

VARIANTE ALLA S.S. 1 "VIA AURELIA"
Viabilità di accesso all'hub portuale di La Spezia
Lavori di costruzione della variante alla S.S. 1 Via Aurelia - 3° Lotto
2° Stralcio Funzionale B dallo Svincolo di Buon Viaggio allo Svincolo di San Venerio
COMPLETAMENTO

PRECEDENTI LIVELLI DI PROGETTAZIONE DELL'APPALTO INTEGRATO ORIGINALE

PD n°1861 del 09/07/03 aggiornato al 10/12/08 - Delibera CIPE n°60 del 02/04/08
PE n° 103 del 14/07/2011 - D.A. CDG-103321-P del 20/07/11
PVT n°112 del 21/01/16 aggiornata al 28/10/16 - D.A. CDG-92950-P del 21/02/17
Progetto Esecutivo Cantierabile Opere da Completare

PROGETTO ESECUTIVO

COD. **GE266**

PROGETTAZIONE: ANAS - DIREZIONE PROGETTAZIONE E REALIZZAZIONE LAVORI

PROGETTISTA:

Dott. Ing. Antonio Scalamandrè
Ordine Ing. di Frosinone n. 1063

IL GEOLOGO

Dott. Geol. Flavio Capozucca
Ordine Geol. del Lazio n. 1599

COORDINATORE DELLA SICUREZZA IN FASE DI PROGETTAZIONE

Geom. Emiliano Paiella

VISTO IL RESPONSABILE DEL PROCEDIMENTO

Dott. Ing. Fabrizio Cardone

PROTOCOLLO

DATA

STUDI, INDAGINI E RELAZIONI SPECIALISTICHE
INDAGINI GEOGNOSTICHE

INTEGRAZIONE INDAGINI PROGETTO DEFINITIVO (2007)
Monitoraggio inclinometrico e piezometrico

| CODICE PROGETTO | | NOME FILE | | REVISIONE | SCALA |
|-----------------|-------------|---------------------|-----------------------|--------------------|--------------------|
| PROGETTO | LIV. PROG. | T00GE00GEORE05A.dwg | | | |
| DPGE0266 | E 20 | CODICE ELAB. | T00GE00GEORE05 | A | - |
| D | | | | | |
| C | | | | | |
| B | | | | | |
| A | COMMENTI | 2020 | Geol. Paone M. | Geol. Capozucca F. | Geol. Capozucca F. |
| REV. | DESCRIZIONE | DATA | REDATTO | VERIFICATO | APPROVATO |



GE 50/08

ANAS SPA

Compartimento della viabilità della Liguria

40

**ANAS SPA COMPARTIMENTO VIABILITA'
DELLA LIGURIA S.S. 1. LAVORI DI INDAGINI
GEOGNOSTICHE INTEGRATIVE, PROVE IN
SITU E DI LABORATORIO, INSTALLAZIONE
STRUMENTAZIONE GEOTECNICA, LETTURE
INCLINOMETRICHE E PIEZOMETRICHE,
NECESSARI PER LA PROGETTAZIONE
ESECUTIVA DELLA VARIANTE ALLA S.S.1**

ELABORATO

7.1

REVISIONE 1

DATA

Febbraio 2007

Elaborazione dati letture inclinometriche e
piezometriche

GEOGNOSTICA

FONDAZIONI SPECIALI

Geognostica s.r.l.

Zona Ind. le Ponte Rio, 148/q

06059 Todi (Perugia) Italia

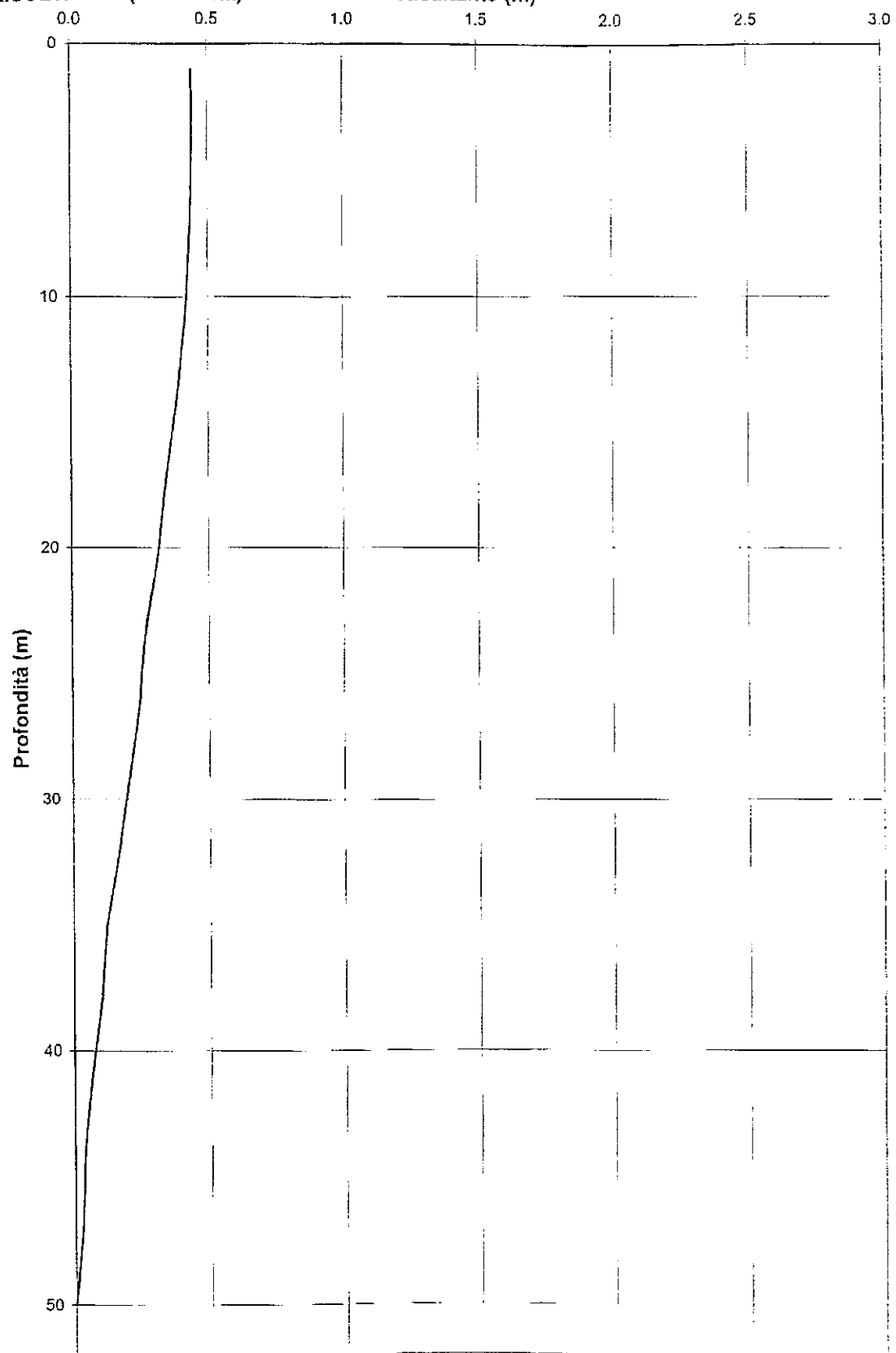
Tel. 075.8989113 (r.a.) - Fax. 075.8989440

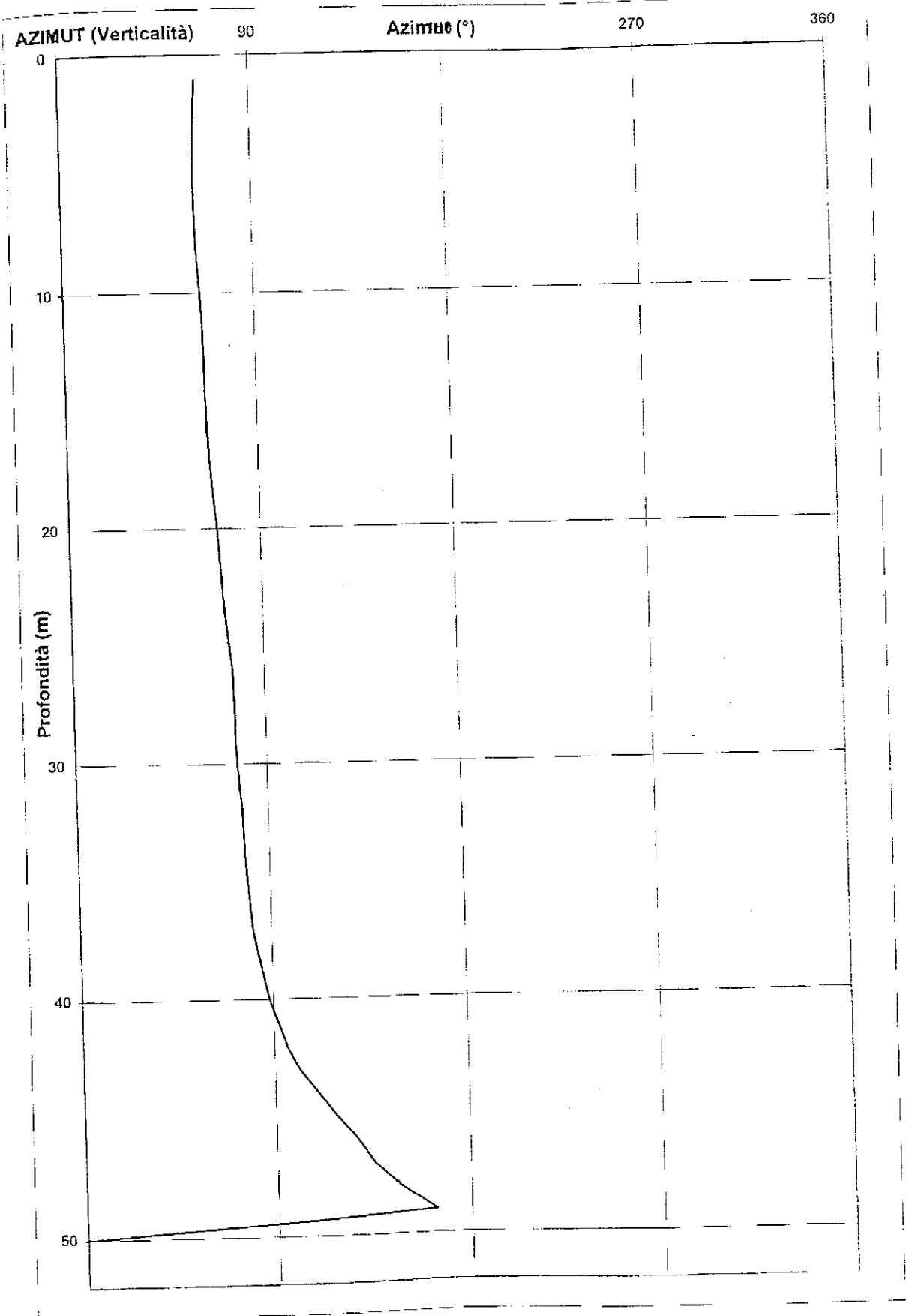
LETTURA INCLINOMETRICA

| Committente: | | ANAS SpA | | | | | | | Numero lettura: | | 0 | |
|---------------------|---------------|------------|------|------|------|------|------|------|-----------------------|-------|----------------|------------|
| Località: | | La Spezia | | | | | | | Sonda usata: | | OG310S | |
| Data: | | 31/10/2006 | | | | | | | Correzione angolare: | | 0 | |
| Sigla inclinometro: | | I6 | | | | | | | Correzione azimutale: | | 220 | |
| Profondità (m) | Dati campagna | | | | | | | | Verticalità | | | |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (m) | Y (m) | Risultante (m) | Azimut (°) |
| 1 | 98 | -100 | -129 | 91 | 104 | -152 | 148 | -130 | 0.19 | 0.40 | 0.44 | 64.36 |
| 2 | 3 | -5 | -35 | -6 | 78 | -127 | 119 | -101 | 0.20 | 0.40 | 0.44 | 63.56 |
| 3 | 0 | -1 | -28 | -13 | 30 | -81 | 71 | -55 | 0.20 | 0.39 | 0.44 | 63.01 |
| 4 | -26 | 20 | -11 | -34 | 25 | -79 | 68 | -51 | 0.20 | 0.39 | 0.44 | 62.71 |
| 5 | -56 | 50 | 23 | -64 | -34 | -29 | 20 | 3 | 0.20 | 0.39 | 0.44 | 62.44 |
| 6 | -98 | 90 | 69 | -106 | -51 | -5 | -6 | 25 | 0.20 | 0.39 | 0.44 | 62.48 |
| 7 | -127 | 120 | 98 | -135 | -54 | -6 | -9 | 24 | 0.20 | 0.39 | 0.43 | 62.69 |
| 8 | -139 | 131 | 108 | -140 | -148 | 91 | -109 | 116 | 0.20 | 0.38 | 0.43 | 62.93 |
| 9 | -154 | 144 | 124 | -165 | -95 | 36 | -46 | 64 | 0.19 | 0.38 | 0.43 | 63.69 |
| 10 | -221 | 210 | 189 | -228 | -93 | 41 | -51 | 65 | 0.18 | 0.38 | 0.42 | 64.20 |
| 11 | -275 | 267 | 244 | -289 | -29 | -38 | 20 | -3 | 0.18 | 0.37 | 0.41 | 64.83 |
| 12 | -242 | 230 | 213 | -251 | -9 | -53 | 44 | -31 | 0.17 | 0.37 | 0.40 | 65.17 |
| 13 | -266 | 254 | 233 | -267 | 18 | -71 | 63 | -46 | 0.16 | 0.36 | 0.39 | 65.36 |
| 14 | -333 | 326 | 306 | -349 | 33 | -81 | 70 | -54 | 0.16 | 0.35 | 0.38 | 65.48 |
| 15 | -331 | 319 | 310 | -336 | -15 | -45 | 45 | -15 | 0.15 | 0.34 | 0.37 | 65.67 |
| 16 | -338 | 325 | 313 | -347 | -31 | -36 | 41 | -6 | 0.14 | 0.33 | 0.36 | 66.09 |
| 17 | -319 | 301 | 315 | -325 | -80 | 20 | -8 | 46 | 0.14 | 0.32 | 0.34 | 66.62 |
| 18 | -288 | 270 | 275 | -291 | -93 | 34 | -31 | 64 | 0.13 | 0.31 | 0.33 | 67.49 |
| 19 | -265 | 254 | 244 | -271 | -89 | 31 | -54 | 59 | 0.12 | 0.30 | 0.32 | 68.47 |
| 20 | -389 | 376 | 308 | -397 | 4 | -68 | 60 | -43 | 0.11 | 0.29 | 0.31 | 69.47 |
| 21 | -407 | 391 | 363 | -414 | 20 | -79 | 69 | -55 | 0.10 | 0.28 | 0.30 | 70.09 |
| 22 | -406 | 394 | 376 | -415 | 33 | -91 | 71 | -64 | 0.09 | 0.27 | 0.28 | 70.76 |
| 23 | -276 | 258 | 308 | -286 | -49 | -15 | 39 | 20 | 0.09 | 0.25 | 0.27 | 71.45 |
| 24 | -240 | 222 | 241 | -246 | -79 | 21 | 4 | 48 | 0.08 | 0.25 | 0.26 | 72.40 |
| 25 | -206 | 190 | 200 | -214 | -102 | 44 | -29 | 66 | 0.07 | 0.24 | 0.25 | 73.54 |
| 26 | -297 | 280 | 205 | -306 | 65 | -126 | 83 | -101 | 0.06 | 0.23 | 0.24 | 74.82 |
| 27 | -330 | 311 | 271 | -333 | 76 | -144 | 123 | -119 | 0.06 | 0.22 | 0.23 | 75.11 |
| 28 | -308 | 292 | 244 | -313 | 110 | -171 | 171 | -149 | 0.06 | 0.21 | 0.22 | 75.40 |
| 29 | -328 | 313 | 305 | -335 | 51 | -116 | 104 | -90 | 0.05 | 0.20 | 0.21 | 75.27 |
| 30 | -336 | 319 | 321 | -346 | 56 | -123 | 104 | -94 | 0.05 | 0.19 | 0.19 | 75.92 |
| 31 | -310 | 294 | 295 | -317 | 31 | -95 | 66 | -68 | 0.04 | 0.17 | 0.18 | 76.69 |
| 32 | -364 | 350 | 322 | -378 | 145 | -205 | 170 | -181 | 0.04 | 0.16 | 0.17 | 77.77 |
| 33 | -384 | 374 | 342 | -397 | 126 | -194 | 190 | -165 | 0.03 | 0.15 | 0.15 | 77.91 |
| 34 | -385 | 378 | 354 | -401 | 116 | -174 | 175 | -156 | 0.03 | 0.13 | 0.13 | 78.36 |
| 35 | -166 | 152 | 205 | -174 | -9 | -55 | 95 | -30 | 0.02 | 0.12 | 0.12 | 79.20 |
| 36 | -176 | 160 | 144 | -183 | 9 | -70 | 63 | -45 | 0.02 | 0.11 | 0.11 | 80.19 |
| 37 | -195 | 183 | 174 | -208 | -33 | -34 | 38 | -10 | 0.02 | 0.10 | 0.10 | 81.13 |
| 38 | -296 | 280 | 221 | -299 | 45 | -108 | 71 | -84 | 0.01 | 0.10 | 0.10 | 83.18 |
| 39 | -297 | 280 | 264 | -304 | 65 | -125 | 115 | -102 | 0.01 | 0.09 | 0.09 | 85.43 |
| 40 | -308 | 289 | 275 | -315 | 41 | -106 | 110 | -85 | 0.00 | 0.08 | 0.08 | 87.94 |
| 41 | -264 | 245 | 233 | -275 | 70 | -134 | 120 | -111 | 0.00 | 0.06 | 0.06 | 92.05 |
| 42 | -267 | 247 | 231 | -269 | 59 | -131 | 115 | -104 | -0.01 | 0.05 | 0.05 | 95.86 |
| 43 | -247 | 225 | 213 | -255 | 40 | -104 | 85 | -74 | -0.01 | 0.04 | 0.04 | 101.61 |
| 44 | -167 | 146 | 131 | -177 | -13 | -58 | 35 | -28 | -0.01 | 0.03 | 0.04 | 110.29 |
| 45 | -156 | 130 | 123 | -158 | -3 | -75 | 50 | -41 | -0.02 | 0.03 | 0.03 | 118.83 |
| 46 | -102 | 93 | 83 | -124 | 41 | -94 | 66 | -61 | -0.02 | 0.02 | 0.03 | 127.99 |
| 47 | -106 | 100 | 93 | -138 | 206 | -250 | 222 | -219 | -0.02 | 0.02 | 0.03 | 135.38 |
| 48 | -34 | 30 | 24 | -65 | 199 | -242 | 217 | -216 | -0.01 | 0.01 | 0.02 | 147.42 |
| 49 | 90 | -104 | -111 | 73 | 191 | -236 | 216 | -211 | -0.01 | 0.00 | 0.01 | 163.88 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 |

RISULTANTE (Verticalità)

Risultante (m)





| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 1 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 15/11/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I6 | Correzione azimutale: | 220 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|------|------|------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 100 | -103 | -127 | 111 | 107 | -158 | 152 | -131 | -0.30 | -0.10 | 0.30 | 198.60 | 178.90 |
| 2 | 4 | -6 | -35 | -2 | 71 | -122 | 118 | -99 | 0.10 | -0.10 | 0.20 | 298.20 | 176.30 |
| 3 | -14 | 5 | -9 | -12 | 25 | -78 | 71 | -49 | 0.40 | 0.20 | 0.40 | 29.78 | 172.60 |
| 4 | -26 | 0 | -9 | -11 | 17 | -72 | 63 | -32 | 0.00 | -0.60 | 0.60 | 273.50 | 178.30 |
| 5 | -58 | 51 | 28 | -66 | -36 | -24 | 18 | 4 | 0.10 | 0.00 | 0.10 | 5.00 | 165.60 |
| 6 | -128 | 94 | 102 | -106 | -56 | -5 | -4 | 29 | 0.50 | 0.50 | 0.70 | 44.04 | 166.60 |
| 7 | -136 | 123 | 110 | -135 | -55 | 8 | -19 | 34 | 0.40 | 0.00 | 0.40 | 354.40 | 177.10 |
| 8 | -141 | 132 | 108 | -140 | -146 | 87 | -106 | 116 | 0.00 | 0.10 | 0.10 | 121.50 | 176.80 |
| 9 | -157 | 145 | 124 | -164 | -97 | 51 | -50 | 69 | 0.20 | -0.10 | 0.30 | 326.50 | 178.10 |
| 10 | -225 | 209 | 194 | -217 | -99 | 48 | -49 | 71 | 0.10 | -0.10 | 0.20 | 309.90 | 176.00 |
| 11 | -273 | 265 | 242 | -282 | -24 | -39 | 22 | -5 | -0.20 | 0.00 | 0.20 | 192.40 | 174.10 |
| 12 | -267 | 244 | 220 | -248 | -9 | -54 | 47 | -33 | 0.20 | 0.40 | 0.40 | 57.94 | 173.30 |
| 13 | -279 | 254 | 250 | -261 | 18 | -69 | 66 | -41 | 0.20 | 0.20 | 0.20 | 40.54 | 179.10 |
| 14 | -333 | 328 | 307 | -348 | 31 | -76 | 68 | -52 | 0.10 | -0.10 | 0.10 | 330.30 | 181.40 |
| 15 | -332 | 316 | 314 | -330 | -9 | -44 | 43 | -11 | 0.00 | 0.00 | 0.00 | 244.00 | 180.60 |
| 16 | -344 | 322 | 318 | -341 | -31 | -35 | 40 | -1 | 0.10 | 0.00 | 0.10 | 335.90 | 180.10 |
| 17 | -321 | 299 | 311 | -323 | -73 | 19 | -14 | 51 | 0.00 | -0.10 | 0.10 | 256.50 | 179.70 |
| 18 | -288 | 269 | 275 | -286 | -85 | 32 | -34 | 65 | -0.10 | 0.00 | 0.10 | 185.00 | 178.80 |
| 19 | -275 | 249 | 245 | -266 | -85 | 28 | -45 | 61 | -0.10 | 0.10 | 0.10 | 135.90 | 178.60 |
| 20 | -395 | 367 | 309 | -395 | 6 | -68 | 61 | -40 | 0.00 | 0.00 | 0.00 | 230.00 | 180.00 |
| 21 | -411 | 389 | 390 | -397 | 22 | -81 | 71 | -49 | 0.10 | 0.10 | 0.10 | 50.00 | 179.60 |
| 22 | -410 | 394 | 388 | -405 | 32 | -91 | 71 | -59 | 0.10 | 0.00 | 0.10 | 4.99 | 180.90 |
| 23 | -285 | 251 | 271 | -277 | -46 | -18 | 31 | 26 | -0.20 | -0.40 | 0.40 | 240.30 | 180.90 |
| 24 | -241 | 219 | 230 | -244 | -71 | 12 | -17 | 50 | -0.10 | -0.20 | 0.20 | 251.80 | 175.30 |
| 25 | -214 | 182 | 196 | -202 | -96 | 31 | -31 | 70 | -0.20 | 0.00 | 0.20 | 190.90 | 173.00 |
| 26 | -302 | 275 | 237 | -284 | 69 | -136 | 99 | -92 | -0.10 | 0.20 | 0.20 | 114.50 | 172.10 |
| 27 | -336 | 307 | 311 | -319 | 77 | -149 | 127 | -116 | 0.10 | 0.30 | 0.30 | 64.04 | 175.20 |
| 28 | -309 | 277 | 270 | -291 | 124 | -184 | 171 | -149 | -0.30 | 0.10 | 0.30 | 160.30 | 179.40 |
| 29 | -330 | 310 | 308 | -331 | 63 | -119 | 105 | -88 | -0.10 | 0.10 | 0.10 | 148.10 | 180.90 |
| 30 | -341 | 314 | 319 | -338 | 59 | -130 | 107 | -91 | -0.10 | 0.00 | 0.10 | 184.90 | 182.30 |
| 31 | -318 | 281 | 294 | -313 | 45 | -102 | 68 | -59 | -0.20 | 0.00 | 0.20 | 175.50 | 182.10 |
| 32 | -364 | 348 | 325 | -357 | 149 | -217 | 195 | -178 | -0.40 | 0.10 | 0.40 | 167.70 | 182.50 |
| 33 | -390 | 359 | 345 | -387 | 128 | -195 | 188 | -164 | -0.10 | -0.10 | 0.20 | 229.90 | 185.00 |
| 34 | -392 | 373 | 371 | -385 | 128 | -177 | 175 | -152 | -0.10 | 0.10 | 0.10 | 124.70 | 182.30 |
| 35 | -169 | 152 | 178 | -170 | 6 | -60 | 69 | -28 | -0.10 | -0.30 | 0.30 | 245.90 | 184.60 |
| 36 | -176 | 157 | 151 | -169 | 19 | -72 | 63 | -36 | -0.10 | -0.10 | 0.10 | 213.30 | 178.20 |
| 37 | -196 | 176 | 175 | -196 | -11 | -34 | 38 | -9 | -0.30 | 0.00 | 0.30 | 178.90 | 176.70 |
| 38 | -297 | 269 | 271 | -298 | 48 | -107 | 89 | -83 | 0.10 | 0.40 | 0.40 | 75.98 | 176.40 |
| 39 | -296 | 273 | 273 | -300 | 79 | -124 | 113 | -100 | -0.10 | 0.00 | 0.10 | 158.40 | 188.30 |
| 40 | -295 | 287 | 283 | -295 | 69 | -105 | 109 | -76 | -0.30 | -0.10 | 0.30 | 197.80 | 189.70 |
| 41 | -254 | 243 | 236 | -260 | 110 | -130 | 121 | -106 | -0.40 | 0.00 | 0.40 | 176.80 | 188.10 |
| 42 | -258 | 241 | 239 | -258 | 87 | -129 | 118 | -92 | -0.20 | 0.00 | 0.20 | 186.60 | 191.60 |
| 43 | -243 | 223 | 224 | -252 | 54 | -98 | 85 | -74 | 0.00 | 0.10 | 0.10 | 125.90 | 192.90 |
| 44 | -158 | 133 | 144 | -158 | 24 | -55 | 33 | -22 | -0.40 | 0.00 | 0.40 | 187.10 | 197.20 |
| 45 | -144 | 126 | 131 | -141 | 35 | -73 | 50 | -40 | -0.40 | 0.00 | 0.40 | 175.50 | 203.40 |
| 46 | -102 | 88 | 90 | -119 | 51 | -94 | 64 | -52 | 0.00 | 0.00 | 0.00 | 248.40 | 242.70 |
| 47 | -101 | 100 | 98 | -106 | 224 | -243 | 222 | -209 | -0.20 | -0.20 | 0.30 | 228.20 | 242.00 |
| 48 | -32 | 37 | 24 | -62 | 207 | -240 | 216 | -208 | 0.00 | 0.00 | 0.00 | 353.60 | 349.70 |
| 49 | 90 | -101 | -107 | 78 | 192 | -233 | 215 | -210 | 0.00 | 0.00 | 0.00 | 346.50 | 346.50 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 2 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 30/11/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I6 | Correzione azimutale: | 220 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|------|------|------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 100 | -121 | -124 | 121 | 114 | -160 | 163 | -133 | -0.60 | -0.10 | 0.60 | 193.10 | 209.30 |
| 2 | 5 | -6 | -37 | -2 | 71 | -121 | 116 | -99 | 0.10 | -0.20 | 0.20 | 293.40 | 213.30 |
| 3 | -28 | 6 | 4 | 0 | 21 | -69 | 73 | -45 | 0.60 | 0.20 | 0.60 | 21.76 | 208.50 |
| 4 | -23 | -3 | 0 | 4 | 9 | -58 | 58 | -31 | 0.20 | -0.80 | 0.90 | 281.60 | 207.10 |
| 5 | -60 | 55 | 29 | -71 | -36 | -19 | 18 | 6 | 0.30 | 0.10 | 0.30 | 12.31 | 190.50 |
| 6 | -135 | 110 | 106 | -106 | -61 | 10 | -4 | 38 | 0.90 | 0.50 | 1.00 | 29.04 | 190.60 |
| 7 | -159 | 131 | 131 | -131 | -76 | 21 | -21 | 48 | 1.10 | 0.00 | 1.10 | 0.27 | 195.00 |
| 8 | -141 | 135 | 109 | -142 | -141 | 86 | -105 | 114 | -0.10 | 0.20 | 0.20 | 113.40 | 191.90 |
| 9 | -194 | 167 | 165 | -160 | -116 | 60 | -61 | 89 | 1.30 | 0.20 | 1.30 | 9.35 | 194.10 |
| 10 | -229 | 200 | 200 | -201 | -100 | 50 | -46 | 75 | 0.00 | -0.30 | 0.30 | 279.40 | 193.10 |
| 11 | -271 | 264 | 241 | -281 | -21 | -42 | 22 | -7 | -0.30 | 0.00 | 0.30 | 185.00 | 190.70 |
| 12 | -270 | 246 | 249 | -242 | 9 | -61 | 61 | -35 | 0.10 | 0.80 | 0.90 | 83.51 | 190.90 |
| 13 | -284 | 254 | 255 | -255 | 19 | -69 | 66 | -41 | 0.20 | 0.20 | 0.30 | 43.88 | 198.10 |
| 14 | -332 | 329 | 308 | -347 | 30 | -75 | 68 | -51 | 0.10 | -0.10 | 0.10 | 328.10 | 199.10 |
| 15 | -333 | 316 | 320 | -320 | -5 | -40 | 36 | -10 | 0.00 | -0.10 | 0.10 | 282.10 | 198.20 |
| 16 | -344 | 319 | 322 | -325 | -19 | -31 | 29 | 0 | 0.00 | -0.20 | 0.20 | 270.20 | 197.20 |
| 17 | -326 | 296 | 300 | -303 | -65 | 18 | -28 | 54 | -0.10 | -0.30 | 0.40 | 247.40 | 195.90 |
| 18 | -296 | 267 | 275 | -275 | -80 | 31 | -40 | 65 | -0.10 | 0.00 | 0.10 | 201.30 | 193.40 |
| 19 | -281 | 245 | 256 | -250 | -83 | 25 | -36 | 64 | -0.20 | 0.10 | 0.30 | 144.50 | 193.20 |
| 20 | -397 | 365 | 367 | -374 | 19 | -68 | 61 | -34 | 0.20 | 0.30 | 0.30 | 61.98 | 194.90 |
| 21 | -415 | 386 | 397 | -397 | 30 | -81 | 71 | -45 | 0.10 | 0.20 | 0.20 | 61.31 | 197.10 |
| 22 | -422 | 384 | 400 | -397 | 30 | -91 | 80 | -56 | 0.10 | 0.10 | 0.10 | 40.53 | 198.30 |
| 23 | -289 | 250 | 260 | -263 | -44 | -19 | 0 | 28 | -0.10 | -0.70 | 0.80 | 259.90 | 198.70 |
| 24 | -253 | 210 | 219 | -224 | -68 | 10 | -29 | 56 | -0.10 | -0.50 | 0.50 | 253.80 | 192.80 |
| 25 | -220 | 179 | 195 | -196 | -89 | 29 | -45 | 71 | -0.20 | -0.10 | 0.20 | 210.70 | 189.00 |
| 26 | -309 | 270 | 283 | -284 | 76 | -138 | 117 | -91 | 0.00 | 0.70 | 0.70 | 89.02 | 188.20 |
| 27 | -340 | 297 | 313 | -316 | 95 | -150 | 135 | -114 | -0.10 | 0.40 | 0.40 | 106.70 | 195.10 |
| 28 | -314 | 275 | 291 | -290 | 126 | -185 | 170 | -142 | -0.10 | 0.20 | 0.30 | 109.40 | 198.60 |
| 29 | -336 | 299 | 314 | -316 | 70 | -129 | 113 | -86 | -0.40 | 0.10 | 0.40 | 163.30 | 201.00 |
| 30 | -342 | 303 | 317 | -325 | 74 | -131 | 109 | -89 | -0.40 | -0.10 | 0.40 | 193.30 | 203.30 |
| 31 | -321 | 280 | 291 | -297 | 49 | -106 | 80 | -58 | -0.40 | 0.00 | 0.40 | 179.20 | 204.10 |
| 32 | -378 | 336 | 354 | -356 | 156 | -217 | 196 | -174 | -0.30 | 0.30 | 0.40 | 126.60 | 206.20 |
| 33 | -397 | 356 | 370 | -372 | 145 | -200 | 181 | -159 | -0.10 | 0.00 | 0.10 | 151.30 | 211.00 |
| 34 | -395 | 361 | 376 | -380 | 135 | -190 | 175 | -146 | -0.20 | 0.10 | 0.30 | 153.40 | 212.00 |
| 35 | -175 | 142 | 154 | -151 | 9 | -64 | 45 | -20 | -0.20 | -0.80 | 0.80 | 253.70 | 214.60 |
| 36 | -184 | 150 | 163 | -159 | 26 | -74 | 61 | -35 | -0.10 | 0.00 | 0.10 | 177.80 | 207.60 |
| 37 | -201 | 170 | 181 | -184 | -11 | -33 | 25 | 4 | -0.10 | -0.20 | 0.20 | 244.00 | 208.40 |
| 38 | -297 | 267 | 279 | -272 | 69 | -105 | 98 | -75 | -0.20 | 0.40 | 0.40 | 114.00 | 206.30 |
| 39 | -296 | 270 | 281 | -280 | 94 | -121 | 113 | -91 | -0.20 | -0.10 | 0.20 | 196.30 | 212.60 |
| 40 | -289 | 275 | 288 | -292 | 85 | -104 | 98 | -74 | -0.40 | -0.20 | 0.50 | 206.10 | 213.50 |
| 41 | -242 | 235 | 246 | -251 | 114 | -127 | 121 | -98 | -0.50 | -0.20 | 0.50 | 199.80 | 214.50 |
| 42 | -240 | 230 | 240 | -247 | 105 | -129 | 119 | -86 | -0.60 | -0.20 | 0.60 | 202.20 | 217.10 |
| 43 | -230 | 213 | 224 | -231 | 80 | -98 | 84 | -63 | -0.40 | -0.20 | 0.50 | 202.30 | 221.40 |
| 44 | -144 | 130 | 145 | -154 | 31 | -54 | 33 | -14 | -0.50 | -0.20 | 0.50 | 203.40 | 226.40 |
| 45 | -131 | 117 | 135 | -133 | 44 | -71 | 49 | -25 | -0.50 | -0.20 | 0.60 | 202.90 | 235.70 |
| 46 | -95 | 84 | 95 | -100 | 68 | -83 | 63 | -46 | -0.20 | -0.20 | 0.30 | 234.00 | 256.50 |
| 47 | -98 | 100 | 105 | -105 | 228 | -236 | 216 | -201 | -0.10 | -0.30 | 0.30 | 258.80 | 266.50 |
| 48 | -25 | 40 | 31 | -33 | 224 | -224 | 214 | -196 | 0.00 | -0.30 | 0.30 | 263.60 | 275.00 |
| 49 | 95 | -96 | -106 | 78 | 192 | -233 | 215 | -209 | 0.10 | 0.00 | 0.10 | 350.90 | 350.90 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Committente: | | ANAS SpA | | | | | | | Numero lettura: | | 3 | | |
|---------------------|---------------|------------|------|------|------|------|------|------|-----------------------|--------|-----------------|------------|----------------|
| Località: | | La Spezia | | | | | | | Sonda usata: | | OG310S | | |
| Data: | | 15/12/2006 | | | | | | | Correzione angolare: | | 0 | | |
| Sigla inclinometro: | | I6 | | | | | | | Correzione azimutale: | | 220 | | |
| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 111 | -114 | -125 | 115 | 139 | -150 | 158 | -165 | -0.90 | 0.10 | 0.90 | 171.00 | 171.50 |
| 2 | 7 | -8 | -36 | -1 | 68 | -118 | 112 | -96 | 0.20 | -0.30 | 0.30 | 297.20 | 171.50 |
| 3 | -18 | 8 | -3 | -9 | 43 | -55 | 68 | -74 | 0.30 | 0.40 | 0.50 | 53.58 | 169.10 |
| 4 | -15 | 0 | -3 | -8 | 34 | -45 | 55 | -63 | -0.10 | -0.50 | 0.60 | 257.90 | 172.80 |
| 5 | -62 | 54 | 33 | -76 | -38 | -18 | 15 | 5 | 0.40 | 0.10 | 0.40 | 15.49 | 168.10 |
| 6 | -126 | 106 | 105 | -115 | -40 | 18 | -15 | 5 | 0.60 | 0.70 | 0.90 | 49.36 | 169.60 |
| 7 | -148 | 130 | 125 | -139 | -50 | 33 | -26 | 23 | 0.80 | 0.10 | 0.80 | 10.56 | 175.40 |
| 8 | -145 | 136 | 111 | -143 | -140 | 83 | -103 | 112 | -0.10 | 0.30 | 0.30 | 106.80 | 176.80 |
| 9 | -185 | 171 | 167 | -171 | -93 | 70 | -66 | 63 | 1.10 | 0.50 | 1.20 | 24.52 | 178.80 |
| 10 | -216 | 206 | 199 | -213 | -78 | 61 | -49 | 49 | -0.20 | 0.00 | 0.20 | 187.10 | 182.00 |
| 11 | -268 | 262 | 239 | -282 | -19 | -43 | 26 | -11 | -0.40 | 0.00 | 0.40 | 179.60 | 181.90 |
| 12 | -261 | 251 | 249 | -260 | 26 | -49 | 59 | -63 | -0.10 | 1.20 | 1.20 | 92.54 | 182.00 |
| 13 | -272 | 261 | 254 | -266 | 30 | -51 | 64 | -65 | 0.10 | 0.30 | 0.40 | 69.98 | 189.50 |
| 14 | -330 | 330 | 309 | -344 | 27 | -75 | 63 | -48 | 0.20 | -0.20 | 0.30 | 317.70 | 191.40 |
| 15 | -296 | 322 | 319 | -326 | 29 | -24 | 35 | -40 | -0.50 | 0.00 | 0.50 | 180.90 | 190.20 |
| 16 | -305 | 330 | 321 | -334 | 20 | -13 | 24 | -30 | -0.50 | 0.00 | 0.50 | 183.30 | 190.70 |
| 17 | -281 | 304 | 301 | -309 | -34 | 38 | -33 | 30 | -0.60 | -0.40 | 0.70 | 213.70 | 191.10 |
| 18 | -251 | 278 | 274 | -284 | -50 | 56 | -43 | 43 | -0.50 | -0.10 | 0.50 | 190.90 | 189.20 |
| 19 | -235 | 261 | 254 | -264 | -41 | 49 | -36 | 36 | -0.70 | 0.30 | 0.70 | 155.70 | 189.10 |
| 20 | -356 | 375 | 374 | -379 | 48 | -51 | 59 | -53 | -0.20 | 0.30 | 0.40 | 118.70 | 192.70 |
| 21 | -366 | 396 | 396 | -400 | 61 | -54 | 64 | -56 | -0.20 | -0.10 | 0.20 | 194.70 | 196.00 |
| 22 | -372 | 396 | 397 | -403 | 68 | -60 | 73 | -66 | -0.20 | -0.10 | 0.20 | 210.80 | 196.00 |
| 23 | -238 | 269 | 263 | -263 | 0 | 14 | -3 | 13 | -0.50 | -0.80 | 1.00 | 238.90 | 195.40 |
| 24 | -198 | 228 | 222 | -225 | -30 | 43 | -31 | 36 | -0.50 | -0.60 | 0.80 | 226.90 | 188.20 |
| 25 | -175 | 195 | 192 | -199 | -55 | 59 | -50 | 58 | -0.50 | -0.30 | 0.50 | 208.80 | 182.50 |
| 26 | -264 | 288 | 285 | -285 | 113 | -104 | 116 | -109 | -0.30 | 0.70 | 0.80 | 113.10 | 179.30 |
| 27 | -296 | 320 | 320 | -316 | 126 | -120 | 133 | -124 | -0.30 | 0.30 | 0.40 | 130.30 | 189.20 |
| 28 | -286 | 290 | 292 | -299 | 149 | -155 | 164 | -156 | -0.10 | 0.20 | 0.30 | 116.50 | 194.60 |
| 29 | -313 | 316 | 311 | -313 | 90 | -96 | 105 | -96 | -0.40 | 0.00 | 0.40 | 187.10 | 198.30 |
| 30 | -320 | 320 | 321 | -320 | 95 | -101 | 102 | -91 | -0.40 | -0.20 | 0.40 | 213.60 | 199.50 |
| 31 | -299 | 292 | 295 | -297 | 58 | -74 | 80 | -63 | -0.30 | -0.20 | 0.40 | 205.50 | 197.50 |
| 32 | -359 | 364 | 355 | -355 | 174 | -180 | 192 | -180 | -0.10 | 0.30 | 0.30 | 102.70 | 196.40 |
| 33 | -379 | 363 | 375 | -371 | 161 | -184 | 175 | -166 | -0.10 | 0.00 | 0.10 | 179.20 | 203.20 |
| 34 | -379 | 366 | 381 | -378 | 149 | -167 | 167 | -155 | -0.20 | 0.00 | 0.20 | 179.40 | 204.50 |
| 35 | -156 | 139 | 154 | -158 | 24 | -45 | 34 | -31 | -0.30 | -0.90 | 1.00 | 252.30 | 206.80 |
| 36 | -163 | 148 | 163 | -160 | 45 | -66 | 55 | -50 | -0.40 | 0.00 | 0.40 | 185.00 | 184.00 |
| 37 | -176 | 174 | 186 | -185 | 4 | -20 | 15 | -10 | -0.30 | -0.30 | 0.40 | 230.00 | 183.80 |
| 38 | -272 | 272 | 279 | -281 | 85 | -91 | 96 | -85 | -0.30 | 0.40 | 0.50 | 130.70 | 169.60 |
| 39 | -279 | 266 | 284 | -276 | 102 | -119 | 111 | -102 | -0.50 | -0.10 | 0.50 | 195.90 | 191.80 |
| 40 | -290 | 275 | 299 | -289 | 81 | -99 | 95 | -85 | -0.40 | -0.10 | 0.40 | 202.10 | 186.10 |
| 41 | -251 | 235 | 241 | -251 | 105 | -125 | 120 | -108 | -0.40 | -0.20 | 0.50 | 199.40 | 83.70 |
| 42 | -255 | 231 | 249 | -247 | 95 | -121 | 105 | -101 | -0.30 | -0.20 | 0.30 | 207.80 | 30.51 |
| 43 | -229 | 219 | 239 | -233 | 68 | -96 | 88 | -74 | -0.30 | 0.00 | 0.30 | 181.00 | 29.45 |
| 44 | -159 | 136 | 150 | -158 | 21 | -54 | 36 | -26 | -0.30 | 0.00 | 0.30 | 171.80 | 22.08 |
| 45 | -148 | 154 | 144 | -136 | 36 | -38 | 51 | -53 | 0.00 | 0.20 | 0.20 | 95.00 | 15.21 |
| 46 | -111 | 116 | 106 | -105 | 56 | -63 | 68 | -63 | 0.30 | 0.20 | 0.40 | 31.56 | 6.72 |
| 47 | -121 | 121 | 110 | -113 | 209 | -216 | 219 | -214 | 0.50 | 0.00 | 0.50 | 355.60 | 358.20 |
| 48 | -55 | 55 | 38 | -46 | 204 | -209 | 213 | -211 | 0.50 | 0.10 | 0.60 | 7.94 | 0.29 |
| 49 | 96 | -95 | -107 | 82 | 196 | -230 | 213 | -206 | 0.10 | -0.10 | 0.10 | 307.40 | 307.40 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Committente: | | ANAS SpA | | | | | | | Numero lettura: | | 4 | | |
|---------------------|---------------|------------|------|------|------|------|------|------|-----------------------|--------|-----------------|------------|----------------|
| Località: | | La Spezia | | | | | | | Sonda usata: | | OG310S | | |
| Data: | | 30/12/2006 | | | | | | | Correzione angolare: | | 0 | | |
| Sigla inclinometro: | | I6 | | | | | | | Correzione azimutale: | | 220 | | |
| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 116 | -111 | -133 | 107 | 136 | -150 | 150 | -163 | -0.80 | 0.00 | 0.80 | 177.00 | 102.60 |
| 2 | 8 | -7 | -36 | 1 | 65 | -118 | 111 | -94 | 0.20 | -0.40 | 0.40 | 297.90 | 85.81 |
| 3 | -6 | 12 | -19 | -19 | 31 | -57 | 63 | -72 | 0.30 | 0.20 | 0.40 | 27.62 | 89.80 |
| 4 | 7 | 3 | -5 | -8 | 20 | -59 | 55 | -55 | -0.20 | -0.80 | 0.80 | 255.90 | 96.26 |
| 5 | -63 | 57 | 34 | -76 | -39 | -17 | 15 | 4 | 0.40 | 0.10 | 0.40 | 18.13 | 91.99 |
| 6 | -117 | 107 | 97 | -117 | -48 | 5 | -19 | 6 | 0.50 | 0.60 | 0.80 | 49.24 | 98.78 |
| 7 | -137 | 139 | 123 | -151 | -63 | 31 | -27 | 27 | 1.00 | 0.10 | 1.00 | 6.25 | 109.30 |
| 8 | -146 | 137 | 113 | -144 | -139 | 81 | -103 | 110 | -0.10 | 0.40 | 0.40 | 104.60 | 125.20 |
| 9 | -180 | 183 | 155 | -185 | -95 | 67 | -89 | 66 | 1.20 | 0.50 | 1.30 | 24.23 | 127.70 |
| 10 | -206 | 216 | 196 | -217 | -90 | 56 | -51 | 52 | -0.10 | -0.10 | 0.10 | 225.60 | 147.90 |
| 11 | -266 | 260 | 238 | -281 | -17 | -44 | 26 | -12 | -0.40 | 0.00 | 0.40 | 182.20 | 145.90 |
| 12 | -256 | 261 | 240 | -261 | 15 | -56 | 53 | -61 | 0.00 | 1.10 | 1.10 | 88.83 | 141.20 |
| 13 | -261 | 275 | 243 | -266 | 20 | -60 | 59 | -63 | 0.10 | 0.20 | 0.30 | 59.09 | 158.90 |
| 14 | -329 | 330 | 310 | -343 | 27 | -74 | 63 | -49 | 0.20 | -0.20 | 0.30 | 315.40 | 164.00 |
| 15 | -316 | 330 | 300 | -330 | 7 | -34 | 30 | -32 | -0.20 | -0.10 | 0.20 | 196.90 | 161.80 |
| 16 | -321 | 331 | 320 | -343 | -11 | -23 | 21 | -20 | -0.10 | -0.10 | 0.10 | 222.80 | 159.00 |
| 17 | -287 | 312 | 296 | -314 | -53 | 36 | -34 | 32 | -0.30 | -0.40 | 0.50 | 231.10 | 157.50 |
| 18 | -269 | 290 | 273 | -289 | -54 | 47 | -48 | 44 | -0.20 | 0.20 | 0.30 | 145.90 | 147.00 |
| 19 | -248 | 264 | 246 | -267 | -62 | 46 | -37 | 37 | -0.40 | 0.30 | 0.50 | 150.00 | 147.10 |
| 20 | -361 | 376 | 362 | -388 | 23 | -50 | 59 | -49 | 0.10 | 0.20 | 0.20 | 69.44 | 146.40 |
| 21 | -383 | 403 | 393 | -415 | 56 | -57 | 64 | -56 | 0.00 | 0.20 | 0.20 | 77.76 | 151.80 |
| 22 | -396 | 408 | 383 | -409 | 31 | -77 | 72 | -68 | 0.10 | 0.00 | 0.10 | 344.40 | 158.40 |
| 23 | -246 | 278 | 249 | -264 | -23 | 7 | -8 | 14 | -0.30 | -0.90 | 1.00 | 252.10 | 158.80 |
| 24 | -205 | 237 | 216 | -227 | -52 | 38 | -31 | 37 | -0.30 | -0.60 | 0.70 | 242.30 | 132.40 |
| 25 | -192 | 202 | 185 | -205 | -82 | 53 | -53 | 60 | -0.10 | -0.20 | 0.30 | 245.00 | 118.20 |
| 26 | -264 | 297 | 277 | -289 | 83 | -105 | 115 | -109 | 0.00 | 0.50 | 0.50 | 93.50 | 113.60 |
| 27 | -302 | 326 | 317 | -320 | 98 | -123 | 133 | -126 | 0.00 | 0.30 | 0.30 | 91.99 | 118.40 |
| 28 | -290 | 297 | 286 | -309 | 135 | -156 | 169 | -157 | 0.00 | 0.30 | 0.30 | 82.62 | 122.00 |
| 29 | -314 | 333 | 309 | -319 | 50 | -100 | 105 | -97 | 0.00 | -0.10 | 0.10 | 286.30 | 128.30 |
| 30 | -331 | 336 | 305 | -329 | 69 | -102 | 102 | -93 | -0.10 | -0.20 | 0.20 | 257.60 | 127.00 |
| 31 | -300 | 312 | 294 | -302 | 41 | -79 | 80 | -65 | -0.10 | 0.00 | 0.10 | 197.90 | 121.80 |
| 32 | -359 | 369 | 341 | -375 | 167 | -186 | 192 | -180 | 0.00 | 0.40 | 0.40 | 88.66 | 119.10 |
| 33 | -380 | 383 | 369 | -376 | 154 | -184 | 178 | -169 | 0.00 | 0.10 | 0.10 | 92.28 | 125.90 |
| 34 | -382 | 384 | 373 | -396 | 131 | -172 | 171 | -162 | 0.00 | 0.20 | 0.20 | 91.43 | 129.00 |
| 35 | -160 | 164 | 134 | -174 | 10 | -45 | 36 | -31 | 0.00 | -0.80 | 0.80 | 267.00 | 134.90 |
| 36 | -164 | 150 | 162 | -183 | 42 | -62 | 58 | -48 | -0.20 | 0.10 | 0.20 | 149.80 | 117.20 |
| 37 | -197 | 188 | 179 | -185 | -4 | -28 | 21 | -15 | -0.20 | 0.00 | 0.20 | 185.00 | 113.20 |
| 38 | -275 | 289 | 279 | -287 | 84 | -91 | 103 | -88 | -0.20 | 0.60 | 0.70 | 109.60 | 108.40 |
| 39 | -289 | 299 | 280 | -305 | 72 | -114 | 120 | -103 | 0.20 | 0.20 | 0.30 | 54.08 | 107.70 |
| 40 | -290 | 284 | 292 | -307 | 73 | -89 | 104 | -85 | -0.20 | 0.00 | 0.20 | 197.20 | 121.50 |
| 41 | -240 | 236 | 240 | -260 | 104 | -125 | 130 | -114 | -0.60 | -0.10 | 0.60 | 187.10 | 111.40 |
| 42 | -238 | 264 | 241 | -268 | 93 | -122 | 115 | -100 | -0.20 | 0.10 | 0.20 | 148.10 | 76.84 |
| 43 | -217 | 242 | 224 | -250 | 59 | -92 | 92 | -80 | -0.20 | 0.10 | 0.20 | 159.20 | 64.04 |
| 44 | -137 | 155 | 143 | -170 | 14 | -53 | 42 | -29 | -0.30 | 0.10 | 0.30 | 168.00 | 51.21 |
| 45 | -127 | 159 | 142 | -141 | 36 | -47 | 59 | -52 | -0.20 | 0.20 | 0.30 | 136.30 | 35.84 |
| 46 | -99 | 123 | 96 | -127 | 52 | -63 | 72 | -65 | 0.40 | 0.30 | 0.40 | 36.91 | 21.58 |
| 47 | -114 | 124 | 108 | -125 | 207 | -229 | 230 | -219 | 0.30 | 0.20 | 0.40 | 30.56 | 13.41 |
| 48 | -31 | 58 | 36 | -62 | 202 | -222 | 214 | -211 | 0.40 | 0.10 | 0.40 | 13.68 | 0.86 |
| 49 | 98 | -94 | -106 | 82 | 197 | -227 | 212 | -206 | 0.10 | -0.10 | 0.10 | 310.50 | 310.50 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

