453,76	460,12	R
969	487.200,07	4.209.446,36	459,45	R
970	487.196,57	4.209.441,05	458,79	R
971	487.216,53	4.209.475,80	462,81	ROTURA
972	487.216,57	4.209.477,37	462,78	ROTURA
973	487.213,52	4.209.481,43	462,88	ROTURA
974	487.211,12	4.209.483,21	463,11	ROTURA
975	487.209,11	4.209.483,27	463,51	ROTURA
976	487.208,60	4.209.481,64	463,80	ROTURA
977	487.209,06	4.209.479,70	463,71	ROTURA
978	487.210,33	4.209.477,94	463,50	ROTURA
979	487.214,02	4.209.475,68	463,18	ROTURA
980	487.215,36	4.209.475,30	463,00	ROTURA
981	487.214,59	4.209.476,79	463,85	ROTURA
982	487.211,85	4.209.479,00	464,14	ROTURA
983	487.210,30	4.209.480,96	464,25	ROTURA
984	487.205,39	4.209.488,74	463,46	R
985	487.199,61	4.209.497,35	463,55	R
986	487.192,41	4.209.507,28	463,55	R
987	487.183,46	4.209.519,25	463,48	R
988	487.175,77	4.209.530,39	463,20	R
989	487.168,21	4.209.542,12	462,63	R
990	487.163,64	4.209.571,09	461,39	R
991	487.169,71	4.209.563,88	460,64	R
992	487.177,83	4.209.552,81	460,23	R
993	487.186,10	4.209.539,35	460,51	R
994	487.194,18	4.209.528,17	460,94	R
995	487.202,28	4.209.515,88	461,17	R
996	487.210,46	4.209.504,80	461,12	R
997	487.219,42	4.209.493,50	461,07	R
998	487.257,73	4.209.460,78	457,45	R
999	487.245,98	4.209.477,96	458,00	R
1.000	487.238,43	4.209.489,59	458,09	R
1.001	487.231,46	4.209.500,09	457,91	R
1.002	487.222,18	4.209.511,72	458,23	R
1.003	487.214,23	4.209.523,05	458,34	R
1.004	487.206,64	4.209.534,10	458,15	R
1.005	487.198,45	4.209.545,88	457,75	R
1.006	487.191,26	4.209.556,56	457,72	R
1.007	487.182,71	4.209.569,07	458,14	R
1.008	487.176,47	4.209.580,44	458,66	R
1.009	487.184,15	4.209.591,77	456,83	R
1.010	487.193,72	4.209.578,46	455,36	R
1.011	487.201,61	4.209.566,65	454,86	R
1.012	487.209,30	4.209.555,51	454,53	R
1.013	487.217,49	4.209.543,55	454,65	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
1.014	487.225,90	4.209.531,31	454,77	R
1.015	487.233,84	4.209.519,51	454,99	R
1.016	487.241,74	4.209.508,84	454,57	R
1.017	487.249,71	4.209.497,36	454,73	R
1.018	487.257,55	4.209.485,27	454,88	R
1.019	487.266,42	4.209.473,16	454,94	R
1.020	487.274,11	4.209.461,58	455,13	R
1.021	487.288,92	4.209.463,76	452,72	ROTURA
1.022	487.292,93	4.209.467,09	451,46	ROTURA
1.023	487.288,37	4.209.475,74	450,90	ROTURA
1.024	487.285,32	4.209.476,04	451,61	ROTURA
1.025	487.285,14	4.209.474,68	452,22	ROTURA
1.026	487.288,28	4.209.469,48	452,79	ROTURA
1.027	487.288,73	4.209.464,69	452,91	ROTURA
1.032	487.324,24	4.209.485,76	445,95	R
1.033	487.333,98	4.209.489,22	444,52	R
1.034	487.343,63	4.209.494,69	443,04	R
1.035	487.351,95	4.209.499,51	441,56	R
1.036	487.351,12	4.209.506,05	440,71	CAMINO
1.037	487.349,46	4.209.507,62	440,67	CAMINO
1.038	487.345,66	4.209.513,06	440,33	R
1.039	487.334,76	4.209.507,18	442,34	R
1.040	487.338,08	4.209.500,40	443,07	CAMINO
1.041	487.339,42	4.209.497,81	443,19	CAMINO
1.042	487.328,69	4.209.490,37	444,98	CAMINO
1.043	487.326,49	4.209.492,63	445,01	CAMINO
1.044	487.322,39	4.209.498,05	444,71	R
1.045	487.310,67	4.209.490,44	447,11	R
1.046	487.313,89	4.209.483,90	447,48	CAMINO
1.047	487.315,50	4.209.480,99	447,57	CAMINO
1.048	487.308,35	4.209.476,54	448,93	CAMINO
1.049	487.306,08	4.209.478,57	449,02	CAMINO
1.050	487.301,97	4.209.482,96	448,86	R
1.051	487.292,84	4.209.479,25	450,19	R
1.052	487.296,68	4.209.471,70	450,59	CAMINO
1.053	487.298,09	4.209.469,25	450,59	CAMINO
1.054	487.295,13	4.209.466,15	451,29	CAMINO
1.055	487.293,52	4.209.467,38	451,29	CAMINO
1.056	487.276,51	4.209.481,07	452,10	R
1.057	487.269,52	4.209.491,67	451,63	R
1.058	487.259,97	4.209.504,69	451,43	R
1.059	487.252,31	4.209.516,50	451,39	R
1.060	487.244,43	4.209.526,86	451,41	R
1.061	487.236,22	4.209.538,56	451,33	R
1.062	487.228,27	4.209.550,19	451,30	R
1.063	487.221,42	4.209.560,69	451,64	R
1.064	487.213,29	4.209.573,17	451,89	R
1.065	487.205,41	4.209.584,48	452,43	R