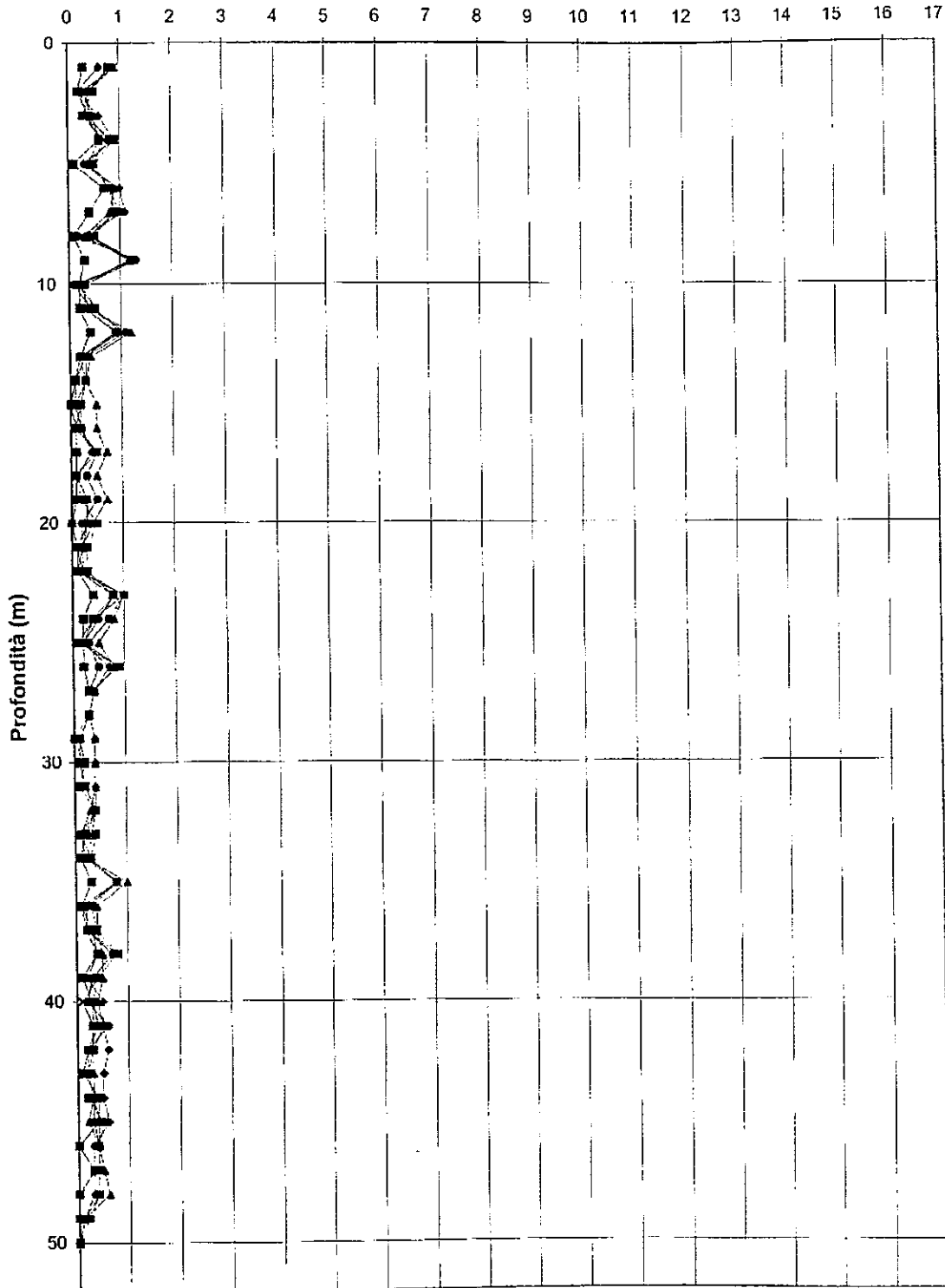
LETTURA INCLINOMETRICA

| Committente: | | ANAS SpA | | | | | | | Numero lettura: | | 5 | | | |
|---------------------|---------------|------------|------|------|------|------|------|------|-----------------------|--------|-----------------|------------|----------------|--|
| Località: | | La Spezia | | | | | | | Sonda usata: | | OG310S | | | |
| Data: | | 30/01/2007 | | | | | | | Correzione angolare: | | 0 | | | |
| Sigla inclinometro: | | I6 | | | | | | | Correzione azimutale: | | 220 | | | |
| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | | |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) | |
| 1 | 122 | -108 | -137 | 103 | 127 | -169 | 149 | -161 | -0.90 | 0.10 | 0.90 | 175.80 | 51.00 | |
| 2 | 9 | -6 | -36 | 1 | 64 | -116 | 110 | -93 | 0.20 | -0.40 | 0.40 | 300.30 | 42.85 | |
| 3 | 3 | 18 | -20 | -21 | 30 | -71 | 63 | -68 | 0.20 | 0.20 | 0.30 | 41.12 | 47.60 | |
| 4 | 10 | 13 | -12 | -18 | 20 | -60 | 46 | -55 | -0.10 | -0.70 | 0.70 | 264.90 | 48.02 | |
| 5 | -64 | 57 | 37 | -78 | -41 | -15 | 16 | 3 | 0.50 | 0.20 | 0.50 | 19.83 | 52.59 | |
| 6 | -110 | 120 | 90 | -127 | -50 | 3 | -19 | 11 | 0.60 | 0.60 | 0.80 | 45.91 | 55.60 | |
| 7 | -136 | 141 | 117 | -152 | -64 | 24 | -30 | 28 | 0.90 | 0.10 | 0.90 | 5.44 | 57.49 | |
| 8 | -146 | 137 | 114 | -145 | -139 | 80 | -102 | 109 | -0.10 | 0.40 | 0.40 | 104.70 | 68.58 | |
| 9 | -173 | 187 | 150 | -185 | -96 | 66 | -69 | 68 | 1.10 | 0.50 | 1.20 | 21.76 | 64.52 | |
| 10 | -203 | 217 | 190 | -220 | -90 | 53 | -58 | 55 | -0.10 | -0.20 | 0.20 | 248.40 | 82.46 | |
| 11 | -265 | 260 | 238 | -280 | -17 | -44 | 26 | -12 | -0.50 | 0.00 | 0.50 | 184.10 | 81.54 | |
| 12 | -248 | 264 | 234 | -261 | 15 | -58 | 52 | -59 | 0.00 | 1.00 | 1.00 | 92.48 | 73.00 | |
| 13 | -260 | 277 | 241 | -266 | 20 | -61 | 59 | -57 | 0.20 | 0.20 | 0.20 | 47.61 | 64.36 | |
| 14 | -329 | 330 | 310 | -343 | 26 | -74 | 63 | -49 | 0.20 | -0.20 | 0.30 | 315.60 | 66.44 | |
| 15 | -316 | 333 | 300 | -333 | -1 | -34 | 29 | -26 | -0.10 | -0.10 | 0.10 | 238.10 | 73.39 | |
| 16 | -322 | 335 | 317 | -344 | -20 | -25 | 19 | -18 | 0.00 | -0.10 | 0.10 | 293.40 | 72.40 | |
| 17 | -293 | 315 | 292 | -316 | -64 | 35 | -34 | 35 | -0.20 | -0.40 | 0.50 | 247.60 | 74.28 | |
| 18 | -271 | 290 | 267 | -292 | -73 | 42 | -53 | 49 | -0.10 | 0.00 | 0.10 | 178.60 | 73.14 | |
| 19 | -250 | 272 | 240 | -267 | -82 | 39 | -38 | 42 | -0.30 | 0.20 | 0.30 | 148.80 | 71.84 | |
| 20 | -365 | 385 | 356 | -391 | 12 | -49 | 59 | -48 | 0.20 | 0.20 | 0.30 | 35.46 | 65.03 | |
| 21 | -384 | 407 | 378 | -416 | 54 | -61 | 63 | -56 | 0.00 | 0.10 | 0.10 | 97.73 | 68.29 | |
| 22 | -399 | 414 | 381 | -417 | 27 | -78 | 71 | -68 | 0.20 | 0.10 | 0.20 | 13.12 | 66.46 | |
| 23 | -248 | 278 | 244 | -273 | -48 | 5 | -8 | 14 | -0.10 | -1.00 | 1.00 | 265.20 | 71.80 | |
| 24 | -211 | 237 | 215 | -246 | -57 | 35 | -31 | 38 | -0.10 | -0.40 | 0.40 | 253.00 | 76.16 | |
| 25 | -193 | 202 | 184 | -208 | -86 | 47 | -53 | 60 | -0.10 | -0.20 | 0.20 | 242.20 | 75.79 | |
| 26 | -287 | 299 | 275 | -310 | 69 | -108 | 115 | -109 | 0.30 | 0.80 | 0.90 | 67.39 | 74.96 | |
| 27 | -319 | 328 | 298 | -321 | 96 | -128 | 133 | -127 | 0.00 | 0.30 | 0.30 | 96.34 | 77.17 | |
| 28 | -291 | 300 | 285 | -309 | 118 | -156 | 171 | -158 | 0.20 | 0.20 | 0.30 | 54.08 | 75.04 | |
| 29 | -319 | 333 | 298 | -335 | 50 | -103 | 105 | -98 | 0.10 | 0.00 | 0.10 | 358.60 | 77.41 | |
| 30 | -333 | 342 | 301 | -338 | 57 | -104 | 103 | -93 | 0.10 | -0.20 | 0.20 | 298.20 | 78.90 | |
| 31 | -301 | 314 | 291 | -304 | 35 | -80 | 79 | -65 | 0.00 | -0.10 | 0.10 | 239.40 | 81.91 | |
| 32 | -360 | 370 | 339 | -377 | 165 | -189 | 192 | -181 | 0.00 | 0.40 | 0.40 | 89.10 | 81.41 | |
| 33 | -382 | 385 | 369 | -395 | 136 | -185 | 178 | -169 | 0.30 | 0.20 | 0.30 | 38.36 | 80.00 | |
| 34 | -382 | 390 | 373 | -399 | 126 | -176 | 172 | -164 | 0.00 | 0.30 | 0.30 | 83.18 | 86.64 | |
| 35 | -160 | 168 | 132 | -174 | -1 | -44 | 41 | -31 | 0.00 | -0.80 | 0.80 | 271.60 | 87.28 | |
| 36 | -165 | 164 | 153 | -184 | 28 | -59 | 58 | -48 | 0.00 | 0.10 | 0.10 | 113.40 | 88.73 | |
| 37 | -198 | 190 | 178 | -209 | -21 | -29 | 23 | -16 | 0.10 | 0.10 | 0.20 | 42.40 | 88.08 | |
| 38 | -283 | 297 | 271 | -301 | 79 | -93 | 109 | -88 | -0.10 | 0.80 | 0.80 | 97.45 | 90.71 | |
| 39 | -290 | 308 | 280 | -309 | 67 | -113 | 120 | -105 | 0.30 | 0.30 | 0.40 | 47.27 | 87.09 | |
| 40 | -290 | 293 | 288 | -307 | 66 | -87 | 104 | -85 | -0.10 | -0.10 | 0.10 | 230.00 | 99.55 | |
| 41 | -240 | 258 | 239 | -269 | 100 | -121 | 133 | -114 | -0.30 | 0.10 | 0.30 | 158.40 | 96.55 | |
| 42 | -225 | 266 | 228 | -270 | 90 | -124 | 117 | -97 | -0.30 | -0.10 | 0.30 | 192.70 | 81.55 | |
| 43 | -216 | 252 | 224 | -253 | 59 | -88 | 92 | -80 | -0.10 | 0.10 | 0.20 | 122.60 | 68.84 | |
| 44 | -136 | 168 | 137 | -172 | 14 | -48 | 49 | -31 | -0.30 | 0.20 | 0.30 | 153.20 | 62.58 | |
| 45 | -120 | 162 | 142 | -153 | 36 | -49 | 61 | -51 | -0.20 | 0.30 | 0.40 | 123.60 | 46.90 | |
| 46 | -90 | 125 | 95 | -134 | 51 | -72 | 74 | -66 | 0.30 | 0.30 | 0.40 | 51.36 | 30.99 | |
| 47 | -110 | 127 | 108 | -128 | 207 | -229 | 231 | -219 | 0.30 | 0.20 | 0.40 | 33.01 | 21.39 | |
| 48 | -28 | 68 | 33 | -65 | 199 | -223 | 224 | -211 | 0.40 | 0.20 | 0.40 | 27.48 | 12.91 | |
| 49 | 98 | -94 | -104 | 82 | 197 | -227 | 211 | -205 | 0.10 | -0.10 | 0.10 | 320.00 | 320.00 | |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 6 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 28/02/2007 | Correzione angolare: | 0 |
| Sigla inclinometro: | I6 | Correzione azimutale: | 220 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|------|------|------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 127 | -106 | -138 | 100 | 125 | -171 | 148 | -154 | -0.80 | 0.00 | 0.80 | 179.60 | 32.37 |
| 2 | 10 | -5 | -38 | 2 | 64 | -112 | 106 | -93 | 0.30 | -0.50 | 0.50 | 300.20 | 29.27 |
| 3 | 5 | 20 | -21 | -24 | 30 | -76 | 58 | -65 | 0.30 | 0.20 | 0.30 | 36.76 | 32.94 |
| 4 | 11 | 14 | -24 | -19 | 19 | -61 | 43 | -51 | -0.10 | -0.90 | 0.90 | 264.60 | 32.77 |
| 5 | -64 | 59 | 37 | -80 | -41 | -15 | 16 | 3 | 0.50 | 0.20 | 0.50 | 21.99 | 37.33 |
| 6 | -105 | 126 | 85 | -131 | -50 | 1 | -21 | 16 | 0.60 | 0.60 | 0.80 | 42.54 | 38.34 |
| 7 | -129 | 148 | 115 | -152 | -64 | 15 | -33 | 29 | 0.90 | 0.10 | 0.90 | 6.85 | 37.84 |
| 8 | -146 | 138 | 115 | -149 | -138 | 80 | -101 | 109 | -0.10 | 0.50 | 0.50 | 100.20 | 41.87 |
| 9 | -166 | 188 | 146 | -186 | -100 | 64 | -70 | 70 | 1.10 | 0.40 | 1.20 | 17.53 | 38.18 |
| 10 | -199 | 220 | 183 | -220 | -91 | 48 | -60 | 56 | -0.10 | -0.20 | 0.30 | 240.80 | 42.82 |
| 11 | -265 | 260 | 238 | -279 | -16 | -46 | 25 | -13 | -0.50 | 0.00 | 0.50 | 182.50 | 43.69 |
| 12 | -245 | 267 | 229 | -263 | 14 | -59 | 49 | -54 | 0.00 | 0.90 | 0.90 | 89.97 | 40.49 |
| 13 | -253 | 279 | 241 | -267 | 20 | -61 | 58 | -54 | 0.20 | 0.10 | 0.20 | 35.96 | 33.06 |
| 14 | -328 | 330 | 310 | -343 | 26 | -73 | 62 | -49 | 0.20 | -0.20 | 0.30 | 313.80 | 32.94 |
| 15 | -316 | 334 | 300 | -336 | -16 | -35 | 29 | -26 | 0.10 | -0.20 | 0.20 | 288.00 | 36.13 |
| 16 | -322 | 342 | 315 | -346 | -26 | -25 | 19 | -18 | 0.10 | -0.10 | 0.20 | 327.10 | 38.17 |
| 17 | -301 | 319 | 281 | -319 | -73 | 34 | -40 | 35 | 0.00 | -0.50 | 0.50 | 265.00 | 39.93 |
| 18 | -271 | 291 | 264 | -294 | -85 | 41 | -53 | 50 | 0.00 | -0.10 | 0.10 | 290.20 | 43.65 |
| 19 | -253 | 275 | 235 | -269 | -86 | 36 | -43 | 44 | -0.20 | 0.10 | 0.20 | 144.70 | 44.44 |
| 20 | -378 | 394 | 356 | -394 | 3 | -49 | 60 | -48 | 0.40 | 0.30 | 0.50 | 33.90 | 41.93 |
| 21 | -399 | 410 | 372 | -416 | 25 | -64 | 63 | -56 | 0.30 | 0.10 | 0.30 | 15.70 | 42.81 |
| 22 | -400 | 416 | 379 | -419 | 26 | -79 | 66 | -69 | 0.30 | 0.10 | 0.30 | 10.43 | 44.31 |
| 23 | -264 | 280 | 244 | -286 | -54 | 4 | -8 | 14 | 0.20 | -0.80 | 0.80 | 280.20 | 46.48 |
| 24 | -231 | 241 | 215 | -256 | -79 | 33 | -31 | 38 | 0.20 | -0.30 | 0.40 | 310.70 | 54.41 |
| 25 | -196 | 210 | 183 | -214 | -96 | 44 | -53 | 60 | 0.00 | -0.10 | 0.10 | 289.70 | 58.55 |
| 26 | -292 | 305 | 264 | -313 | 68 | -110 | 115 | -109 | 0.30 | 0.80 | 0.90 | 67.43 | 59.76 |
| 27 | -320 | 331 | 286 | -338 | 75 | -131 | 131 | -127 | 0.20 | 0.20 | 0.30 | 53.81 | 58.13 |
| 28 | -297 | 306 | 278 | -309 | 108 | -156 | 173 | -158 | 0.30 | 0.20 | 0.30 | 39.69 | 58.46 |
| 29 | -321 | 333 | 294 | -335 | 50 | -105 | 105 | -98 | 0.00 | 0.00 | 0.00 | 353.60 | 60.16 |
| 30 | -335 | 342 | 300 | -344 | 54 | -104 | 105 | -98 | 0.10 | -0.10 | 0.20 | 316.40 | 60.69 |
| 31 | -304 | 316 | 289 | -314 | 35 | -81 | 79 | -69 | 0.00 | 0.10 | 0.10 | 79.75 | 63.12 |
| 32 | -363 | 372 | 339 | -378 | 146 | -194 | 196 | -184 | 0.10 | 0.40 | 0.40 | 76.56 | 62.75 |
| 33 | -384 | 392 | 365 | -395 | 133 | -186 | 181 | -169 | 0.30 | 0.30 | 0.40 | 41.25 | 60.92 |
| 34 | -383 | 392 | 367 | -399 | 124 | -177 | 174 | -164 | 0.00 | 0.30 | 0.30 | 88.05 | 63.64 |
| 35 | -161 | 171 | 131 | -174 | -3 | -43 | 45 | -31 | 0.00 | -0.80 | 0.80 | 272.50 | 60.91 |
| 36 | -169 | 184 | 149 | -184 | 4 | -59 | 60 | -48 | 0.30 | 0.10 | 0.30 | 15.17 | 68.44 |
| 37 | -198 | 210 | 177 | -214 | -26 | -30 | 29 | -16 | 0.30 | 0.30 | 0.40 | 50.00 | 72.59 |
| 38 | -295 | 303 | 271 | -303 | 46 | -94 | 110 | -88 | 0.30 | 0.80 | 0.80 | 71.54 | 75.73 |
| 39 | -291 | 308 | 279 | -310 | 65 | -113 | 123 | -109 | 0.30 | 0.30 | 0.40 | 53.99 | 77.50 |
| 40 | -291 | 316 | 284 | -308 | 44 | -86 | 105 | -85 | 0.20 | 0.00 | 0.30 | 348.60 | 83.90 |
| 41 | -240 | 272 | 239 | -270 | 98 | -120 | 134 | -114 | -0.20 | 0.20 | 0.30 | 132.60 | 92.96 |
| 42 | -222 | 270 | 226 | -274 | 88 | -124 | 121 | -94 | -0.30 | -0.10 | 0.30 | 190.70 | 84.51 |
| 43 | -213 | 255 | 224 | -256 | 59 | -86 | 93 | -80 | -0.10 | 0.20 | 0.20 | 111.90 | 73.77 |
| 44 | -134 | 174 | 129 | -175 | 11 | -35 | 49 | -34 | -0.20 | 0.10 | 0.20 | 163.20 | 69.25 |
| 45 | -119 | 164 | 142 | -159 | 35 | -55 | 66 | -51 | -0.20 | 0.40 | 0.50 | 118.80 | 59.67 |
| 46 | -89 | 126 | 95 | -136 | 50 | -74 | 81 | -66 | 0.20 | 0.40 | 0.40 | 61.56 | 39.91 |
| 47 | -94 | 136 | 106 | -135 | 204 | -230 | 234 | -220 | 0.30 | 0.20 | 0.40 | 35.17 | 27.93 |
| 48 | -26 | 70 | 33 | -65 | 199 | -228 | 230 | -211 | 0.30 | 0.30 | 0.40 | 41.68 | 22.30 |
| 49 | 99 | -94 | -104 | 82 | 197 | -227 | 210 | -205 | 0.10 | -0.10 | 0.20 | 316.10 | 316.10 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

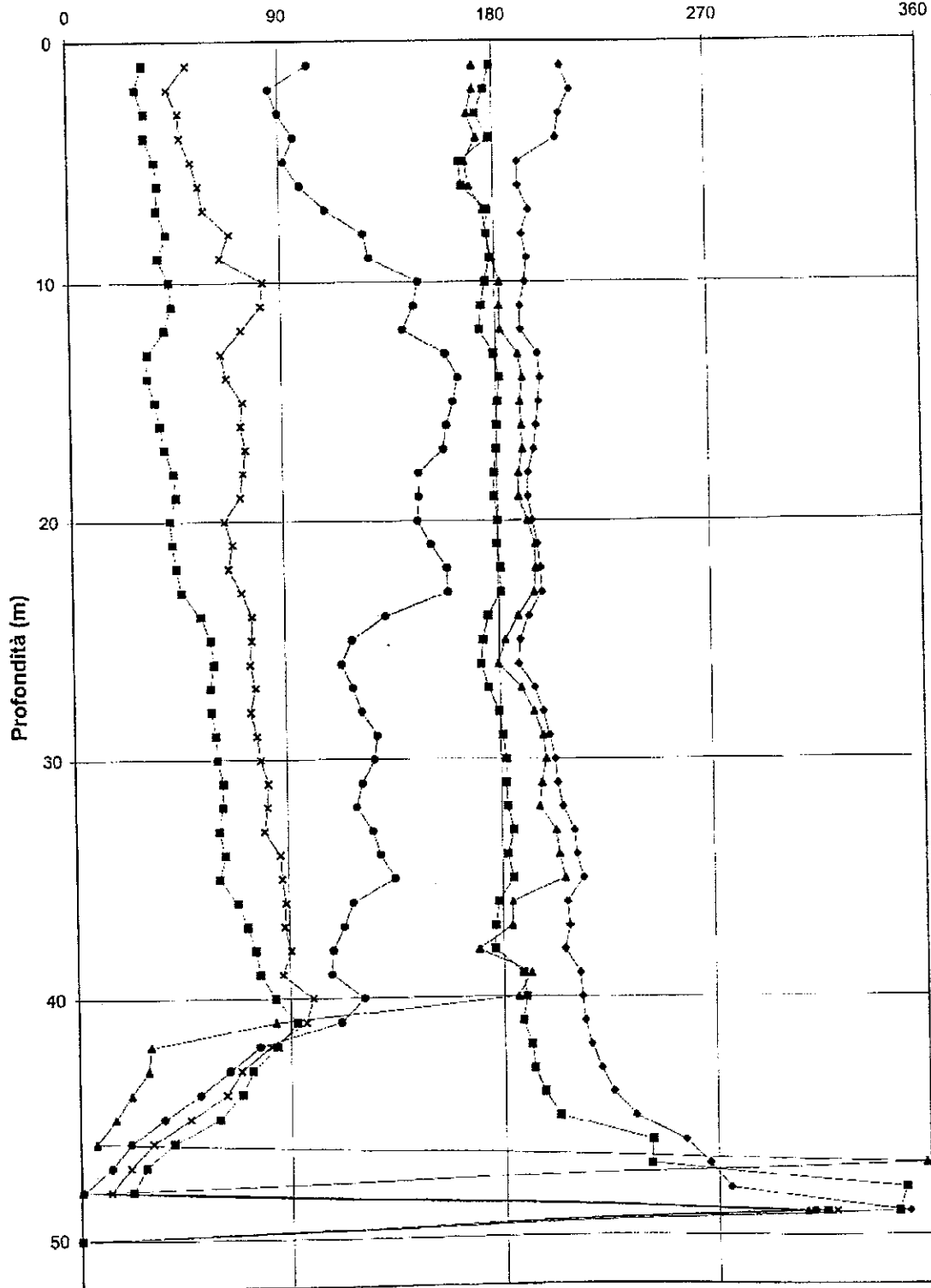
RISULTANTE (Movimento per punti rispetto all'origine)
Risultante (mm)



- | | | | | | |
|--------------|--------------|--------------|--------------|--------------|--------------|
| ■ Lettura 1 | ● Lettura 2 | ▲ Lettura 3 | ◆ Lettura 4 | × Lettura 5 | ■ Lettura 6 |
| ◆ Lettura 7 | ▲ Lettura 8 | ● Lettura 9 | × Lettura 10 | ■ Lettura 11 | × Lettura 12 |
| ▲ Lettura 13 | ▲ Lettura 14 | ▲ Lettura 15 | ■ Lettura 16 | ◆ Lettura 17 | |

Azimut (Sommatoria rispetto all'origine)

Azimut (°)

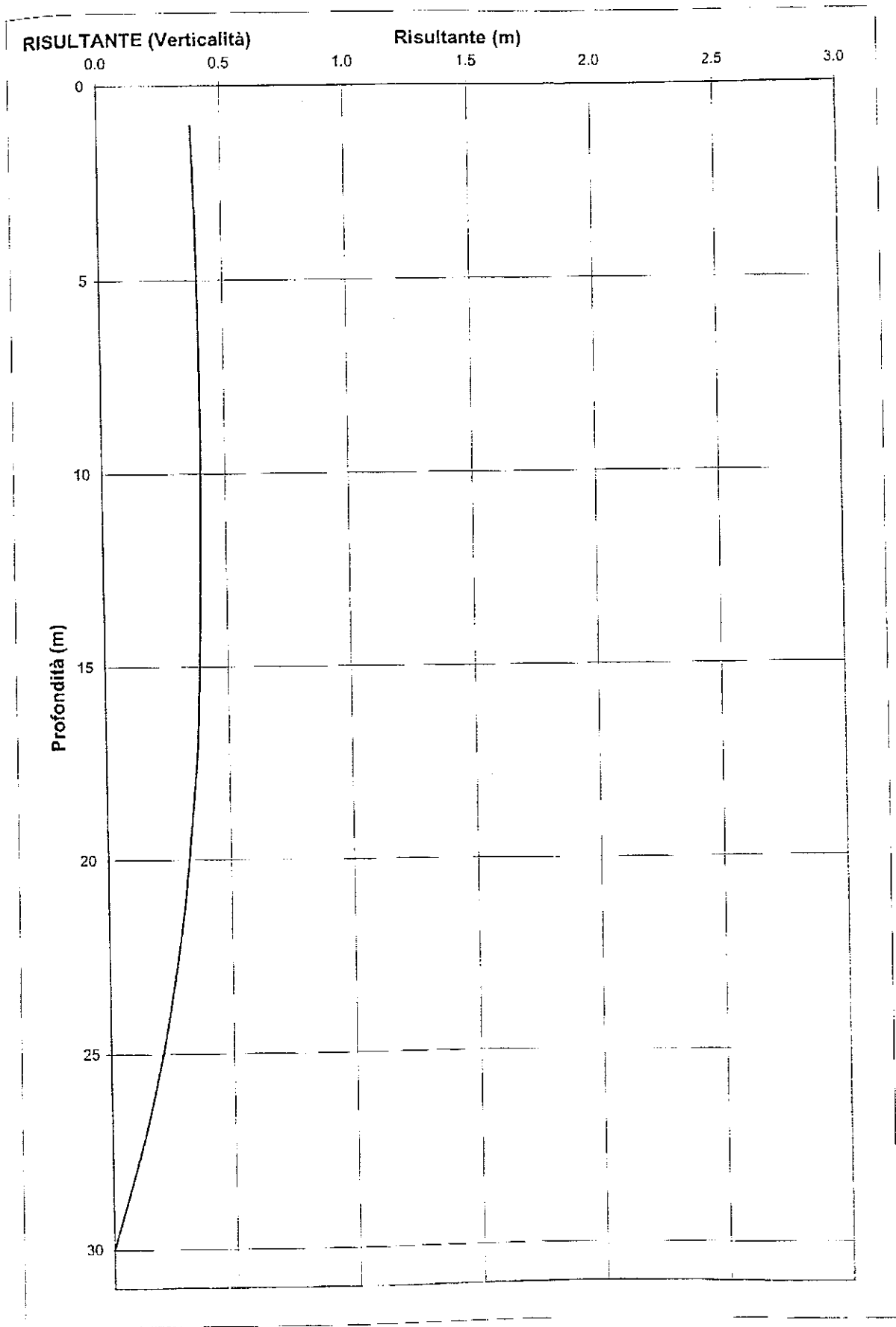


- | | | | | | |
|----------------|----------------|----------------|----------------|----------------|----------------|
| —■— Lettura 1 | —●— Lettura 2 | —▲— Lettura 3 | —◆— Lettura 4 | —×— Lettura 5 | —□— Lettura 6 |
| —○— Lettura 7 | —△— Lettura 8 | —◇— Lettura 9 | —×— Lettura 10 | —□— Lettura 11 | —△— Lettura 12 |
| —○— Lettura 13 | —◇— Lettura 14 | —×— Lettura 15 | —□— Lettura 16 | —○— Lettura 17 | |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 0 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 02/03/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Verticalità | | | Azimut (°) |
|----------------|---------------|------|------|------|-------|------|-------|------|-------------|-------|----------------|------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (m) | Y (m) | Risultante (m) | |
| 1 | -33 | 33 | 23 | -48 | 125 | -146 | 138 | -146 | 0.34 | -0.17 | 0.38 | 334.17 |
| 2 | -21 | 20 | 11 | -38 | 113 | -134 | 123 | -130 | 0.35 | -0.17 | 0.38 | 334.35 |
| 3 | 0 | 9 | 6 | -23 | 75 | -109 | 84 | -104 | 0.35 | -0.17 | 0.39 | 334.55 |
| 4 | 43 | -39 | -46 | 19 | 69 | -88 | 69 | -83 | 0.36 | -0.17 | 0.39 | 334.73 |
| 5 | 33 | -31 | -35 | 4 | 64 | -85 | 60 | -70 | 0.36 | -0.17 | 0.40 | 335.11 |
| 6 | -35 | 26 | 26 | -58 | 24 | -55 | 31 | -43 | 0.36 | -0.17 | 0.40 | 335.42 |
| 7 | -8 | 14 | -5 | -44 | 0 | -33 | 4 | -24 | 0.36 | -0.17 | 0.40 | 335.32 |
| 8 | -21 | 25 | 4 | -63 | -24 | 9 | -28 | -4 | 0.36 | -0.17 | 0.40 | 335.28 |
| 9 | -69 | 89 | 65 | -129 | -83 | 51 | -98 | 66 | 0.36 | -0.17 | 0.40 | 335.09 |
| 10 | -76 | 76 | 53 | -131 | -123 | 99 | -129 | 94 | 0.36 | -0.17 | 0.40 | 334.46 |
| 11 | -89 | 83 | 60 | -155 | -146 | 106 | -140 | 89 | 0.36 | -0.18 | 0.40 | 333.74 |
| 12 | -9 | 19 | -15 | -98 | -129 | 106 | -134 | 76 | 0.35 | -0.18 | 0.39 | 332.93 |
| 13 | 44 | -33 | -55 | -53 | -63 | 54 | -79 | 34 | 0.35 | -0.18 | 0.39 | 332.48 |
| 14 | 39 | -30 | -44 | -45 | -113 | 100 | -114 | 78 | 0.34 | -0.18 | 0.39 | 332.43 |
| 15 | 30 | -20 | -46 | -56 | -190 | 177 | -198 | 158 | 0.34 | -0.18 | 0.38 | 332.24 |
| 16 | 30 | -18 | -36 | -50 | -196 | 186 | -206 | 161 | 0.33 | -0.18 | 0.38 | 331.78 |
| 17 | 5 | 5 | -25 | -78 | -394 | 379 | -400 | 336 | 0.33 | -0.18 | 0.37 | 331.28 |
| 18 | 142 | -142 | -165 | 60 | -384 | 363 | -388 | 320 | 0.31 | -0.18 | 0.36 | 330.05 |
| 19 | 230 | -222 | -251 | 141 | -326 | 310 | -340 | 267 | 0.30 | -0.17 | 0.34 | 329.57 |
| 20 | 258 | -249 | -285 | 166 | -361 | 336 | -372 | 292 | 0.28 | -0.17 | 0.33 | 329.74 |
| 21 | 256 | -250 | -285 | 174 | -488 | 470 | -496 | 422 | 0.27 | -0.16 | 0.31 | 330.00 |
| 22 | 303 | -296 | -334 | 219 | -585 | 566 | -599 | 535 | 0.25 | -0.15 | 0.29 | 329.80 |
| 23 | 274 | -270 | -303 | 191 | -606 | 595 | -628 | 560 | 0.23 | -0.13 | 0.26 | 329.47 |
| 24 | 383 | -375 | -403 | 301 | -636 | 630 | -664 | 603 | 0.20 | -0.12 | 0.24 | 328.70 |
| 25 | 485 | -480 | -506 | 414 | -732 | 721 | -753 | 710 | 0.18 | -0.11 | 0.21 | 328.52 |
| 26 | 545 | -543 | -568 | 489 | -765 | 751 | -788 | 747 | 0.15 | -0.09 | 0.17 | 328.79 |
| 27 | 584 | -582 | -607 | 538 | -927 | 906 | -940 | 902 | 0.12 | -0.07 | 0.14 | 329.85 |
| 28 | 591 | -585 | -606 | 543 | -1031 | 1016 | -1048 | 1014 | 0.08 | -0.05 | 0.09 | 330.78 |
| 29 | 574 | -574 | -596 | 535 | -1034 | 1018 | -1049 | 1020 | 0.04 | -0.02 | 0.05 | 331.06 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 |



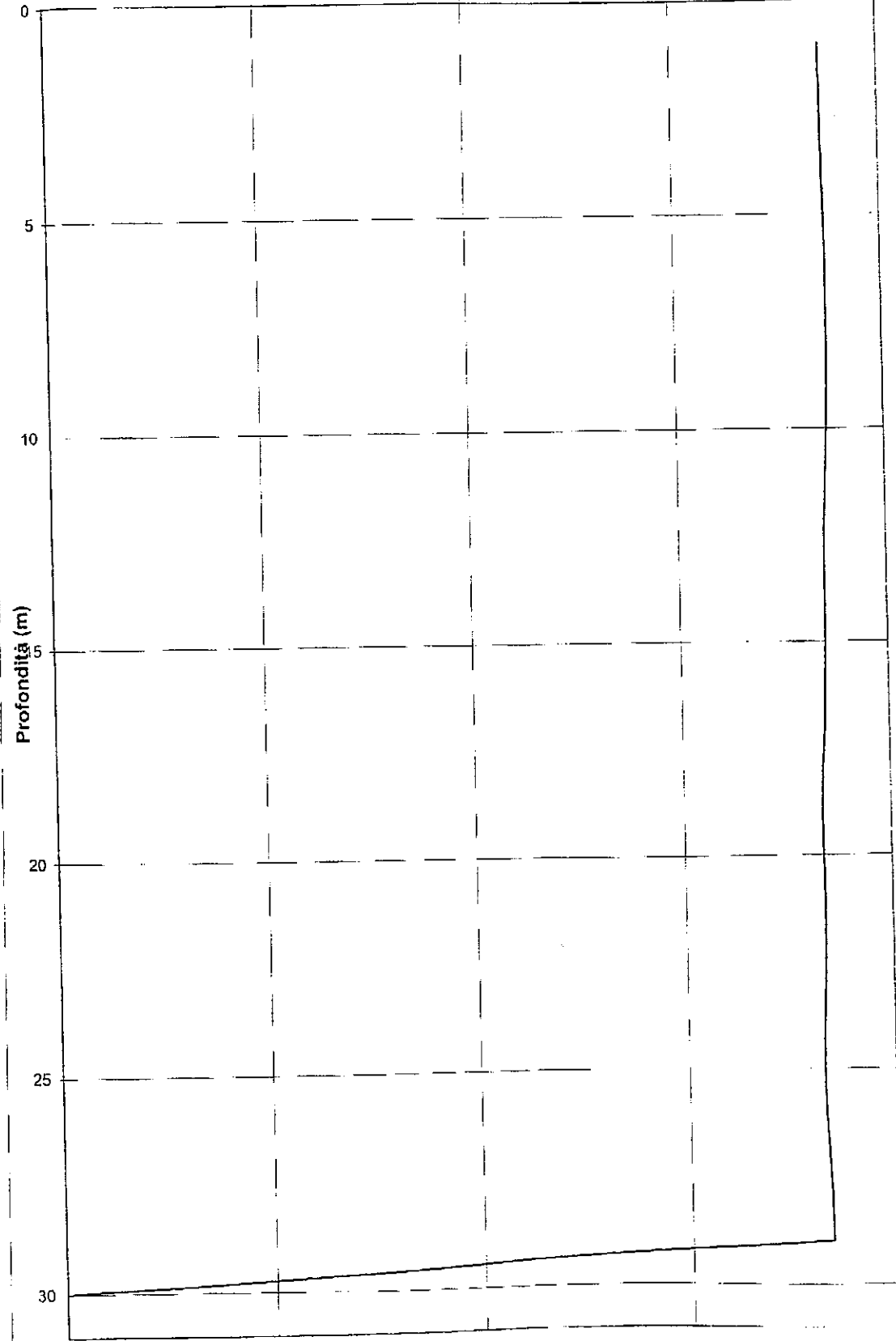
AZIMUT (Verticalità)

90

Azimuth (°)

270

360



LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 1 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 17/03/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -28 | 14 | 20 | -46 | 116 | -144 | 145 | -139 | 0.10 | -0.30 | 0.30 | 290.70 | 325.90 |
| 2 | -19 | -6 | 16 | -39 | 105 | -115 | 131 | -127 | 0.20 | -0.20 | 0.30 | 315.00 | 326.80 |
| 3 | 1 | -51 | -14 | -23 | 60 | -104 | 109 | -104 | 0.00 | -0.80 | 0.80 | 266.40 | 327.10 |
| 4 | 36 | -33 | -48 | 15 | 53 | -89 | 78 | -78 | 0.10 | 0.10 | 0.20 | 53.75 | 330.90 |
| 5 | 21 | 29 | -38 | 0 | 36 | -58 | 65 | -68 | 0.50 | 0.70 | 0.90 | 54.54 | 329.90 |
| 6 | -40 | 0 | 24 | -60 | 5 | -39 | 38 | -41 | 0.30 | -0.20 | 0.40 | 325.00 | 325.10 |
| 7 | -15 | 14 | -5 | -34 | -26 | -14 | 11 | -15 | 0.50 | 0.00 | 0.50 | 356.30 | 325.10 |
| 8 | -28 | 59 | 6 | -43 | -48 | 51 | -16 | 9 | 0.70 | 0.20 | 0.70 | 18.95 | 323.70 |
| 9 | -79 | 68 | 49 | -96 | -101 | 83 | -63 | 69 | 0.20 | -0.60 | 0.60 | 286.70 | 320.10 |
| 10 | -81 | 68 | 56 | -102 | -142 | 91 | -111 | 100 | 0.00 | -0.30 | 0.30 | 268.00 | 322.30 |
| 11 | -88 | 0 | 68 | -109 | -154 | 84 | -121 | 110 | -0.10 | -1.20 | 1.20 | 264.30 | 323.90 |
| 12 | -18 | -43 | -3 | -40 | -144 | 40 | -113 | 105 | -0.40 | -1.00 | 1.10 | 246.50 | 331.30 |
| 13 | 31 | -35 | -45 | 10 | -94 | 40 | -66 | 59 | 0.30 | -0.40 | 0.50 | 304.60 | 338.80 |
| 14 | 25 | -28 | -50 | 3 | -144 | 90 | -120 | 101 | 0.50 | -0.40 | 0.60 | 322.70 | 340.90 |
| 15 | 20 | -21 | -41 | -13 | -222 | 165 | -200 | 186 | 0.50 | -0.30 | 0.60 | 329.80 | 342.50 |
| 16 | 18 | -14 | -30 | -9 | -229 | 170 | -201 | 191 | 0.40 | -0.20 | 0.50 | 335.60 | 343.60 |
| 17 | -10 | 6 | -15 | -30 | -422 | 364 | -394 | 381 | 0.50 | -0.20 | 0.60 | 337.00 | 344.20 |
| 18 | 133 | -135 | -156 | 111 | -409 | 355 | -386 | 374 | 0.70 | -0.30 | 0.70 | 339.30 | 344.90 |
| 19 | 214 | -216 | -236 | 194 | -368 | 309 | -338 | 320 | 0.80 | -0.20 | 0.80 | 347.60 | 345.70 |
| 20 | 249 | -250 | -269 | 224 | -379 | 330 | -363 | 346 | 0.60 | -0.30 | 0.70 | 329.10 | 345.30 |
| 21 | 250 | -254 | -272 | 222 | -505 | 450 | -486 | 470 | 0.30 | -0.30 | 0.50 | 316.60 | 348.50 |
| 22 | 291 | -291 | -309 | 265 | -604 | 554 | -591 | 570 | 0.30 | 0.00 | 0.30 | 353.30 | 353.30 |
| 23 | 261 | -264 | -276 | 239 | -631 | 584 | -615 | 603 | 0.40 | 0.00 | 0.40 | 357.40 | 353.30 |
| 24 | 372 | -372 | -384 | 347 | -665 | 621 | -656 | 641 | 0.50 | -0.10 | 0.50 | 345.40 | 352.50 |
| 25 | 475 | -475 | -496 | 455 | -759 | 718 | -750 | 735 | 0.50 | -0.20 | 0.50 | 340.80 | 354.60 |
| 26 | 532 | -536 | -557 | 509 | -789 | 747 | -785 | 763 | 0.30 | 0.10 | 0.30 | 18.49 | 0.05 |
| 27 | 575 | -581 | -603 | 559 | -948 | 894 | -939 | 916 | 0.20 | -0.10 | 0.20 | 342.30 | 353.20 |
| 28 | 580 | -582 | -609 | 561 | -1049 | 1005 | -1053 | 1035 | 0.30 | -0.10 | 0.30 | 348.00 | 356.70 |
| 29 | 564 | -565 | -596 | 551 | -1055 | 1011 | -1053 | 1039 | 0.40 | 0.00 | 0.40 | 4.70 | 4.70 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 2 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 02/04/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -26 | 12 | 19 | -44 | 111 | -140 | 150 | -136 | 0.20 | -0.40 | 0.40 | 296.50 | 7.68 |
| 2 | -68 | 0 | -29 | -21 | 46 | -145 | 111 | -66 | 1.30 | -0.30 | 1.40 | 347.20 | 8.76 |
| 3 | -36 | -36 | -61 | -18 | 8 | -110 | 73 | -81 | 1.00 | -0.80 | 1.30 | 320.90 | 10.26 |
| 4 | -41 | -44 | -65 | -44 | 18 | -130 | 89 | -34 | 0.40 | 1.20 | 1.30 | 72.83 | 13.33 |
| 5 | -70 | -18 | -45 | -50 | -40 | -79 | 40 | -8 | 1.90 | 1.60 | 2.50 | 39.81 | 9.71 |
| 6 | -79 | -11 | -38 | -70 | -69 | -60 | 19 | 11 | 1.50 | -0.40 | 1.60 | 343.70 | 5.06 |
| 7 | -91 | 9 | -16 | -86 | -81 | -45 | 0 | 23 | 1.20 | 1.10 | 1.60 | 42.25 | 7.45 |
| 8 | -105 | 21 | 1 | -140 | -91 | -40 | -15 | 127 | 1.40 | 1.50 | 2.10 | 48.55 | 3.26 |
| 9 | -159 | 74 | 53 | -120 | -195 | 61 | -120 | 106 | 1.80 | 0.50 | 1.90 | 16.36 | 355.80 |
| 10 | -133 | 50 | 34 | -165 | -175 | 39 | -99 | 125 | -0.10 | 0.50 | 0.50 | 98.65 | 351.80 |
| 11 | -169 | 94 | 79 | -36 | -189 | 59 | -120 | 78 | -0.30 | -0.10 | 0.40 | 194.40 | 349.10 |
| 12 | -22 | -52 | 2 | -36 | -146 | 38 | -111 | 106 | -0.40 | -1.00 | 1.10 | 246.80 | 350.00 |
| 13 | 0 | -54 | -59 | -39 | -110 | 8 | -74 | 145 | 1.10 | 0.10 | 1.10 | 2.68 | 356.10 |
| 14 | -18 | -41 | -48 | -34 | -175 | 74 | -139 | 199 | 1.80 | 0.30 | 1.80 | 9.67 | 355.30 |
| 15 | -10 | -46 | -53 | -48 | -230 | 130 | -194 | 278 | 1.10 | 0.00 | 1.10 | 359.40 | 351.80 |
| 16 | 16 | -13 | -30 | -8 | -229 | 168 | -200 | 193 | 0.40 | -0.20 | 0.40 | 337.40 | 350.50 |
| 17 | -12 | 8 | -14 | -30 | -428 | 362 | -392 | 384 | 0.60 | -0.20 | 0.60 | 343.30 | 351.50 |
| 18 | 130 | -132 | -154 | 113 | -412 | 351 | -384 | 380 | 0.70 | -0.20 | 0.70 | 344.40 | 352.40 |
| 19 | 198 | -272 | -284 | 196 | -364 | 260 | -324 | 322 | 0.30 | -1.10 | 1.10 | 284.20 | 353.70 |
| 20 | 195 | -266 | -279 | 191 | -413 | 314 | -372 | 369 | 1.10 | 0.30 | 1.10 | 14.17 | 7.21 |
| 21 | 247 | -256 | -271 | 223 | -506 | 448 | -484 | 472 | 0.30 | -0.30 | 0.50 | 316.70 | 4.89 |
| 22 | 222 | -289 | -299 | 211 | -622 | 525 | -595 | 591 | 0.50 | 1.30 | 1.40 | 69.89 | 11.52 |
| 23 | 225 | -297 | -310 | 231 | -675 | 572 | -647 | 635 | 1.40 | -0.20 | 1.40 | 349.80 | 343.90 |
| 24 | 370 | -371 | -382 | 350 | -668 | 620 | -653 | 642 | 0.50 | -0.10 | 0.50 | 347.60 | 336.70 |
| 25 | 438 | -530 | -534 | 449 | -775 | 672 | -754 | 736 | 0.20 | -0.70 | 0.70 | 287.60 | 328.40 |
| 26 | 530 | -533 | -550 | 511 | -792 | 746 | -781 | 766 | 0.30 | 0.20 | 0.40 | 31.75 | 40.77 |
| 27 | 571 | -583 | -602 | 560 | -950 | 894 | -936 | 918 | 0.20 | 0.00 | 0.20 | 347.70 | 78.65 |
| 28 | 541 | -613 | -634 | 531 | -1064 | 970 | -1056 | 1013 | -0.10 | 0.10 | 0.10 | 134.90 | 144.40 |
| 29 | 528 | -599 | -618 | 525 | -1063 | 969 | -1056 | 1018 | -0.10 | 0.10 | 0.20 | 149.00 | 149.00 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 3 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 18/04/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -25 | 10 | 16 | -44 | 108 | -138 | 152 | -134 | 0.20 | -0.40 | 0.50 | 298.70 | 346.00 |
| 2 | -48 | 8 | -5 | -28 | 77 | -133 | 135 | -98 | 0.60 | -0.10 | 0.60 | 349.00 | 347.40 |
| 3 | -23 | -31 | -33 | -16 | 39 | -97 | 96 | -86 | 0.50 | -0.60 | 0.80 | 310.60 | 347.40 |
| 4 | -6 | -37 | -55 | -9 | 26 | -114 | 85 | -42 | 0.40 | 0.70 | 0.80 | 59.04 | 349.50 |
| 5 | -18 | -9 | -46 | -10 | 2 | -64 | 68 | -37 | 1.10 | 0.80 | 1.30 | 35.13 | 346.10 |
| 6 | -37 | -1 | -31 | -33 | -38 | -43 | 34 | -4 | 1.10 | -1.10 | 1.50 | 315.70 | 341.40 |
| 7 | -48 | 18 | -17 | -44 | -58 | -25 | 13 | 18 | 1.00 | 0.30 | 1.00 | 17.91 | 345.00 |
| 8 | -66 | 32 | 4 | -83 | -73 | -17 | -9 | 78 | 0.90 | 0.70 | 1.10 | 39.94 | 341.70 |
| 9 | -101 | 87 | 38 | -80 | -130 | 85 | -110 | 72 | 1.00 | -0.50 | 1.10 | 335.00 | 335.80 |
| 10 | -116 | 62 | 55 | -130 | -172 | 62 | -106 | 133 | 0.30 | 0.30 | 0.40 | 43.96 | 335.90 |
| 11 | -122 | 107 | 66 | -55 | -168 | 84 | -105 | 99 | -0.20 | -0.40 | 0.40 | 235.90 | 333.40 |
| 12 | -29 | -63 | 6 | -33 | -152 | 36 | -106 | 108 | -0.40 | -1.10 | 1.10 | 247.90 | 336.50 |
| 13 | 7 | -39 | -45 | -11 | -113 | 33 | -68 | 118 | 1.00 | 0.00 | 1.00 | 359.40 | 344.50 |
| 14 | 1 | -27 | -44 | -5 | -147 | 97 | -102 | 146 | 0.90 | 0.00 | 0.90 | 0.66 | 342.40 |
| 15 | -2 | -32 | -40 | -19 | -208 | 153 | -161 | 218 | 0.20 | -0.10 | 0.20 | 327.00 | 339.90 |
| 16 | 14 | -14 | -28 | -9 | -231 | 166 | -198 | 196 | 0.40 | -0.10 | 0.40 | 342.80 | 340.40 |
| 17 | -15 | 11 | -12 | -30 | -425 | 360 | -390 | 386 | 0.50 | -0.10 | 0.50 | 350.10 | 340.20 |
| 18 | 127 | -130 | -151 | 115 | -416 | 348 | -385 | 382 | 0.80 | -0.10 | 0.80 | 349.50 | 339.20 |
| 19 | 204 | -262 | -249 | 197 | -352 | 278 | -319 | 333 | 0.40 | -0.70 | 0.80 | 299.80 | 337.40 |
| 20 | 226 | -256 | -271 | 217 | -379 | 330 | -343 | 357 | 0.50 | -0.10 | 0.50 | 345.90 | 344.40 |
| 21 | 245 | -258 | -269 | 228 | -508 | 446 | -481 | 475 | 0.30 | -0.30 | 0.50 | 314.10 | 344.20 |
| 22 | 264 | -276 | -308 | 257 | -604 | 544 | -575 | 589 | 0.30 | 0.50 | 0.50 | 60.14 | 348.90 |
| 23 | 240 | -286 | -291 | 244 | -647 | 594 | -614 | 625 | 0.90 | -0.20 | 0.90 | 345.80 | 338.60 |
| 24 | 368 | -369 | -380 | 350 | -670 | 618 | -651 | 645 | 0.50 | 0.00 | 0.50 | 354.40 | 335.20 |
| 25 | 454 | -513 | -510 | 460 | -767 | 693 | -741 | 747 | 0.30 | -0.50 | 0.60 | 301.50 | 328.70 |
| 26 | 528 | -530 | -547 | 514 | -796 | 746 | -768 | 769 | 0.30 | 0.30 | 0.40 | 42.93 | 345.20 |
| 27 | 568 | -586 | -600 | 563 | -954 | 892 | -935 | 921 | 0.30 | -0.10 | 0.30 | 347.50 | 322.70 |
| 28 | 567 | -600 | -618 | 558 | -1067 | 988 | -1045 | 1040 | 0.30 | -0.20 | 0.40 | 329.80 | 311.60 |
| 29 | 554 | -593 | -607 | 552 | -1058 | 986 | -1045 | 1041 | 0.10 | -0.30 | 0.30 | 288.40 | 288.40 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 4 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 02/05/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -22 | 7 | 12 | -43 | 105 | -136 | 156 | -133 | 0.20 | -0.50 | 0.60 | 295.20 | 330.10 |
| 2 | -38 | 12 | 6 | -31 | 92 | -127 | 147 | -114 | 0.20 | 0.00 | 0.20 | 351.40 | 331.60 |
| 3 | -16 | -28 | -19 | -15 | 54 | -90 | 108 | -88 | 0.30 | -0.50 | 0.60 | 300.60 | 331.30 |
| 4 | 11 | -33 | -50 | 7 | 30 | -106 | 83 | -46 | 0.40 | 0.50 | 0.60 | 46.27 | 332.80 |
| 5 | 7 | -4 | -47 | 10 | 23 | -57 | 82 | -51 | 0.70 | 0.30 | 0.70 | 27.94 | 329.80 |
| 6 | -16 | 4 | -28 | -15 | -23 | -34 | 42 | -11 | 0.90 | -1.40 | 1.60 | 302.80 | 326.70 |
| 7 | -26 | 23 | -18 | -23 | -47 | -15 | 19 | 16 | 0.90 | -0.10 | 0.90 | 355.50 | 330.50 |
| 8 | -47 | 38 | 6 | -54 | -64 | -5 | -6 | 53 | 0.60 | 0.30 | 0.70 | 27.68 | 328.10 |
| 9 | -72 | 93 | 30 | -60 | -98 | 97 | -105 | 55 | 0.60 | -1.00 | 1.10 | 300.40 | 324.20 |
| 10 | -107 | 68 | 65 | -113 | -170 | 74 | -109 | 137 | 0.40 | 0.20 | 0.50 | 20.70 | 327.60 |
| 11 | -99 | 113 | 60 | -64 | -158 | 97 | -98 | 110 | -0.20 | -0.50 | 0.50 | 250.50 | 324.70 |
| 12 | -33 | -71 | 10 | -31 | -154 | 36 | -102 | 110 | -0.40 | -1.10 | 1.20 | 248.20 | 328.70 |
| 13 | 10 | -31 | -38 | 2 | -114 | 46 | -65 | 104 | 1.00 | 0.00 | 1.00 | 358.80 | 337.70 |
| 14 | 11 | -20 | -42 | 8 | -133 | 109 | -83 | 120 | 0.40 | -0.10 | 0.40 | 342.00 | 334.50 |
| 15 | 2 | -25 | -34 | -5 | -197 | 164 | -145 | 188 | -0.30 | -0.20 | 0.30 | 208.80 | 334.00 |
| 16 | 12 | -12 | -26 | -7 | -233 | 164 | -198 | 199 | 0.40 | -0.10 | 0.50 | 348.60 | 336.50 |
| 17 | -18 | 15 | -10 | -28 | -430 | 360 | -386 | 389 | 0.60 | 0.00 | 0.60 | 357.90 | 335.50 |
| 18 | 126 | -127 | -148 | 118 | -418 | 345 | -382 | 382 | 0.70 | -0.10 | 0.70 | 352.10 | 333.20 |
| 19 | 207 | -257 | -231 | 197 | -346 | 287 | -316 | 339 | 0.40 | -0.50 | 0.70 | 313.10 | 330.20 |
| 20 | 242 | -251 | -267 | 230 | -362 | 338 | -329 | 351 | 0.20 | -0.30 | 0.40 | 300.70 | 333.10 |
| 21 | 246 | -261 | -268 | 232 | -510 | 443 | -478 | 476 | 0.30 | -0.40 | 0.50 | 306.40 | 336.20 |
| 22 | 285 | -270 | -312 | 280 | -595 | 553 | -565 | 588 | 0.20 | 0.10 | 0.20 | 17.38 | 341.00 |
| 23 | 248 | -280 | -281 | 251 | -633 | 605 | -598 | 620 | 0.70 | -0.20 | 0.70 | 341.80 | 339.10 |
| 24 | 365 | -367 | -378 | 356 | -672 | 616 | -648 | 648 | 0.50 | 0.00 | 0.50 | 355.50 | 338.30 |
| 25 | 462 | -504 | -498 | 466 | -763 | 703 | -735 | 753 | 0.40 | -0.40 | 0.60 | 310.10 | 333.50 |
| 26 | 523 | -528 | -541 | 516 | -800 | 746 | -766 | 771 | 0.30 | 0.40 | 0.50 | 49.19 | 343.70 |
| 27 | 563 | -585 | -598 | 564 | -958 | 889 | -931 | 921 | 0.20 | 0.00 | 0.20 | 2.44 | 322.00 |
| 28 | 580 | -594 | -610 | 572 | -1069 | 997 | -1040 | 1053 | 0.50 | -0.30 | 0.60 | 328.20 | 313.40 |
| 29 | 567 | -590 | -601 | 565 | -1056 | 995 | -1039 | 1052 | 0.20 | -0.40 | 0.50 | 295.40 | 295.40 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 5 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 31/05/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -22 | 6 | 12 | -42 | 104 | -135 | 158 | -130 | 0.30 | -0.50 | 0.60 | 296.90 | 322.00 |
| 2 | -33 | 14 | 12 | -33 | 100 | -124 | 153 | -122 | 0.00 | 0.00 | 0.00 | 63.43 | 323.20 |
| 3 | -13 | -27 | -12 | -15 | 62 | -87 | 114 | -89 | 0.20 | -0.50 | 0.50 | 292.20 | 323.10 |
| 4 | 20 | -31 | -48 | 16 | 32 | -102 | 82 | -48 | 0.40 | 0.30 | 0.60 | 35.42 | 324.40 |
| 5 | 20 | -2 | -47 | 20 | 33 | -53 | 89 | -58 | 0.50 | 0.10 | 0.50 | 16.93 | 321.80 |
| 6 | -6 | 6 | -26 | -6 | -15 | -30 | 46 | -15 | 0.80 | -1.50 | 1.70 | 296.70 | 319.90 |
| 7 | -15 | 25 | -18 | -13 | -41 | -10 | 22 | 15 | 0.80 | -0.30 | 0.90 | 342.90 | 323.80 |
| 8 | -37 | 41 | 7 | -40 | -59 | 0 | -5 | 41 | 0.50 | 0.10 | 0.50 | 14.04 | 321.90 |
| 9 | -58 | 96 | 26 | -50 | -82 | 103 | -103 | 47 | 0.40 | -1.20 | 1.30 | 286.80 | 319.40 |
| 10 | -103 | 71 | 70 | -104 | -169 | 80 | -111 | 139 | 0.50 | 0.10 | 0.60 | 12.53 | 324.50 |
| 11 | -87 | 116 | 57 | -69 | -153 | 103 | -94 | 115 | -0.20 | -0.60 | 0.60 | 254.50 | 321.30 |
| 12 | -36 | -80 | 15 | -28 | -158 | 35 | -102 | 112 | -0.40 | -1.10 | 1.20 | 251.20 | 325.70 |
| 13 | 12 | -27 | -34 | 9 | -115 | 52 | -64 | 97 | 1.00 | 0.00 | 1.00 | 358.20 | 335.10 |
| 14 | 16 | -16 | -41 | 15 | -126 | 115 | -74 | 107 | 0.20 | -0.20 | 0.30 | 310.30 | 331.50 |
| 15 | 4 | -22 | -31 | 1 | -191 | 170 | -137 | 173 | -0.50 | -0.20 | 0.60 | 199.00 | 332.40 |
| 16 | 11 | -10 | -24 | -5 | -235 | 161 | -197 | 201 | 0.40 | -0.10 | 0.50 | 352.40 | 336.10 |
| 17 | -22 | 18 | -8 | -26 | -434 | 358 | -382 | 391 | 0.60 | 0.00 | 0.60 | 5.10 | 334.90 |
| 18 | 125 | -125 | -145 | 121 | -422 | 341 | -384 | 384 | 0.80 | -0.10 | 0.80 | 354.70 | 331.80 |
| 19 | 208 | -255 | -222 | 197 | -343 | 292 | -315 | 342 | 0.50 | -0.40 | 0.60 | 322.20 | 328.10 |
| 20 | 250 | -248 | -265 | 237 | -353 | 342 | -322 | 348 | 0.00 | -0.40 | 0.40 | 275.40 | 329.00 |
| 21 | 243 | -260 | -266 | 235 | -512 | 440 | -475 | 479 | 0.30 | -0.40 | 0.50 | 307.50 | 334.20 |
| 22 | 295 | -267 | -314 | 292 | -590 | 558 | -560 | 588 | 0.10 | -0.20 | 0.20 | 304.50 | 338.00 |
| 23 | 252 | -277 | -276 | 254 | -626 | 610 | -590 | 617 | 0.50 | -0.20 | 0.60 | 338.70 | 340.00 |
| 24 | 365 | -366 | -376 | 355 | -674 | 614 | -645 | 651 | 0.50 | 0.00 | 0.50 | 0.02 | 340.30 |
| 25 | 466 | -500 | -492 | 469 | -761 | 708 | -732 | 756 | 0.40 | -0.40 | 0.60 | 314.30 | 335.60 |
| 26 | 520 | -523 | -536 | 519 | -801 | 748 | -765 | 777 | 0.40 | 0.50 | 0.60 | 49.64 | 343.40 |
| 27 | 563 | -586 | -596 | 566 | -960 | 886 | -930 | 924 | 0.20 | 0.00 | 0.20 | 0.05 | 320.30 |
| 28 | 587 | -591 | -606 | 579 | -1070 | 1001 | -1037 | 1060 | 0.60 | -0.40 | 0.70 | 327.20 | 313.00 |
| 29 | 574 | -589 | -598 | 572 | -1055 | 999 | -1036 | 1058 | 0.30 | -0.50 | 0.60 | 296.50 | 296.50 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 6 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 30/06/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|-------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azirnut (°) | Risultante (°) |
| 1 | -21 | 3 | 10 | -40 | 102 | -133 | 159 | -128 | 0.30 | -0.60 | 0.70 | 297.60 | 317.50 |
| 2 | -31 | 15 | 15 | -34 | 104 | -122 | 156 | -126 | -0.10 | 0.00 | 0.10 | 148.00 | 318.70 |
| 3 | -11 | -26 | -9 | -15 | 66 | -85 | 117 | -90 | 0.10 | -0.50 | 0.50 | 286.50 | 318.80 |
| 4 | 24 | -30 | -47 | 20 | 33 | -100 | 81 | -49 | 0.50 | 0.30 | 0.50 | 29.48 | 320.00 |
| 5 | 26 | -1 | -47 | 25 | 38 | -51 | 92 | -62 | 0.40 | 0.00 | 0.40 | 6.34 | 317.60 |
| 6 | -1 | 7 | -25 | -1 | -11 | -28 | 48 | -17 | 0.70 | -1.60 | 1.80 | 293.80 | 316.20 |
| 7 | -10 | 26 | -18 | -8 | -38 | -8 | 24 | 14 | 0.80 | -0.30 | 0.90 | 336.60 | 320.20 |
| 8 | -32 | 42 | 7 | -33 | -57 | 3 | -4 | 35 | 0.40 | 0.00 | 0.40 | 1.36 | 318.60 |
| 9 | -51 | 98 | 24 | -45 | -74 | 106 | -102 | 43 | 0.30 | -1.30 | 1.40 | 281.30 | 316.70 |
| 10 | -101 | 73 | 73 | -100 | -169 | 83 | -112 | 140 | 0.60 | 0.10 | 0.60 | 10.56 | 322.70 |
| 11 | -81 | 118 | 55 | -71 | -150 | 106 | -92 | 118 | -0.10 | -0.60 | 0.60 | 256.40 | 319.10 |
| 12 | -39 | -86 | 21 | -26 | -161 | 34 | -100 | 114 | -0.40 | -1.10 | 1.20 | 252.00 | 323.80 |
| 13 | 13 | -25 | -32 | 12 | -115 | 55 | -63 | 94 | 1.00 | 0.00 | 1.00 | 358.20 | 333.40 |
| 14 | 18 | -14 | -41 | 19 | -122 | 118 | -69 | 100 | 0.00 | -0.20 | 0.20 | 279.40 | 329.40 |
| 15 | 5 | -20 | -29 | 5 | -188 | 173 | -133 | 166 | -0.60 | -0.20 | 0.70 | 196.70 | 331.30 |
| 16 | 11 | -9 | -23 | -4 | -238 | 158 | -196 | 203 | 0.50 | 0.00 | 0.50 | 353.80 | 335.70 |
| 17 | -23 | 22 | -7 | -22 | -438 | 356 | -380 | 394 | 0.60 | 0.10 | 0.60 | 6.77 | 334.20 |
| 18 | 123 | -121 | -142 | 124 | -424 | 338 | -380 | 389 | 0.80 | 0.00 | 0.80 | 359.20 | 330.70 |
| 19 | 209 | -254 | -218 | 197 | -341 | 294 | -314 | 343 | 0.50 | -0.30 | 0.60 | 325.20 | 326.10 |
| 20 | 254 | -247 | -264 | 240 | -349 | 344 | -318 | 346 | 0.00 | -0.50 | 0.50 | 265.10 | 326.20 |
| 21 | 242 | -261 | -267 | 236 | -514 | 438 | -471 | 481 | 0.30 | -0.40 | 0.50 | 304.30 | 332.60 |
| 22 | 300 | -265 | -315 | 298 | -588 | 560 | -558 | 588 | 0.10 | -0.30 | 0.30 | 289.00 | 336.70 |
| 23 | 254 | -276 | -274 | 256 | -622 | 613 | -586 | 616 | 0.50 | -0.20 | 0.50 | 335.30 | 340.40 |
| 24 | 363 | -365 | -371 | 358 | -675 | 611 | -642 | 655 | 0.50 | 0.10 | 0.50 | 5.74 | 341.40 |
| 25 | 468 | -498 | -489 | 470 | -760 | 711 | -730 | 757 | 0.40 | -0.40 | 0.60 | 316.30 | 335.90 |
| 26 | 518 | -520 | -533 | 522 | -800 | 748 | -761 | 776 | 0.30 | 0.50 | 0.60 | 56.86 | 342.80 |
| 27 | 564 | -588 | -593 | 568 | -963 | 884 | -928 | 928 | 0.30 | 0.00 | 0.30 | 355.90 | 320.40 |
| 28 | 590 | -589 | -604 | 582 | -1070 | 1003 | -1036 | 1063 | 0.60 | -0.40 | 0.70 | 327.50 | 313.40 |
| 29 | 577 | -588 | -597 | 575 | -1054 | 1001 | -1035 | 1061 | 0.30 | -0.60 | 0.70 | 297.30 | 297.30 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 7 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 26/07/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|-----|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -20 | 1 | 10 | -40 | 100 | -130 | 161 | -125 | 0.40 | -0.70 | 0.80 | 300.50 | 314.00 |
| 2 | -29 | 16 | 18 | -35 | 108 | -121 | 160 | -130 | -0.20 | 0.10 | 0.20 | 157.10 | 314.80 |
| 3 | -10 | -26 | -6 | -15 | 70 | -84 | 120 | -91 | 0.10 | -0.40 | 0.50 | 278.80 | 315.20 |
| 4 | 29 | -30 | -46 | 25 | 34 | -98 | 81 | -51 | 0.40 | 0.20 | 0.50 | 20.70 | 316.50 |
| 5 | 33 | 0 | -48 | 30 | 44 | -50 | 96 | -66 | 0.20 | -0.10 | 0.20 | 340.80 | 314.40 |
| 6 | 4 | 9 | -25 | 3 | -8 | -26 | 50 | -19 | 0.70 | -1.70 | 1.80 | 291.40 | 313.90 |
| 7 | -5 | 28 | -19 | -3 | -36 | -6 | 26 | 14 | 0.80 | -0.40 | 0.90 | 330.80 | 317.80 |
| 8 | -28 | 44 | 8 | -26 | -55 | 6 | -4 | 29 | 0.40 | -0.10 | 0.40 | 349.20 | 316.50 |
| 9 | -44 | 100 | 23 | -41 | -66 | 110 | -101 | 39 | 0.20 | -1.40 | 1.50 | 277.10 | 315.20 |
| 10 | -99 | 75 | 76 | -96 | -169 | 86 | -113 | 141 | 0.60 | 0.10 | 0.60 | 8.88 | 321.80 |
| 11 | -76 | 120 | 54 | -74 | -148 | 110 | -91 | 121 | -0.10 | -0.60 | 0.60 | 260.10 | 318.10 |
| 12 | -45 | -91 | 26 | -21 | -163 | 33 | -98 | 116 | -0.30 | -1.10 | 1.20 | 252.30 | 322.50 |
| 13 | 14 | -24 | -31 | 16 | -116 | 59 | -63 | 91 | 1.00 | -0.10 | 1.00 | 356.50 | 331.80 |
| 14 | 21 | -13 | -41 | 23 | -119 | 121 | -65 | 94 | -0.10 | -0.30 | 0.30 | 258.60 | 327.70 |
| 15 | 6 | -19 | -28 | 9 | -186 | 176 | -129 | 159 | -0.70 | -0.20 | 0.80 | 196.70 | 330.60 |
| 16 | 10 | -9 | -21 | -1 | -241 | 155 | -194 | 205 | 0.50 | 0.00 | 0.50 | 353.80 | 335.60 |
| 17 | -24 | 24 | -6 | -22 | -442 | 352 | -377 | 394 | 0.60 | 0.10 | 0.60 | 11.12 | 334.20 |
| 18 | 121 | -118 | -138 | 128 | -429 | 335 | -378 | 394 | 0.80 | 0.00 | 0.80 | 2.83 | 330.60 |
| 19 | 210 | -253 | -214 | 198 | -340 | 297 | -314 | 345 | 0.50 | -0.30 | 0.60 | 329.60 | 325.40 |
| 20 | 258 | -246 | -263 | 244 | -345 | 346 | -315 | 345 | -0.10 | -0.50 | 0.50 | 259.30 | 324.70 |
| 21 | 241 | -263 | -265 | 238 | -518 | 435 | -469 | 483 | 0.30 | -0.40 | 0.50 | 304.60 | 331.80 |
| 22 | 306 | -264 | -317 | 304 | -586 | 563 | -556 | 588 | 0.10 | -0.40 | 0.40 | 281.50 | 335.70 |
| 23 | 256 | -275 | -272 | 258 | -619 | 616 | -582 | 615 | 0.40 | -0.20 | 0.50 | 331.80 | 341.30 |
| 24 | 362 | -363 | -368 | 358 | -678 | 608 | -640 | 658 | 0.50 | 0.10 | 0.50 | 12.20 | 342.90 |
| 25 | 471 | -496 | -486 | 472 | -760 | 714 | -729 | 759 | 0.50 | -0.40 | 0.60 | 318.90 | 336.70 |
| 26 | 516 | -517 | -530 | 526 | -802 | 750 | -758 | 777 | 0.40 | 0.60 | 0.70 | 57.30 | 342.70 |
| 27 | 560 | -590 | -590 | 570 | -966 | 885 | -926 | 930 | 0.30 | 0.00 | 0.30 | 1.84 | 321.20 |
| 28 | 594 | -588 | -603 | 586 | -1071 | 1006 | -1035 | 1067 | 0.70 | -0.50 | 0.80 | 326.60 | 313.30 |
| 29 | 581 | -588 | -596 | 579 | -1054 | 1004 | -1034 | 1064 | 0.30 | -0.60 | 0.70 | 298.20 | 298.20 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 8 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 31/08/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -19 | -5 | 9 | -39 | 98 | -127 | 163 | -121 | 0.50 | -0.70 | 0.90 | 301.50 | 350.20 |
| 2 | -69 | -14 | -18 | -24 | 48 | -131 | 100 | -113 | 1.10 | -0.30 | 1.10 | 344.90 | 352.20 |
| 3 | -36 | -49 | -55 | 18 | 21 | -93 | 61 | -73 | 1.20 | -1.20 | 1.80 | 315.00 | 352.60 |
| 4 | -33 | -58 | -59 | 23 | 36 | -108 | 75 | -88 | 0.00 | 0.40 | 0.40 | 87.14 | 356.20 |
| 5 | -56 | -35 | -35 | -9 | -15 | -65 | 28 | -45 | 1.60 | 1.00 | 1.80 | 32.14 | 354.80 |
| 6 | -63 | -29 | -31 | -16 | -41 | -40 | 1 | -14 | 1.40 | -1.30 | 1.90 | 317.80 | 350.80 |
| 7 | -91 | -10 | -8 | -36 | -65 | -18 | -21 | 10 | 1.40 | 0.50 | 1.50 | 19.05 | 354.90 |
| 8 | -113 | 9 | 13 | -54 | -74 | -14 | -28 | 15 | 0.50 | 0.80 | 0.90 | 58.82 | 352.20 |
| 9 | -171 | 60 | 63 | -106 | -179 | 90 | -131 | 117 | 2.20 | 0.50 | 2.20 | 12.36 | 348.50 |
| 10 | -142 | 34 | 41 | -84 | -155 | 69 | -108 | 95 | -0.20 | -0.30 | 0.40 | 242.70 | 343.60 |
| 11 | -184 | 81 | 90 | -133 | -176 | 94 | -136 | 120 | 0.40 | 1.00 | 1.10 | 65.99 | 345.70 |
| 12 | -51 | -96 | 31 | -20 | -165 | 31 | -98 | 119 | -0.30 | -1.00 | 1.10 | 253.00 | 339.70 |
| 13 | -34 | -70 | -54 | 11 | -120 | 40 | -89 | 70 | 0.90 | -0.20 | 0.90 | 346.10 | 345.70 |
| 14 | -41 | -58 | -41 | -5 | -179 | 99 | -155 | 135 | 1.60 | 0.20 | 1.60 | 5.26 | 345.70 |
| 15 | 0 | -63 | -49 | 0 | -216 | 154 | -210 | 189 | 0.50 | -0.70 | 0.90 | 302.50 | 341.70 |
| 16 | 8 | -7 | -19 | -1 | -244 | 154 | -192 | 208 | 0.50 | 0.00 | 0.50 | 1.17 | 345.90 |
| 17 | -26 | 26 | -5 | -22 | -442 | 348 | -373 | 395 | 0.50 | 0.20 | 0.50 | 18.09 | 344.90 |
| 18 | 119 | -115 | -135 | 134 | -428 | 333 | -378 | 393 | 0.80 | 0.10 | 0.80 | 4.46 | 342.40 |
| 19 | 224 | -283 | -278 | 230 | -346 | 290 | -342 | 316 | 0.50 | -1.70 | 1.80 | 286.60 | 339.50 |
| 20 | 217 | -278 | -270 | 221 | -390 | 333 | -389 | 363 | 1.10 | -0.30 | 1.20 | 346.20 | 356.40 |
| 21 | 240 | -266 | -262 | 240 | -522 | 431 | -466 | 485 | 0.30 | -0.40 | 0.50 | 303.00 | 359.50 |
| 22 | 230 | -299 | -289 | 240 | -615 | 547 | -611 | 579 | 0.70 | 0.90 | 1.20 | 54.54 | 6.56 |
| 23 | 231 | -309 | -295 | 245 | -665 | 596 | -659 | 629 | 1.60 | -0.40 | 1.70 | 345.30 | 349.10 |
| 24 | 360 | -361 | -366 | 359 | -680 | 606 | -636 | 661 | 0.50 | 0.20 | 0.50 | 17.78 | 354.40 |
| 25 | 440 | -539 | -516 | 471 | -769 | 688 | -765 | 729 | 0.30 | -0.80 | 0.90 | 293.30 | 338.70 |
| 26 | 514 | -514 | -526 | 530 | -803 | 752 | -754 | 779 | 0.40 | 0.60 | 0.70 | 58.80 | 55.11 |
| 27 | 561 | -592 | -586 | 573 | -970 | 880 | -921 | 930 | 0.30 | 0.00 | 0.30 | 357.80 | 270.00 |
| 28 | 529 | -638 | -610 | 559 | -1064 | 964 | -1065 | 1013 | 0.00 | -0.10 | 0.10 | 254.70 | 195.10 |
| 29 | 499 | -631 | -599 | 546 | -1067 | 960 | -1065 | 1006 | -0.20 | 0.00 | 0.20 | 170.10 | 170.10 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 9 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 30/09/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -18 | -6 | 9 | -39 | 97 | -127 | 165 | -119 | 0.50 | -0.80 | 0.90 | 301.40 | 347.80 |
| 2 | -69 | -14 | -18 | -23 | 43 | -142 | 102 | -111 | 1.00 | -0.30 | 1.10 | 343.60 | 349.60 |
| 3 | -33 | -50 | -55 | 22 | 20 | -96 | 60 | -74 | 1.20 | -1.30 | 1.80 | 312.70 | 350.00 |
| 4 | -29 | -67 | -59 | 23 | 35 | -110 | 75 | -85 | 0.00 | 0.30 | 0.30 | 81.57 | 353.50 |
| 5 | -55 | -41 | -35 | -9 | -15 | -81 | 25 | -45 | 1.40 | 0.90 | 1.70 | 32.47 | 352.60 |
| 6 | -62 | -31 | -31 | -14 | -48 | -47 | 1 | -15 | 1.40 | -1.30 | 1.90 | 316.40 | 348.80 |
| 7 | -88 | -15 | -8 | -36 | -68 | -19 | -23 | 9 | 1.40 | 0.40 | 1.50 | 15.73 | 352.80 |
| 8 | -106 | -30 | 13 | -53 | -75 | -30 | -33 | 12 | 0.30 | 0.30 | 0.40 | 41.31 | 350.30 |
| 9 | -168 | 38 | 64 | -102 | -180 | 80 | -151 | 117 | 2.30 | 0.20 | 2.30 | 4.97 | 348.80 |
| 10 | -144 | 33 | 41 | -84 | -156 | 66 | -121 | 94 | -0.10 | -0.30 | 0.30 | 256.70 | 345.50 |
| 11 | -184 | 80 | 84 | -134 | -178 | 91 | -136 | 119 | 0.40 | 0.90 | 1.00 | 65.65 | 347.30 |
| 12 | -51 | -98 | 32 | -20 | -166 | 30 | -98 | 121 | -0.30 | -1.10 | 1.10 | 254.20 | 341.90 |
| 13 | -37 | -97 | -66 | 2 | -120 | 32 | -93 | 70 | 0.80 | -0.50 | 1.00 | 330.00 | 347.70 |
| 14 | -41 | -65 | -49 | -6 | -180 | 98 | -159 | 124 | 1.60 | 0.00 | 1.60 | 0.37 | 349.50 |
| 15 | -18 | -69 | -54 | 0 | -216 | 153 | -210 | 185 | 0.40 | -0.60 | 0.80 | 302.20 | 347.50 |
| 16 | 8 | -6 | -18 | 1 | -244 | 153 | -192 | 209 | 0.50 | 0.00 | 0.50 | 1.17 | 351.40 |
| 17 | -27 | 27 | -4 | -20 | -442 | 348 | -372 | 396 | 0.50 | 0.20 | 0.50 | 19.14 | 350.80 |
| 18 | 117 | -114 | -134 | 134 | -429 | 333 | -377 | 393 | 0.80 | 0.10 | 0.80 | 7.41 | 348.80 |
| 19 | 220 | -287 | -292 | 229 | -350 | 286 | -343 | 305 | 0.40 | -1.80 | 1.90 | 282.50 | 346.50 |
| 20 | 215 | -282 | -270 | 219 | -390 | 325 | -395 | 362 | 1.10 | -0.30 | 1.10 | 345.80 | 3.98 |
| 21 | 239 | -266 | -262 | 240 | -524 | 430 | -466 | 488 | 0.30 | -0.40 | 0.50 | 307.30 | 8.44 |
| 22 | 217 | -295 | -293 | 232 | -615 | 548 | -612 | 575 | 0.60 | 1.10 | 1.30 | 60.54 | 14.55 |
| 23 | 219 | -303 | -295 | 245 | -671 | 599 | -660 | 626 | 1.70 | -0.20 | 1.70 | 351.80 | 359.00 |
| 24 | 360 | -359 | -363 | 362 | -681 | 605 | -634 | 661 | 0.50 | 0.20 | 0.50 | 20.59 | 5.48 |
| 25 | 438 | -537 | -516 | 466 | -771 | 704 | -769 | 729 | 0.60 | -0.70 | 0.90 | 308.30 | 0.04 |
| 26 | 511 | -510 | -525 | 530 | -803 | 753 | -752 | 780 | 0.40 | 0.70 | 0.80 | 61.83 | 40.67 |
| 27 | 561 | -592 | -586 | 574 | -972 | 880 | -921 | 930 | 0.30 | 0.00 | 0.30 | 355.90 | 3.71 |
| 28 | 529 | -617 | -609 | 559 | -1064 | 985 | -1062 | 1016 | 0.20 | 0.10 | 0.20 | 31.51 | 14.82 |
| 29 | 519 | -618 | -599 | 549 | -1066 | 983 | -1059 | 1014 | 0.00 | -0.10 | 0.10 | 279.40 | 279.40 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 10 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 30/10/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -16 | -6 | 9 | -38 | 96 | -127 | 166 | -119 | 0.50 | -0.80 | 0.90 | 300.40 | 347.60 |
| 2 | -69 | -24 | -4 | -21 | 35 | -143 | 103 | -111 | 1.10 | -0.30 | 1.10 | 345.40 | 349.40 |
| 3 | -31 | -53 | -55 | 23 | 20 | -101 | 60 | -74 | 1.20 | -1.40 | 1.80 | 310.20 | 349.70 |
| 4 | -28 | -68 | -58 | 23 | 32 | -119 | 75 | -85 | 0.00 | 0.30 | 0.30 | 94.40 | 353.30 |
| 5 | -53 | -44 | -36 | -7 | -17 | -84 | 24 | -44 | 1.40 | 0.80 | 1.70 | 29.96 | 352.50 |
| 6 | -60 | -32 | -30 | -12 | -54 | -49 | 1 | -16 | 1.40 | -1.30 | 2.00 | 316.20 | 349.10 |
| 7 | -88 | -27 | -11 | -36 | -70 | -19 | -26 | 9 | 1.50 | 0.20 | 1.50 | 9.65 | 353.00 |
| 8 | -98 | -32 | 15 | -52 | -77 | -50 | -47 | 12 | 0.30 | 0.20 | 0.40 | 34.59 | 351.30 |
| 9 | -163 | 35 | 64 | -102 | -181 | 56 | -152 | 116 | 2.10 | 0.10 | 2.10 | 3.32 | 350.30 |
| 10 | -145 | 31 | 40 | -86 | -156 | 43 | -123 | 94 | -0.30 | -0.30 | 0.40 | 229.50 | 348.00 |
| 11 | -185 | 65 | 83 | -134 | -178 | 89 | -142 | 118 | 0.50 | 0.80 | 0.90 | 60.10 | 349.90 |
| 12 | -57 | -99 | 33 | -20 | -167 | 29 | -98 | 121 | -0.30 | -1.00 | 1.00 | 253.30 | 345.60 |
| 13 | -37 | -100 | -84 | 0 | -125 | 27 | -113 | 60 | 0.90 | -0.70 | 1.20 | 324.40 | 350.70 |
| 14 | -46 | -78 | -56 | -12 | -181 | 98 | -168 | 120 | 1.60 | -0.10 | 1.60 | 357.10 | 353.40 |
| 15 | -24 | -71 | -55 | -2 | -216 | 147 | -211 | 185 | 0.40 | -0.60 | 0.70 | 300.90 | 352.80 |
| 16 | 8 | -6 | -17 | 2 | -244 | 152 | -191 | 211 | 0.50 | 0.00 | 0.50 | 1.17 | 356.40 |
| 17 | -28 | 27 | -4 | -20 | -445 | 347 | -370 | 398 | 0.50 | 0.20 | 0.50 | 19.44 | 356.10 |
| 18 | 117 | -114 | -132 | 140 | -429 | 330 | -377 | 394 | 0.70 | 0.10 | 0.80 | 4.58 | 354.50 |
| 19 | 205 | -293 | -294 | 220 | -355 | 277 | -344 | 304 | 0.40 | -1.70 | 1.70 | 282.40 | 353.50 |
| 20 | 202 | -283 | -278 | 212 | -393 | 321 | -399 | 361 | 1.10 | -0.20 | 1.10 | 351.40 | 7.57 |
| 21 | 239 | -268 | -262 | 240 | -525 | 429 | -464 | 489 | 0.30 | -0.40 | 0.50 | 305.10 | 10.80 |
| 22 | 212 | -294 | -298 | 228 | -617 | 549 | -626 | 575 | 0.80 | 1.20 | 1.50 | 55.67 | 16.00 |
| 23 | 217 | -298 | -297 | 245 | -671 | 601 | -664 | 623 | 1.70 | -0.20 | 1.70 | 353.60 | 3.81 |
| 24 | 358 | -359 | -361 | 362 | -682 | 605 | -633 | 665 | 0.50 | 0.20 | 0.60 | 22.96 | 10.17 |
| 25 | 435 | -532 | -516 | 462 | -772 | 710 | -770 | 728 | 0.60 | -0.60 | 0.90 | 316.80 | 6.88 |
| 26 | 510 | -510 | -525 | 531 | -803 | 754 | -751 | 781 | 0.40 | 0.70 | 0.80 | 61.19 | 29.42 |
| 27 | 559 | -593 | -582 | 575 | -972 | 880 | -920 | 931 | 0.30 | 0.00 | 0.30 | 4.14 | 8.47 |
| 28 | 529 | -615 | -608 | 560 | -1063 | 1005 | -1061 | 1025 | 0.40 | 0.10 | 0.50 | 16.19 | 9.85 |
| 29 | 521 | -610 | -593 | 553 | -1064 | 1018 | -1058 | 1023 | 0.40 | 0.00 | 0.40 | 2.79 | 2.79 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 11 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 30/11/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -16 | -7 | 8 | -37 | 96 | -124 | 166 | -118 | 0.50 | -0.80 | 1.00 | 301.50 | 345.30 |
| 2 | -69 | -25 | -4 | -18 | 34 | -160 | 104 | -111 | 0.90 | -0.30 | 1.00 | 340.60 | 347.10 |
| 3 | -29 | -64 | -48 | 24 | -10 | -121 | 60 | -76 | 1.20 | -1.40 | 1.90 | 310.70 | 347.40 |
| 4 | -23 | -70 | -54 | 26 | 21 | -133 | 75 | -84 | 0.00 | 0.20 | 0.20 | 101.30 | 351.00 |
| 5 | -50 | -46 | -36 | 5 | -35 | -91 | 18 | -39 | 1.70 | 0.70 | 1.80 | 21.68 | 350.40 |
| 6 | -59 | -40 | -28 | 0 | -54 | -74 | 1 | -19 | 1.10 | -1.50 | 1.90 | 306.20 | 347.30 |
| 7 | -75 | -31 | -11 | -30 | -73 | -55 | -30 | 5 | 1.10 | 0.00 | 1.10 | 1.01 | 351.90 |
| 8 | -90 | -39 | 16 | -50 | -78 | -64 | -51 | 11 | 0.20 | 0.00 | 0.20 | 11.89 | 351.20 |
| 9 | -140 | 28 | 64 | -101 | -183 | 54 | -159 | 114 | 2.10 | -0.20 | 2.10 | 354.80 | 350.90 |
| 10 | -148 | -1 | 20 | -90 | -158 | 35 | -127 | 90 | -0.30 | -0.80 | 0.90 | 246.10 | 350.20 |
| 11 | -190 | 46 | 64 | -139 | -180 | 60 | -152 | 106 | 0.20 | 0.50 | 0.50 | 71.90 | 354.10 |
| 12 | -59 | -100 | 34 | -20 | -168 | 29 | -96 | 122 | -0.30 | -1.00 | 1.00 | 252.90 | 351.60 |
| 13 | -39 | -101 | -90 | -11 | -126 | 8 | -127 | 59 | 0.90 | -0.60 | 1.10 | 325.40 | 356.20 |
| 14 | -49 | -84 | -70 | -25 | -189 | 78 | -185 | 117 | 1.60 | -0.10 | 1.60 | 355.80 | 359.00 |
| 15 | -39 | -86 | -76 | -21 | -241 | 138 | -235 | 174 | 0.60 | -0.60 | 0.90 | 316.30 | 359.50 |
| 16 | 6 | -3 | -17 | 2 | -247 | 151 | -190 | 211 | 0.50 | 0.10 | 0.50 | 6.84 | 3.33 |
| 17 | -29 | 28 | -3 | -20 | -446 | 346 | -370 | 400 | 0.50 | 0.20 | 0.60 | 21.62 | 3.13 |
| 18 | 116 | -111 | -131 | 140 | -432 | 329 | -374 | 396 | 0.80 | 0.10 | 0.80 | 8.24 | 1.88 |
| 19 | 204 | -303 | -295 | 211 | -359 | 265 | -366 | 303 | 0.50 | -1.70 | 1.80 | 286.40 | 1.24 |
| 20 | 198 | -289 | -285 | 210 | -407 | 317 | -407 | 349 | 1.20 | -0.20 | 1.20 | 348.60 | 14.79 |
| 21 | 238 | -270 | -260 | 244 | -526 | 428 | -461 | 490 | 0.30 | -0.50 | 0.60 | 301.60 | 19.76 |
| 22 | 209 | -290 | -299 | 226 | -620 | 549 | -626 | 566 | 0.80 | 1.30 | 1.50 | 59.32 | 24.84 |
| 23 | 217 | -295 | -300 | 246 | -671 | 605 | -668 | 619 | 1.70 | -0.20 | 1.70 | 353.40 | 15.03 |
| 24 | 357 | -358 | -360 | 362 | -684 | 600 | -633 | 668 | 0.50 | 0.30 | 0.60 | 25.71 | 26.01 |
| 25 | 431 | -511 | -518 | 460 | -780 | 718 | -772 | 728 | 0.80 | -0.30 | 0.90 | 336.80 | 26.08 |
| 26 | 510 | -510 | -520 | 534 | -806 | 758 | -750 | 782 | 0.40 | 0.70 | 0.80 | 57.67 | 42.97 |
| 27 | 558 | -596 | -580 | 577 | -974 | 878 | -915 | 934 | 0.30 | 0.00 | 0.30 | 0.05 | 34.92 |
| 28 | 529 | -591 | -604 | 564 | -1063 | 1020 | -1053 | 1028 | 0.50 | 0.40 | 0.70 | 34.01 | 41.39 |
| 29 | 521 | -572 | -581 | 555 | -1058 | 1023 | -1053 | 1031 | 0.40 | 0.50 | 0.70 | 48.72 | 48.72 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 12 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 30/12/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | 17 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -15 | -7 | 6 | -35 | 93 | -122 | 168 | -116 | 0.60 | -0.90 | 1.00 | 302.40 | 337.20 |
| 2 | -48 | 15 | -18 | -37 | 45 | -147 | 106 | -90 | 1.10 | -0.10 | 1.10 | 355.90 | 338.80 |
| 3 | -3 | -33 | -57 | 17 | 10 | -105 | 64 | -73 | 1.20 | -1.40 | 1.90 | 310.20 | 337.80 |
| 4 | 21 | -61 | -62 | 15 | 31 | -117 | 90 | -80 | -0.10 | -0.10 | 0.10 | 233.10 | 340.60 |
| 5 | -42 | -14 | -36 | -23 | -24 | -87 | 33 | -24 | 1.60 | 1.20 | 2.00 | 36.58 | 341.00 |
| 6 | -8 | -21 | -31 | -8 | -38 | -67 | 19 | -14 | 0.90 | -1.80 | 2.00 | 296.60 | 335.60 |
| 7 | -42 | 5 | -16 | -33 | -61 | -49 | -17 | 16 | 1.10 | 0.00 | 1.10 | 1.62 | 340.20 |
| 8 | -80 | -34 | 10 | -56 | -73 | -33 | -8 | 19 | 0.10 | 0.00 | 0.10 | 352.80 | 338.70 |
| 9 | -95 | 59 | 60 | -105 | -181 | 82 | -147 | 140 | 2.50 | -0.30 | 2.50 | 352.50 | 338.70 |
| 10 | -105 | 59 | 26 | -92 | -139 | 58 | -113 | 99 | -0.40 | -0.50 | 0.60 | 236.30 | 335.80 |
| 11 | -145 | 95 | 74 | -144 | -146 | 82 | -151 | 125 | 0.20 | 0.70 | 0.70 | 72.05 | 338.80 |
| 12 | -62 | -102 | 36 | -20 | -169 | 28 | -94 | 123 | -0.30 | -0.90 | 1.00 | 251.90 | 335.30 |
| 13 | 61 | -75 | -76 | -11 | -106 | 17 | -121 | 95 | 1.10 | -1.20 | 1.60 | 311.70 | 340.00 |
| 14 | 50 | -23 | -51 | -23 | -189 | 98 | -142 | 128 | 1.50 | -0.30 | 1.60 | 347.70 | 344.10 |
| 15 | -29 | -71 | -70 | -16 | -230 | 139 | -224 | 213 | 0.80 | -0.60 | 1.00 | 325.90 | 343.50 |
| 16 | 4 | -2 | -15 | 2 | -249 | 149 | -188 | 213 | 0.50 | 0.10 | 0.50 | 12.41 | 345.60 |
| 17 | -31 | 28 | 0 | -17 | -449 | 341 | -367 | 404 | 0.50 | 0.20 | 0.60 | 23.86 | 343.90 |
| 18 | 114 | -109 | -131 | 143 | -434 | 328 | -373 | 397 | 0.80 | 0.10 | 0.80 | 8.86 | 341.00 |
| 19 | 263 | -249 | -293 | 216 | -348 | 268 | -322 | 335 | 0.30 | -1.80 | 1.80 | 279.60 | 337.90 |
| 20 | 260 | -278 | -283 | 215 | -398 | 334 | -361 | 353 | 0.80 | -0.80 | 1.20 | 317.40 | 352.80 |
| 21 | 235 | -271 | -256 | 247 | -529 | 426 | -460 | 491 | 0.30 | -0.40 | 0.50 | 304.20 | 0.37 |
| 22 | 251 | -264 | -293 | 227 | -616 | 552 | -578 | 591 | 0.50 | 1.20 | 1.30 | 66.05 | 5.65 |
| 23 | 278 | -294 | -300 | 241 | -670 | 604 | -634 | 622 | 1.40 | -0.70 | 1.60 | 331.90 | 350.60 |
| 24 | 356 | -357 | -360 | 365 | -688 | 599 | -630 | 670 | 0.50 | 0.20 | 0.60 | 23.99 | 1.05 |
| 25 | 507 | -496 | -518 | 460 | -780 | 713 | -733 | 739 | 0.50 | -1.00 | 1.10 | 297.00 | 355.30 |
| 26 | 509 | -508 | -517 | 538 | -809 | 760 | -748 | 782 | 0.50 | 0.70 | 0.90 | 56.71 | 23.01 |
| 27 | 556 | -598 | -578 | 579 | -974 | 873 | -913 | 935 | 0.20 | 0.00 | 0.20 | 0.05 | 1.77 |
| 28 | 596 | -583 | -603 | 564 | -1063 | 1005 | -1046 | 1057 | 0.60 | -0.20 | 0.70 | 341.30 | 2.07 |
| 29 | 549 | -566 | -584 | 555 | -1061 | 1016 | -1031 | 1065 | 0.50 | 0.30 | 0.60 | 25.76 | 25.76 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