PUNTO	COORDENADA X	COORDENADA Y	COORDENADA Z	CODIGO
1.066	487.197,29	4.209.596,40	453,24	R
1.067	487.188,81	4.209.626,52	452,51	R
1.068	487.197,96	4.209.614,11	451,96	R
1.069	487.205,20	4.209.603,05	451,24	R
1.070	487.213,53	4.209.590,63	450,50	R
1.071	487.220,83	4.209.579,50	450,09	R
1.072	487.228,78	4.209.566,97	449,68	R
1.073	487.236,01	4.209.555,90	449,24	R
1.074	487.244,94	4.209.543,82	449,14	R
1.075	487.252,22	4.209.532,04	449,55	R
1.076	487.260,55	4.209.520,67	449,58	R
1.077	487.268,06	4.209.509,73	449,64	R
1.078	487.276,66	4.209.498,17	449,85	R
1.079	487.284,73	4.209.486,19	450,38	R
1.080	488.062,44	4.209.653,39	394,21	CARRETERA
1.081	488.063,86	4.209.649,94	394,21	CARRETERA
1.082	488.054,13	4.209.646,74	394,26	CARRETERA
1.083	488.052,06	4.209.650,28	394,25	CARRETERA
1.085	488.062,86	4.209.654,98	394,34	ACERA
1.086	488.056,56	4.209.653,24	394,02	ACERA
1.087	488.046,09	4.209.649,98	394,07	ESCALERAS
1.095	488.023,67	4.209.643,95	394,34	R
1.096	488.019,58	4.209.642,83	394,71	R
1.097	488.016,03	4.209.641,75	394,83	R
1.098	488.016,79	4.209.646,31	394,59	R
1.099	488.020,17	4.209.648,06	394,39	R
1.100	488.021,03	4.209.652,28	394,34	R
1.101	488.018,31	4.209.652,73	394,41	R
1.102	488.017,52	4.209.657,28	394,32	R
1.103	488.016,47	4.209.662,89	394,48	R
1.116	488.062,33	4.209.657,12	392,74	MURO
1.117	488.062,89	4.209.655,17	393,71	MURO
1.118	488.060,88	4.209.656,91	392,68	TALUD
1.119	488.053,71	4.209.655,20	392,71	TALUD
1.120	488.046,44	4.209.653,10	392,83	TALUD
1.121	488.047,87	4.209.655,37	392,75	R
1.122	488.052,07	4.209.656,82	392,69	R
1.123	488.056,13	4.209.657,93	392,67	R
1.124	488.059,26	4.209.658,55	392,78	POZO
1.125	488.061,19	4.209.660,27	392,90	R
1.134	488.029,49	4.209.644,39	394,40	ESTACIÓN BOMBEO
1.135	488.026,95	4.209.652,93	394,20	ESTACIÓN BOMBEO
1.136	488.031,44	4.209.654,27	394,20	ESTACIÓN BOMBEO
1.137	488.034,00	4.209.645,72	394,40	ESTACIÓN BOMBEO
1.138	488.040,84	4.209.656,71	392,55	MURO
1.139	488.043,06	4.209.648,88	394,10	ESTACIÓN BOMBEO

Bases de replanteo materializadas para el levantamiento con estación total:

<b>PUNTO</b>	<b>COORDENADA X</b>	<b>COORDENADA Y</b>	<b>COORDENADA Z</b>	<b>CODIGO</b>
2.001	488.020,35	4.209.663,32	394,23	BASE
2.002	488.011,83	4.209.640,36	395,42	BASE
2.003	488.057,63	4.209.653,39	394,15	BASE

## 1.5.- FOTOGRAFÍAS

Base 2001



Base 2002



Base 2003