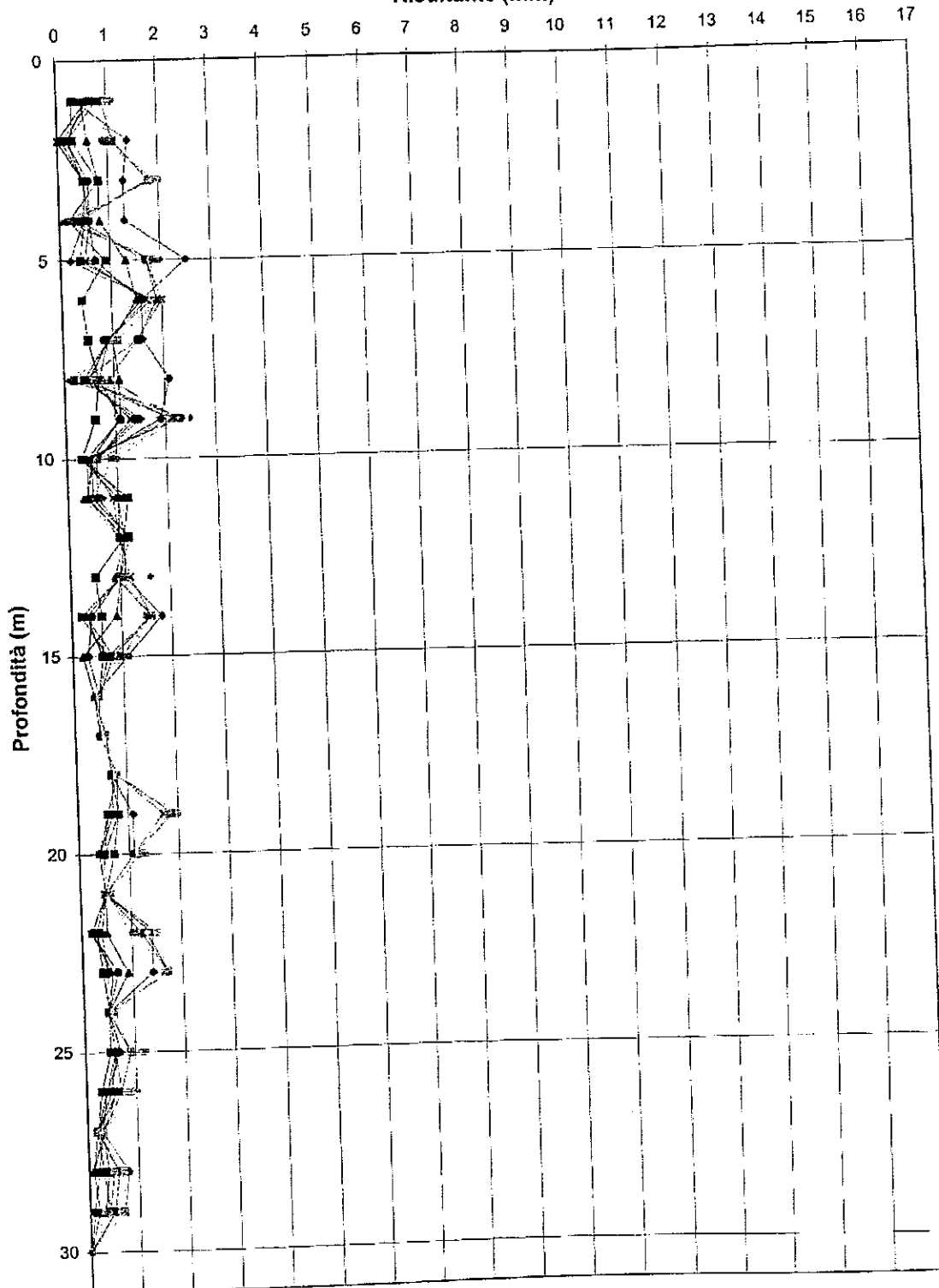
| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 13 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 30/01/2007 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -15 | -7 | 6 | -35 | 93 | -121 | 169 | -115 | 0.60 | -0.90 | 1.00 | 302.90 | 339.40 |
| 2 | -14 | 16 | -18 | -39 | 48 | -145 | 123 | -90 | 0.90 | -0.40 | 1.00 | 337.40 | 341.10 |
| 3 | -3 | -30 | -60 | 11 | 11 | -104 | 75 | -71 | 1.10 | -1.40 | 1.80 | 309.20 | 341.30 |
| 4 | 26 | -57 | -62 | 14 | 31 | -117 | 93 | -66 | 0.00 | -0.10 | 0.10 | 279.40 | 344.20 |
| 5 | -36 | -9 | -37 | -23 | -20 | -79 | 50 | -24 | 1.50 | 1.20 | 1.90 | 38.47 | 344.60 |
| 6 | -1 | -4 | -33 | -10 | -36 | -60 | 24 | -10 | 0.90 | -1.70 | 2.00 | 299.00 | 339.60 |
| 7 | -20 | 21 | -17 | -44 | -53 | -48 | -16 | 19 | 1.00 | 0.10 | 1.00 | 3.96 | 344.20 |
| 8 | -71 | 48 | 9 | -66 | -72 | -25 | -1 | 28 | 0.20 | 0.80 | 0.80 | 76.80 | 342.90 |
| 9 | -92 | 66 | 60 | -111 | -180 | 87 | -114 | 141 | 2.20 | -0.20 | 2.30 | 354.10 | 339.70 |
| 10 | -81 | 76 | 39 | -95 | -127 | 66 | -108 | 107 | -0.40 | -0.40 | 0.60 | 230.50 | 337.10 |
| 11 | -79 | 105 | 82 | -146 | -146 | 88 | -138 | 133 | 0.20 | 0.20 | 0.30 | 46.17 | 339.60 |
| 12 | -62 | -103 | 36 | -20 | -170 | 28 | -94 | 124 | -0.30 | -1.00 | 1.00 | 253.10 | 338.20 |
| 13 | 63 | -28 | -71 | -10 | -102 | 27 | -77 | 96 | 0.70 | -0.70 | 1.00 | 314.60 | 342.70 |
| 14 | 52 | -22 | -51 | -23 | -179 | 103 | -136 | 143 | 1.60 | -0.30 | 1.60 | 347.70 | 345.10 |
| 15 | 7 | -44 | -66 | -14 | -225 | 161 | -217 | 214 | 0.90 | -0.60 | 1.10 | 326.10 | 344.60 |
| 16 | 4 | -2 | -15 | 2 | -249 | 148 | -188 | 215 | 0.50 | 0.10 | 0.50 | 12.17 | 346.90 |
| 17 | -32 | 29 | 0 | -16 | -452 | 341 | -366 | 408 | 0.60 | 0.20 | 0.60 | 22.48 | 345.40 |
| 18 | 113 | -108 | -131 | 144 | -435 | 326 | -371 | 400 | 0.80 | 0.10 | 0.80 | 9.59 | 342.80 |
| 19 | 264 | -246 | -292 | 220 | -347 | 270 | -321 | 339 | 0.30 | -1.80 | 1.80 | 280.80 | 340.10 |
| 20 | 269 | -255 | -282 | 215 | -398 | 334 | -359 | 384 | 1.10 | -0.60 | 1.30 | 331.00 | 353.40 |
| 21 | 233 | -272 | -256 | 248 | -530 | 424 | -460 | 493 | 0.30 | -0.40 | 0.50 | 305.10 | 358.50 |
| 22 | 285 | -263 | -285 | 230 | -611 | 553 | -576 | 612 | 0.70 | 0.90 | 1.10 | 53.05 | 3.29 |
| 23 | 282 | -269 | -300 | 241 | -668 | 603 | -633 | 651 | 1.70 | -0.50 | 1.70 | 341.90 | 352.70 |
| 24 | 354 | -356 | -356 | 366 | -688 | 598 | -630 | 672 | 0.50 | 0.30 | 0.60 | 28.64 | 359.00 |
| 25 | 515 | -496 | -518 | 460 | -779 | 711 | -732 | 752 | 0.60 | -1.00 | 1.20 | 299.10 | 351.70 |
| 26 | 508 | -507 | -515 | 538 | -809 | 762 | -747 | 783 | 0.50 | 0.80 | 0.90 | 57.04 | 20.94 |
| 27 | 555 | -599 | -576 | 582 | -976 | 873 | -912 | 938 | 0.20 | 0.00 | 0.20 | 357.60 | 356.50 |
| 28 | 599 | -577 | -603 | 564 | -1063 | 1000 | -1046 | 1067 | 0.70 | -0.20 | 0.70 | 344.90 | 356.30 |
| 29 | 564 | -565 | -584 | 555 | -1065 | 1005 | -1025 | 1066 | 0.40 | 0.10 | 0.40 | 15.45 | 15.45 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 14 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 28/02/2007 | Correzione angolare: | 0 |
| Sigla inclinometro: | I7 | Correzione azimutale: | 180 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-------|------|-------|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | -13 | -9 | 6 | -35 | 93 | -120 | 170 | -115 | 0.60 | -0.90 | 1.10 | 301.70 | 337.80 |
| 2 | -14 | 21 | -20 | -43 | 58 | -142 | 123 | -90 | 0.90 | -0.30 | 0.90 | 339.80 | 339.60 |
| 3 | 28 | -21 | -60 | 0 | 13 | -95 | 84 | -49 | 1.30 | -1.50 | 2.00 | 311.70 | 339.60 |
| 4 | 34 | -29 | -65 | 1 | 33 | -116 | 99 | -85 | 0.00 | 0.20 | 0.20 | 102.50 | 342.60 |
| 5 | 13 | -1 | -38 | -24 | -20 | -68 | 51 | -19 | 1.60 | 0.70 | 1.80 | 24.98 | 342.10 |
| 6 | 5 | 1 | -40 | -25 | -30 | -54 | 41 | -6 | 0.80 | -1.60 | 1.80 | 296.50 | 337.90 |
| 7 | -19 | 25 | -20 | -50 | -51 | -34 | 18 | 21 | 0.80 | 0.10 | 0.80 | 9.12 | 342.50 |
| 8 | -39 | 49 | 9 | -68 | -71 | -20 | 0 | 36 | 0.30 | 0.50 | 0.60 | 60.02 | 341.00 |
| 9 | -86 | 98 | 60 | -115 | -179 | 91 | -110 | 142 | 2.20 | 0.10 | 2.20 | 1.79 | 338.60 |
| 10 | -28 | 79 | 39 | -101 | -119 | 73 | -88 | 120 | -0.40 | -0.90 | 1.00 | 243.10 | 334.50 |
| 11 | -76 | 125 | 84 | -146 | -144 | 89 | -109 | 140 | 0.00 | 0.40 | 0.40 | 88.70 | 339.20 |
| 12 | -63 | -104 | 39 | -20 | -171 | 27 | -94 | 124 | -0.30 | -0.90 | 1.00 | 252.60 | 337.20 |
| 13 | 68 | -19 | -63 | -9 | -95 | 50 | -70 | 98 | 0.80 | -0.60 | 1.00 | 323.20 | 341.70 |
| 14 | 54 | -4 | -51 | -23 | -159 | 108 | -131 | 156 | 1.50 | -0.20 | 1.50 | 353.10 | 343.40 |
| 15 | 54 | -16 | -59 | -9 | -216 | 163 | -189 | 214 | 0.60 | -0.80 | 1.00 | 306.40 | 341.90 |
| 16 | 4 | -1 | -15 | 4 | -250 | 147 | -188 | 215 | 0.50 | 0.10 | 0.50 | 11.09 | 345.60 |
| 17 | -32 | 31 | 1 | -16 | -452 | 340 | -366 | 409 | 0.60 | 0.30 | 0.60 | 24.97 | 344.10 |
| 18 | 112 | -108 | -126 | 146 | -436 | 324 | -370 | 401 | 0.80 | 0.20 | 0.80 | 12.62 | 341.20 |
| 19 | 285 | -245 | -286 | 221 | -346 | 288 | -315 | 345 | 0.50 | -1.90 | 2.00 | 284.80 | 338.10 |
| 20 | 271 | -239 | -278 | 216 | -397 | 335 | -359 | 390 | 1.20 | -0.50 | 1.30 | 339.00 | 352.30 |
| 21 | 233 | -274 | -256 | 248 | -531 | 423 | -457 | 494 | 0.30 | -0.50 | 0.50 | 302.20 | 355.40 |
| 22 | 299 | -255 | -284 | 233 | -601 | 554 | -576 | 614 | 0.60 | 0.80 | 1.00 | 53.49 | 0.49 |
| 23 | 292 | -265 | -299 | 241 | -663 | 603 | -621 | 659 | 1.60 | -0.60 | 1.70 | 339.40 | 350.00 |
| 24 | 353 | -354 | -356 | 366 | -689 | 598 | -629 | 672 | 0.50 | 0.30 | 0.60 | 31.00 | 356.40 |
| 25 | 516 | -490 | -518 | 460 | -776 | 709 | -731 | 771 | 0.70 | -1.00 | 1.20 | 305.60 | 347.40 |
| 26 | 506 | -506 | -514 | 539 | -810 | 763 | -747 | 786 | 0.50 | 0.80 | 1.00 | 55.53 | 17.07 |
| 27 | 555 | -601 | -575 | 582 | -979 | 873 | -910 | 939 | 0.30 | 0.00 | 0.30 | 355.60 | 342.60 |
| 28 | 600 | -575 | -603 | 563 | -1065 | 999 | -1023 | 1070 | 0.50 | -0.20 | 0.50 | 341.50 | 338.40 |
| 29 | 589 | -564 | -585 | 555 | -1065 | 1001 | -1016 | 1067 | 0.30 | -0.10 | 0.30 | 333.40 | 333.40 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

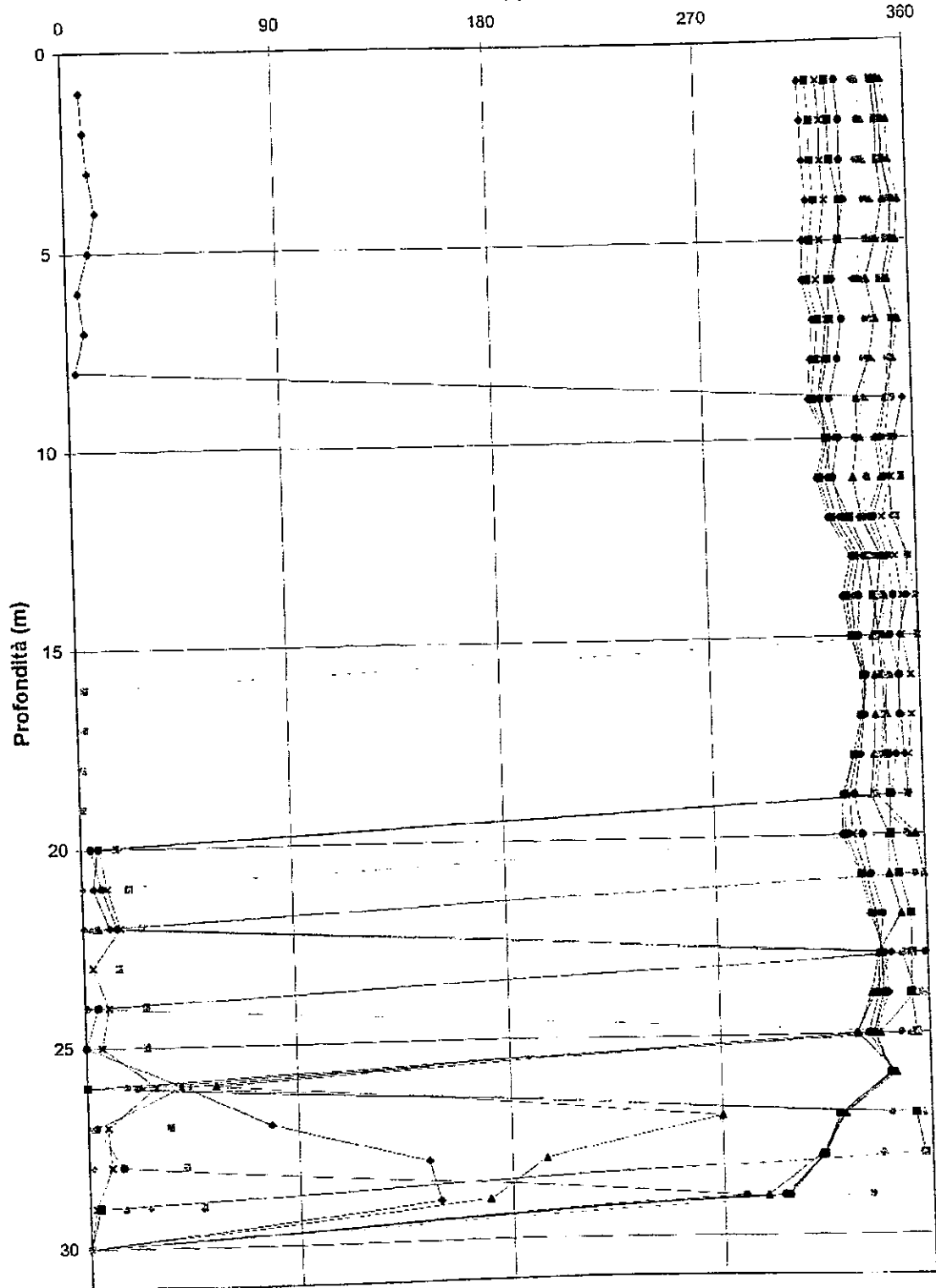
RISULTANTE (Movimento per punti rispetto all'origine)
 Risultante (mm)



- | | | | | | |
|--------------|--------------|--------------|--------------|--------------|--------------|
| ■ Lettura 1 | ● Lettura 2 | ▲ Lettura 3 | ● Lettura 4 | × Lettura 5 | ■ Lettura 6 |
| ◄ Lettura 7 | ▲ Lettura 8 | ● Lettura 9 | × Lettura 10 | ■ Lettura 11 | ◄ Lettura 12 |
| ▲ Lettura 13 | ◄ Lettura 14 | ◄ Lettura 15 | ■ Lettura 16 | ● Lettura 17 | |

Azimuth (Sommatoria rispetto all'origine)

Azimuth (°)

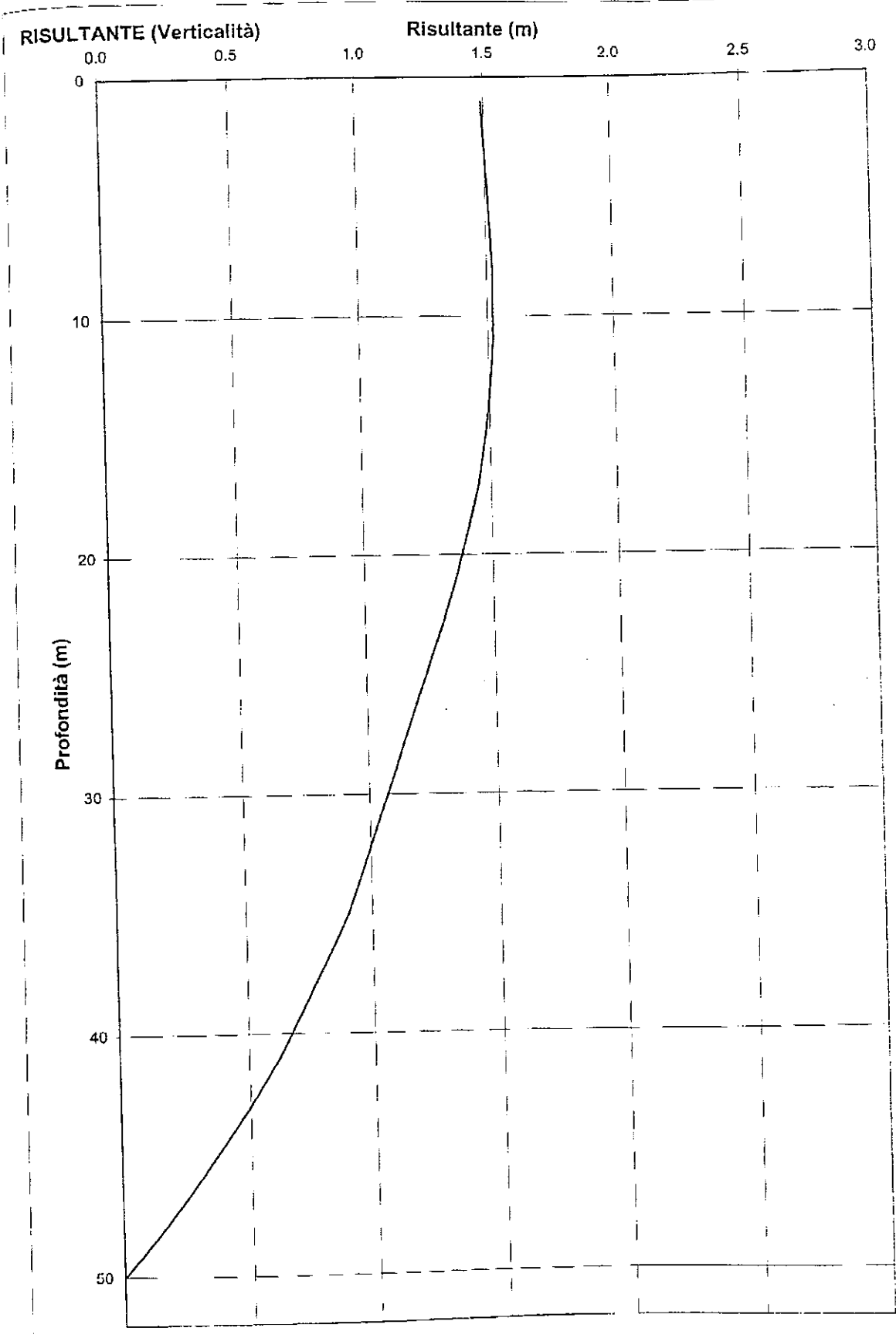


- | | | | | | |
|----------------|----------------|----------------|----------------|----------------|---------------|
| ■ - Lettura 1 | ● - Lettura 2 | ▲ - Lettura 3 | ● - Lettura 4 | -x- Lettura 5 | ■ - Lettura 6 |
| ◆ - Lettura 7 | -▲- Lettura 8 | ● - Lettura 9 | -x- Lettura 10 | □ - Lettura 11 | - Lettura 12 |
| △ - Lettura 13 | ▷ - Lettura 14 | ◁ - Lettura 15 | ■ - Lettura 16 | ● - Lettura 17 | |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 0 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 31/05/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I8 | Correzione azimutale: | 146 |

| Profondità (m) | Dati campagna | | | | | | | | Verticalità | | | |
|----------------|---------------|------|------|-------|------|------|-----|------|-------------|-------|----------------|------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (m) | Y (m) | Risultante (m) | Azimut (°) |
| 1 | 79 | -78 | -104 | 80 | -119 | 60 | -68 | 91 | -1.11 | 0.99 | 1.49 | 138.11 |
| 2 | 141 | -138 | -161 | 139 | -75 | 15 | -21 | 45 | -1.11 | 1.00 | 1.49 | 138.20 |
| 3 | 113 | -110 | -134 | 110 | -95 | 33 | -38 | 61 | -1.12 | 1.00 | 1.50 | 138.21 |
| 4 | 121 | -126 | -148 | 125 | -110 | 35 | -45 | 69 | -1.12 | 1.00 | 1.50 | 138.25 |
| 5 | 80 | -86 | -109 | 83 | -39 | -35 | 28 | -3 | -1.13 | 1.00 | 1.51 | 138.30 |
| 6 | 116 | -120 | -141 | 116 | -29 | -49 | 41 | -15 | -1.13 | 1.01 | 1.51 | 138.25 |
| 7 | 85 | -94 | -115 | 89 | -26 | -53 | 40 | -20 | -1.13 | 1.01 | 1.52 | 138.18 |
| 8 | -13 | 0 | -21 | -10 | 64 | -141 | 126 | -110 | -1.13 | 1.02 | 1.52 | 138.11 |
| 9 | 21 | -30 | -55 | 21 | 76 | -161 | 151 | -130 | -1.13 | 1.02 | 1.52 | 137.95 |
| 10 | -11 | -5 | -21 | -9 | 85 | -166 | 156 | -134 | -1.13 | 1.02 | 1.52 | 137.75 |
| 11 | -160 | 154 | 126 | -159 | 194 | -274 | 269 | -249 | -1.12 | 1.03 | 1.52 | 137.55 |
| 12 | -169 | 163 | 138 | -167 | 171 | -251 | 244 | -226 | -1.11 | 1.03 | 1.51 | 137.24 |
| 13 | -195 | 184 | 165 | -194 | 189 | -274 | 266 | -249 | -1.10 | 1.03 | 1.50 | 136.97 |
| 14 | -315 | 308 | 285 | -311 | 123 | -214 | 206 | -186 | -1.09 | 1.03 | 1.49 | 136.66 |
| 15 | -345 | 340 | 319 | -346 | 106 | -199 | 189 | -167 | -1.07 | 1.02 | 1.48 | 136.49 |
| 16 | -338 | 331 | 310 | -340 | 119 | -210 | 199 | -183 | -1.06 | 1.01 | 1.47 | 136.35 |
| 17 | -550 | 541 | 518 | -551 | 185 | -283 | 274 | -261 | -1.05 | 1.00 | 1.45 | 136.19 |
| 18 | -546 | 540 | 519 | -550 | 186 | -284 | 274 | -260 | -1.03 | 0.99 | 1.43 | 135.98 |
| 19 | -585 | 582 | 561 | -595 | 198 | -295 | 285 | -269 | -1.01 | 0.98 | 1.41 | 135.76 |
| 20 | -605 | 605 | 586 | -620 | 192 | -286 | 269 | -254 | -0.99 | 0.97 | 1.38 | 135.53 |
| 21 | -685 | 695 | 674 | -710 | 224 | -281 | 266 | -255 | -0.96 | 0.95 | 1.35 | 135.32 |
| 22 | -685 | 690 | 670 | -704 | 198 | -258 | 244 | -226 | -0.94 | 0.94 | 1.33 | 135.12 |
| 23 | -759 | 765 | 747 | -779 | 428 | -488 | 481 | -461 | -0.92 | 0.92 | 1.30 | 134.96 |
| 24 | -716 | 726 | 707 | -741 | 449 | -513 | 500 | -479 | -0.88 | 0.90 | 1.26 | 134.39 |
| 25 | -750 | 750 | 731 | -761 | 455 | -515 | 510 | -489 | -0.85 | 0.89 | 1.23 | 133.75 |
| 26 | -730 | 729 | 713 | -745 | 404 | -470 | 457 | -440 | -0.82 | 0.88 | 1.20 | 133.06 |
| 27 | -755 | 753 | 735 | -768 | 375 | -446 | 434 | -421 | -0.79 | 0.86 | 1.17 | 132.43 |
| 28 | -719 | 711 | 695 | -725 | 376 | -445 | 431 | -414 | -0.76 | 0.85 | 1.14 | 131.81 |
| 29 | -836 | 821 | 801 | -836 | 226 | -310 | 292 | -278 | -0.73 | 0.83 | 1.10 | 131.16 |
| 30 | -830 | 810 | 790 | -825 | 208 | -303 | 285 | -270 | -0.70 | 0.81 | 1.07 | 130.79 |
| 31 | -793 | 771 | 754 | -789 | 216 | -314 | 292 | -279 | -0.67 | 0.79 | 1.04 | 130.42 |
| 32 | -781 | 778 | 739 | -782 | 177 | -285 | 289 | -250 | -0.65 | 0.77 | 1.01 | 130.00 |
| 33 | -834 | 807 | 794 | -826 | 171 | -279 | 253 | -235 | -0.62 | 0.75 | 0.97 | 129.60 |
| 34 | -870 | 845 | 832 | -868 | 152 | -253 | 230 | -216 | -0.59 | 0.73 | 0.94 | 129.22 |
| 35 | -1141 | 1119 | 1107 | -1138 | 36 | -139 | 116 | -102 | -0.57 | 0.70 | 0.91 | 128.88 |
| 36 | -1201 | 1178 | 1159 | -1194 | 26 | -126 | 111 | -99 | -0.54 | 0.67 | 0.86 | 128.88 |
| 37 | -1232 | 1224 | 1200 | -1236 | 25 | -123 | 102 | -90 | -0.51 | 0.63 | 0.81 | 128.91 |
| 38 | -1176 | 1164 | 1149 | -1184 | 66 | -165 | 149 | -134 | -0.48 | 0.59 | 0.76 | 128.97 |
| 39 | -1207 | 1194 | 1179 | -1212 | 75 | -179 | 161 | -148 | -0.45 | 0.56 | 0.72 | 128.88 |
| 40 | -1245 | 1234 | 1222 | -1253 | 75 | -171 | 156 | -142 | -0.42 | 0.52 | 0.67 | 128.75 |
| 41 | -1484 | 1475 | 1467 | -1497 | 158 | -251 | 239 | -221 | -0.39 | 0.48 | 0.62 | 128.63 |
| 42 | -1543 | 1538 | 1531 | -1558 | 130 | -213 | 196 | -181 | -0.35 | 0.44 | 0.56 | 128.23 |
| 43 | -1584 | 1585 | 1577 | -1607 | 138 | -214 | 204 | -189 | -0.31 | 0.39 | 0.50 | 127.93 |
| 44 | -1628 | 1626 | 1621 | -1650 | 34 | -91 | 78 | -65 | -0.26 | 0.34 | 0.43 | 127.53 |
| 45 | -1645 | 1650 | 1644 | -1675 | 51 | -105 | 90 | -76 | -0.23 | 0.29 | 0.37 | 127.73 |
| 46 | -1676 | 1675 | 1669 | -1701 | 76 | -129 | 114 | -100 | -0.19 | 0.24 | 0.30 | 127.94 |
| 47 | -1817 | 1810 | 1810 | -1842 | 88 | -138 | 125 | -114 | -0.15 | 0.19 | 0.24 | 128.05 |
| 48 | -1944 | 1941 | 1938 | -1970 | 119 | -152 | 154 | -136 | -0.10 | 0.13 | 0.16 | 128.22 |
| 49 | -2199 | 1841 | 2189 | -2245 | 138 | -135 | 175 | -192 | -0.05 | 0.07 | 0.08 | 128.32 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 |



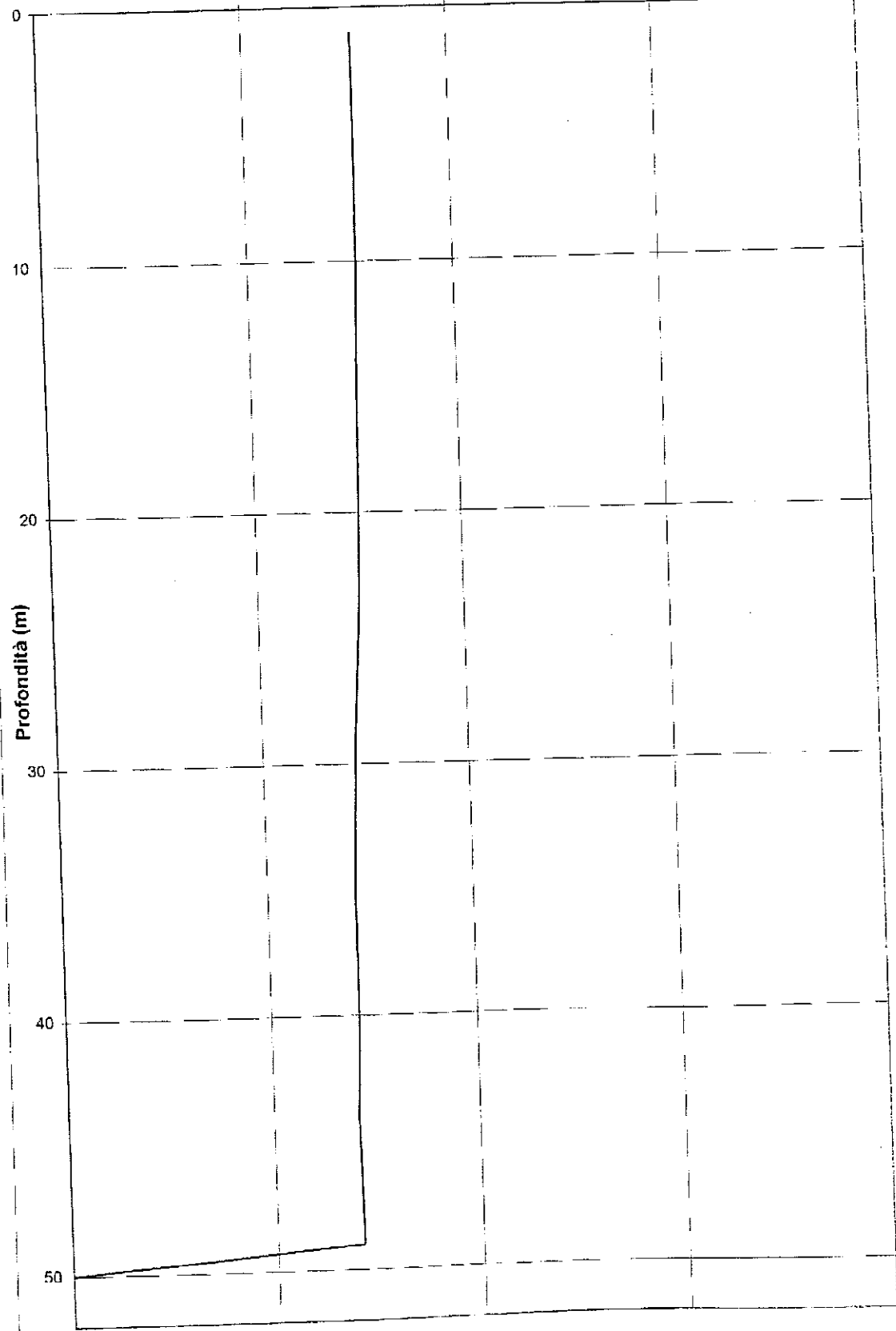
AZIMUT (Verticalità)

90

Azimuth (°)

270

360



Profondità (m)

0

10

20

30

40

50

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 1 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 15/06/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I8 | Correzione azimutale: | 146 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|-------|------|------|-----|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 100 | -76 | -100 | 80 | -110 | 60 | -66 | 92 | 0.00 | -0.20 | 0.20 | 270.30 | 91.24 |
| 2 | 115 | -138 | -160 | 140 | -96 | 15 | -19 | 54 | 0.10 | 0.40 | 0.40 | 76.88 | 91.20 |
| 3 | 108 | -110 | -132 | 113 | -109 | 34 | -37 | 63 | 0.10 | 0.10 | 0.20 | 48.04 | 92.40 |
| 4 | 92 | -126 | -148 | 127 | -83 | 36 | -42 | 67 | -0.40 | 0.10 | 0.40 | 172.90 | 93.89 |
| 5 | 87 | -85 | -106 | 84 | -43 | -35 | 29 | -1 | 0.10 | 0.00 | 0.10 | 355.30 | 88.58 |
| 6 | 90 | -118 | -139 | 118 | -37 | -50 | 43 | -14 | -0.10 | 0.30 | 0.30 | 111.90 | 89.42 |
| 7 | 26 | -91 | -112 | 89 | 10 | -51 | 40 | -16 | -0.60 | 0.40 | 0.70 | 148.70 | 87.90 |
| 8 | -5 | 4 | -17 | -8 | 62 | -139 | 128 | -107 | 0.10 | 0.00 | 0.10 | 12.20 | 78.45 |
| 9 | -2 | -29 | -52 | 25 | 72 | -159 | 152 | -126 | -0.10 | 0.20 | 0.20 | 102.60 | 79.19 |
| 10 | -12 | -7 | -23 | -7 | 88 | -165 | 158 | -134 | 0.00 | -0.10 | 0.10 | 265.30 | 77.61 |
| 11 | -174 | 153 | 130 | -154 | 176 | -274 | 271 | -248 | 0.10 | 0.20 | 0.20 | 69.22 | 77.75 |
| 12 | -195 | 161 | 142 | -164 | 173 | -253 | 245 | -223 | -0.20 | 0.20 | 0.30 | 128.50 | 78.27 |
| 13 | -197 | 185 | 168 | -193 | 188 | -275 | 268 | -246 | 0.00 | 0.00 | 0.10 | 112.60 | 74.88 |
| 14 | -343 | 306 | 287 | -308 | 110 | -215 | 207 | -184 | 0.00 | 0.30 | 0.30 | 96.52 | 74.33 |
| 15 | -355 | 337 | 319 | -342 | 108 | -199 | 189 | -166 | 0.00 | 0.00 | 0.00 | 142.40 | 72.27 |
| 16 | -337 | 330 | 311 | -334 | 121 | -212 | 201 | -181 | 0.00 | -0.10 | 0.10 | 274.20 | 71.70 |
| 17 | -563 | 541 | 521 | -548 | 182 | -283 | 276 | -258 | 0.00 | 0.10 | 0.10 | 106.80 | 72.28 |
| 18 | -583 | 540 | 522 | -548 | 189 | -283 | 275 | -255 | -0.20 | 0.30 | 0.40 | 120.90 | 70.77 |
| 19 | -619 | 583 | 565 | -593 | 188 | -295 | 286 | -266 | -0.10 | 0.40 | 0.40 | 106.00 | 64.54 |
| 20 | -674 | 605 | 588 | -615 | 183 | -283 | 270 | -250 | -0.20 | 0.60 | 0.70 | 111.10 | 58.42 |
| 21 | -713 | 696 | 675 | -705 | 186 | -281 | 270 | -252 | 0.20 | 0.40 | 0.40 | 68.02 | 43.40 |
| 22 | -688 | 690 | 673 | -702 | 200 | -256 | 244 | -224 | 0.00 | 0.00 | 0.00 | 97.41 | 37.05 |
| 23 | -765 | 766 | 750 | -776 | 412 | -486 | 479 | -457 | 0.20 | 0.20 | 0.20 | 50.24 | 35.71 |
| 24 | -758 | 726 | 710 | -736 | 425 | -514 | 501 | -480 | 0.00 | 0.40 | 0.50 | 96.25 | 33.18 |
| 25 | -765 | 747 | 732 | -758 | 400 | -518 | 511 | -490 | 0.40 | 0.40 | 0.50 | 45.30 | 14.86 |
| 26 | -763 | 728 | 714 | -741 | 362 | -470 | 458 | -440 | 0.20 | 0.50 | 0.50 | 69.24 | 357.70 |
| 27 | -754 | 751 | 735 | -764 | 350 | -446 | 434 | -417 | 0.30 | 0.10 | 0.30 | 20.44 | 324.30 |
| 28 | -716 | 711 | 695 | -722 | 374 | -444 | 431 | -414 | 0.10 | 0.00 | 0.10 | 330.50 | 304.70 |
| 29 | -840 | 822 | 805 | -834 | 204 | -309 | 293 | -276 | 0.20 | 0.20 | 0.20 | 50.24 | 302.20 |
| 30 | -817 | 808 | 792 | -822 | 201 | -302 | 285 | -268 | 0.20 | -0.10 | 0.20 | 336.00 | 284.80 |
| 31 | -782 | 772 | 757 | -785 | 231 | -311 | 292 | -275 | 0.00 | -0.10 | 0.10 | 267.90 | 272.50 |
| 32 | -771 | 779 | 737 | -777 | 191 | -280 | 289 | -248 | 0.00 | -0.20 | 0.20 | 280.30 | 273.70 |
| 33 | -822 | 810 | 794 | -825 | 187 | -273 | 253 | -234 | 0.00 | -0.10 | 0.10 | 261.90 | 270.70 |
| 34 | -863 | 848 | 833 | -864 | 163 | -249 | 230 | -214 | 0.00 | -0.10 | 0.10 | 268.40 | 275.30 |
| 35 | -1136 | 1122 | 1107 | -1136 | 47 | -136 | 116 | -101 | 0.00 | -0.10 | 0.10 | 243.60 | 279.00 |
| 36 | -1195 | 1178 | 1161 | -1191 | 37 | -126 | 111 | -96 | 0.00 | -0.10 | 0.10 | 255.10 | 303.90 |
| 37 | -1234 | 1222 | 1203 | -1234 | 27 | -120 | 103 | -88 | 0.00 | 0.00 | 0.00 | 60.49 | 7.07 |
| 38 | -1177 | 1164 | 1148 | -1181 | 72 | -167 | 149 | -134 | 0.00 | -0.10 | 0.10 | 234.50 | 353.80 |
| 39 | -1208 | 1194 | 1181 | -1210 | 84 | -178 | 160 | -147 | -0.10 | 0.00 | 0.10 | 204.50 | 25.62 |
| 40 | -1249 | 1232 | 1220 | -1250 | 76 | -172 | 154 | -142 | 0.00 | 0.00 | 0.00 | 303.90 | 25.31 |
| 41 | -1487 | 1473 | 1464 | -1495 | 159 | -252 | 237 | -222 | 0.00 | 0.00 | 0.00 | 289.90 | 33.82 |
| 42 | -1545 | 1534 | 1530 | -1557 | 126 | -215 | 195 | -180 | 0.10 | 0.00 | 0.10 | 349.00 | 44.58 |
| 43 | -1585 | 1577 | 1577 | -1606 | 138 | -222 | 203 | -188 | 0.00 | -0.10 | 0.10 | 267.00 | 58.93 |
| 44 | -1632 | 1618 | 1619 | -1650 | 22 | -100 | 77 | -65 | 0.10 | 0.00 | 0.10 | 337.80 | 68.60 |
| 45 | -1655 | 1642 | 1644 | -1675 | 38 | -112 | 89 | -77 | 0.00 | 0.00 | 0.10 | 52.36 | 82.97 |
| 46 | -1682 | 1667 | 1670 | -1701 | 60 | -135 | 111 | -101 | 0.10 | 0.10 | 0.10 | 29.26 | 90.77 |
| 47 | -1825 | 1806 | 1811 | -1844 | 71 | -146 | 124 | -117 | 0.00 | 0.10 | 0.10 | 78.84 | 121.20 |
| 48 | -1954 | 1939 | 1939 | -1973 | 101 | -163 | 154 | -146 | -0.10 | 0.10 | 0.10 | 138.10 | 147.30 |
| 49 | -2200 | 1842 | 2190 | -2244 | 137 | -137 | 175 | -194 | 0.00 | 0.00 | 0.00 | 180.40 | 180.40 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Committente: | | ANAS SpA | | | | | | | Numero lettura: | | 2 | | |
|---------------------|---------------|------------|------|-------|------|------|-----|------|-----------------------|--------|-----------------|------------|----------------|
| Località: | | La Spezia | | | | | | | Sonda usata: | | OG310S | | |
| Data: | | 30/06/2006 | | | | | | | Correzione angolare: | | 0 | | |
| Sigla inclinometro: | | I8 | | | | | | | Correzione azimutale: | | 146 | | |
| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 110 | -75 | -98 | 80 | -105 | 60 | -65 | 93 | 0.00 | -0.30 | 0.30 | 269.70 | 90.62 |
| 2 | 102 | -138 | -160 | 140 | -106 | 15 | -18 | 59 | 0.10 | 0.60 | 0.60 | 76.88 | 90.59 |
| 3 | 106 | -110 | -131 | 114 | -116 | 34 | -36 | 64 | 0.20 | 0.20 | 0.20 | 48.62 | 91.77 |
| 4 | 77 | -126 | -148 | 128 | -69 | 37 | -41 | 66 | -0.60 | 0.10 | 0.60 | 172.20 | 93.22 |
| 5 | 91 | -84 | -105 | 84 | -45 | -35 | 30 | 0 | 0.10 | 0.00 | 0.10 | 353.40 | 87.73 |
| 6 | 77 | -117 | -138 | 119 | -41 | -50 | 44 | -14 | -0.20 | 0.40 | 0.40 | 111.90 | 88.56 |
| 7 | -3 | -90 | -110 | 89 | 28 | -50 | 40 | -14 | -0.90 | 0.60 | 1.10 | 148.80 | 86.92 |
| 8 | -1 | 6 | -15 | -7 | 61 | -138 | 129 | -106 | 0.10 | 0.00 | 0.10 | 10.80 | 77.07 |
| 9 | -13 | -29 | -51 | 27 | 70 | -158 | 153 | -124 | -0.10 | 0.30 | 0.40 | 102.50 | 77.80 |
| 10 | -15 | -8 | -24 | -6 | 92 | -165 | 159 | -134 | 0.00 | -0.10 | 0.10 | 243.00 | 76.15 |
| 11 | -181 | 152 | 132 | -151 | 167 | -274 | 272 | -247 | 0.10 | 0.30 | 0.30 | 67.18 | 75.90 |
| 12 | -208 | 160 | 144 | -162 | 174 | -254 | 246 | -222 | -0.20 | 0.30 | 0.40 | 130.10 | 76.45 |
| 13 | -197 | 185 | 169 | -192 | 186 | -275 | 269 | -245 | 0.00 | 0.10 | 0.10 | 93.04 | 72.82 |
| 14 | -357 | 305 | 288 | -307 | 104 | -215 | 208 | -183 | -0.10 | 0.40 | 0.40 | 97.43 | 72.58 |
| 15 | -360 | 336 | 319 | -340 | 109 | -199 | 189 | -165 | 0.00 | 0.00 | 0.10 | 135.30 | 70.21 |
| 16 | -336 | 329 | 312 | -331 | 122 | -213 | 202 | -180 | 0.00 | -0.10 | 0.10 | 275.30 | 69.59 |
| 17 | -569 | 541 | 523 | -546 | 180 | -283 | 277 | -256 | 0.00 | 0.20 | 0.20 | 103.70 | 70.30 |
| 18 | -602 | 540 | 524 | -547 | 190 | -283 | 275 | -253 | -0.30 | 0.50 | 0.60 | 121.00 | 68.79 |
| 19 | -636 | 583 | 567 | -592 | 183 | -295 | 287 | -264 | -0.20 | 0.60 | 0.60 | 105.80 | 62.05 |
| 20 | -708 | 605 | 589 | -612 | 179 | -281 | 270 | -248 | -0.40 | 0.90 | 1.00 | 110.70 | 55.51 |
| 21 | -727 | 696 | 675 | -702 | 167 | -281 | 272 | -251 | 0.30 | 0.60 | 0.70 | 67.18 | 39.81 |
| 22 | -670 | 690 | 674 | -701 | 202 | -255 | 244 | -223 | 0.10 | -0.10 | 0.10 | 312.10 | 32.84 |
| 23 | -768 | 767 | 752 | -775 | 404 | -485 | 478 | -455 | 0.20 | 0.30 | 0.40 | 52.42 | 36.07 |
| 24 | -779 | 726 | 711 | -734 | 413 | -514 | 502 | -481 | -0.10 | 0.70 | 0.70 | 96.63 | 33.17 |
| 25 | -773 | 746 | 733 | -756 | 373 | -519 | 512 | -490 | 0.50 | 0.60 | 0.80 | 46.03 | 14.71 |
| 26 | -779 | 728 | 715 | -739 | 341 | -470 | 459 | -440 | 0.30 | 0.70 | 0.80 | 69.77 | 357.00 |
| 27 | -753 | 750 | 735 | -762 | 338 | -446 | 434 | -415 | 0.40 | 0.10 | 0.40 | 19.66 | 323.60 |
| 28 | -714 | 711 | 695 | -721 | 372 | -444 | 431 | -414 | 0.10 | 0.00 | 0.10 | 333.00 | 304.40 |
| 29 | -842 | 823 | 807 | -833 | 193 | -309 | 294 | -275 | 0.20 | 0.30 | 0.40 | 51.43 | 301.70 |
| 30 | -811 | 807 | 793 | -820 | 197 | -301 | 285 | -267 | 0.30 | -0.10 | 0.30 | 337.70 | 285.00 |
| 31 | -776 | 773 | 759 | -783 | 238 | -310 | 292 | -273 | 0.00 | -0.20 | 0.20 | 267.00 | 272.50 |
| 32 | -766 | 779 | 736 | -774 | 198 | -278 | 289 | -247 | 0.00 | -0.30 | 0.30 | 280.20 | 273.80 |
| 33 | -816 | 812 | 794 | -824 | 195 | -270 | 253 | -234 | 0.00 | -0.20 | 0.20 | 260.90 | 270.80 |
| 34 | -859 | 849 | 834 | -862 | 169 | -247 | 230 | -213 | 0.00 | -0.10 | 0.10 | 267.90 | 276.10 |
| 35 | -1133 | 1123 | 1107 | -1136 | 53 | -134 | 116 | -100 | 0.00 | -0.10 | 0.10 | 248.90 | 280.50 |
| 36 | -1192 | 1178 | 1162 | -1190 | 42 | -126 | 111 | -95 | 0.00 | -0.10 | 0.20 | 253.70 | 303.90 |
| 37 | -1235 | 1221 | 1204 | -1233 | 28 | -118 | 103 | -87 | 0.00 | 0.00 | 0.00 | 48.00 | 7.09 |
| 38 | -1177 | 1164 | 1148 | -1180 | 75 | -168 | 149 | -134 | -0.10 | -0.10 | 0.10 | 232.30 | 352.40 |
| 39 | -1209 | 1194 | 1182 | -1209 | 89 | -177 | 159 | -146 | -0.10 | 0.00 | 0.10 | 200.00 | 25.21 |
| 40 | -1251 | 1231 | 1219 | -1248 | 77 | -173 | 153 | -142 | 0.00 | 0.00 | 0.10 | 292.60 | 23.71 |
| 41 | -1488 | 1472 | 1463 | -1494 | 159 | -253 | 236 | -223 | 0.00 | -0.10 | 0.10 | 285.50 | 33.81 |
| 42 | -1546 | 1532 | 1529 | -1556 | 124 | -216 | 195 | -180 | 0.10 | 0.00 | 0.10 | 339.60 | 44.74 |
| 43 | -1585 | 1573 | 1577 | -1606 | 138 | -226 | 203 | -188 | 0.00 | -0.20 | 0.20 | 264.00 | 60.29 |
| 44 | -1634 | 1614 | 1618 | -1650 | 16 | -104 | 76 | -65 | 0.10 | 0.00 | 0.10 | 341.90 | 68.55 |
| 45 | -1660 | 1638 | 1644 | -1675 | 31 | -116 | 89 | -77 | 0.10 | 0.10 | 0.10 | 52.35 | 83.32 |
| 46 | -1685 | 1663 | 1670 | -1701 | 52 | -138 | 110 | -101 | 0.20 | 0.10 | 0.20 | 27.69 | 90.96 |
| 47 | -1829 | 1804 | 1812 | -1845 | 62 | -150 | 124 | -118 | 0.00 | 0.20 | 0.20 | 78.84 | 120.40 |
| 48 | -1959 | 1938 | 1940 | -1975 | 92 | -169 | 154 | -151 | -0.10 | 0.10 | 0.20 | 138.80 | 146.30 |
| 49 | -2202 | 1843 | 2190 | -2242 | 136 | -138 | 175 | -195 | 0.00 | 0.00 | 0.00 | 177.20 | 177.20 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Committente: | | ANAS SpA | | | | | | | Numero lettura: | | 3 | | | |
|---------------------|---------------|------------|------|-------|------|------|-----|------|-----------------------|--------|-----------------|------------|----------------|--|
| Località: | | La Spezia | | | | | | | Sonda usata: | | OG310S | | | |
| Data: | | 14/07/2006 | | | | | | | Correzione angolare: | | 0 | | | |
| Sigla inclinometro: | | I8 | | | | | | | Correzione azimutale: | | 146 | | | |
| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | | |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) | |
| 1 | 115 | -74 | -97 | 80 | -103 | 60 | -64 | 93 | 0.00 | -0.30 | 0.30 | 268.20 | 91.05 | |
| 2 | 96 | -138 | -160 | 140 | -111 | 15 | -18 | 61 | 0.20 | 0.60 | 0.70 | 76.56 | 90.94 | |
| 3 | 105 | -110 | -130 | 115 | -119 | 34 | -36 | 64 | 0.20 | 0.20 | 0.30 | 49.07 | 92.17 | |
| 4 | 70 | -126 | -148 | 129 | -62 | 37 | -40 | 66 | -0.70 | 0.10 | 0.70 | 172.90 | 93.57 | |
| 5 | 93 | -84 | -104 | 84 | -46 | -35 | 30 | 0 | 0.10 | 0.00 | 0.10 | 352.80 | 88.13 | |
| 6 | 71 | -117 | -138 | 119 | -43 | -50 | 44 | -14 | -0.20 | 0.50 | 0.50 | 111.00 | 88.95 | |
| 7 | -18 | -89 | -109 | 89 | 37 | -49 | 40 | -13 | -1.10 | 0.70 | 1.30 | 148.50 | 87.43 | |
| 8 | 1 | 7 | -14 | -6 | 61 | -138 | 130 | -105 | 0.10 | 0.00 | 0.10 | 4.25 | 77.66 | |
| 9 | -19 | -29 | -50 | 28 | 69 | -158 | 153 | -123 | -0.10 | 0.40 | 0.40 | 102.90 | 78.35 | |
| 10 | -16 | -8 | -25 | -6 | 95 | -165 | 159 | -134 | -0.10 | -0.10 | 0.10 | 236.60 | 76.71 | |
| 11 | -185 | 152 | 133 | -150 | 163 | -274 | 273 | -247 | 0.10 | 0.30 | 0.40 | 69.91 | 76.29 | |
| 12 | -214 | 160 | 145 | -161 | 175 | -254 | 246 | -221 | -0.30 | 0.30 | 0.40 | 129.30 | 76.69 | |
| 13 | -199 | 185 | 170 | -192 | 185 | -275 | 270 | -244 | 0.00 | 0.10 | 0.10 | 97.44 | 73.16 | |
| 14 | -364 | 305 | 289 | -306 | 101 | -215 | 208 | -183 | -0.10 | 0.50 | 0.50 | 97.94 | 72.78 | |
| 15 | -362 | 335 | 319 | -339 | 109 | -199 | 189 | -165 | 0.00 | 0.00 | 0.10 | 135.30 | 70.36 | |
| 16 | -335 | 329 | 312 | -330 | 124 | -213 | 203 | -179 | 0.00 | -0.20 | 0.20 | 272.30 | 69.84 | |
| 17 | -572 | 541 | 524 | -545 | 179 | -283 | 278 | -255 | -0.10 | 0.20 | 0.20 | 104.00 | 70.49 | |
| 18 | -611 | 540 | 525 | -546 | 191 | -283 | 275 | -252 | -0.30 | 0.60 | 0.70 | 121.40 | 69.00 | |
| 19 | -644 | 583 | 568 | -591 | 181 | -295 | 287 | -263 | -0.20 | 0.60 | 0.70 | 105.50 | 62.37 | |
| 20 | -725 | 605 | 589 | -611 | 177 | -280 | 270 | -247 | -0.40 | 1.10 | 1.20 | 110.60 | 56.08 | |
| 21 | -734 | 696 | 675 | -701 | 158 | -281 | 273 | -250 | 0.30 | 0.70 | 0.80 | 67.25 | 40.69 | |
| 22 | -671 | 690 | 675 | -700 | 203 | -254 | 244 | -222 | 0.10 | -0.10 | 0.10 | 316.90 | 33.98 | |
| 23 | -769 | 767 | 753 | -774 | 400 | -484 | 478 | -454 | 0.30 | 0.30 | 0.40 | 51.18 | 36.55 | |
| 24 | -789 | 726 | 712 | -733 | 407 | -514 | 502 | -481 | -0.10 | 0.80 | 0.80 | 96.10 | 33.98 | |
| 25 | -777 | 745 | 733 | -755 | 359 | -520 | 512 | -490 | 0.60 | 0.60 | 0.90 | 45.55 | 15.64 | |
| 26 | -787 | 728 | 715 | -738 | 331 | -470 | 459 | -440 | 0.30 | 0.80 | 0.90 | 69.66 | 358.40 | |
| 27 | -753 | 750 | 735 | -761 | 332 | -446 | 434 | -414 | 0.50 | 0.20 | 0.50 | 20.51 | 324.50 | |
| 28 | -713 | 711 | 695 | -720 | 370 | -444 | 431 | -414 | 0.10 | -0.10 | 0.10 | 336.40 | 304.80 | |
| 29 | -843 | 823 | 808 | -832 | 188 | -309 | 294 | -274 | 0.30 | 0.30 | 0.40 | 50.30 | 301.50 | |
| 30 | -808 | 807 | 793 | -819 | 195 | -301 | 285 | -266 | 0.30 | -0.10 | 0.30 | 338.10 | 284.20 | |
| 31 | -773 | 773 | 760 | -782 | 242 | -309 | 292 | -272 | 0.00 | -0.20 | 0.20 | 267.50 | 270.90 | |
| 32 | -763 | 779 | 736 | -773 | 201 | -277 | 289 | -246 | 0.10 | -0.30 | 0.30 | 281.40 | 271.80 | |
| 33 | -813 | 813 | 794 | -824 | 199 | -268 | 253 | -234 | 0.00 | -0.20 | 0.20 | 260.70 | 267.10 | |
| 34 | -857 | 850 | 834 | -861 | 172 | -246 | 230 | -213 | 0.00 | -0.20 | 0.20 | 266.30 | 270.70 | |
| 35 | -1132 | 1124 | 1107 | -1135 | 56 | -133 | 116 | -100 | -0.10 | -0.10 | 0.10 | 244.20 | 273.50 | |
| 36 | -1190 | 1178 | 1162 | -1189 | 45 | -126 | 111 | -94 | 0.00 | -0.20 | 0.20 | 256.80 | 300.10 | |
| 37 | -1236 | 1221 | 1205 | -1232 | 29 | -117 | 103 | -86 | 0.00 | 0.00 | 0.10 | 55.76 | 24.62 | |
| 38 | -1177 | 1164 | 1148 | -1179 | 76 | -168 | 149 | -134 | -0.10 | -0.10 | 0.10 | 234.90 | 6.59 | |
| 39 | -1209 | 1194 | 1182 | -1209 | 91 | -177 | 159 | -146 | -0.10 | 0.00 | 0.10 | 202.70 | 36.33 | |
| 40 | -1252 | 1230 | 1219 | -1247 | 77 | -173 | 152 | -142 | 0.00 | 0.00 | 0.10 | 303.90 | 31.89 | |
| 41 | -1489 | 1471 | 1462 | -1494 | 159 | -253 | 235 | -223 | 0.00 | -0.10 | 0.10 | 295.80 | 42.88 | |
| 42 | -1547 | 1531 | 1529 | -1556 | 123 | -216 | 195 | -180 | 0.10 | 0.00 | 0.10 | 344.70 | 54.27 | |
| 43 | -1585 | 1571 | 1577 | -1606 | 138 | -228 | 203 | -188 | 0.00 | -0.20 | 0.20 | 263.20 | 69.84 | |
| 44 | -1635 | 1612 | 1617 | -1650 | 13 | -106 | 76 | -65 | 0.10 | 0.00 | 0.10 | 340.10 | 74.73 | |
| 45 | -1663 | 1636 | 1644 | -1675 | 28 | -118 | 89 | -77 | 0.10 | 0.10 | 0.10 | 55.71 | 89.50 | |
| 46 | -1686 | 1661 | 1670 | -1701 | 48 | -140 | 109 | -101 | 0.20 | 0.10 | 0.20 | 25.91 | 97.24 | |
| 47 | -1831 | 1803 | 1812 | -1846 | 58 | -152 | 124 | -119 | 0.00 | 0.20 | 0.20 | 81.13 | 125.30 | |
| 48 | -1962 | 1938 | 1940 | -1976 | 87 | -172 | 154 | -153 | -0.20 | 0.20 | 0.20 | 136.30 | 147.50 | |
| 49 | -2203 | 1845 | 2190 | -2243 | 138 | -140 | 175 | -195 | -0.10 | 0.00 | 0.10 | 173.00 | 173.00 | |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 4 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 26/07/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I8 | Correzione azimutale: | 146 |

| Profo ndità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|-----------------------|---------------|------|------|-------|------|------|-----|------|---------------------|-----------|--------------------|---------------|-------------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 121 | -74 | -96 | 81 | -101 | 61 | -64 | 94 | 0.00 | -0.40 | 0.40 | 273.80 | 96.92 |
| 2 | 90 | -139 | -160 | 141 | -117 | 16 | -18 | 64 | 0.20 | 0.70 | 0.80 | 73.71 | 96.80 |
| 3 | 104 | -111 | -130 | 116 | -123 | 35 | -36 | 65 | 0.20 | 0.20 | 0.30 | 44.62 | 98.73 |
| 4 | 63 | -126 | -148 | 130 | -56 | 38 | -40 | 66 | -0.80 | 0.10 | 0.80 | 172.00 | 100.40 |
| 5 | 95 | -84 | -104 | 85 | -48 | -35 | 31 | 1 | 0.10 | 0.00 | 0.10 | 349.00 | 95.40 |
| 6 | 65 | -117 | -138 | 120 | -46 | -51 | 45 | -14 | -0.20 | 0.50 | 0.50 | 111.20 | 96.31 |
| 7 | -33 | -89 | -109 | 89 | 46 | -49 | 41 | -13 | -1.20 | 0.70 | 1.40 | 149.60 | 95.31 |
| 8 | 3 | 8 | -14 | -6 | 61 | -138 | 131 | -105 | 0.10 | 0.00 | 0.10 | 354.10 | 86.17 |
| 9 | -25 | -29 | -50 | 29 | 69 | -158 | 154 | -123 | -0.10 | 0.40 | 0.50 | 106.30 | 86.78 |
| 10 | -15 | -9 | -26 | -5 | 97 | -165 | 160 | -134 | -0.10 | -0.20 | 0.20 | 244.90 | 85.50 |
| 11 | -189 | 152 | 134 | -149 | 159 | -274 | 274 | -247 | 0.10 | 0.40 | 0.40 | 72.00 | 85.00 |
| 12 | -221 | 160 | 146 | -161 | 176 | -255 | 247 | -221 | -0.30 | 0.40 | 0.50 | 131.80 | 85.79 |
| 13 | -199 | 186 | 171 | -192 | 184 | -276 | 271 | -244 | 0.00 | 0.10 | 0.10 | 107.30 | 82.42 |
| 14 | -371 | 305 | 290 | -306 | 98 | -216 | 209 | -183 | -0.10 | 0.60 | 0.60 | 100.50 | 82.02 |
| 15 | -365 | 335 | 320 | -338 | 110 | -199 | 190 | -165 | -0.10 | 0.00 | 0.10 | 144.50 | 80.17 |
| 16 | -332 | 329 | 313 | -329 | 123 | -214 | 204 | -179 | 0.00 | -0.20 | 0.20 | 274.60 | 79.38 |
| 17 | -576 | 541 | 525 | -545 | 179 | -284 | 279 | -255 | -0.10 | 0.30 | 0.30 | 111.40 | 79.86 |
| 18 | -621 | 540 | 526 | -546 | 192 | -283 | 276 | -251 | -0.40 | 0.70 | 0.80 | 122.50 | 78.37 |
| 19 | -653 | 584 | 569 | -591 | 179 | -295 | 288 | -263 | -0.20 | 0.70 | 0.80 | 107.40 | 72.20 |
| 20 | -743 | 606 | 590 | -610 | 175 | -280 | 271 | -247 | -0.50 | 1.30 | 1.40 | 112.00 | 66.46 |
| 21 | -741 | 697 | 676 | -700 | 149 | -281 | 275 | -250 | 0.30 | 0.80 | 0.90 | 69.13 | 50.93 |
| 22 | -671 | 691 | 676 | -700 | 205 | -254 | 245 | -222 | 0.10 | -0.10 | 0.10 | 303.90 | 45.40 |
| 23 | -771 | 768 | 754 | -774 | 396 | -484 | 478 | -454 | 0.30 | 0.40 | 0.50 | 54.26 | 47.58 |
| 24 | -800 | 726 | 713 | -732 | 401 | -515 | 503 | -482 | -0.10 | 0.90 | 0.90 | 97.67 | 46.19 |
| 25 | -781 | 745 | 734 | -755 | 346 | -521 | 513 | -491 | 0.70 | 0.70 | 1.00 | 47.19 | 24.67 |
| 26 | -796 | 728 | 716 | -738 | 321 | -471 | 460 | -440 | 0.30 | 0.90 | 1.00 | 71.64 | 3.50 |
| 27 | -753 | 750 | 735 | -760 | 326 | -447 | 435 | -414 | 0.50 | 0.20 | 0.60 | 20.47 | 310.40 |
| 28 | -712 | 711 | 696 | -720 | 368 | -444 | 432 | -414 | 0.10 | 0.00 | 0.10 | 340.00 | 282.10 |
| 29 | -844 | 824 | 810 | -832 | 183 | -309 | 295 | -274 | 0.30 | 0.40 | 0.50 | 53.55 | 275.70 |
| 30 | -805 | 807 | 794 | -819 | 194 | -301 | 285 | -266 | 0.30 | -0.10 | 0.40 | 337.70 | 262.70 |
| 31 | -771 | 774 | 761 | -781 | 246 | -309 | 292 | -272 | 0.00 | -0.30 | 0.30 | 261.90 | 248.10 |
| 32 | -761 | 780 | 736 | -772 | 205 | -276 | 290 | -246 | 0.00 | -0.30 | 0.30 | 276.60 | 244.80 |
| 33 | -810 | 814 | 795 | -824 | 204 | -267 | 254 | -234 | -0.10 | -0.30 | 0.30 | 254.50 | 232.10 |
| 34 | -856 | 851 | 835 | -861 | 175 | -246 | 231 | -213 | 0.00 | -0.20 | 0.20 | 254.50 | 221.90 |
| 35 | -1131 | 1125 | 1107 | -1135 | 59 | -133 | 116 | -100 | -0.10 | -0.10 | 0.20 | 238.90 | 209.20 |
| 36 | -1189 | 1178 | 1163 | -1189 | 48 | -127 | 111 | -94 | -0.10 | -0.20 | 0.20 | 249.70 | 194.30 |
| 37 | -1237 | 1221 | 1206 | -1232 | 30 | -117 | 104 | -86 | 0.00 | 0.00 | 0.00 | 87.06 | 150.80 |
| 38 | -1178 | 1164 | 1148 | -1179 | 78 | -169 | 149 | -134 | -0.10 | -0.10 | 0.20 | 228.00 | 161.20 |
| 39 | -1210 | 1194 | 1183 | -1209 | 94 | -177 | 159 | -146 | -0.10 | 0.00 | 0.10 | 196.90 | 121.50 |
| 40 | -1254 | 1230 | 1219 | -1247 | 78 | -174 | 152 | -142 | 0.00 | 0.00 | 0.00 | 277.30 | 88.57 |
| 41 | -1490 | 1471 | 1462 | -1494 | 160 | -254 | 235 | -224 | 0.00 | -0.10 | 0.10 | 270.10 | 89.93 |
| 42 | -1548 | 1530 | 1529 | -1556 | 123 | -217 | 195 | -180 | 0.10 | 0.00 | 0.10 | 339.60 | 89.99 |
| 43 | -1586 | 1569 | 1577 | -1606 | 138 | -231 | 203 | -188 | 0.00 | -0.20 | 0.20 | 258.80 | 101.60 |
| 44 | -1636 | 1611 | 1617 | -1650 | 11 | -109 | 76 | -65 | 0.10 | -0.10 | 0.10 | 336.50 | 93.79 |
| 45 | -1666 | 1635 | 1645 | -1675 | 25 | -120 | 89 | -78 | 0.00 | 0.10 | 0.10 | 68.87 | 103.70 |
| 46 | -1688 | 1659 | 1671 | -1702 | 44 | -142 | 109 | -102 | 0.20 | 0.10 | 0.20 | 31.41 | 110.70 |
| 47 | -1834 | 1803 | 1813 | -1847 | 54 | -155 | 124 | -120 | 0.00 | 0.20 | 0.20 | 90.15 | 132.90 |
| 48 | -1965 | 1938 | 1941 | -1977 | 83 | -175 | 155 | -156 | -0.20 | 0.20 | 0.30 | 140.00 | 152.40 |
| 49 | -2204 | 1849 | 2191 | -2241 | 139 | -142 | 176 | -196 | -0.20 | 0.00 | 0.20 | 173.90 | 173.90 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 5 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 31/08/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I8 | Correzione azimutale: | 146 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|-------|------|------|-----|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 74 | -74 | -94 | 111 | -108 | 69 | -71 | 64 | -0.10 | -0.20 | 0.30 | 238.70 | 160.00 |
| 2 | 145 | -148 | -164 | 131 | -60 | 19 | -21 | 55 | 0.00 | -0.10 | 0.10 | 297.60 | 157.90 |
| 3 | 110 | -113 | -130 | 80 | -85 | 43 | -45 | -5 | -0.70 | 0.00 | 0.70 | 184.00 | 157.40 |
| 4 | 65 | -127 | -148 | 131 | -57 | 35 | -41 | 64 | -0.80 | 0.10 | 0.80 | 175.60 | 155.00 |
| 5 | 79 | -85 | -104 | 83 | -25 | -28 | 25 | -14 | -0.20 | 0.00 | 0.20 | 188.90 | 152.40 |
| 6 | 68 | -115 | -136 | 121 | -52 | -54 | 47 | -11 | -0.20 | 0.50 | 0.60 | 107.20 | 151.50 |
| 7 | 79 | -89 | -108 | 25 | -21 | -36 | 30 | -126 | -1.20 | 0.20 | 1.20 | 169.60 | 155.30 |
| 8 | -14 | 6 | -14 | -9 | 85 | -135 | 131 | -140 | -0.50 | -0.20 | 0.50 | 199.40 | 151.80 |
| 9 | -28 | -28 | -48 | 32 | 73 | -154 | 156 | -120 | -0.10 | 0.50 | 0.50 | 106.30 | 146.70 |
| 10 | -17 | -8 | -22 | -4 | 99 | -165 | 161 | -135 | -0.10 | -0.10 | 0.20 | 222.90 | 151.30 |
| 11 | -150 | 139 | 123 | -206 | 217 | -270 | 269 | -259 | -0.30 | 0.00 | 0.30 | 180.70 | 148.70 |
| 12 | -223 | 160 | 146 | -163 | 178 | -257 | 249 | -218 | -0.40 | 0.40 | 0.60 | 134.30 | 145.80 |
| 13 | -201 | 186 | 172 | -193 | 182 | -274 | 271 | -245 | 0.00 | 0.10 | 0.20 | 100.80 | 147.80 |
| 14 | -317 | 305 | 286 | -329 | 150 | -205 | 204 | -186 | -0.20 | 0.10 | 0.20 | 165.60 | 150.00 |
| 15 | -367 | 332 | 321 | -334 | 113 | -200 | 192 | -163 | -0.10 | 0.00 | 0.10 | 184.20 | 148.60 |
| 16 | -333 | 328 | 310 | -330 | 125 | -213 | 201 | -180 | 0.00 | -0.20 | 0.20 | 280.00 | 147.60 |
| 17 | -543 | 532 | 518 | -611 | 222 | -272 | 275 | -271 | -0.60 | 0.20 | 0.60 | 164.00 | 144.70 |
| 18 | -555 | 543 | 528 | -606 | 214 | -272 | 271 | -255 | -0.50 | 0.60 | 0.80 | 129.90 | 139.90 |
| 19 | -655 | 587 | 571 | -589 | 178 | -295 | 285 | -261 | -0.20 | 0.80 | 0.80 | 104.40 | 144.90 |
| 20 | -615 | 603 | 585 | -706 | 208 | -267 | 269 | -228 | -0.30 | 0.90 | 1.00 | 106.60 | 176.30 |
| 21 | -743 | 701 | 679 | -698 | 146 | -280 | 271 | -249 | 0.30 | 0.90 | 1.00 | 69.44 | 228.60 |
| 22 | -673 | 692 | 674 | -703 | 203 | -255 | 244 | -221 | 0.10 | 0.00 | 0.10 | 327.20 | 238.20 |
| 23 | -780 | 774 | 765 | -755 | 415 | -470 | 472 | -495 | -0.10 | 0.20 | 0.20 | 109.90 | 236.10 |
| 24 | -732 | 729 | 719 | -741 | 444 | -500 | 499 | -446 | 0.30 | 0.50 | 0.60 | 64.77 | 241.20 |
| 25 | -746 | 741 | 732 | -763 | 463 | -511 | 510 | -420 | 0.60 | 0.30 | 0.70 | 25.26 | 241.90 |
| 26 | -726 | 726 | 719 | -725 | 419 | -461 | 459 | -419 | 0.20 | -0.10 | 0.20 | 335.70 | 235.30 |
| 27 | -750 | 749 | 736 | -759 | 324 | -449 | 436 | -411 | 0.60 | 0.20 | 0.60 | 17.13 | 231.30 |
| 28 | -711 | 711 | 696 | -722 | 366 | -445 | 430 | -415 | 0.10 | 0.00 | 0.10 | 349.00 | 226.50 |
| 29 | -806 | 823 | 813 | -821 | 269 | -297 | 291 | -271 | 0.00 | -0.40 | 0.40 | 268.50 | 224.80 |
| 30 | -793 | 805 | 795 | -784 | 259 | -291 | 284 | -276 | 0.10 | -0.90 | 0.90 | 274.50 | 220.80 |
| 31 | -761 | 772 | 763 | -775 | 265 | -296 | 291 | -253 | 0.20 | -0.30 | 0.40 | 297.60 | 208.30 |
| 32 | -749 | 779 | 747 | -826 | 224 | -269 | 285 | -239 | -0.20 | 0.10 | 0.30 | 161.30 | 202.10 |
| 33 | -802 | 811 | 799 | -863 | 224 | -259 | 254 | -217 | -0.20 | 0.00 | 0.20 | 172.80 | 205.20 |
| 34 | -853 | 856 | 838 | -859 | 178 | -238 | 228 | -211 | 0.00 | -0.10 | 0.10 | 280.00 | 207.40 |
| 35 | 1115 | 1122 | 1116 | -1192 | 85 | -123 | 116 | -101 | -0.50 | 0.20 | 0.50 | 162.70 | 205.60 |
| 36 | 1171 | 1176 | 1168 | -1232 | 78 | -115 | 110 | -94 | -0.40 | -0.10 | 0.40 | 190.80 | 213.30 |
| 37 | 1214 | 1220 | 1211 | -1180 | 73 | -106 | 102 | -138 | -0.30 | -1.00 | 1.00 | 254.20 | 217.10 |
| 38 | 1160 | 1164 | 1158 | -1211 | 111 | -156 | 149 | -151 | -0.60 | -0.10 | 0.60 | 193.30 | 193.30 |
| 39 | 1192 | 1194 | 1186 | -1247 | 125 | -166 | 160 | -144 | -0.40 | 0.00 | 0.40 | 173.90 | 193.30 |
| 40 | 1230 | 1230 | 1229 | -1247 | 120 | -161 | 154 | -144 | -0.20 | -0.30 | 0.40 | 241.10 | 206.60 |
| 41 | 1472 | 1474 | 1472 | -1495 | 195 | -241 | 236 | -226 | -0.20 | -0.20 | 0.30 | 232.90 | 168.10 |
| 42 | 1534 | 1536 | 1533 | -1556 | 156 | -196 | 191 | -185 | 0.00 | -0.10 | 0.10 | 267.80 | 117.50 |
| 43 | 1582 | 1582 | 1581 | -1606 | 159 | -203 | 195 | -191 | 0.00 | 0.00 | 0.00 | 247.50 | 109.40 |
| 44 | 1622 | 1626 | 1621 | -1648 | 36 | -80 | 73 | -65 | 0.20 | 0.00 | 0.20 | 4.36 | 106.70 |
| 45 | 1649 | 1649 | 1650 | -1675 | 49 | -91 | 85 | -79 | 0.10 | 0.20 | 0.20 | 60.46 | 122.90 |
| 46 | 1673 | 1671 | 1675 | -1700 | 78 | -114 | 108 | -101 | 0.20 | 0.10 | 0.20 | 27.69 | 143.50 |
| 47 | 1820 | 1816 | 1820 | -1845 | 88 | -131 | 126 | -117 | -0.10 | 0.20 | 0.20 | 116.10 | 159.10 |
| 48 | 1941 | 1942 | 1950 | -1974 | 120 | -158 | 158 | -150 | -0.30 | 0.00 | 0.30 | 184.80 | 177.70 |
| 49 | 2206 | 1848 | 2191 | -2243 | 140 | -143 | 174 | -196 | -0.20 | 0.00 | 0.20 | 167.00 | 167.00 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 6 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 30/09/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I8 | Correzione azimutale: | 146 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|-------|------|------|-----|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 89 | -92 | -123 | 86 | -150 | 74 | -91 | 82 | 0.80 | -0.10 | 0.80 | 354.20 | 23.57 |
| 2 | 134 | -149 | -165 | 138 | -96 | 24 | -32 | 31 | 0.30 | 0.10 | 0.30 | 19.47 | 27.23 |
| 3 | 93 | -123 | -141 | 102 | -115 | 39 | -51 | 49 | 0.20 | 0.20 | 0.30 | 50.50 | 27.61 |
| 4 | 114 | -141 | -155 | 116 | -126 | 13 | -48 | 46 | -0.20 | -0.20 | 0.30 | 226.90 | 26.44 |
| 5 | 66 | -97 | -111 | 67 | -60 | -30 | 23 | -14 | 0.10 | 0.30 | 0.30 | 74.36 | 27.40 |
| 6 | 95 | -128 | -141 | 110 | -60 | -50 | 18 | -15 | 0.30 | 0.50 | 0.60 | 53.72 | 25.37 |
| 7 | 61 | -96 | -114 | 78 | -61 | -41 | 16 | -17 | 0.40 | 0.70 | 0.80 | 58.68 | 22.26 |
| 8 | -52 | 1 | -9 | -15 | 48 | -139 | 111 | -125 | -0.20 | 0.60 | 0.60 | 106.40 | 15.81 |
| 9 | -16 | -42 | -51 | 19 | 40 | -161 | 125 | -141 | 0.20 | 0.50 | 0.60 | 65.29 | 7.91 |
| 10 | -13 | -36 | -45 | 14 | 50 | -164 | 137 | -155 | 0.70 | -0.40 | 0.80 | 328.70 | 0.80 |
| 11 | -172 | 124 | 114 | -138 | 162 | -286 | 250 | -268 | 0.50 | -0.30 | 0.50 | 325.40 | 8.35 |
| 12 | -182 | 144 | 136 | -170 | 170 | -260 | 230 | -246 | -0.10 | -0.10 | 0.10 | 233.60 | 15.49 |
| 13 | -226 | 175 | 165 | -199 | 171 | -291 | 271 | -265 | -0.30 | 0.10 | 0.30 | 160.50 | 17.18 |
| 14 | -316 | 288 | 282 | -307 | 126 | -220 | 202 | -189 | 0.10 | -0.30 | 0.30 | 286.80 | 13.79 |
| 15 | -361 | 316 | 313 | -339 | 101 | -192 | 171 | -188 | 0.20 | -0.10 | 0.20 | 327.20 | 18.39 |
| 16 | -333 | 311 | 302 | -330 | 116 | -211 | 192 | -204 | 0.10 | -0.40 | 0.40 | 288.40 | 21.52 |
| 17 | -571 | 526 | 518 | -555 | 188 | -295 | 251 | -281 | -0.20 | 0.00 | 0.20 | 174.20 | 29.27 |
| 18 | -571 | 526 | 525 | -553 | 179 | -279 | 250 | -269 | 0.10 | 0.30 | 0.30 | 70.51 | 27.77 |
| 19 | -609 | 574 | 566 | -598 | 190 | -297 | 267 | -269 | 0.10 | 0.30 | 0.30 | 78.98 | 23.68 |
| 20 | -636 | 597 | 592 | -620 | 185 | -287 | 245 | -257 | 0.10 | 0.40 | 0.40 | 81.02 | 18.38 |
| 21 | -731 | 676 | 684 | -713 | 190 | -278 | 261 | -264 | 0.10 | 0.50 | 0.50 | 84.45 | 11.31 |
| 22 | -708 | 670 | 667 | -704 | 166 | -270 | 239 | -233 | 0.10 | 0.10 | 0.20 | 34.00 | 0.93 |
| 23 | -815 | 767 | 761 | -792 | 380 | -485 | 462 | -466 | 0.10 | 1.10 | 1.10 | 86.55 | 358.70 |
| 24 | -757 | 706 | 718 | -752 | 420 | -505 | 489 | -493 | 0.00 | 0.50 | 0.50 | 85.62 | 336.10 |
| 25 | -769 | 711 | 725 | -757 | 425 | -521 | 504 | -504 | 0.30 | -0.20 | 0.30 | 330.50 | 326.20 |
| 26 | -761 | 692 | 711 | -746 | 384 | -486 | 459 | -449 | 0.00 | -0.10 | 0.10 | 258.90 | 325.60 |
| 27 | -778 | 725 | 739 | -768 | 357 | -462 | 431 | -430 | 0.00 | 0.00 | 0.00 | 228.00 | 327.60 |
| 28 | -735 | 701 | 695 | -730 | 350 | -454 | 424 | -426 | 0.00 | 0.20 | 0.20 | 76.48 | 328.50 |
| 29 | -845 | 801 | 809 | -842 | 216 | -312 | 278 | -273 | 0.20 | 0.20 | 0.30 | 40.33 | 325.20 |
| 30 | -839 | 779 | 784 | -829 | 214 | -319 | 286 | -274 | -0.10 | -0.30 | 0.40 | 255.50 | 319.50 |
| 31 | -814 | 722 | 745 | -801 | 216 | -337 | 272 | -294 | 0.00 | -0.30 | 0.30 | 268.20 | 327.00 |
| 32 | -817 | 778 | 728 | -796 | 191 | -260 | 269 | -246 | 0.10 | 0.50 | 0.50 | 82.06 | 333.40 |
| 33 | -833 | 794 | 777 | -837 | 180 | -268 | 223 | -239 | 0.30 | 0.00 | 0.30 | 358.40 | 322.20 |
| 34 | -887 | 838 | 808 | -877 | 160 | -239 | 198 | -236 | 0.20 | 0.10 | 0.20 | 18.49 | 317.20 |
| 35 | -1148 | 1115 | 1083 | -1152 | 62 | -131 | 84 | -120 | 0.00 | -0.10 | 0.10 | 274.10 | 313.00 |
| 36 | -1195 | 1182 | 1134 | -1212 | 83 | -121 | 80 | -117 | -0.30 | -0.30 | 0.40 | 226.90 | 314.30 |
| 37 | -1247 | 1208 | 1176 | -1257 | 48 | -123 | 66 | -118 | -0.10 | -0.10 | 0.20 | 228.90 | 324.90 |
| 38 | -1167 | 1124 | 1123 | -1202 | 101 | -173 | 129 | -158 | -0.10 | -0.70 | 0.70 | 264.40 | 328.90 |
| 39 | -1225 | 1149 | 1160 | -1225 | 118 | -184 | 135 | -163 | -0.10 | -0.50 | 0.50 | 255.60 | 348.40 |
| 40 | -1263 | 1189 | 1202 | -1258 | 106 | -179 | 121 | -156 | 0.10 | -0.40 | 0.50 | 280.70 | 2.20 |
| 41 | -1499 | 1430 | 1442 | -1509 | 182 | -256 | 201 | -239 | 0.20 | -0.40 | 0.40 | 292.10 | 14.83 |
| 42 | -1574 | 1503 | 1508 | -1563 | 141 | -208 | 182 | -192 | 0.10 | -0.20 | 0.20 | 296.10 | 27.04 |
| 43 | -1614 | 1566 | 1560 | -1609 | 147 | -204 | 169 | -198 | 0.20 | 0.10 | 0.30 | 25.61 | 33.18 |
| 44 | -1662 | 1638 | 1608 | -1650 | 27 | -83 | 37 | -80 | 0.20 | 0.50 | 0.50 | 72.70 | 34.32 |
| 45 | -1649 | 1638 | 1632 | -1679 | 37 | -89 | 58 | -96 | 0.40 | 0.10 | 0.40 | 13.23 | 21.09 |
| 46 | -1703 | 1668 | 1656 | -1702 | 68 | -106 | 85 | -102 | 0.40 | 0.40 | 0.60 | 41.82 | 24.68 |
| 47 | -1805 | 1812 | 1801 | -1847 | 77 | -124 | 91 | -127 | 0.50 | 0.10 | 0.50 | 17.16 | 2.51 |
| 48 | -1920 | 1939 | 1935 | -1971 | 109 | -152 | 132 | -158 | 0.20 | -0.20 | 0.30 | 323.70 | 268.90 |
| 49 | -2208 | 1850 | 2189 | -2245 | 140 | -144 | 175 | -198 | -0.20 | 0.10 | 0.20 | 167.50 | 167.50 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 7 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 30/10/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | 18 | Correzione azimutale: | 146 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|-------|------|------|-----|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 73 | -81 | -109 | 102 | -133 | 69 | -93 | 78 | 0.40 | 0.00 | 0.40 | 359.50 | 124.10 |
| 2 | 141 | -148 | -163 | 139 | -60 | 21 | -24 | 45 | 0.00 | -0.10 | 0.10 | 277.40 | 129.10 |
| 3 | 107 | -123 | -130 | 87 | -87 | 43 | -47 | 42 | -0.20 | 0.10 | 0.20 | 145.80 | 128.10 |
| 4 | 97 | -130 | -153 | 131 | -68 | 35 | -45 | 49 | -0.80 | -0.30 | 0.60 | 205.70 | 127.20 |
| 5 | 69 | -96 | -107 | 89 | -26 | -24 | 7 | -21 | 0.00 | 0.00 | 0.00 | 322.40 | 117.90 |
| 6 | 75 | -115 | -139 | 117 | -64 | -48 | 32 | -20 | 0.10 | 0.60 | 0.60 | 83.60 | 118.10 |
| 7 | 55 | -91 | -110 | 40 | -32 | -37 | 24 | -92 | -0.80 | 0.50 | 0.90 | 145.30 | 124.10 |
| 8 | -20 | 5 | -13 | -11 | 32 | -134 | 127 | -131 | 0.00 | 0.30 | 0.30 | 85.01 | 116.40 |
| 9 | -28 | -31 | -48 | 28 | 53 | -149 | 144 | -126 | 0.10 | 0.70 | 0.70 | 80.22 | 119.90 |
| 10 | -28 | -32 | -33 | 12 | 84 | -164 | 154 | -153 | 0.10 | -0.40 | 0.50 | 285.90 | 133.40 |
| 11 | -174 | 125 | 122 | -145 | 189 | -272 | 250 | -268 | 0.20 | -0.20 | 0.30 | 315.90 | 128.00 |
| 12 | -204 | 154 | 142 | -167 | 170 | -256 | 230 | -233 | -0.10 | 0.30 | 0.30 | 118.20 | 129.00 |
| 13 | -222 | 180 | 172 | -193 | 172 | -275 | 268 | -266 | -0.20 | 0.20 | 0.30 | 129.90 | 130.50 |
| 14 | -321 | 292 | 285 | -329 | 138 | -207 | 202 | -199 | -0.20 | 0.00 | 0.20 | 188.80 | 130.60 |
| 15 | -367 | 326 | 320 | -334 | 110 | -198 | 167 | -168 | 0.20 | 0.10 | 0.20 | 24.54 | 125.70 |
| 16 | -364 | 323 | 308 | -330 | 121 | -211 | 196 | -195 | -0.10 | 0.00 | 0.10 | 187.40 | 131.00 |
| 17 | -577 | 521 | 522 | -574 | 220 | -279 | 274 | -274 | -0.60 | 0.00 | 0.60 | 176.30 | 127.60 |
| 18 | -558 | 528 | 528 | -565 | 181 | -275 | 254 | -262 | 0.10 | 0.40 | 0.40 | 70.85 | 112.00 |
| 19 | -650 | 571 | 571 | -593 | 186 | -291 | 273 | -275 | -0.20 | 0.60 | 0.70 | 104.40 | 123.90 |
| 20 | -629 | 601 | 588 | -646 | 190 | -282 | 260 | -263 | -0.20 | 0.40 | 0.50 | 116.80 | 142.20 |
| 21 | -733 | 696 | 684 | -699 | 171 | -280 | 264 | -267 | 0.10 | 0.60 | 0.70 | 81.46 | 180.90 |
| 22 | -715 | 687 | 675 | -701 | 180 | -256 | 242 | -222 | 0.10 | 0.40 | 0.40 | 82.09 | 236.50 |
| 23 | -802 | 760 | 766 | -782 | 396 | -474 | 465 | -492 | -0.10 | 0.70 | 0.70 | 96.63 | 244.90 |
| 24 | -743 | 717 | 721 | -744 | 416 | -504 | 499 | -479 | 0.20 | 0.50 | 0.60 | 73.11 | 256.60 |
| 25 | -767 | 740 | 732 | -759 | 462 | -513 | 507 | -428 | 0.50 | 0.40 | 0.60 | 39.80 | 255.70 |
| 26 | -747 | 711 | 718 | -726 | 408 | -477 | 458 | -447 | -0.10 | -0.20 | 0.20 | 255.30 | 248.60 |
| 27 | -777 | 732 | 739 | -759 | 343 | -461 | 432 | -411 | 0.30 | 0.10 | 0.30 | 26.15 | 248.00 |
| 28 | -747 | 688 | 697 | -725 | 361 | -451 | 424 | -422 | 0.00 | 0.10 | 0.10 | 75.15 | 244.00 |
| 29 | -812 | 822 | 810 | -834 | 266 | -302 | 291 | -290 | -0.30 | -0.40 | 0.50 | 234.30 | 244.40 |
| 30 | -817 | 775 | 786 | -815 | 241 | -310 | 264 | -287 | 0.00 | -0.70 | 0.70 | 273.80 | 246.30 |
| 31 | -790 | 742 | 751 | -797 | 249 | -337 | 280 | -263 | -0.10 | -0.40 | 0.40 | 257.90 | 236.00 |
| 32 | -789 | 766 | 742 | -814 | 194 | -266 | 282 | -268 | -0.20 | 0.20 | 0.30 | 140.10 | 230.50 |
| 33 | -852 | 808 | 791 | -853 | 208 | -259 | 234 | -239 | -0.30 | 0.30 | 0.40 | 126.60 | 242.60 |
| 34 | -863 | 839 | 811 | -870 | 170 | -238 | 220 | -223 | 0.20 | -0.30 | 0.30 | 303.90 | 255.20 |
| 35 | -1155 | 1120 | 1087 | -1180 | 57 | -125 | 85 | -118 | -0.10 | 0.40 | 0.40 | 111.70 | 246.50 |
| 36 | -1182 | 1155 | 1142 | -1220 | 62 | -118 | 100 | -112 | -0.10 | -0.40 | 0.40 | 261.60 | 254.80 |
| 37 | -1243 | 1207 | 1180 | -1243 | 68 | -113 | 92 | -136 | -0.50 | -0.50 | 0.70 | 229.30 | 252.60 |
| 38 | -1170 | 1159 | 1141 | -1202 | 103 | -156 | 136 | -153 | -0.30 | -0.20 | 0.30 | 215.60 | 272.90 |
| 39 | -1194 | 1181 | 1181 | -1228 | 113 | -169 | 139 | -146 | 0.00 | -0.10 | 0.10 | 277.30 | 297.30 |
| 40 | -1257 | 1192 | 1227 | -1256 | 116 | -172 | 153 | -149 | -0.30 | -0.40 | 0.50 | 239.50 | 300.20 |
| 41 | -1479 | 1461 | 1459 | -1495 | 184 | -251 | 208 | -238 | 0.10 | -0.30 | 0.30 | 281.40 | 351.10 |
| 42 | -1539 | 1506 | 1521 | -1557 | 144 | -205 | 188 | -195 | 0.20 | -0.50 | 0.50 | 289.60 | 23.43 |
| 43 | -1612 | 1572 | 1579 | -1606 | 150 | -203 | 188 | -192 | 0.00 | 0.20 | 0.20 | 87.00 | 63.08 |
| 44 | -1659 | 1612 | 1599 | -1649 | 36 | -78 | 63 | -69 | 0.20 | 0.10 | 0.20 | 18.81 | 55.05 |
| 45 | -1658 | 1648 | 1646 | -1676 | 42 | -90 | 59 | -96 | 0.20 | 0.30 | 0.40 | 55.71 | 73.88 |
| 46 | -1674 | 1668 | 1658 | -1701 | 76 | -111 | 101 | -108 | 0.30 | 0.00 | 0.30 | 353.10 | 136.90 |
| 47 | -1826 | 1812 | 1803 | -1842 | 87 | -129 | 121 | -119 | 0.10 | 0.10 | 0.10 | 57.85 | 162.30 |
| 48 | -1950 | 1939 | 1947 | -1971 | 110 | -158 | 153 | -160 | -0.20 | 0.00 | 0.20 | 179.10 | 174.50 |
| 49 | -2206 | 1848 | 2191 | -2244 | 140 | -144 | 174 | -197 | -0.20 | 0.00 | 0.20 | 169.10 | 169.10 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 8 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 30/11/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | 18 | Correzione azimutale: | 146 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|-------|------|------|-----|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 71 | -96 | -119 | 88 | -158 | 79 | -95 | 81 | 0.80 | 0.10 | 0.80 | 10.25 | 33.78 |
| 2 | 129 | -151 | -160 | 141 | -98 | 26 | -39 | 26 | 0.30 | 0.20 | 0.30 | 30.53 | 35.47 |
| 3 | 93 | -123 | -135 | 110 | -123 | 43 | -54 | 43 | 0.30 | 0.30 | 0.40 | 43.46 | 35.63 |
| 4 | 110 | -141 | -155 | 127 | -127 | 44 | -63 | 46 | 0.20 | 0.00 | 0.20 | 2.24 | 35.35 |
| 5 | 60 | -99 | -108 | 89 | -69 | -24 | 5 | -21 | 0.40 | 0.30 | 0.50 | 36.49 | 36.11 |
| 6 | 90 | -129 | -141 | 115 | -64 | -30 | 14 | -31 | 0.40 | 0.50 | 0.70 | 49.48 | 36.09 |
| 7 | 54 | -101 | -111 | 85 | -70 | -39 | 15 | -36 | 0.40 | 0.60 | 0.70 | 59.53 | 35.11 |
| 8 | -54 | 0 | -9 | -14 | 18 | -131 | 109 | -126 | 0.20 | 0.80 | 0.80 | 79.00 | 33.01 |
| 9 | -19 | -44 | -50 | 24 | 39 | -148 | 125 | -146 | 0.30 | 0.60 | 0.70 | 59.02 | 28.79 |
| 10 | -30 | -35 | -43 | 16 | 49 | -183 | 135 | -156 | 0.60 | -0.30 | 0.70 | 337.20 | 26.17 |
| 11 | -177 | 124 | 120 | -136 | 158 | -274 | 249 | -269 | 0.50 | -0.10 | 0.60 | 344.60 | 30.54 |
| 12 | -199 | 144 | 141 | -169 | 149 | -250 | 228 | -250 | 0.00 | 0.20 | 0.20 | 80.85 | 34.05 |
| 13 | -230 | 174 | 170 | -195 | 170 | -275 | 247 | -267 | 0.00 | 0.40 | 0.40 | 92.50 | 32.61 |
| 14 | -342 | 286 | 284 | -305 | 104 | -210 | 179 | -204 | 0.30 | 0.20 | 0.30 | 30.42 | 29.68 |
| 15 | -369 | 315 | 314 | -339 | 101 | -189 | 164 | -189 | 0.20 | 0.00 | 0.20 | 358.10 | 29.64 |
| 16 | -365 | 308 | 303 | -330 | 113 | -208 | 180 | -204 | 0.10 | -0.10 | 0.10 | 328.70 | 30.82 |
| 17 | -580 | 521 | 524 | -546 | 177 | -284 | 250 | -284 | 0.00 | 0.10 | 0.10 | 87.95 | 32.11 |
| 18 | -579 | 520 | 528 | -553 | 179 | -278 | 250 | -275 | 0.00 | 0.30 | 0.30 | 82.63 | 30.94 |
| 19 | -622 | 570 | 571 | -597 | 190 | -289 | 264 | -283 | 0.00 | 0.40 | 0.40 | 94.40 | 28.13 |
| 20 | -638 | 588 | 593 | -618 | 173 | -284 | 245 | -272 | 0.10 | 0.30 | 0.30 | 71.85 | 23.81 |
| 21 | -731 | 674 | 685 | -707 | 176 | -278 | 258 | -269 | 0.20 | 0.50 | 0.60 | 70.23 | 20.86 |
| 22 | -725 | 668 | 675 | -699 | 154 | -256 | 238 | -241 | 0.20 | 0.40 | 0.40 | 59.92 | 15.58 |
| 23 | -815 | 755 | 766 | -791 | 365 | -481 | 460 | -466 | 0.30 | 1.10 | 1.20 | 75.80 | 11.76 |
| 24 | -769 | 705 | 722 | -746 | 396 | -505 | 488 | -493 | 0.20 | 0.80 | 0.80 | 75.35 | 356.50 |
| 25 | -775 | 711 | 732 | -755 | 416 | -520 | 501 | -505 | 0.30 | 0.00 | 0.30 | 358.80 | 345.00 |
| 26 | -761 | 691 | 718 | -743 | 379 | -488 | 454 | -453 | 0.00 | 0.00 | 0.00 | 267.00 | 343.70 |
| 27 | -786 | 715 | 741 | -763 | 353 | -468 | 429 | -431 | 0.00 | -0.10 | 0.10 | 264.10 | 344.50 |
| 28 | -750 | 685 | 701 | -729 | 349 | -454 | 419 | -429 | 0.00 | 0.20 | 0.20 | 78.96 | 345.80 |
| 29 | -856 | 794 | 810 | -840 | 214 | -321 | 275 | -294 | 0.00 | 0.10 | 0.10 | 105.50 | 342.30 |
| 30 | -839 | 772 | 784 | -829 | 208 | -320 | 263 | -289 | 0.10 | -0.30 | 0.30 | 279.60 | 341.50 |
| 31 | -818 | 714 | 744 | -800 | 216 | -346 | 264 | -297 | 0.00 | -0.40 | 0.40 | 268.60 | 346.50 |
| 32 | -824 | 760 | 725 | -797 | 186 | -260 | 260 | -270 | 0.10 | 0.40 | 0.40 | 80.09 | 352.80 |
| 33 | -861 | 794 | 772 | -836 | 179 | -259 | 221 | -259 | 0.20 | 0.10 | 0.20 | 39.70 | 346.70 |
| 34 | -900 | 831 | 805 | -877 | 154 | -238 | 198 | -238 | 0.20 | 0.10 | 0.20 | 29.04 | 343.90 |
| 35 | -1160 | 1104 | 1075 | -1150 | 51 | -130 | 81 | -120 | 0.20 | -0.10 | 0.20 | 338.50 | 340.90 |
| 36 | -1212 | 1154 | 1131 | -1212 | 46 | -120 | 76 | -127 | 0.10 | -0.20 | 0.20 | 287.00 | 341.00 |
| 37 | -1255 | 1192 | 1173 | -1258 | 43 | -116 | 65 | -119 | 0.10 | -0.10 | 0.10 | 291.80 | 345.00 |
| 38 | -1195 | 1122 | 1119 | -1202 | 93 | -173 | 109 | -160 | 0.00 | -0.40 | 0.40 | 272.90 | 347.50 |
| 39 | -1226 | 1146 | 1154 | -1222 | 109 | -184 | 126 | -171 | 0.00 | -0.50 | 0.50 | 272.30 | 356.10 |
| 40 | -1263 | 1186 | 1190 | -1256 | 105 | -179 | 120 | -161 | 0.20 | -0.60 | 0.60 | 284.30 | 7.45 |
| 41 | -1510 | 1425 | 1438 | -1495 | 180 | -256 | 200 | -241 | 0.20 | -0.50 | 0.60 | 295.60 | 21.19 |
| 42 | -1577 | 1500 | 1508 | -1558 | 131 | -208 | 160 | -200 | 0.30 | -0.10 | 0.30 | 341.90 | 33.31 |
| 43 | -1626 | 1560 | 1558 | -1607 | 142 | -204 | 167 | -205 | 0.20 | 0.10 | 0.30 | 29.78 | 39.61 |
| 44 | -1663 | 1602 | 1596 | -1649 | 19 | -78 | 36 | -81 | 0.50 | 0.20 | 0.60 | 18.54 | 40.83 |
| 45 | -1664 | 1634 | 1629 | -1679 | 29 | -89 | 58 | -99 | 0.40 | 0.20 | 0.50 | 24.38 | 48.18 |
| 46 | -1709 | 1658 | 1653 | -1701 | 55 | -106 | 80 | -115 | 0.50 | 0.40 | 0.60 | 34.00 | 57.11 |
| 47 | -1850 | 1804 | 1800 | -1842 | 73 | -123 | 90 | -131 | 0.30 | 0.40 | 0.50 | 53.40 | 77.65 |
| 48 | -1974 | 1931 | 1934 | -1970 | 99 | -152 | 130 | -160 | 0.10 | 0.20 | 0.30 | 72.48 | 118.50 |
| 49 | -2207 | 1849 | 2189 | -2245 | 140 | -144 | 175 | -198 | -0.20 | 0.00 | 0.20 | 170.90 | 170.90 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Committente: | | ANAS SpA | | | | | | | Numero lettura: | | 9 | | | |
|---------------------|---------------|------------|------|-------|------|------|-----|------|-----------------------|--------|-----------------|------------|----------------|--|
| Località: | | La Spezia | | | | | | | Sonda usata: | | OG310S | | | |
| Data: | | 30/12/2006 | | | | | | | Correzione angolare: | | 0 | | | |
| Sigla inclinometro: | | I8 | | | | | | | Correzione azimutale: | | 146 | | | |
| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | | |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) | |
| 1 | 89 | -92 | -123 | 86 | -150 | 74 | -91 | 82 | 0.80 | -0.10 | 0.80 | 354.20 | 23.57 | |
| 2 | 134 | -149 | -165 | 138 | -96 | 24 | -32 | 31 | 0.30 | 0.10 | 0.30 | 19.47 | 27.23 | |
| 3 | 93 | -123 | -141 | 102 | -115 | 39 | -51 | 49 | 0.20 | 0.20 | 0.30 | 50.50 | 27.61 | |
| 4 | 114 | -141 | -155 | 116 | -126 | 13 | -48 | 46 | -0.20 | -0.20 | 0.30 | 226.90 | 26.44 | |
| 5 | 66 | -97 | -111 | 67 | -60 | -30 | 23 | -14 | 0.10 | 0.30 | 0.30 | 74.36 | 27.40 | |
| 6 | 95 | -128 | -141 | 110 | -60 | -50 | 18 | -15 | 0.30 | 0.50 | 0.60 | 53.72 | 25.37 | |
| 7 | 61 | -96 | -114 | 78 | -61 | -41 | 16 | -17 | 0.40 | 0.70 | 0.80 | 58.68 | 22.26 | |
| 8 | -52 | 1 | -9 | -15 | 48 | -139 | 111 | -125 | -0.20 | 0.60 | 0.60 | 106.40 | 15.81 | |
| 9 | -16 | -42 | -51 | 19 | 40 | -161 | 125 | -141 | 0.20 | 0.50 | 0.60 | 65.29 | 7.91 | |
| 10 | -13 | -36 | -45 | 14 | 50 | -164 | 137 | -155 | 0.70 | -0.40 | 0.80 | 328.70 | 0.80 | |
| 11 | -172 | 124 | 114 | -138 | 162 | -286 | 250 | -268 | 0.50 | -0.30 | 0.50 | 325.40 | 8.35 | |
| 12 | -182 | 144 | 136 | -170 | 170 | -260 | 230 | -246 | -0.10 | -0.10 | 0.10 | 233.60 | 15.49 | |
| 13 | -226 | 175 | 165 | -199 | 171 | -291 | 271 | -265 | -0.30 | 0.10 | 0.30 | 160.50 | 17.18 | |
| 14 | -316 | 288 | 282 | -307 | 126 | -220 | 202 | -189 | 0.10 | -0.30 | 0.30 | 286.80 | 13.79 | |
| 15 | -361 | 316 | 313 | -339 | 101 | -192 | 171 | -188 | 0.20 | -0.10 | 0.20 | 327.20 | 18.39 | |
| 16 | -333 | 311 | 302 | -330 | 116 | -211 | 192 | -204 | 0.10 | -0.40 | 0.40 | 288.40 | 21.52 | |
| 17 | -571 | 526 | 518 | -555 | 188 | -295 | 251 | -281 | -0.20 | 0.00 | 0.20 | 174.20 | 29.27 | |
| 18 | -571 | 526 | 525 | -553 | 179 | -279 | 250 | -269 | 0.10 | 0.30 | 0.30 | 70.51 | 27.77 | |
| 19 | -609 | 574 | 566 | -598 | 190 | -297 | 267 | -269 | 0.10 | 0.30 | 0.30 | 78.98 | 23.68 | |
| 20 | -636 | 597 | 592 | -620 | 185 | -287 | 245 | -257 | 0.10 | 0.40 | 0.40 | 81.02 | 18.38 | |
| 21 | -731 | 676 | 684 | -713 | 190 | -278 | 261 | -264 | 0.10 | 0.50 | 0.50 | 84.45 | 11.31 | |
| 22 | -708 | 670 | 667 | -704 | 166 | -270 | 239 | -233 | 0.10 | 0.10 | 0.20 | 34.00 | 0.93 | |
| 23 | -815 | 767 | 761 | -792 | 380 | -485 | 462 | -466 | 0.10 | 1.10 | 1.10 | 86.55 | 358.70 | |
| 24 | -757 | 706 | 718 | -752 | 420 | -505 | 489 | -493 | 0.00 | 0.50 | 0.50 | 85.62 | 336.10 | |
| 25 | -769 | 711 | 725 | -757 | 425 | -521 | 504 | -504 | 0.30 | -0.20 | 0.30 | 330.50 | 326.20 | |
| 26 | -761 | 692 | 711 | -746 | 384 | -486 | 459 | -449 | 0.00 | -0.10 | 0.10 | 258.90 | 325.60 | |
| 27 | -778 | 725 | 739 | -768 | 357 | -462 | 431 | -430 | 0.00 | 0.00 | 0.00 | 228.00 | 327.60 | |
| 28 | -735 | 701 | 695 | -730 | 350 | -454 | 424 | -426 | 0.00 | 0.20 | 0.20 | 76.48 | 328.50 | |
| 29 | -845 | 801 | 809 | -842 | 216 | -312 | 278 | -273 | 0.20 | 0.20 | 0.30 | 40.33 | 325.20 | |
| 30 | -839 | 779 | 784 | -829 | 214 | -319 | 286 | -274 | -0.10 | -0.30 | 0.40 | 255.50 | 319.50 | |
| 31 | -814 | 722 | 745 | -801 | 216 | -337 | 272 | -294 | 0.00 | -0.30 | 0.30 | 268.20 | 327.00 | |
| 32 | -817 | 778 | 728 | -796 | 191 | -260 | 269 | -246 | 0.10 | 0.50 | 0.50 | 82.06 | 333.40 | |
| 33 | -833 | 794 | 777 | -837 | 180 | -268 | 223 | -239 | 0.30 | 0.00 | 0.30 | 358.40 | 322.20 | |
| 34 | -887 | 838 | 808 | -877 | 160 | -239 | 198 | -236 | 0.20 | 0.10 | 0.20 | 18.49 | 317.20 | |
| 35 | -1148 | 1115 | 1083 | -1152 | 62 | -131 | 84 | -120 | 0.00 | -0.10 | 0.10 | 274.10 | 313.00 | |
| 36 | -1195 | 1182 | 1134 | -1212 | 83 | -121 | 80 | -117 | -0.30 | -0.30 | 0.40 | 226.90 | 314.30 | |
| 37 | -1247 | 1208 | 1176 | -1257 | 48 | -123 | 66 | -118 | -0.10 | -0.10 | 0.20 | 228.90 | 324.90 | |
| 38 | -1167 | 1124 | 1123 | -1202 | 101 | -173 | 129 | -158 | -0.10 | -0.70 | 0.70 | 264.40 | 328.90 | |
| 39 | -1225 | 1149 | 1160 | -1225 | 118 | -184 | 135 | -163 | -0.10 | -0.50 | 0.50 | 255.60 | 348.40 | |
| 40 | -1263 | 1189 | 1202 | -1258 | 106 | -179 | 121 | -156 | 0.10 | -0.40 | 0.50 | 280.70 | 2.20 | |
| 41 | -1499 | 1430 | 1442 | -1509 | 182 | -256 | 201 | -239 | 0.20 | -0.40 | 0.40 | 292.10 | 14.83 | |
| 42 | -1574 | 1503 | 1508 | -1563 | 141 | -208 | 182 | -192 | 0.10 | -0.20 | 0.20 | 296.10 | 27.04 | |
| 43 | -1614 | 1566 | 1560 | -1609 | 147 | -204 | 169 | -198 | 0.20 | 0.10 | 0.30 | 25.61 | 33.18 | |
| 44 | -1662 | 1638 | 1608 | -1650 | 27 | -83 | 37 | -80 | 0.20 | 0.50 | 0.50 | 72.70 | 34.32 | |
| 45 | -1649 | 1638 | 1632 | -1679 | 37 | -89 | 58 | -96 | 0.40 | 0.10 | 0.40 | 13.23 | 21.09 | |
| 46 | -1703 | 1668 | 1656 | -1702 | 68 | -106 | 85 | -102 | 0.40 | 0.40 | 0.60 | 41.82 | 24.68 | |
| 47 | -1805 | 1812 | 1801 | -1847 | 77 | -124 | 91 | -127 | 0.50 | 0.10 | 0.50 | 17.16 | 2.51 | |
| 48 | -1920 | 1939 | 1935 | -1971 | 109 | -152 | 132 | -158 | 0.20 | -0.20 | 0.30 | 323.70 | 268.90 | |
| 49 | -2208 | 1850 | 2189 | -2245 | 140 | -144 | 175 | -198 | -0.20 | 0.10 | 0.20 | 167.50 | 167.50 | |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

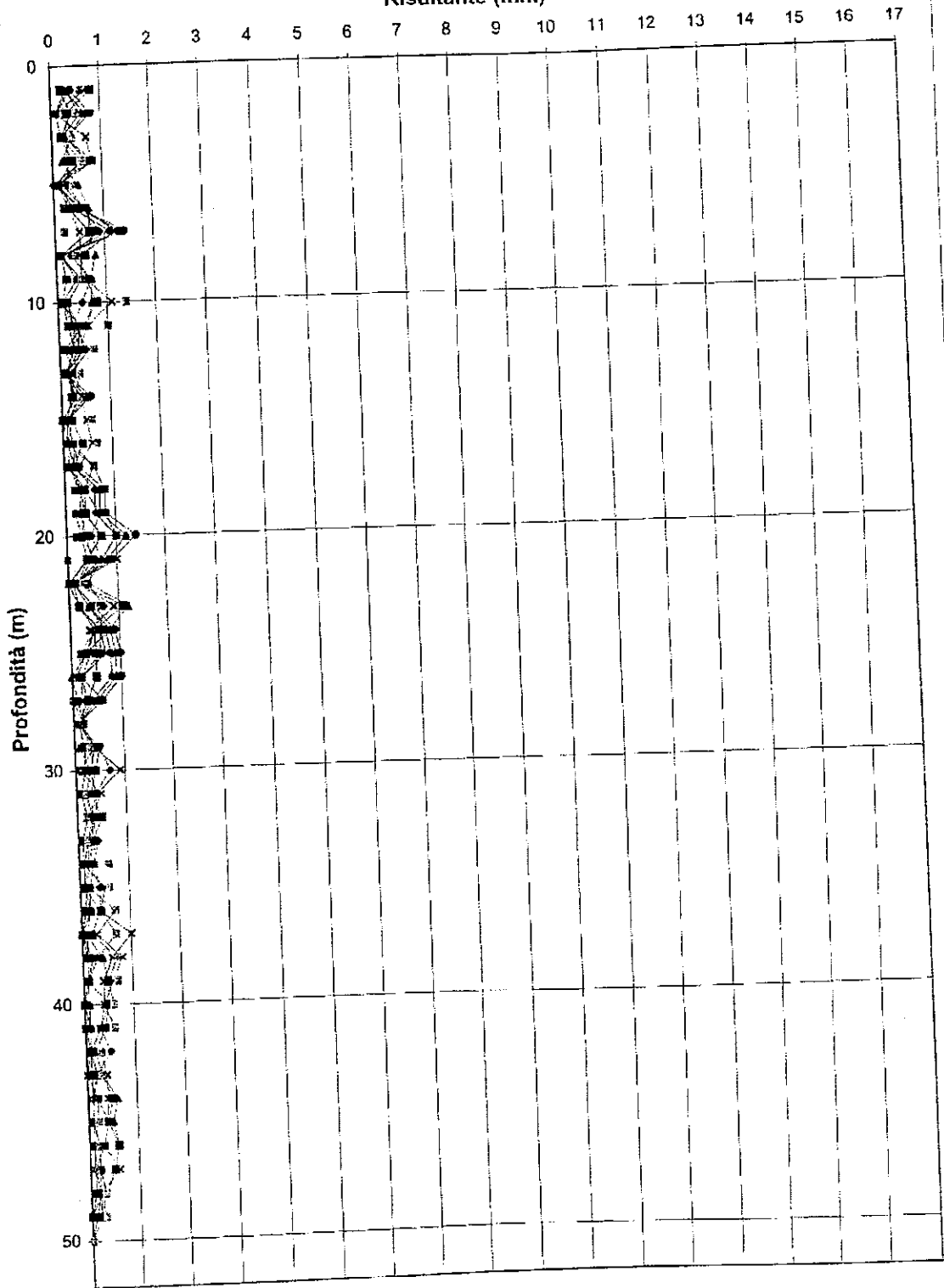
LETTURA INCLINOMETRICA

| Committente: | | ANAS SpA | | | | | | | Numero lettura: | | 10 | | | |
|---------------------|---------------|------------|------|-------|------|------|-----|------|-----------------------|--------|-----------------|------------|----------------|--|
| Località: | | La Spezia | | | | | | | Sonda usata: | | OG310S | | | |
| Data: | | 30/01/2007 | | | | | | | Correzione angolare: | | 0 | | | |
| Sigla inclinometro: | | I8 | | | | | | | Correzione azimutale: | | 146 | | | |
| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | | |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) | |
| 1 | 98 | -91 | -125 | 86 | -143 | 61 | -82 | 84 | 0.60 | -0.30 | 0.70 | 332.40 | 298.40 | |
| 2 | 147 | -142 | -172 | 131 | -69 | 24 | -25 | 39 | 0.10 | -0.10 | 0.10 | 308.40 | 284.00 | |
| 3 | 94 | -117 | -144 | 102 | -101 | 38 | -45 | 56 | 0.10 | 0.20 | 0.20 | 71.57 | 282.30 | |
| 4 | 118 | -139 | -156 | 115 | -118 | 11 | -39 | 54 | -0.30 | -0.30 | 0.40 | 226.20 | 279.70 | |
| 5 | 85 | -93 | -113 | 63 | -36 | -34 | 32 | -9 | -0.10 | 0.00 | 0.10 | 195.50 | 290.20 | |
| 6 | 122 | -127 | -145 | 104 | -55 | -58 | 29 | -11 | 0.30 | 0.10 | 0.30 | 25.38 | 294.40 | |
| 7 | 76 | -96 | -123 | 71 | -59 | -57 | 26 | -13 | 0.30 | 0.40 | 0.50 | 52.78 | 283.30 | |
| 8 | -48 | 2 | -13 | -16 | 67 | -140 | 128 | -125 | -0.40 | 0.30 | 0.50 | 144.40 | 272.10 | |
| 9 | -11 | -40 | -57 | 18 | 41 | -176 | 126 | -124 | 0.30 | 0.50 | 0.60 | 58.27 | 282.10 | |
| 10 | 16 | -37 | -49 | 14 | 50 | -164 | 148 | -150 | 0.90 | -0.70 | 1.10 | 318.70 | 274.50 | |
| 11 | -171 | 125 | 104 | -138 | 172 | -290 | 271 | -255 | 0.30 | -0.50 | 0.60 | 302.10 | 253.60 | |
| 12 | -166 | 144 | 128 | -171 | 178 | -277 | 237 | -233 | -0.10 | -0.40 | 0.40 | 254.30 | 239.80 | |
| 13 | -222 | 177 | 163 | -200 | 180 | -292 | 272 | -254 | -0.30 | 0.10 | 0.30 | 163.80 | 235.30 | |
| 14 | -314 | 289 | 279 | -308 | 132 | -225 | 206 | -187 | 0.00 | -0.40 | 0.40 | 268.00 | 247.50 | |
| 15 | -350 | 319 | 296 | -339 | 115 | -192 | 174 | -158 | 0.40 | -0.30 | 0.50 | 329.50 | 240.80 | |
| 16 | -324 | 315 | 296 | -331 | 119 | -214 | 202 | -203 | 0.10 | -0.60 | 0.60 | 277.00 | 215.20 | |
| 17 | -563 | 529 | 514 | -559 | 205 | -303 | 268 | -257 | -0.30 | -0.10 | 0.30 | 204.50 | 185.00 | |
| 18 | -546 | 530 | 514 | -553 | 186 | -284 | 250 | -266 | 0.20 | 0.00 | 0.20 | 0.32 | 177.30 | |
| 19 | -603 | 575 | 565 | -598 | 210 | -299 | 282 | -259 | -0.10 | 0.10 | 0.20 | 133.40 | 178.00 | |
| 20 | -623 | 598 | 590 | -626 | 198 | -292 | 252 | -239 | 0.00 | 0.30 | 0.30 | 80.37 | 186.60 | |
| 21 | -704 | 683 | 684 | -715 | 208 | -278 | 264 | -245 | 0.10 | 0.40 | 0.40 | 69.34 | 203.10 | |
| 22 | -706 | 673 | 664 | -706 | 166 | -275 | 239 | -226 | 0.20 | 0.10 | 0.20 | 34.00 | 215.60 | |
| 23 | -807 | 767 | 760 | -801 | 395 | -489 | 475 | -466 | -0.20 | 0.90 | 0.90 | 102.70 | 215.40 | |
| 24 | -740 | 711 | 714 | -755 | 437 | -505 | 489 | -486 | 0.00 | 0.40 | 0.40 | 85.30 | 240.10 | |
| 25 | -767 | 712 | 711 | -761 | 436 | -523 | 506 | -503 | 0.20 | -0.30 | 0.40 | 305.30 | 244.10 | |
| 26 | -761 | 701 | 711 | -754 | 402 | -482 | 460 | -447 | -0.20 | 0.00 | 0.20 | 187.40 | 234.70 | |
| 27 | -778 | 746 | 732 | -770 | 358 | -461 | 436 | -429 | -0.10 | 0.10 | 0.20 | 152.00 | 239.30 | |
| 28 | -731 | 703 | 686 | -733 | 350 | -452 | 430 | -411 | 0.20 | 0.20 | 0.20 | 41.42 | 244.00 | |
| 29 | -840 | 834 | 801 | -842 | 220 | -307 | 281 | -269 | 0.10 | 0.40 | 0.40 | 72.38 | 241.80 | |
| 30 | -838 | 810 | 783 | -830 | 218 | -301 | 293 | -261 | -0.10 | 0.00 | 0.10 | 173.40 | 243.20 | |
| 31 | -811 | 771 | 746 | -805 | 216 | -331 | 303 | -294 | -0.50 | 0.00 | 0.50 | 182.80 | 245.20 | |
| 32 | -807 | 779 | 732 | -796 | 195 | -262 | 293 | -245 | -0.10 | 0.30 | 0.30 | 113.90 | 255.80 | |
| 33 | -827 | 795 | 778 | -838 | 185 | -269 | 258 | -239 | 0.00 | -0.30 | 0.30 | 274.40 | 260.40 | |
| 34 | -883 | 839 | 819 | -877 | 203 | -239 | 207 | -235 | -0.30 | -0.20 | 0.30 | 208.80 | 258.80 | |
| 35 | -1122 | 1124 | 1086 | -1158 | 76 | -131 | 87 | -116 | -0.10 | -0.20 | 0.20 | 255.30 | 265.40 | |
| 36 | -1183 | 1182 | 1142 | -1213 | 86 | -123 | 108 | -110 | -0.50 | -0.50 | 0.70 | 224.40 | 266.50 | |
| 37 | -1228 | 1214 | 1178 | -1255 | 57 | -124 | 67 | -115 | -0.10 | -0.30 | 0.30 | 250.40 | 282.80 | |
| 38 | -1164 | 1125 | 1141 | -1206 | 106 | -172 | 144 | -158 | -0.30 | -0.70 | 0.80 | 243.20 | 289.30 | |
| 39 | -1224 | 1177 | 1167 | -1226 | 119 | -184 | 166 | -150 | -0.50 | -0.30 | 0.60 | 211.90 | 322.70 | |
| 40 | -1260 | 1193 | 1204 | -1264 | 119 | -171 | 134 | -144 | 0.00 | -0.40 | 0.40 | 267.80 | 346.50 | |
| 41 | -1452 | 1458 | 1448 | -1510 | 184 | -255 | 215 | -224 | 0.20 | -0.50 | 0.60 | 294.60 | 4.69 | |
| 42 | -1559 | 1507 | 1514 | -1572 | 156 | -208 | 189 | -189 | -0.10 | -0.30 | 0.30 | 253.10 | 30.20 | |
| 43 | -1598 | 1570 | 1560 | -1611 | 150 | -206 | 169 | -186 | 0.40 | 0.10 | 0.40 | 11.70 | 37.96 | |
| 44 | -1655 | 1640 | 1608 | -1652 | 36 | -85 | 40 | -80 | 0.10 | 0.40 | 0.40 | 81.88 | 46.34 | |
| 45 | -1632 | 1639 | 1643 | -1682 | 47 | -89 | 59 | -89 | 0.40 | 0.10 | 0.40 | 8.75 | 29.80 | |
| 46 | -1699 | 1671 | 1657 | -1716 | 70 | -109 | 117 | -98 | 0.10 | 0.30 | 0.30 | 75.21 | 49.12 | |
| 47 | -1767 | 1833 | 1801 | -1850 | 79 | -124 | 92 | -119 | 0.60 | 0.10 | 0.60 | 5.36 | 6.26 | |
| 48 | -1907 | 1958 | 1935 | -1991 | 126 | -152 | 141 | -158 | -0.10 | -0.10 | 0.20 | 221.00 | 184.80 | |
| 49 | -2208 | 1850 | 2189 | -2247 | 140 | -144 | 174 | -198 | -0.20 | 0.10 | 0.30 | 162.80 | 162.80 | |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 11 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 28/02/2007 | Correzione angolare: | 0 |
| Sigla inclinometro: | I8 | Correzione azimutale: | 146 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|-------|------|------|-----|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 101 | -91 | -131 | 73 | -124 | 48 | -69 | 100 | 0.30 | -0.40 | 0.60 | 307.10 | 237.30 |
| 2 | 152 | -140 | -176 | 117 | -64 | -11 | -9 | 44 | -0.40 | -0.30 | 0.50 | 220.80 | 235.20 |
| 3 | 124 | -116 | -150 | 93 | -91 | 6 | -29 | 60 | -0.30 | -0.40 | 0.40 | 235.30 | 235.70 |
| 4 | 138 | -131 | -165 | 104 | -93 | 10 | -31 | 68 | -0.40 | -0.50 | 0.60 | 231.50 | 235.70 |
| 5 | 98 | -91 | -125 | 59 | -28 | -55 | 38 | 3 | -0.20 | -0.30 | 0.40 | 237.20 | 235.90 |
| 6 | 129 | -123 | -146 | 98 | -23 | -65 | 41 | -10 | -0.10 | -0.10 | 0.20 | 224.00 | 235.90 |
| 7 | 98 | -95 | -125 | 64 | -24 | -70 | 46 | -10 | -0.10 | -0.10 | 0.20 | 210.10 | 236.10 |
| 8 | -1 | 8 | -28 | -40 | 73 | -160 | 136 | -104 | -0.40 | 0.00 | 0.40 | 183.30 | 236.40 |
| 9 | 35 | -39 | -61 | 15 | 99 | -186 | 161 | -121 | -0.30 | -0.50 | 0.50 | 239.10 | 237.80 |
| 10 | 33 | -38 | -65 | 10 | 96 | -189 | 164 | -124 | 0.50 | -1.30 | 1.40 | 291.10 | 237.80 |
| 11 | -133 | 133 | 99 | -150 | 214 | -304 | 280 | -241 | 0.00 | -1.00 | 1.00 | 271.70 | 231.40 |
| 12 | -155 | 152 | 121 | -171 | 189 | -283 | 256 | -220 | -0.30 | -0.60 | 0.70 | 248.10 | 227.60 |
| 13 | -184 | 180 | 152 | -204 | 206 | -303 | 274 | -235 | -0.20 | -0.40 | 0.40 | 238.20 | 226.10 |
| 14 | -305 | 297 | 265 | -321 | 140 | -235 | 211 | -175 | -0.10 | -0.40 | 0.40 | 258.00 | 225.50 |
| 15 | -333 | 328 | 294 | -346 | 126 | -219 | 191 | -156 | 0.00 | -0.60 | 0.60 | 271.60 | 223.80 |
| 16 | -321 | 316 | 283 | -338 | 139 | -234 | 206 | -171 | 0.00 | -0.70 | 0.70 | 271.40 | 220.60 |
| 17 | -546 | 535 | 510 | -564 | 216 | -310 | 284 | -249 | -0.40 | -0.40 | 0.60 | 219.10 | 216.30 |
| 18 | -544 | 532 | 507 | -560 | 206 | -301 | 272 | -239 | 0.00 | -0.20 | 0.20 | 254.50 | 216.00 |
| 19 | -588 | 575 | 553 | -600 | 215 | -314 | 288 | -251 | -0.10 | -0.20 | 0.20 | 232.40 | 215.10 |
| 20 | -618 | 603 | 581 | -629 | 206 | -296 | 271 | -235 | -0.10 | 0.10 | 0.20 | 149.00 | 214.50 |
| 21 | -691 | 688 | 668 | -716 | 215 | -296 | 272 | -240 | 0.00 | 0.00 | 0.00 | 15.59 | 215.80 |
| 22 | -686 | 678 | 653 | -710 | 191 | -283 | 255 | -220 | -0.10 | -0.30 | 0.30 | 257.70 | 215.70 |
| 23 | -778 | 771 | 751 | -805 | 413 | -499 | 479 | -444 | -0.10 | 0.60 | 0.60 | 101.20 | 213.80 |
| 24 | -729 | 747 | 701 | -756 | 440 | -506 | 505 | -472 | -0.10 | 0.50 | 0.50 | 101.20 | 218.70 |
| 25 | -739 | 754 | 711 | -768 | 451 | -524 | 519 | -485 | 0.00 | -0.20 | 0.20 | 277.30 | 222.20 |
| 26 | -726 | 739 | 703 | -756 | 405 | -472 | 466 | -431 | -0.10 | 0.00 | 0.10 | 147.20 | 220.60 |
| 27 | -751 | 760 | 724 | -776 | 378 | -449 | 443 | -409 | 0.00 | 0.00 | 0.00 | 213.90 | 221.20 |
| 28 | -719 | 721 | 682 | -740 | 367 | -450 | 440 | -407 | -0.10 | 0.10 | 0.10 | 114.50 | 221.30 |
| 29 | -832 | 836 | 799 | -855 | 238 | -305 | 304 | -269 | -0.20 | 0.20 | 0.30 | 143.60 | 222.30 |
| 30 | -816 | 823 | 782 | -834 | 224 | -294 | 294 | -260 | 0.00 | 0.00 | 0.10 | 214.00 | 224.90 |
| 31 | -781 | 782 | 746 | -805 | 233 | -309 | 304 | -270 | -0.20 | 0.00 | 0.20 | 189.00 | 225.00 |
| 32 | -784 | 781 | 734 | -796 | 196 | -263 | 308 | -242 | -0.20 | 0.10 | 0.20 | 152.00 | 225.80 |
| 33 | -819 | 820 | 785 | -841 | 195 | -269 | 261 | -231 | -0.20 | -0.10 | 0.20 | 201.40 | 227.30 |
| 34 | -816 | 861 | 821 | -882 | 206 | -247 | 240 | -210 | -0.20 | -0.60 | 0.60 | 247.90 | 228.10 |
| 35 | -1094 | 1134 | 1102 | -1159 | 91 | -131 | 130 | -96 | -0.40 | -0.40 | 0.60 | 230.10 | 225.90 |
| 36 | -1148 | 1189 | 1158 | -1214 | 88 | -125 | 121 | -90 | -0.40 | -0.50 | 0.70 | 234.30 | 225.40 |
| 37 | -1186 | 1226 | 1191 | -1254 | 74 | -125 | 115 | -84 | -0.30 | -0.60 | 0.70 | 245.00 | 224.00 |
| 38 | -1130 | 1174 | 1145 | -1206 | 126 | -165 | 159 | -130 | -0.40 | -0.50 | 0.70 | 229.20 | 220.20 |
| 39 | -1165 | 1207 | 1179 | -1234 | 141 | -173 | 173 | -144 | -0.50 | -0.40 | 0.70 | 219.80 | 218.20 |
| 40 | -1212 | 1237 | 1209 | -1269 | 121 | -170 | 171 | -138 | -0.30 | -0.50 | 0.60 | 239.60 | 217.70 |
| 41 | -1452 | 1487 | 1454 | -1516 | 198 | -254 | 250 | -221 | -0.40 | -0.40 | 0.60 | 228.40 | 210.10 |
| 42 | -1515 | 1553 | 1523 | -1574 | 163 | -208 | 206 | -175 | -0.20 | -0.20 | 0.30 | 222.80 | 201.80 |
| 43 | -1558 | 1601 | 1569 | -1625 | 171 | -209 | 214 | -183 | -0.30 | -0.20 | 0.30 | 214.00 | 194.70 |
| 44 | -1595 | 1650 | 1615 | -1668 | 49 | -85 | 89 | -58 | -0.10 | 0.00 | 0.10 | 201.00 | 185.10 |
| 45 | -1622 | 1678 | 1644 | -1692 | 60 | -88 | 99 | -68 | -0.10 | 0.20 | 0.20 | 106.20 | 181.10 |
| 46 | -1626 | 1697 | 1659 | -1717 | 91 | -110 | 121 | -93 | 0.20 | -0.20 | 0.20 | 314.30 | 207.30 |
| 47 | -1760 | 1845 | 1809 | -1865 | 102 | -126 | 135 | -108 | 0.00 | 0.00 | 0.10 | 214.00 | 186.70 |
| 48 | -1884 | 1977 | 1942 | -1995 | 130 | -155 | 167 | -140 | -0.30 | -0.10 | 0.30 | 204.80 | 183.90 |
| 49 | -2209 | 1851 | 2190 | -2247 | 140 | -144 | 174 | -199 | -0.30 | 0.10 | 0.30 | 160.60 | 160.60 |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

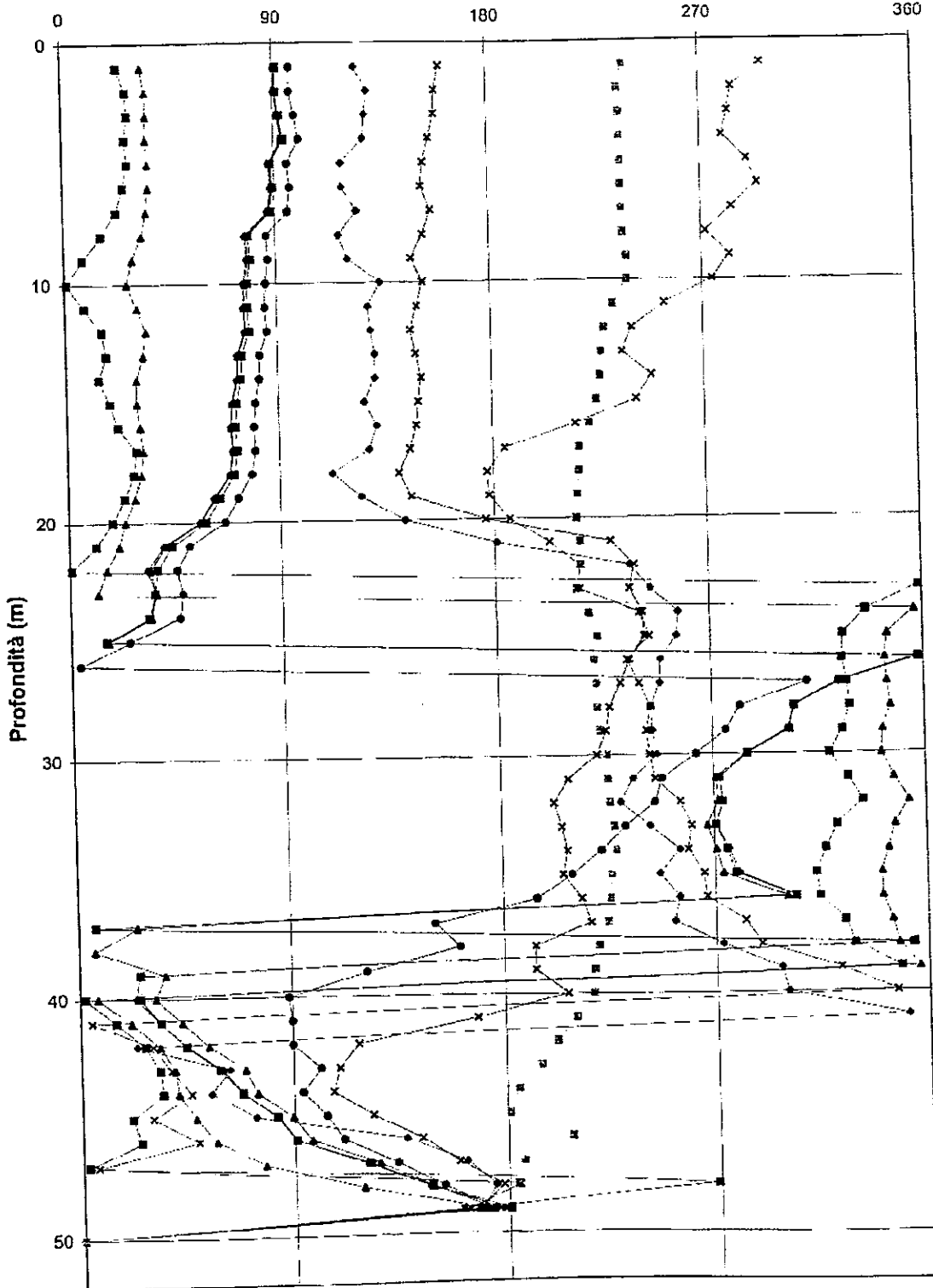
RISULTANTE (Movimento per punti rispetto all'origine)
Risultante (mm)



- | | | | | | |
|--------------|--------------|--------------|--------------|--------------|--------------|
| ■ Lettura 1 | ◆ Lettura 2 | ▲ Lettura 3 | ● Lettura 4 | × Lettura 5 | ■ Lettura 6 |
| ◆ Lettura 7 | ▲ Lettura 8 | ● Lettura 9 | × Lettura 10 | ■ Lettura 11 | ◆ Lettura 12 |
| ▲ Lettura 13 | ○ Lettura 14 | × Lettura 15 | ■ Lettura 16 | ◆ Lettura 17 | |

Azimut (Sommatoria rispetto all'origine)

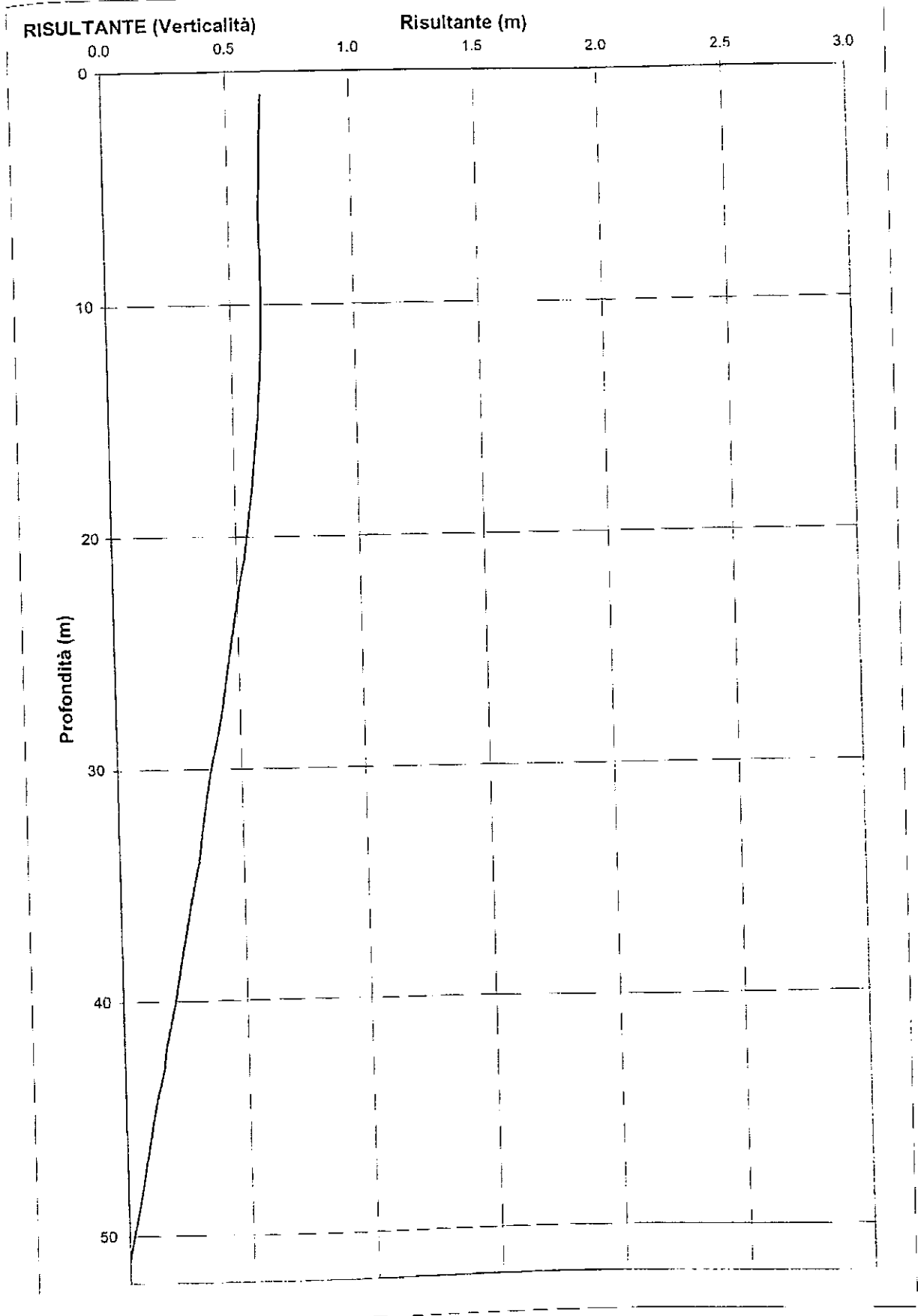
Azimut (°)

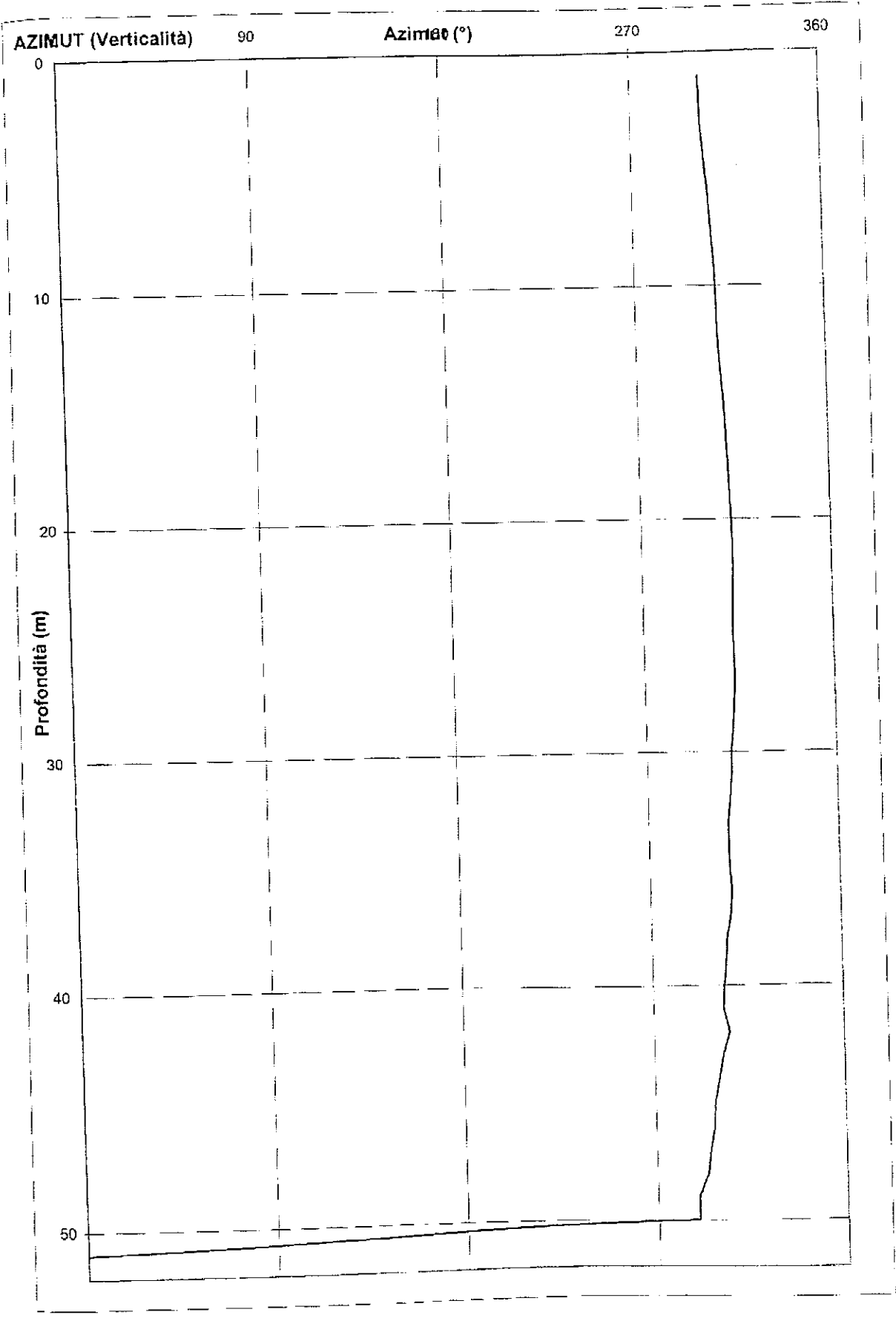


- | | | | | | |
|----------------|----------------|----------------|----------------|----------------|----------------|
| ■ - Lettura 1 | ◆ - Lettura 2 | ▲ - Lettura 3 | ● - Lettura 4 | × - Lettura 5 | ■ - Lettura 6 |
| ◆ - Lettura 7 | ▲ - Lettura 8 | ● - Lettura 9 | × - Lettura 10 | ■ - Lettura 11 | ◇ - Lettura 12 |
| ◇ - Lettura 13 | ▷ - Lettura 14 | × - Lettura 15 | ■ - Lettura 16 | ◆ - Lettura 17 | |

LETTURA INCLINOMETRICA

| Committente: | | ANAS SpA | | | | Numero lettura: | | 0 | | | | |
|---------------------|---------------|------------|------|------|-----|-----------------------|-----|--------|-------------|-------|----------------|------------|
| Località: | | La Spezia | | | | Sonda usata: | | OG310S | | | | |
| Data: | | 30/06/2006 | | | | Correzione angolare: | | 0 | | | | |
| Sigla inclinometro: | | I9 | | | | Correzione azimutale: | | 100 | | | | |
| Profondità (m) | Dati campagna | | | | | | | | Verticalità | | | Azimut (°) |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (m) | Y (m) | Risultante (m) | |
| 1 | 19 | -26 | -38 | 18 | 102 | -148 | 158 | -129 | 0.34 | -0.54 | 0.64 | 302.32 |
| 2 | 21 | -23 | -36 | 20 | 104 | -159 | 161 | -133 | 0.34 | -0.54 | 0.64 | 302.58 |
| 3 | -119 | 113 | 99 | -115 | 190 | -251 | 250 | -222 | 0.34 | -0.53 | 0.63 | 302.85 |
| 4 | -108 | 119 | 96 | -123 | 171 | -249 | 245 | -204 | 0.35 | -0.52 | 0.63 | 303.72 |
| 5 | -124 | 113 | 99 | -115 | 196 | -260 | 261 | -235 | 0.36 | -0.52 | 0.63 | 304.56 |
| 6 | -155 | 144 | 133 | -146 | 78 | -144 | 144 | -117 | 0.36 | -0.51 | 0.62 | 305.47 |
| 7 | -161 | 159 | 144 | -155 | 66 | -146 | 141 | -119 | 0.37 | -0.50 | 0.62 | 306.16 |
| 8 | -169 | 151 | 140 | -158 | 99 | -175 | 170 | -145 | 0.38 | -0.50 | 0.63 | 306.86 |
| 9 | -89 | 69 | 56 | -74 | 41 | -115 | 110 | -83 | 0.38 | -0.50 | 0.63 | 307.64 |
| 10 | -14 | -11 | -23 | 5 | 65 | -144 | 138 | -110 | 0.39 | -0.49 | 0.63 | 308.06 |
| 11 | 6 | -31 | -44 | 28 | 44 | -121 | 115 | -86 | 0.39 | -0.49 | 0.62 | 308.36 |
| 12 | -25 | 3 | -13 | -9 | 134 | -214 | 209 | -181 | 0.39 | -0.48 | 0.62 | 308.54 |
| 13 | 0 | -24 | -38 | 19 | 213 | -294 | 286 | -261 | 0.39 | -0.48 | 0.61 | 309.07 |
| 14 | -30 | 6 | -9 | -14 | 250 | -335 | 325 | -299 | 0.39 | -0.47 | 0.61 | 309.77 |
| 15 | 102 | -134 | -142 | 129 | 209 | -292 | 284 | -255 | 0.39 | -0.45 | 0.60 | 310.68 |
| 16 | 94 | -125 | -134 | 119 | 175 | -259 | 251 | -225 | 0.39 | -0.44 | 0.59 | 311.15 |
| 17 | 111 | -139 | -149 | 130 | 180 | -263 | 254 | -225 | 0.38 | -0.43 | 0.58 | 311.56 |
| 18 | 200 | -233 | -242 | 224 | 222 | -306 | 295 | -270 | 0.38 | -0.42 | 0.57 | 311.95 |
| 19 | 165 | -198 | -208 | 190 | 213 | -292 | 288 | -260 | 0.37 | -0.41 | 0.56 | 312.27 |
| 20 | 185 | -217 | -228 | 211 | 225 | -308 | 299 | -274 | 0.37 | -0.40 | 0.54 | 312.66 |
| 21 | 361 | -392 | -406 | 388 | 229 | -311 | 301 | -274 | 0.36 | -0.39 | 0.53 | 313.06 |
| 22 | 333 | -369 | -384 | 365 | 135 | -215 | 204 | -181 | 0.35 | -0.37 | 0.51 | 313.01 |
| 23 | 326 | -372 | -381 | 364 | 149 | -236 | 224 | -195 | 0.34 | -0.36 | 0.50 | 312.68 |
| 24 | 306 | -349 | -361 | 342 | 156 | -249 | 239 | -215 | 0.32 | -0.35 | 0.48 | 312.40 |
| 25 | 267 | -305 | -321 | 296 | 213 | -300 | 291 | -263 | 0.31 | -0.34 | 0.46 | 312.22 |
| 26 | 225 | -263 | -278 | 256 | 167 | -255 | 239 | -214 | 0.30 | -0.33 | 0.45 | 312.36 |
| 27 | 386 | -425 | -438 | 420 | 115 | -200 | 184 | -161 | 0.29 | -0.32 | 0.43 | 312.46 |
| 28 | 460 | -489 | -504 | 485 | 156 | -238 | 221 | -199 | 0.28 | -0.31 | 0.42 | 311.78 |
| 29 | 538 | -538 | -550 | 529 | 175 | -229 | 209 | -186 | 0.26 | -0.30 | 0.40 | 310.97 |
| 30 | 342 | -339 | -353 | 333 | 222 | -274 | 256 | -234 | 0.24 | -0.29 | 0.37 | 309.84 |
| 31 | 403 | -403 | -419 | 395 | 117 | -169 | 150 | -134 | 0.23 | -0.28 | 0.36 | 309.63 |
| 32 | 371 | -369 | -381 | 366 | 80 | -131 | 113 | -91 | 0.21 | -0.27 | 0.34 | 308.60 |
| 33 | 221 | -222 | -235 | 214 | 192 | -245 | 228 | -208 | 0.20 | -0.26 | 0.33 | 307.43 |
| 34 | 378 | -383 | -394 | 375 | 326 | -385 | 364 | -342 | 0.19 | -0.25 | 0.32 | 307.50 |
| 35 | 271 | -281 | -291 | 269 | 375 | -441 | 414 | -395 | 0.18 | -0.23 | 0.29 | 307.52 |
| 36 | 392 | -404 | -414 | 391 | 176 | -242 | 213 | -192 | 0.17 | -0.22 | 0.28 | 308.45 |
| 37 | 450 | -465 | -472 | 453 | 101 | -173 | 138 | -119 | 0.16 | -0.20 | 0.26 | 307.46 |
| 38 | 350 | -359 | -364 | 345 | 204 | -283 | 242 | -225 | 0.14 | -0.20 | 0.24 | 305.43 |
| 39 | 313 | -325 | -331 | 310 | 161 | -236 | 199 | -181 | 0.13 | -0.18 | 0.22 | 304.62 |
| 40 | 396 | -418 | -421 | 403 | 317 | -395 | 355 | -339 | 0.12 | -0.17 | 0.21 | 303.63 |
| 41 | 228 | -249 | -247 | 225 | 495 | -572 | 536 | -520 | 0.10 | -0.16 | 0.19 | 302.97 |
| 42 | 367 | -384 | -385 | 364 | 21 | -101 | 55 | -39 | 0.10 | -0.14 | 0.17 | 305.57 |
| 43 | 494 | -509 | -509 | 489 | 340 | -406 | 371 | -354 | 0.08 | -0.13 | 0.15 | 302.24 |
| 44 | 381 | -404 | -405 | 381 | 254 | -325 | 288 | -270 | 0.07 | -0.11 | 0.13 | 300.07 |
| 45 | 258 | -276 | -279 | 255 | 290 | -354 | 329 | -308 | 0.05 | -0.10 | 0.11 | 297.65 |
| 46 | 313 | -333 | -335 | 314 | 276 | -344 | 313 | -300 | 0.04 | -0.08 | 0.09 | 297.26 |
| 47 | 261 | -285 | -285 | 264 | 297 | -360 | 334 | -319 | 0.03 | -0.07 | 0.08 | 295.15 |
| 48 | 326 | -344 | -346 | 324 | 329 | -394 | 359 | -350 | 0.02 | -0.05 | 0.06 | 293.81 |
| 49 | 260 | -272 | -274 | 249 | 438 | -500 | 469 | -461 | 0.01 | -0.04 | 0.04 | 289.36 |
| 50 | 235 | -233 | -255 | 226 | 403 | -441 | 426 | -424 | 0.01 | -0.02 | 0.02 | 289.26 |
| 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 |





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|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 1 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 14/07/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I9 | Correzione azimutale: | 100 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-----|------|-----|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 21 | -27 | -41 | 21 | 109 | -156 | 156 | -64 | 0.20 | 0.50 | 0.50 | 70.18 | 102.30 |
| 2 | 25 | -47 | -60 | 25 | 111 | -175 | 158 | -138 | 0.50 | -0.30 | 0.60 | 326.30 | 105.50 |
| 3 | -72 | 96 | 81 | -117 | 165 | -259 | 245 | -225 | 0.80 | 0.00 | 0.80 | 3.36 | 109.80 |
| 4 | -144 | 105 | 84 | -129 | 157 | -252 | 237 | -206 | -0.10 | 0.20 | 0.20 | 123.20 | 117.80 |
| 5 | -136 | 103 | 87 | -124 | 190 | -269 | 253 | -235 | 0.00 | 0.00 | 0.10 | 68.70 | 117.50 |
| 6 | -155 | 133 | 119 | -153 | 116 | -152 | 137 | -120 | 0.10 | -0.40 | 0.50 | 283.20 | 117.90 |
| 7 | -188 | 148 | 133 | -169 | 62 | -152 | 133 | -116 | -0.20 | 0.10 | 0.20 | 144.60 | 116.80 |
| 8 | -175 | 142 | 129 | -167 | 99 | -181 | 164 | -148 | 0.00 | 0.00 | 0.10 | 319.00 | 115.80 |
| 9 | -111 | 59 | 45 | -82 | 55 | -122 | 104 | -88 | -0.10 | -0.20 | 0.20 | 235.70 | 116.00 |
| 10 | -40 | -23 | -37 | -4 | 62 | -151 | 132 | -114 | -0.10 | 0.00 | 0.10 | 182.50 | 114.20 |
| 11 | -2 | -45 | -58 | 21 | 56 | -128 | 108 | -90 | 0.10 | -0.20 | 0.20 | 299.00 | 113.30 |
| 12 | -22 | -10 | -26 | -17 | 96 | -220 | 200 | -183 | 0.30 | 0.30 | 0.40 | 51.70 | 113.50 |
| 13 | -16 | -34 | -49 | 8 | 193 | -301 | 280 | -265 | 0.00 | 0.20 | 0.20 | 101.80 | 117.40 |
| 14 | -32 | -7 | -21 | -24 | 251 | -341 | 319 | -304 | 0.10 | -0.10 | 0.10 | 325.20 | 117.80 |
| 15 | 70 | -146 | -154 | 120 | 222 | -299 | 276 | -259 | -0.20 | -0.10 | 0.20 | 213.20 | 118.50 |
| 16 | 87 | -137 | -146 | 109 | 186 | -268 | 244 | -229 | 0.00 | -0.20 | 0.20 | 282.30 | 116.20 |
| 17 | 102 | -151 | -159 | 121 | 182 | -272 | 247 | -231 | 0.00 | -0.10 | 0.10 | 281.80 | 115.80 |
| 18 | 179 | -246 | -255 | 216 | 230 | -313 | 286 | -271 | 0.00 | -0.10 | 0.10 | 236.70 | 115.50 |
| 19 | 162 | -210 | -221 | 182 | 215 | -303 | 279 | -263 | 0.10 | -0.10 | 0.20 | 323.40 | 114.90 |
| 20 | 167 | -229 | -239 | 200 | 234 | -319 | 292 | -279 | -0.10 | -0.20 | 0.20 | 241.50 | 115.60 |
| 21 | 313 | -406 | -418 | 379 | 220 | -320 | 294 | -278 | -0.30 | 0.10 | 0.30 | 164.40 | 114.20 |
| 22 | 324 | -382 | -396 | 355 | 175 | -225 | 196 | -185 | 0.00 | -0.50 | 0.50 | 267.40 | 112.00 |
| 23 | 315 | -387 | -393 | 355 | 131 | -243 | 214 | -199 | 0.10 | 0.20 | 0.20 | 57.63 | 110.30 |
| 24 | 348 | -362 | -375 | 335 | 143 | -257 | 230 | -218 | 0.60 | 0.00 | 0.60 | 0.07 | 111.60 |
| 25 | 265 | -317 | -331 | 287 | 217 | -310 | 285 | -271 | 0.10 | -0.20 | 0.20 | 294.50 | 116.60 |
| 26 | 229 | -275 | -287 | 244 | 181 | -262 | 231 | -218 | 0.10 | -0.20 | 0.20 | 297.40 | 116.50 |
| 27 | 338 | -438 | -447 | 407 | 137 | -209 | 179 | -168 | -0.40 | -0.30 | 0.50 | 210.20 | 116.50 |
| 28 | 427 | -503 | -515 | 474 | 146 | -246 | 213 | -204 | -0.20 | 0.10 | 0.20 | 155.20 | 112.50 |
| 29 | 508 | -554 | -565 | 522 | 164 | -233 | 199 | -189 | 0.00 | 0.10 | 0.20 | 103.10 | 111.40 |
| 30 | 390 | -350 | -362 | 320 | 188 | -285 | 253 | -243 | 0.60 | 0.10 | 0.60 | 7.19 | 111.60 |
| 31 | 339 | -416 | -427 | 382 | 115 | -174 | 140 | -136 | -0.50 | 0.10 | 0.60 | 164.90 | 116.10 |
| 32 | 371 | -385 | -395 | 355 | 67 | -138 | 103 | -95 | 0.20 | 0.10 | 0.20 | 22.28 | 112.50 |
| 33 | 220 | -235 | -245 | 202 | 103 | -253 | 219 | -212 | 0.20 | 0.80 | 0.90 | 73.37 | 114.40 |
| 34 | 311 | -401 | -409 | 367 | 281 | -392 | 355 | -347 | -0.30 | 0.50 | 0.60 | 125.00 | 119.70 |
| 35 | 276 | -293 | -300 | 256 | 351 | -446 | 405 | -400 | 0.20 | 0.20 | 0.30 | 50.51 | 119.20 |
| 36 | 303 | -417 | -424 | 380 | 241 | -245 | 202 | -197 | -0.90 | -0.50 | 1.00 | 208.80 | 121.80 |
| 37 | 410 | -477 | -482 | 441 | 108 | -172 | 126 | -123 | -0.30 | 0.10 | 0.30 | 166.10 | 111.40 |
| 38 | 369 | -371 | -374 | 332 | 144 | -283 | 233 | -230 | 0.40 | 0.60 | 0.70 | 56.38 | 108.80 |
| 39 | 285 | -334 | -338 | 295 | 172 | -232 | 187 | -184 | -0.30 | 0.10 | 0.30 | 165.70 | 115.20 |
| 40 | 338 | -432 | -435 | 393 | 263 | -390 | 340 | -339 | -0.30 | 0.80 | 0.80 | 108.30 | 112.70 |
| 41 | 275 | -257 | -256 | 212 | 423 | -581 | 536 | -534 | 0.60 | 0.40 | 0.70 | 33.84 | 113.60 |
| 42 | 271 | -394 | -400 | 352 | 142 | -94 | 31 | -38 | -1.00 | -0.70 | 1.20 | 217.00 | 124.00 |
| 43 | 416 | -516 | -520 | 473 | 262 | -411 | 356 | -362 | -0.60 | 0.90 | 1.10 | 123.50 | 106.80 |
| 44 | 397 | -419 | -422 | 372 | 262 | -327 | 269 | -275 | 0.40 | 0.00 | 0.40 | 355.80 | 100.90 |
| 45 | 214 | -287 | -294 | 243 | 261 | -362 | 311 | -318 | -0.20 | 0.30 | 0.40 | 125.90 | 107.70 |
| 46 | 257 | -344 | -349 | 299 | 238 | -347 | 289 | -303 | -0.40 | 0.60 | 0.70 | 119.40 | 105.10 |
| 47 | 269 | -297 | -300 | 251 | 296 | -370 | 312 | -327 | 0.20 | 0.00 | 0.20 | 2.80 | 100.20 |
| 48 | 242 | -356 | -362 | 310 | 262 | -397 | 329 | -355 | -0.50 | 1.00 | 1.10 | 118.10 | 106.20 |
| 49 | 248 | -288 | -290 | 239 | 386 | -508 | 435 | -468 | 0.20 | 0.70 | 0.70 | 71.97 | 93.51 |
| 50 | 188 | -254 | -263 | 209 | 379 | -459 | 392 | -431 | -0.30 | 0.40 | 0.50 | 126.60 | 126.60 |
| 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| Committente: | | ANAS SpA | | | | | | | Numero lettura: | | 2 | | | |
|---------------------|---------------|------------|------|------|-----|------|-----|------|-----------------------|---------------------|-----------------|------------|----------------|--|
| Località: | | La Spezia | | | | | | | Sonda usata: | | OG310S | | | |
| Data: | | 26/07/2006 | | | | | | | Correzione angolare: | | 0 | | | |
| Sigla inclinometro: | | I9 | | | | | | | Correzione azimutale: | | 100 | | | |
| Profondità (m) | Dati campagna | | | | | | | | | Movimento per punti | | | | |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) | |
| 1 | 23 | -28 | -44 | 24 | 116 | -165 | 154 | 0 | 0.40 | 1.00 | 1.00 | 69.99 | 81.10 | |
| 2 | 30 | -71 | -84 | 31 | 119 | -192 | 156 | -144 | 1.00 | -0.70 | 1.30 | 325.00 | 82.96 | |
| 3 | -26 | 79 | 64 | -119 | 141 | -267 | 241 | -229 | 1.60 | 0.10 | 1.60 | 2.49 | 92.44 | |
| 4 | -181 | 91 | 73 | -135 | 144 | -256 | 229 | -209 | -0.30 | 0.40 | 0.50 | 127.60 | 105.70 | |
| 5 | -148 | 93 | 76 | -134 | 185 | -278 | 245 | -236 | 0.00 | 0.10 | 0.10 | 80.01 | 104.20 | |
| 6 | -155 | 123 | 106 | -160 | 155 | -160 | 131 | -123 | 0.20 | -0.90 | 0.90 | 281.50 | 104.50 | |
| 7 | -216 | 138 | 123 | -183 | 58 | -159 | 126 | -114 | -0.40 | 0.20 | 0.40 | 149.90 | 104.10 | |
| 8 | -181 | 133 | 119 | -176 | 99 | -188 | 158 | -151 | 0.10 | -0.10 | 0.10 | 312.10 | 101.60 | |
| 9 | -134 | 49 | 35 | -91 | 70 | -129 | 99 | -93 | -0.30 | -0.40 | 0.50 | 233.40 | 102.10 | |
| 10 | -66 | -36 | -51 | -14 | 59 | -158 | 127 | -119 | -0.20 | 0.00 | 0.20 | 188.40 | 99.45 | |
| 11 | -11 | -59 | -73 | 15 | 69 | -135 | 102 | -95 | 0.20 | -0.40 | 0.40 | 297.60 | 98.02 | |
| 12 | -20 | -24 | -39 | -26 | 58 | -226 | 191 | -186 | 0.50 | 0.70 | 0.90 | 51.97 | 99.08 | |
| 13 | -33 | -45 | -60 | -3 | 173 | -308 | 274 | -269 | -0.10 | 0.30 | 0.30 | 101.80 | 104.00 | |
| 14 | -35 | -21 | -33 | -34 | 253 | -347 | 314 | -309 | 0.20 | -0.20 | 0.30 | 321.70 | 104.10 | |
| 15 | 38 | -158 | -167 | 111 | 236 | -306 | 269 | -264 | -0.40 | -0.30 | 0.50 | 216.60 | 105.50 | |
| 16 | 80 | -149 | -158 | 99 | 198 | -278 | 238 | -234 | 0.10 | -0.40 | 0.40 | 280.20 | 102.10 | |
| 17 | 94 | -163 | -169 | 113 | 184 | -281 | 241 | -238 | 0.10 | -0.20 | 0.20 | 284.40 | 102.00 | |
| 18 | 158 | -259 | -269 | 209 | 238 | -320 | 278 | -272 | -0.10 | -0.10 | 0.20 | 245.00 | 102.00 | |
| 19 | 160 | -222 | -235 | 174 | 217 | -314 | 270 | -267 | 0.30 | -0.20 | 0.30 | 323.40 | 101.40 | |
| 20 | 149 | -241 | -251 | 189 | 244 | -330 | 285 | -284 | -0.20 | -0.30 | 0.40 | 243.40 | 102.90 | |
| 21 | 266 | -420 | -431 | 370 | 211 | -330 | 288 | -283 | -0.60 | 0.10 | 0.60 | 167.10 | 101.30 | |
| 22 | 315 | -396 | -409 | 345 | 216 | -235 | 189 | -189 | 0.00 | -0.90 | 1.00 | 268.40 | 97.71 | |
| 23 | 304 | -403 | -406 | 346 | 113 | -251 | 205 | -203 | 0.20 | 0.30 | 0.40 | 53.44 | 96.80 | |
| 24 | 390 | -376 | -390 | 329 | 131 | -265 | 221 | -222 | 1.30 | 0.00 | 1.30 | 358.90 | 98.31 | |
| 25 | 263 | -330 | -342 | 279 | 221 | -321 | 279 | -279 | 0.20 | -0.40 | 0.40 | 297.10 | 105.80 | |
| 26 | 233 | -288 | -297 | 233 | 196 | -269 | 224 | -222 | 0.20 | -0.40 | 0.50 | 298.80 | 106.30 | |
| 27 | 290 | -451 | -457 | 395 | 160 | -219 | 174 | -176 | -0.90 | -0.50 | 1.00 | 212.20 | 106.90 | |
| 28 | 394 | -518 | -526 | 463 | 136 | -255 | 206 | -210 | -0.40 | 0.10 | 0.40 | 159.20 | 101.60 | |
| 29 | 479 | -571 | -580 | 515 | 154 | -238 | 189 | -192 | -0.10 | 0.30 | 0.30 | 101.00 | 99.92 | |
| 30 | 439 | -361 | -371 | 308 | 154 | -297 | 250 | -253 | 1.20 | 0.10 | 1.20 | 5.96 | 99.89 | |
| 31 | 276 | -429 | -436 | 369 | 114 | -180 | 130 | -138 | -1.10 | 0.30 | 1.10 | 165.80 | 106.20 | |
| 32 | 371 | -401 | -409 | 344 | 55 | -145 | 94 | -100 | 0.40 | 0.10 | 0.40 | 18.93 | 100.70 | |
| 33 | 219 | -249 | -256 | 190 | 14 | -261 | 210 | -217 | 0.50 | 1.60 | 1.70 | 72.67 | 103.20 | |
| 34 | 308 | -402 | -411 | 369 | 289 | -393 | 351 | -349 | -0.30 | 0.40 | 0.50 | 128.80 | 109.20 | |
| 35 | 281 | -306 | -310 | 244 | 328 | -451 | 397 | -405 | 0.40 | 0.40 | 0.50 | 46.60 | 107.90 | |
| 36 | 314 | -421 | -427 | 380 | 215 | -247 | 192 | -199 | -0.60 | -0.20 | 0.70 | 196.90 | 111.30 | |
| 37 | 370 | -490 | -493 | 429 | 115 | -171 | 115 | -127 | -0.60 | 0.10 | 0.60 | 167.00 | 106.40 | |
| 38 | 389 | -383 | -384 | 319 | 84 | -283 | 224 | -236 | 0.80 | 1.20 | 1.40 | 55.83 | 102.50 | |
| 39 | 258 | -344 | -345 | 280 | 184 | -229 | 176 | -188 | -0.50 | 0.10 | 0.50 | 170.00 | 111.40 | |
| 40 | 342 | -432 | -435 | 392 | 271 | -386 | 336 | -340 | -0.20 | 0.80 | 0.80 | 106.80 | 107.40 | |
| 41 | 263 | -254 | -252 | 210 | 447 | -579 | 533 | -549 | 0.30 | 0.10 | 0.30 | 16.55 | 107.50 | |
| 42 | 292 | -392 | -399 | 350 | 120 | -88 | 26 | -39 | -0.80 | -0.40 | 0.90 | 210.40 | 111.00 | |
| 43 | 424 | -509 | -517 | 473 | 273 | -405 | 355 | -362 | -0.60 | 0.90 | 1.10 | 125.70 | 102.20 | |
| 44 | 413 | -434 | -440 | 364 | 270 | -329 | 250 | -281 | 0.80 | -0.10 | 0.80 | 355.00 | 96.98 | |
| 45 | 171 | -299 | -310 | 231 | 233 | -370 | 294 | -328 | -0.50 | 0.70 | 0.80 | 125.50 | 106.10 | |
| 46 | 201 | -356 | -364 | 285 | 201 | -351 | 266 | -306 | -0.70 | 1.20 | 1.40 | 119.20 | 102.40 | |
| 47 | 278 | -310 | -315 | 238 | 296 | -380 | 291 | -336 | 0.50 | 0.00 | 0.50 | 358.60 | 94.42 | |
| 48 | 251 | -352 | -358 | 310 | 283 | -397 | 328 | -354 | -0.60 | 0.80 | 1.00 | 124.50 | 103.30 | |
| 49 | 236 | -304 | -306 | 229 | 335 | -516 | 401 | -476 | 0.40 | 1.30 | 1.40 | 71.86 | 93.57 | |
| 50 | 141 | -275 | -272 | 192 | 355 | -478 | 359 | -439 | -0.60 | 0.70 | 0.90 | 127.60 | 127.60 | |
| 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 3 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 14/08/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I9 | Correzione azimutale: | 100 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-----|------|-----|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 23 | -22 | -48 | 27 | 117 | -162 | 159 | 0 | 0.40 | 0.90 | 1.00 | 69.14 | 353.90 |
| 2 | 30 | -60 | -75 | 40 | 120 | -177 | 161 | -148 | 0.90 | -0.70 | 1.20 | 324.90 | 340.00 |
| 3 | 21 | 92 | 77 | -113 | 142 | -254 | 243 | -230 | 1.90 | 0.10 | 1.90 | 3.38 | 345.90 |
| 4 | -135 | 104 | 84 | -131 | 182 | -244 | 233 | -211 | -0.10 | 0.00 | 0.10 | 177.10 | 319.60 |
| 5 | -119 | 105 | 88 | -129 | 195 | -264 | 248 | -238 | 0.10 | 0.10 | 0.10 | 24.99 | 321.70 |
| 6 | -127 | 134 | 118 | -156 | 192 | -148 | 134 | -125 | 0.20 | -1.20 | 1.20 | 280.30 | 316.90 |
| 7 | -171 | 151 | 135 | -178 | 86 | -147 | 132 | -119 | -0.20 | -0.10 | 0.20 | 206.80 | 24.20 |
| 8 | -163 | 146 | 132 | -172 | 107 | -176 | 162 | -154 | 0.00 | -0.10 | 0.10 | 286.50 | 24.73 |
| 9 | -138 | 62 | 45 | -86 | 106 | -118 | 103 | -94 | -0.50 | -0.60 | 0.80 | 229.10 | 30.95 |
| 10 | -61 | -24 | -41 | -4 | 73 | -147 | 131 | -122 | -0.30 | -0.10 | 0.30 | 202.60 | 39.15 |
| 11 | 10 | -46 | -66 | 21 | 92 | -123 | 108 | -98 | 0.20 | -0.60 | 0.60 | 291.70 | 36.87 |
| 12 | 15 | -8 | -21 | -18 | 72 | -215 | 197 | -189 | 0.60 | 0.60 | 0.80 | 42.43 | 52.11 |
| 13 | -11 | -32 | -48 | 2 | 175 | -296 | 279 | -271 | 0.00 | 0.30 | 0.30 | 96.86 | 57.13 |
| 14 | 0 | -4 | -29 | -29 | 256 | -336 | 318 | -310 | 0.40 | -0.20 | 0.50 | 336.20 | 47.57 |
| 15 | 24 | -144 | -154 | 118 | 267 | -294 | 275 | -267 | -0.80 | -0.50 | 0.90 | 213.20 | 68.01 |
| 16 | 113 | -135 | -147 | 106 | 229 | -264 | 242 | -235 | 0.20 | -0.60 | 0.70 | 285.80 | 53.40 |
| 17 | 114 | -149 | -160 | 118 | 203 | -268 | 247 | -239 | 0.10 | -0.40 | 0.40 | 278.90 | 65.39 |
| 18 | 152 | -245 | -257 | 215 | 230 | -307 | 282 | -274 | -0.30 | 0.10 | 0.30 | 170.00 | 69.49 |
| 19 | 200 | -209 | -223 | 180 | 238 | -300 | 279 | -269 | 0.40 | -0.40 | 0.60 | 317.10 | 63.70 |
| 20 | 177 | -228 | -259 | 197 | 249 | -318 | 294 | -285 | 0.10 | -0.40 | 0.40 | 286.50 | 74.34 |
| 21 | 246 | -406 | -419 | 376 | 241 | -318 | 293 | -284 | -1.00 | 0.00 | 1.00 | 181.80 | 78.20 |
| 22 | 358 | -383 | -397 | 352 | 245 | -222 | 194 | -189 | 0.20 | -1.20 | 1.20 | 278.70 | 63.49 |
| 23 | 341 | -390 | -400 | 356 | 144 | -238 | 211 | -202 | 0.40 | 0.00 | 0.40 | 1.57 | 71.63 |
| 24 | 384 | -362 | -377 | 335 | 160 | -253 | 227 | -224 | 1.00 | -0.20 | 1.00 | 347.10 | 76.65 |
| 25 | 309 | -316 | -331 | 286 | 213 | -309 | 285 | -277 | 0.50 | -0.30 | 0.60 | 332.20 | 88.41 |
| 26 | 273 | -272 | -284 | 240 | 230 | -257 | 230 | -222 | 0.40 | -0.70 | 0.80 | 296.20 | 93.94 |
| 27 | 278 | -436 | -445 | 403 | 185 | -208 | 182 | -176 | -1.20 | -0.70 | 1.40 | 210.30 | 96.86 |
| 28 | 411 | -506 | -516 | 473 | 150 | -243 | 214 | -210 | -0.30 | 0.00 | 0.30 | 175.30 | 85.63 |
| 29 | 488 | -559 | -571 | 528 | 177 | -226 | 195 | -190 | -0.10 | 0.10 | 0.10 | 119.20 | 82.85 |
| 30 | 494 | -345 | -355 | 314 | 166 | -286 | 257 | -251 | 1.40 | 0.00 | 1.40 | 0.46 | 82.11 |
| 31 | 303 | -415 | -425 | 380 | 175 | -166 | 136 | -134 | -1.00 | -0.20 | 1.10 | 192.90 | 94.80 |
| 32 | 386 | -386 | -397 | 354 | 85 | -133 | 102 | -98 | 0.30 | -0.10 | 0.40 | 345.20 | 85.83 |
| 33 | 293 | -235 | -245 | 202 | 47 | -248 | 218 | -215 | 1.10 | 1.30 | 1.70 | 50.22 | 88.84 |
| 34 | 307 | -412 | -412 | 371 | 299 | -394 | 352 | -350 | -0.20 | 0.30 | 0.40 | 131.80 | 99.67 |
| 35 | 334 | -289 | -296 | 253 | 329 | -439 | 406 | -403 | 0.70 | 0.40 | 0.80 | 28.65 | 97.60 |
| 36 | 326 | -429 | -432 | 379 | 195 | -245 | 182 | -200 | -0.30 | 0.10 | 0.40 | 168.30 | 105.80 |
| 37 | 382 | -475 | -484 | 440 | 147 | -159 | 124 | -123 | -0.60 | -0.10 | 0.60 | 190.40 | 102.10 |
| 38 | 421 | -366 | -370 | 328 | 93 | -271 | 234 | -234 | 0.90 | 1.10 | 1.40 | 51.23 | 94.77 |
| 39 | 303 | -329 | -334 | 290 | 199 | -215 | 184 | -186 | -0.20 | 0.00 | 0.20 | 186.90 | 108.60 |
| 40 | 351 | -431 | -436 | 391 | 277 | -373 | 330 | -342 | -0.10 | 0.90 | 0.90 | 99.04 | 105.20 |
| 41 | 224 | -252 | -250 | 208 | 456 | -576 | 534 | -548 | -0.10 | 0.10 | 0.20 | 139.00 | 106.90 |
| 42 | 301 | -389 | -400 | 351 | 81 | -74 | 22 | -40 | -0.60 | 0.10 | 0.60 | 170.90 | 105.10 |
| 43 | 433 | -508 | -509 | 472 | 291 | -399 | 352 | -363 | -0.70 | 0.80 | 1.00 | 130.10 | 93.88 |
| 44 | 452 | -417 | -422 | 372 | 310 | -315 | 270 | -278 | 0.80 | -0.50 | 1.00 | 328.60 | 76.29 |
| 45 | 283 | -282 | -295 | 239 | 247 | -357 | 315 | -322 | 0.40 | 0.30 | 0.50 | 42.21 | 98.43 |
| 46 | 234 | -339 | -348 | 299 | 254 | -340 | 289 | -299 | -0.60 | 0.60 | 0.90 | 135.70 | 109.10 |
| 47 | 299 | -293 | -298 | 249 | 290 | -367 | 317 | -331 | 0.40 | 0.00 | 0.40 | 356.40 | 93.47 |
| 48 | 263 | -354 | -354 | 310 | 301 | -390 | 330 | -354 | -0.50 | 0.70 | 0.80 | 125.90 | 109.20 |
| 49 | 253 | -286 | -290 | 241 | 396 | -505 | 437 | -471 | 0.30 | 0.60 | 0.60 | 65.72 | 93.39 |
| 50 | 190 | -258 | -259 | 207 | 382 | -464 | 394 | -429 | -0.30 | 0.30 | 0.40 | 134.40 | 134.40 |
| 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 4 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 31/08/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I9 | Correzione azimutale: | 100 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-----|------|-----|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 24 | -30 | -45 | 23 | 115 | -167 | 152 | -121 | 0.20 | -0.20 | 0.30 | 309.40 | 312.60 |
| 2 | 44 | -49 | -66 | 48 | 129 | -161 | 166 | -151 | 1.00 | -0.70 | 1.20 | 324.90 | 312.70 |
| 3 | 68 | 105 | 89 | -106 | 142 | -240 | 244 | -231 | 2.20 | 0.20 | 2.20 | 4.66 | 311.20 |
| 4 | -88 | 116 | 95 | -127 | 219 | -231 | 236 | -213 | 0.10 | -0.30 | 0.40 | 293.60 | 298.80 |
| 5 | -90 | 116 | 100 | -124 | 204 | -250 | 250 | -240 | 0.20 | 0.00 | 0.20 | 10.85 | 299.10 |
| 6 | -98 | 145 | 129 | -151 | 228 | -136 | 136 | -126 | 0.30 | -1.50 | 1.50 | 281.00 | 297.50 |
| 7 | -126 | 163 | 146 | -173 | 113 | -134 | 138 | -123 | 0.00 | -0.40 | 0.40 | 276.90 | 301.40 |
| 8 | -145 | 159 | 144 | -167 | 114 | -164 | 166 | -156 | 0.00 | -0.10 | 0.10 | 275.20 | 302.90 |
| 9 | -142 | 74 | 55 | -81 | 142 | -106 | 106 | -95 | -0.80 | -0.90 | 1.20 | 227.30 | 303.40 |
| 10 | -55 | -11 | -30 | 6 | 86 | -136 | 134 | -124 | -0.40 | -0.20 | 0.40 | 204.80 | 314.90 |
| 11 | 30 | -33 | -58 | 26 | 114 | -111 | 114 | -100 | 0.20 | -0.80 | 0.80 | 287.50 | 318.50 |
| 12 | 50 | 8 | -3 | -10 | 86 | -204 | 203 | -191 | 0.70 | 0.40 | 0.40 | 32.46 | 323.20 |
| 13 | 11 | -18 | -36 | 6 | 176 | -283 | 283 | -272 | 0.00 | 0.40 | 0.40 | 94.04 | 314.60 |
| 14 | 35 | 13 | -24 | -24 | 258 | -324 | 321 | -311 | 0.60 | -0.20 | 0.60 | 345.40 | 311.70 |
| 15 | 10 | -130 | -141 | 124 | 297 | -281 | 280 | -269 | -1.20 | -0.70 | 1.30 | 210.40 | 307.60 |
| 16 | 146 | -121 | -136 | 113 | 259 | -250 | 246 | -235 | 0.30 | -0.90 | 0.90 | 288.80 | 322.50 |
| 17 | 134 | -135 | -150 | 123 | 222 | -255 | 253 | -240 | 0.00 | -0.50 | 0.50 | 275.10 | 329.00 |
| 18 | 146 | -231 | -244 | 220 | 222 | -294 | 286 | -276 | -0.50 | 0.20 | 0.60 | 155.50 | 334.50 |
| 19 | 240 | -195 | -211 | 185 | 259 | -285 | 288 | -271 | 0.60 | -0.60 | 0.90 | 314.40 | 334.60 |
| 20 | 205 | -215 | -267 | 204 | 254 | -306 | 303 | -285 | 0.40 | -0.50 | 0.70 | 309.90 | 338.90 |
| 21 | 225 | -392 | -406 | 381 | 270 | -306 | 297 | -284 | -1.50 | -0.20 | 1.50 | 186.30 | 344.20 |
| 22 | 400 | -369 | -384 | 358 | 274 | -208 | 198 | -188 | 0.40 | -1.40 | 1.50 | 284.20 | 350.90 |
| 23 | 378 | -376 | -394 | 365 | 174 | -225 | 217 | -201 | 0.70 | -0.20 | 0.70 | 339.40 | 8.43 |
| 24 | 378 | -347 | -364 | 340 | 188 | -240 | 233 | -225 | 0.70 | -0.40 | 0.80 | 329.10 | 13.57 |
| 25 | 354 | -301 | -319 | 292 | 204 | -296 | 290 | -274 | 0.80 | -0.10 | 0.80 | 352.20 | 22.69 |
| 26 | 313 | -255 | -271 | 247 | 264 | -245 | 235 | -221 | 0.50 | -1.00 | 1.10 | 295.40 | 30.95 |
| 27 | 266 | -421 | -432 | 411 | 210 | -196 | 189 | -175 | -1.60 | -0.80 | 1.80 | 208.30 | 52.23 |
| 28 | 428 | -493 | -505 | 482 | 164 | -231 | 222 | -209 | -0.30 | -0.10 | 0.30 | 191.80 | 43.46 |
| 29 | 496 | -547 | -561 | 540 | 199 | -213 | 201 | -188 | -0.10 | 0.00 | 0.10 | 180.30 | 41.52 |
| 30 | 549 | -329 | -338 | 320 | 177 | -274 | 264 | -249 | 1.70 | -0.10 | 1.70 | 357.40 | 40.68 |
| 31 | 329 | -401 | -414 | 391 | 236 | -151 | 141 | -129 | -1.00 | -0.70 | 1.20 | 215.60 | 57.66 |
| 32 | 400 | -370 | -384 | 363 | 114 | -120 | 109 | -95 | 0.30 | -0.30 | 0.40 | 312.50 | 52.58 |
| 33 | 367 | -220 | -233 | 213 | 79 | -234 | 225 | -213 | 1.60 | 1.00 | 1.90 | 30.87 | 56.66 |
| 34 | 311 | -418 | -421 | 376 | 306 | -394 | 329 | -353 | 0.00 | 0.40 | 0.40 | 86.52 | 69.54 |
| 35 | 386 | -271 | -281 | 261 | 330 | -426 | 415 | -400 | 1.00 | 0.40 | 1.00 | 21.82 | 67.76 |
| 36 | 342 | -430 | -438 | 379 | 174 | -245 | 171 | -206 | -0.10 | 0.30 | 0.30 | 103.90 | 83.60 |
| 37 | 394 | -460 | -474 | 450 | 179 | -146 | 133 | -119 | -0.70 | -0.30 | 0.80 | 206.50 | 81.17 |
| 38 | 453 | -349 | -356 | 336 | 101 | -258 | 244 | -231 | 1.00 | 1.00 | 1.40 | 47.66 | 68.80 |
| 39 | 347 | -313 | -322 | 299 | 213 | -201 | 192 | -183 | 0.00 | -0.10 | 0.10 | 269.40 | 86.44 |
| 40 | 363 | -431 | -437 | 392 | 286 | -362 | 324 | -345 | 0.00 | 0.90 | 0.90 | 89.56 | 86.64 |
| 41 | 206 | -250 | -250 | 207 | 485 | -572 | 534 | -547 | -0.40 | -0.10 | 0.40 | 192.60 | 83.75 |
| 42 | 318 | -387 | -396 | 350 | 25 | -60 | 18 | -40 | -0.40 | 0.80 | 0.90 | 113.80 | 64.17 |
| 43 | 441 | -506 | -504 | 470 | 309 | -392 | 355 | -364 | -0.70 | 0.60 | 0.90 | 137.40 | 12.65 |
| 44 | 490 | -399 | -404 | 380 | 349 | -300 | 289 | -275 | 0.90 | -0.90 | 1.30 | 313.30 | 343.50 |
| 45 | 395 | -265 | -279 | 247 | 260 | -344 | 336 | -316 | 1.20 | 0.00 | 1.20 | 1.96 | 35.48 |
| 46 | 266 | -322 | -331 | 313 | 306 | -329 | 311 | -292 | -0.60 | 0.10 | 0.60 | 174.50 | 141.50 |
| 47 | 319 | -276 | -281 | 259 | 283 | -353 | 342 | -325 | 0.40 | 0.00 | 0.40 | 359.90 | 76.98 |
| 48 | 284 | -346 | -349 | 316 | 309 | -378 | 333 | -350 | -0.30 | 0.70 | 0.80 | 115.90 | 130.70 |
| 49 | 269 | -267 | -274 | 253 | 456 | -494 | 472 | -466 | 0.00 | -0.20 | 0.20 | 281.80 | 272.70 |
| 50 | 239 | -241 | -246 | 222 | 409 | -449 | 429 | -418 | 0.00 | -0.10 | 0.10 | 254.80 | 254.80 |
| 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 5 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 30/09/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I9 | Correzione azimutale: | 100 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-----|------|-----|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 26 | -32 | -47 | 24 | 117 | -171 | 152 | -118 | 0.20 | -0.30 | 0.30 | 313.10 | 339.70 |
| 2 | 27 | -33 | -66 | 47 | 118 | -166 | 167 | -180 | 0.60 | -0.90 | 1.00 | 304.60 | 345.70 |
| 3 | -106 | 106 | 91 | -112 | 150 | -245 | 233 | -251 | 0.40 | 0.30 | 0.50 | 37.64 | 29.62 |
| 4 | -84 | 115 | 95 | -125 | 222 | -241 | 243 | -214 | 0.20 | -0.50 | 0.60 | 287.90 | 22.73 |
| 5 | -91 | 111 | 100 | -127 | 205 | -245 | 248 | -241 | 0.20 | 0.10 | 0.30 | 20.58 | 67.27 |
| 6 | -155 | 148 | 129 | -157 | 127 | -139 | 134 | -130 | -0.20 | -0.40 | 0.50 | 246.80 | 83.36 |
| 7 | -127 | 162 | 144 | -175 | 97 | -135 | 134 | -131 | 0.10 | -0.30 | 0.30 | 283.70 | 76.45 |
| 8 | -153 | 158 | 136 | -172 | 95 | -159 | 150 | -158 | 0.00 | 0.30 | 0.30 | 82.12 | 81.62 |
| 9 | -95 | 68 | 55 | -72 | 94 | -108 | 105 | -116 | -0.10 | -0.70 | 0.70 | 258.40 | 81.50 |
| 10 | -25 | -20 | -32 | 4 | 79 | -136 | 126 | -129 | 0.00 | -0.10 | 0.10 | 284.70 | 80.29 |
| 11 | 29 | -31 | -58 | 8 | 114 | -113 | 102 | -111 | 0.00 | -0.80 | 0.80 | 272.90 | 82.00 |
| 12 | 7 | 0 | -16 | -20 | 121 | -203 | 201 | -191 | 0.30 | 0.20 | 0.30 | 29.17 | 85.01 |
| 13 | 10 | -26 | -41 | 5 | 197 | -289 | 277 | -272 | 0.00 | 0.20 | 0.20 | 76.99 | 91.47 |
| 14 | 3 | 11 | -12 | -24 | 259 | -319 | 317 | -311 | 0.20 | 0.00 | 0.20 | 358.10 | 92.62 |
| 15 | 15 | -134 | -141 | 118 | 289 | -284 | 273 | -273 | -1.10 | -0.60 | 1.30 | 208.50 | 97.67 |
| 16 | 105 | -129 | -145 | 113 | 199 | -259 | 241 | -239 | 0.10 | -0.30 | 0.30 | 295.50 | 75.16 |
| 17 | 109 | -148 | -159 | 116 | 207 | -259 | 237 | -241 | 0.00 | -0.20 | 0.20 | 267.70 | 78.96 |
| 18 | 149 | -231 | -254 | 219 | 224 | -302 | 285 | -295 | -0.50 | 0.00 | 0.50 | 185.70 | 79.51 |
| 19 | 230 | -207 | -237 | 173 | 254 | -290 | 280 | -279 | 0.80 | -0.60 | 1.00 | 319.80 | 72.46 |
| 20 | 187 | -222 | -264 | 204 | 247 | -307 | 276 | -286 | 0.30 | -0.20 | 0.40 | 334.40 | 85.01 |
| 21 | 353 | -396 | -433 | 359 | 267 | -317 | 283 | -291 | -0.10 | -0.40 | 0.40 | 252.00 | 89.60 |
| 22 | 389 | -371 | -392 | 350 | 188 | -206 | 180 | -188 | 0.50 | -0.40 | 0.60 | 322.10 | 88.04 |
| 23 | 347 | -377 | -396 | 325 | 165 | -224 | 211 | -227 | 0.00 | -0.20 | 0.20 | 264.90 | 93.24 |
| 24 | 317 | -353 | -366 | 328 | 186 | -240 | 228 | -245 | 0.00 | -0.40 | 0.40 | 268.50 | 92.89 |
| 25 | 320 | -305 | -323 | 290 | 238 | -294 | 274 | -276 | 0.50 | -0.20 | 0.50 | 332.90 | 92.59 |
| 26 | 300 | -260 | -276 | 235 | 236 | -243 | 228 | -236 | 0.40 | -0.80 | 0.80 | 295.70 | 96.81 |
| 27 | 307 | -429 | -437 | 391 | 152 | -199 | 173 | -189 | -1.10 | -0.30 | 1.20 | 196.70 | 99.09 |
| 28 | 429 | -501 | -513 | 466 | 174 | -231 | 192 | -210 | -0.30 | 0.10 | 0.30 | 156.40 | 89.64 |
| 29 | 496 | -552 | -580 | 529 | 152 | -214 | 166 | -207 | 0.10 | 0.60 | 0.60 | 78.09 | 87.40 |
| 30 | 308 | -336 | -359 | 292 | 195 | -278 | 244 | -267 | -0.70 | 0.10 | 0.70 | 168.40 | 88.27 |
| 31 | 351 | -429 | -420 | 373 | 140 | -164 | 123 | -158 | -0.50 | -0.10 | 0.50 | 187.70 | 81.81 |
| 32 | 369 | -393 | -390 | 363 | 79 | -129 | 108 | -99 | 0.30 | 0.00 | 0.30 | 350.00 | 77.60 |
| 33 | 222 | -227 | -238 | 205 | 113 | -235 | 211 | -220 | 0.20 | 0.90 | 0.90 | 80.00 | 80.09 |
| 34 | 328 | -427 | -429 | 377 | 307 | -395 | 324 | -354 | 0.40 | 0.30 | 0.50 | 40.05 | 80.10 |
| 35 | 299 | -308 | -294 | 255 | 330 | -447 | 395 | -404 | 0.50 | 0.40 | 0.70 | 38.06 | 83.55 |
| 36 | 354 | -432 | -441 | 379 | 153 | -248 | 169 | -207 | 0.10 | 0.40 | 0.50 | 73.80 | 89.26 |
| 37 | 412 | -487 | -481 | 446 | 92 | -152 | 105 | -124 | 0.00 | 0.60 | 0.60 | 93.57 | 90.91 |
| 38 | 389 | -358 | -376 | 332 | 131 | -260 | 226 | -235 | 0.50 | 0.90 | 1.10 | 60.07 | 90.48 |
| 39 | 331 | -329 | -334 | 298 | 212 | -209 | 171 | -183 | 0.10 | 0.00 | 0.10 | 358.70 | 101.80 |
| 40 | 380 | -433 | -442 | 393 | 290 | -359 | 313 | -345 | 0.30 | 1.00 | 1.00 | 74.23 | 104.30 |
| 41 | 202 | -249 | -250 | 207 | 499 | -570 | 531 | -552 | -0.50 | -0.20 | 0.50 | 205.20 | 118.60 |
| 42 | 319 | -381 | -392 | 351 | 23 | -59 | 13 | -42 | -0.40 | 0.90 | 1.00 | 115.80 | 104.50 |
| 43 | 449 | -503 | -502 | 471 | 329 | -384 | 351 | -364 | -0.70 | 0.60 | 0.90 | 140.50 | 94.89 |
| 44 | 479 | -399 | -407 | 382 | 307 | -291 | 272 | -277 | 0.90 | -0.30 | 1.00 | 344.00 | 44.55 |
| 45 | 327 | -267 | -278 | 246 | 278 | -343 | 329 | -323 | 0.50 | 0.00 | 0.50 | 359.00 | 112.80 |
| 46 | 276 | -326 | -330 | 312 | 299 | -329 | 300 | -293 | -0.50 | 0.20 | 0.50 | 156.70 | 135.50 |
| 47 | 304 | -278 | -281 | 259 | 289 | -352 | 341 | -327 | 0.30 | 0.00 | 0.30 | 352.10 | 120.60 |
| 48 | 300 | -342 | -344 | 317 | 315 | -374 | 335 | -350 | -0.30 | 0.60 | 0.70 | 112.50 | 133.70 |
| 49 | 255 | -271 | -268 | 254 | 446 | -493 | 467 | -467 | -0.10 | 0.00 | 0.10 | 205.50 | 174.50 |
| 50 | 212 | -239 | -245 | 222 | 408 | -441 | 425 | -418 | -0.30 | 0.10 | 0.30 | 166.30 | 166.30 |
| 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LETTURA INCLINOMETRICA

| Committente: | | ANAS SpA | | | | Numero lettura: | | 6 | | | | | |
|---------------------|---------------|------------|------|------|-----|-----------------------|-----|--------|---------------------|--------|-----------------|------------|----------------|
| Località: | | La Spezia | | | | Sonda usata: | | OG310S | | | | | |
| Data: | | 30/10/2006 | | | | Correzione angolare: | | 0 | | | | | |
| Sigla inclinometro: | | I9 | | | | Correzione azimutale: | | 100 | | | | | |
| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 27 | -31 | -48 | 25 | 116 | -171 | 154 | -120 | 0.30 | -0.30 | 0.40 | 311.30 | 330.40 |
| 2 | 37 | -46 | -56 | 34 | 120 | -176 | 166 | -176 | 0.60 | -0.90 | 1.10 | 302.00 | 332.80 |
| 3 | -14 | 107 | 91 | -108 | 146 | -241 | 236 | -232 | 1.30 | 0.40 | 1.40 | 14.72 | 347.80 |
| 4 | -85 | 114 | 90 | -126 | 219 | -246 | 236 | -219 | 0.20 | -0.60 | 0.60 | 291.30 | 313.40 |
| 5 | -98 | 115 | 100 | -131 | 206 | -249 | 249 | -242 | 0.10 | 0.00 | 0.10 | 30.60 | 335.50 |
| 6 | -158 | 148 | 125 | -162 | 225 | -137 | 135 | -127 | -0.40 | -1.40 | 1.40 | 253.90 | 327.60 |
| 7 | -157 | 163 | 142 | -175 | 92 | -140 | 125 | -135 | -0.20 | -0.20 | 0.30 | 218.00 | 51.17 |
| 8 | -168 | 158 | 140 | -175 | 110 | -161 | 158 | -166 | -0.20 | 0.00 | 0.20 | 184.60 | 49.02 |
| 9 | -76 | 64 | 48 | -81 | 57 | -109 | 98 | -113 | 0.10 | -0.30 | 0.30 | 294.10 | 43.75 |
| 10 | -34 | -13 | -35 | 4 | 82 | -136 | 133 | -128 | -0.10 | -0.20 | 0.20 | 242.30 | 53.16 |
| 11 | 28 | -31 | -58 | 11 | 75 | -111 | 104 | -101 | 0.10 | -0.30 | 0.30 | 294.20 | 54.13 |
| 12 | 37 | -4 | -12 | -12 | 106 | -204 | 195 | -192 | 0.70 | 0.30 | 0.80 | 22.24 | 60.55 |
| 13 | 10 | -31 | -41 | 6 | 192 | -290 | 283 | -273 | 0.10 | 0.10 | 0.20 | 56.37 | 75.85 |
| 14 | -12 | 11 | -18 | -24 | 259 | -320 | 314 | -310 | 0.10 | 0.00 | 0.10 | 16.56 | 77.89 |
| 15 | 81 | -135 | -141 | 114 | 280 | -281 | 271 | -275 | -0.50 | -0.60 | 0.80 | 231.70 | 82.16 |
| 16 | 108 | -124 | -143 | 112 | 192 | -253 | 241 | -248 | 0.10 | -0.30 | 0.30 | 292.00 | 72.39 |
| 17 | 117 | -137 | -158 | 119 | 212 | -257 | 244 | -245 | 0.00 | -0.40 | 0.40 | 263.10 | 76.54 |
| 18 | 178 | -234 | -251 | 196 | 224 | -309 | 274 | -281 | -0.40 | 0.10 | 0.40 | 162.80 | 77.38 |
| 19 | 193 | -197 | -220 | 172 | 257 | -298 | 285 | -277 | 0.10 | -0.70 | 0.70 | 278.10 | 69.27 |
| 20 | 199 | -234 | -266 | 191 | 247 | -311 | 289 | -296 | 0.40 | -0.40 | 0.60 | 312.90 | 74.68 |
| 21 | 288 | -392 | -429 | 357 | 251 | -307 | 271 | -313 | -0.80 | -0.10 | 0.90 | 188.40 | 82.55 |
| 22 | 393 | -371 | -411 | 343 | 191 | -208 | 172 | -203 | 0.60 | -0.50 | 0.80 | 319.80 | 71.08 |
| 23 | 342 | -377 | -396 | 339 | 169 | -222 | 216 | -223 | 0.10 | -0.30 | 0.30 | 282.90 | 80.38 |
| 24 | 326 | -351 | -365 | 333 | 186 | -240 | 226 | -246 | 0.10 | -0.40 | 0.40 | 283.50 | 81.69 |
| 25 | 283 | -304 | -323 | 286 | 238 | -295 | 281 | -288 | 0.00 | -0.40 | 0.40 | 271.30 | 83.46 |
| 26 | 304 | -260 | -272 | 244 | 203 | -244 | 226 | -235 | 0.50 | -0.40 | 0.70 | 320.30 | 83.97 |
| 27 | 359 | -430 | -435 | 393 | 145 | -198 | 176 | -178 | -0.60 | -0.30 | 0.60 | 205.40 | 89.39 |
| 28 | 440 | -502 | -509 | 470 | 164 | -230 | 213 | -221 | -0.20 | -0.10 | 0.20 | 209.40 | 84.07 |
| 29 | 499 | -566 | -567 | 537 | 169 | -214 | 165 | -204 | 0.20 | 0.40 | 0.50 | 63.42 | 82.45 |
| 30 | 489 | -342 | -348 | 315 | 191 | -280 | 235 | -276 | 1.30 | -0.20 | 1.30 | 351.80 | 84.01 |
| 31 | 354 | -410 | -425 | 388 | 113 | -172 | 123 | -157 | -0.40 | 0.10 | 0.40 | 163.30 | 96.15 |
| 32 | 362 | -375 | -385 | 361 | 73 | -129 | 109 | -96 | 0.00 | 0.10 | 0.10 | 106.50 | 92.26 |
| 33 | 364 | -247 | -233 | 206 | 135 | -244 | 191 | -223 | 1.70 | 0.50 | 1.80 | 16.86 | 92.04 |
| 34 | 323 | -423 | -426 | 377 | 309 | -395 | 329 | -356 | 0.20 | 0.20 | 0.30 | 45.85 | 109.80 |
| 35 | 303 | -274 | -297 | 260 | 360 | -451 | 404 | -415 | 0.20 | -0.10 | 0.20 | 337.20 | 112.90 |
| 36 | 355 | -430 | -438 | 382 | 169 | -245 | 167 | -207 | 0.10 | 0.30 | 0.40 | 73.48 | 114.50 |
| 37 | 411 | -467 | -477 | 448 | 162 | -156 | 120 | -126 | -0.40 | -0.30 | 0.50 | 211.70 | 117.00 |
| 38 | 329 | -368 | -375 | 334 | 133 | -260 | 209 | -234 | 0.10 | 1.20 | 1.20 | 85.81 | 111.80 |
| 39 | 303 | -315 | -331 | 297 | 160 | -209 | 173 | -188 | -0.20 | 0.50 | 0.60 | 115.00 | 118.60 |
| 40 | 368 | -435 | -441 | 395 | 289 | -362 | 321 | -350 | 0.20 | 0.80 | 0.80 | 79.32 | 119.10 |
| 41 | 193 | -246 | -247 | 206 | 494 | -569 | 532 | -561 | -0.60 | -0.20 | 0.70 | 200.00 | 128.70 |
| 42 | 323 | -385 | -395 | 352 | 17 | -59 | 16 | -42 | -0.30 | 0.90 | 0.90 | 108.70 | 117.00 |
| 43 | 446 | -500 | -504 | 471 | 331 | -392 | 353 | -366 | -0.70 | 0.40 | 0.90 | 150.00 | 120.60 |
| 44 | 433 | -400 | -408 | 383 | 269 | -294 | 284 | -278 | 0.50 | 0.00 | 0.50 | 2.77 | 104.30 |
| 45 | 308 | -269 | -278 | 247 | 267 | -343 | 325 | -317 | 0.40 | 0.20 | 0.40 | 30.45 | 122.80 |
| 46 | 282 | -324 | -328 | 313 | 284 | -326 | 297 | -298 | -0.40 | 0.40 | 0.60 | 139.70 | 137.50 |
| 47 | 271 | -276 | -281 | 259 | 285 | -351 | 330 | -329 | -0.10 | 0.20 | 0.20 | 108.00 | 136.50 |
| 48 | 288 | -341 | -342 | 317 | 312 | -376 | 338 | -349 | -0.40 | 0.70 | 0.80 | 122.30 | 141.00 |
| 49 | 246 | -270 | -273 | 254 | 449 | -489 | 471 | -467 | -0.10 | -0.10 | 0.10 | 203.60 | 178.50 |
| 50 | 222 | -238 | -239 | 222 | 406 | -440 | 428 | -418 | -0.30 | 0.10 | 0.30 | 165.90 | 165.90 |
| 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Committente: | | ANAS SpA | | | | | | | | Numero lettura: | | 7 | | |
|---------------------|---------------|------------|------|------|-----|------|-----|------|---------------------|-----------------------|-----------------|------------|----------------|--|
| Località: | | La Spezia | | | | | | | | Sonda usata: | | OG310S | | |
| Data: | | 30/11/2006 | | | | | | | | Correzione angolare: | | 0 | | |
| Sigla inclinometro: | | I9 | | | | | | | | Correzione azimutale: | | 100 | | |
| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | | |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) | |
| 1 | 28 | -35 | -48 | 26 | 118 | -171 | 158 | -116 | 0.30 | -0.30 | 0.40 | 314.10 | 124.80 | |
| 2 | 21 | -29 | -53 | 28 | 117 | -180 | 167 | -183 | 0.10 | -0.90 | 1.00 | 279.00 | 125.60 | |
| 3 | -130 | 117 | 91 | -124 | 181 | -246 | 226 | -254 | -0.10 | 0.10 | 0.20 | 149.40 | 121.60 | |
| 4 | -83 | 112 | 90 | -124 | 222 | -247 | 245 | -222 | 0.20 | -0.70 | 0.80 | 288.90 | 120.80 | |
| 5 | -102 | 111 | 100 | -132 | 208 | -242 | 246 | -242 | 0.10 | 0.10 | 0.20 | 56.80 | 119.50 | |
| 6 | -164 | 149 | 123 | -163 | 78 | -142 | 133 | -156 | -0.30 | -0.20 | 0.30 | 221.00 | 120.60 | |
| 7 | -175 | 158 | 136 | -175 | 74 | -141 | 124 | -145 | -0.30 | -0.10 | 0.30 | 195.60 | 117.90 | |
| 8 | -170 | 158 | 134 | -177 | 88 | -159 | 145 | -166 | -0.20 | 0.30 | 0.40 | 114.10 | 115.50 | |
| 9 | -73 | 58 | 30 | -71 | 44 | -109 | 98 | -116 | 0.50 | -0.30 | 0.60 | 332.10 | 115.60 | |
| 10 | 18 | -23 | -54 | 4 | 69 | -136 | 120 | -134 | 0.70 | -0.10 | 0.70 | 348.40 | 118.60 | |
| 11 | 26 | -30 | -58 | 8 | 65 | -115 | 102 | -116 | 0.10 | -0.30 | 0.30 | 282.10 | 123.00 | |
| 12 | -16 | -4 | -26 | -21 | 139 | -198 | 183 | -192 | 0.20 | 0.20 | 0.30 | 46.82 | 122.10 | |
| 13 | 10 | -33 | -49 | 5 | 233 | -294 | 266 | -275 | 0.10 | -0.20 | 0.20 | 308.80 | 124.40 | |
| 14 | -33 | 9 | -10 | -24 | 259 | -314 | 304 | -309 | -0.10 | 0.30 | 0.30 | 113.10 | 124.50 | |
| 15 | 95 | -135 | -142 | 111 | 219 | -290 | 267 | -275 | -0.30 | -0.10 | 0.30 | 194.60 | 124.90 | |
| 16 | 96 | -139 | -148 | 110 | 191 | -269 | 235 | -249 | 0.10 | -0.40 | 0.40 | 291.70 | 123.00 | |
| 17 | 101 | -148 | -160 | 111 | 184 | -263 | 230 | -249 | -0.10 | 0.00 | 0.10 | 193.90 | 122.40 | |
| 18 | 186 | -238 | -259 | 194 | 229 | -313 | 272 | -299 | -0.30 | -0.20 | 0.30 | 212.20 | 121.70 | |
| 19 | 166 | -213 | -247 | 160 | 228 | -304 | 256 | -292 | 0.20 | -0.30 | 0.40 | 302.80 | 119.50 | |
| 20 | 183 | -240 | -264 | 174 | 242 | -326 | 270 | -311 | 0.10 | -0.50 | 0.50 | 284.90 | 119.70 | |
| 21 | 360 | -396 | -436 | 349 | 244 | -319 | 269 | -313 | -0.10 | -0.30 | 0.30 | 248.60 | 118.90 | |
| 22 | 334 | -372 | -414 | 320 | 146 | -206 | 171 | -217 | -0.10 | 0.00 | 0.10 | 194.40 | 117.30 | |
| 23 | 340 | -386 | -396 | 325 | 163 | -222 | 199 | -233 | 0.00 | -0.10 | 0.10 | 277.10 | 116.60 | |
| 24 | 317 | -355 | -367 | 326 | 183 | -239 | 224 | -247 | 0.00 | -0.30 | 0.30 | 271.60 | 116.30 | |
| 25 | 269 | -309 | -325 | 271 | 239 | -292 | 274 | -296 | -0.20 | -0.30 | 0.40 | 236.20 | 115.40 | |
| 26 | 214 | -269 | -279 | 225 | 185 | -241 | 217 | -246 | -0.40 | -0.10 | 0.40 | 191.80 | 113.40 | |
| 27 | 378 | -430 | -441 | 388 | 131 | -201 | 170 | -203 | -0.40 | -0.40 | 0.60 | 224.50 | 111.20 | |
| 28 | 451 | -503 | -524 | 459 | 175 | -230 | 191 | -238 | 0.00 | -0.20 | 0.20 | 257.10 | 108.10 | |
| 29 | 504 | -566 | -584 | 520 | 142 | -216 | 161 | -213 | 0.30 | 0.60 | 0.70 | 64.18 | 107.50 | |
| 30 | 274 | -346 | -364 | 292 | 200 | -286 | 226 | -284 | -0.90 | 0.10 | 0.90 | 176.20 | 110.50 | |
| 31 | 358 | -432 | -428 | 367 | 86 | -173 | 116 | -159 | -0.30 | 0.40 | 0.50 | 124.10 | 105.10 | |
| 32 | 335 | -410 | -403 | 354 | 55 | -141 | 74 | -109 | 0.20 | 0.30 | 0.40 | 57.39 | 104.00 | |
| 33 | 180 | -259 | -254 | 203 | 166 | -263 | 190 | -226 | 0.10 | 0.30 | 0.30 | 71.87 | 106.00 | |
| 34 | 354 | -431 | -431 | 378 | 311 | -395 | 317 | -356 | 0.70 | 0.30 | 0.70 | 20.72 | 107.20 | |
| 35 | 234 | -311 | -310 | 253 | 363 | -451 | 369 | -415 | 0.00 | 0.30 | 0.30 | 88.42 | 112.50 | |
| 36 | 356 | -432 | -441 | 383 | 152 | -249 | 165 | -208 | 0.20 | 0.50 | 0.50 | 67.35 | 113.40 | |
| 37 | 416 | -490 | -500 | 445 | 83 | -165 | 91 | -129 | 0.20 | 0.60 | 0.60 | 70.10 | 116.20 | |
| 38 | 309 | -372 | -385 | 329 | 190 | -272 | 203 | -245 | -0.20 | 0.50 | 0.50 | 107.50 | 120.00 | |
| 39 | 279 | -333 | -345 | 288 | 136 | -214 | 154 | -196 | -0.20 | 0.80 | 0.80 | 103.80 | 120.90 | |
| 40 | 381 | -435 | -443 | 395 | 299 | -358 | 311 | -351 | 0.30 | 0.80 | 0.90 | 69.58 | 123.40 | |
| 41 | 192 | -246 | -247 | 205 | 505 | -568 | 530 | -563 | -0.70 | -0.30 | 0.70 | 206.00 | 131.40 | |
| 42 | 338 | -381 | -392 | 353 | -10 | -58 | 11 | -43 | -0.20 | 1.20 | 1.20 | 97.52 | 123.30 | |
| 43 | 455 | -499 | -497 | 472 | 333 | -381 | 351 | -367 | -0.70 | 0.50 | 0.90 | 143.40 | 130.80 | |
| 44 | 359 | -405 | -411 | 383 | 238 | -290 | 284 | -278 | 0.00 | 0.70 | 0.70 | 90.98 | 127.40 | |
| 45 | 231 | -272 | -278 | 246 | 288 | -342 | 314 | -325 | -0.40 | 0.20 | 0.40 | 153.60 | 136.30 | |
| 46 | 289 | -330 | -324 | 309 | 267 | -319 | 295 | -305 | -0.30 | 0.50 | 0.60 | 122.40 | 133.00 | |
| 47 | 238 | -281 | -281 | 259 | 296 | -351 | 326 | -331 | -0.30 | 0.10 | 0.40 | 160.50 | 137.20 | |
| 48 | 303 | -338 | -341 | 322 | 317 | -364 | 340 | -349 | -0.20 | 0.70 | 0.70 | 110.10 | 130.70 | |
| 49 | 241 | -271 | -266 | 256 | 444 | -482 | 466 | -469 | -0.20 | 0.10 | 0.20 | 151.50 | 153.20 | |
| 50 | 210 | -236 | -239 | 222 | 401 | -438 | 425 | -418 | -0.40 | 0.20 | 0.40 | 154.00 | 154.00 | |
| 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 8 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 30/12/2006 | Correzione angolare: | 0 |
| Sigla inclinometro: | I9 | Correzione azimutale: | 100 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-----|------|-----|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 29 | -36 | -51 | 26 | 120 | -174 | 161 | -116 | 0.30 | -0.40 | 0.50 | 310.30 | 173.60 |
| 2 | 15 | -27 | -49 | 26 | 120 | -201 | 167 | -181 | 0.00 | -1.10 | 1.10 | 268.60 | 165.60 |
| 3 | -129 | 117 | 84 | -126 | 188 | -246 | 241 | -252 | -0.10 | -0.10 | 0.20 | 224.40 | 144.80 |
| 4 | -83 | 111 | 90 | -123 | 222 | -250 | 248 | -222 | 0.30 | -0.80 | 0.80 | 288.10 | 141.60 |
| 5 | -102 | 111 | 100 | -134 | 208 | -242 | 245 | -242 | 0.10 | 0.10 | 0.20 | 65.07 | 134.70 |
| 6 | -163 | 150 | 122 | -168 | 91 | -151 | 134 | -141 | -0.30 | -0.30 | 0.40 | 223.60 | 136.90 |
| 7 | -174 | 158 | 132 | -178 | 75 | -142 | 125 | -144 | -0.30 | -0.10 | 0.30 | 201.30 | 130.50 |
| 8 | -170 | 158 | 134 | -178 | 91 | -167 | 152 | -165 | -0.20 | 0.20 | 0.30 | 137.50 | 126.50 |
| 9 | -61 | 58 | 23 | -71 | 44 | -110 | 98 | -112 | 0.70 | -0.30 | 0.80 | 338.60 | 125.70 |
| 10 | 17 | -26 | -55 | 2 | 84 | -140 | 122 | -134 | 0.70 | -0.40 | 0.80 | 332.90 | 131.50 |
| 11 | 25 | -32 | -59 | 8 | 65 | -123 | 111 | -114 | 0.10 | -0.50 | 0.50 | 277.70 | 134.90 |
| 12 | -15 | -5 | -27 | -21 | 139 | -211 | 184 | -188 | 0.20 | 0.10 | 0.30 | 28.66 | 131.70 |
| 13 | 10 | -33 | -56 | 5 | 232 | -295 | 272 | -274 | 0.20 | -0.20 | 0.30 | 310.40 | 134.40 |
| 14 | -33 | 6 | -10 | -24 | 263 | -316 | 305 | -300 | -0.10 | 0.30 | 0.30 | 105.60 | 134.20 |
| 15 | 98 | -134 | -151 | 110 | 224 | -295 | 273 | -273 | -0.20 | -0.20 | 0.30 | 230.70 | 135.60 |
| 16 | 101 | -138 | -149 | 108 | 205 | -270 | 235 | -249 | 0.20 | -0.50 | 0.50 | 286.10 | 132.50 |
| 17 | 104 | -147 | -161 | 114 | 200 | -266 | 233 | -244 | -0.10 | -0.20 | 0.20 | 251.80 | 130.10 |
| 18 | 195 | -237 | -257 | 197 | 230 | -314 | 272 | -294 | -0.20 | -0.10 | 0.20 | 222.50 | 128.40 |
| 19 | 169 | -213 | -247 | 165 | 231 | -304 | 257 | -286 | 0.30 | -0.30 | 0.40 | 312.80 | 126.40 |
| 20 | 183 | -233 | -261 | 181 | 248 | -326 | 271 | -309 | 0.10 | -0.50 | 0.50 | 279.50 | 126.80 |
| 21 | 362 | -396 | -431 | 356 | 246 | -322 | 290 | -292 | -0.10 | -0.30 | 0.40 | 256.70 | 124.80 |
| 22 | 334 | -369 | -410 | 321 | 148 | -211 | 172 | -198 | -0.20 | 0.10 | 0.20 | 150.50 | 122.70 |
| 23 | 340 | -385 | -400 | 326 | 165 | -224 | 201 | -218 | 0.10 | -0.10 | 0.10 | 323.40 | 122.00 |
| 24 | 317 | -351 | -377 | 326 | 184 | -242 | 224 | -236 | 0.10 | -0.30 | 0.30 | 285.70 | 122.30 |
| 25 | 269 | -307 | -325 | 272 | 239 | -293 | 281 | -293 | -0.20 | -0.40 | 0.40 | 237.70 | 121.60 |
| 26 | 215 | -268 | -283 | 227 | 186 | -244 | 218 | -246 | -0.30 | -0.10 | 0.30 | 203.20 | 118.70 |
| 27 | 391 | -425 | -443 | 390 | 131 | -208 | 170 | -201 | -0.30 | -0.50 | 0.50 | 238.20 | 116.10 |
| 28 | 459 | -503 | -524 | 464 | 175 | -250 | 192 | -232 | 0.10 | -0.40 | 0.40 | 278.90 | 112.70 |
| 29 | 508 | -554 | -584 | 520 | 144 | -216 | 170 | -210 | 0.20 | 0.60 | 0.60 | 69.44 | 112.10 |
| 30 | 276 | -336 | -363 | 296 | 200 | -289 | 231 | -264 | -0.90 | 0.20 | 1.00 | 168.80 | 115.10 |
| 31 | 367 | -429 | -429 | 368 | 86 | -172 | 117 | -158 | -0.20 | 0.40 | 0.50 | 116.10 | 108.90 |
| 32 | 342 | -400 | -403 | 353 | 56 | -138 | 80 | -105 | 0.20 | 0.30 | 0.40 | 63.01 | 108.50 |
| 33 | 184 | -232 | -255 | 202 | 167 | -262 | 191 | -226 | -0.10 | 0.30 | 0.30 | 115.10 | 110.80 |
| 34 | 362 | -428 | -431 | 376 | 312 | -392 | 326 | -348 | 0.70 | 0.30 | 0.80 | 20.22 | 110.60 |
| 35 | 239 | -295 | -307 | 248 | 376 | -449 | 373 | -411 | -0.20 | 0.20 | 0.30 | 135.10 | 117.80 |
| 36 | 362 | -406 | -439 | 378 | 156 | -248 | 169 | -205 | -0.10 | 0.50 | 0.50 | 99.57 | 117.00 |
| 37 | 416 | -474 | -500 | 442 | 84 | -164 | 110 | -126 | 0.00 | 0.50 | 0.50 | 89.66 | 118.50 |
| 38 | 322 | -352 | -384 | 325 | 192 | -272 | 226 | -242 | -0.30 | 0.30 | 0.40 | 137.80 | 121.10 |
| 39 | 297 | -332 | -345 | 286 | 137 | -212 | 157 | -195 | -0.10 | 0.80 | 0.80 | 94.03 | 119.60 |
| 40 | 388 | -432 | -446 | 395 | 301 | -358 | 313 | -350 | 0.40 | 0.80 | 0.90 | 64.69 | 124.50 |
| 41 | 195 | -246 | -247 | 205 | 516 | -568 | 535 | -560 | -0.60 | -0.50 | 0.80 | 214.90 | 136.60 |
| 42 | 339 | -382 | -396 | 350 | -8 | -62 | 21 | -41 | -0.20 | 1.00 | 1.10 | 98.26 | 123.90 |
| 43 | 464 | -499 | -499 | 465 | 336 | -395 | 352 | -366 | -0.70 | 0.30 | 0.80 | 153.40 | 133.90 |
| 44 | 388 | -405 | -423 | 374 | 245 | -290 | 265 | -276 | 0.30 | 0.60 | 0.60 | 62.70 | 126.20 |
| 45 | 237 | -272 | -284 | 245 | 288 | -358 | 317 | -325 | -0.30 | 0.00 | 0.30 | 183.10 | 145.50 |
| 46 | 298 | -330 | -329 | 297 | 272 | -329 | 295 | -305 | -0.30 | 0.40 | 0.50 | 132.00 | 138.30 |
| 47 | 249 | -282 | -290 | 253 | 296 | -352 | 324 | -332 | -0.20 | 0.10 | 0.20 | 154.00 | 141.60 |
| 48 | 309 | -339 | -359 | 305 | 320 | -378 | 340 | -350 | -0.20 | 0.50 | 0.50 | 112.40 | 138.10 |
| 49 | 248 | -272 | -271 | 256 | 445 | -487 | 466 | -472 | -0.10 | 0.00 | 0.10 | 184.00 | 174.50 |
| 50 | 210 | -239 | -250 | 220 | 400 | -459 | 413 | -423 | -0.30 | 0.00 | 0.30 | 171.90 | 171.90 |
| 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Committente: | | ANAS SpA | | | | Numero lettura: | | 9 | | | | | |
|---------------------|---------------|------------|------|------|-----|-----------------------|-----|--------|---------------------|--------|-----------------|------------|----------------|
| Località: | | La Spezia | | | | Sonda usata: | | OG310S | | | | | |
| Data: | | 30/01/2007 | | | | Correzione angolare: | | 0 | | | | | |
| Sigla inclinometro: | | I9 | | | | Correzione azimutale: | | 100 | | | | | |
| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 31 | -36 | -52 | 28 | 122 | -181 | 161 | -116 | 0.40 | -0.50 | 0.60 | 306.90 | 249.20 |
| 2 | 7 | -24 | -48 | 14 | 127 | -213 | 189 | -177 | -0.30 | -1.50 | 1.50 | 257.30 | 238.40 |
| 3 | -127 | 116 | 84 | -128 | 195 | -247 | 243 | -252 | -0.10 | -0.20 | 0.30 | 239.40 | 219.60 |
| 4 | -83 | 111 | 90 | -120 | 222 | -277 | 250 | -222 | 0.20 | -1.10 | 1.10 | 282.30 | 215.60 |
| 5 | -103 | 111 | 100 | -136 | 211 | -242 | 245 | -243 | 0.00 | 0.10 | 0.10 | 74.81 | 164.70 |
| 6 | -163 | 151 | 119 | -171 | 94 | -157 | 137 | -132 | -0.30 | -0.30 | 0.50 | 224.90 | 169.50 |
| 7 | -174 | 158 | 130 | -180 | 75 | -146 | 126 | -131 | -0.20 | 0.00 | 0.20 | 184.60 | 150.00 |
| 8 | -171 | 157 | 133 | -178 | 91 | -184 | 153 | -165 | -0.20 | 0.00 | 0.20 | 180.70 | 141.70 |
| 9 | -61 | 57 | 21 | -72 | 52 | -115 | 105 | -111 | 0.70 | -0.50 | 0.80 | 326.10 | 131.70 |
| 10 | 11 | -28 | -56 | 0 | 86 | -145 | 124 | -132 | 0.60 | -0.40 | 0.80 | 326.80 | 139.20 |
| 11 | 22 | -34 | -61 | 8 | 65 | -137 | 113 | -99 | 0.10 | -0.50 | 0.50 | 278.40 | 141.60 |
| 12 | -15 | -5 | -35 | -23 | 139 | -218 | 185 | -185 | 0.30 | 0.10 | 0.30 | 12.93 | 134.40 |
| 13 | 10 | -33 | -57 | 5 | 232 | -299 | 274 | -273 | 0.20 | -0.30 | 0.30 | 305.00 | 139.20 |
| 14 | -33 | 3 | -13 | -24 | 263 | -319 | 305 | -300 | 0.00 | 0.20 | 0.20 | 95.26 | 137.70 |
| 15 | 99 | -133 | -153 | 104 | 226 | -297 | 275 | -271 | -0.20 | -0.30 | 0.30 | 228.10 | 140.60 |
| 16 | 104 | -137 | -150 | 100 | 205 | -270 | 236 | -243 | 0.10 | -0.50 | 0.50 | 263.30 | 134.20 |
| 17 | 107 | -147 | -162 | 117 | 206 | -266 | 247 | -234 | 0.00 | -0.30 | 0.30 | 267.30 | 130.20 |
| 18 | 199 | -229 | -257 | 198 | 245 | -316 | 277 | -292 | -0.20 | -0.30 | 0.40 | 236.60 | 126.90 |
| 19 | 174 | -210 | -238 | 166 | 232 | -311 | 262 | -273 | 0.20 | -0.30 | 0.40 | 307.20 | 121.30 |
| 20 | 183 | -231 | -259 | 184 | 248 | -325 | 281 | -288 | 0.10 | -0.40 | 0.40 | 283.90 | 121.80 |
| 21 | 378 | -396 | -429 | 370 | 252 | -324 | 292 | -284 | 0.20 | -0.40 | 0.50 | 295.00 | 120.30 |
| 22 | 338 | -368 | -409 | 322 | 152 | -216 | 175 | -195 | -0.10 | 0.00 | 0.10 | 182.10 | 119.80 |
| 23 | 342 | -382 | -409 | 328 | 167 | -237 | 201 | -217 | 0.10 | -0.20 | 0.30 | 305.00 | 118.40 |
| 24 | 317 | -351 | -379 | 326 | 184 | -256 | 224 | -229 | 0.10 | -0.40 | 0.40 | 283.80 | 118.70 |
| 25 | 280 | -306 | -326 | 272 | 243 | -294 | 283 | -286 | -0.10 | -0.40 | 0.40 | 252.70 | 117.70 |
| 26 | 225 | -265 | -283 | 228 | 186 | -259 | 223 | -224 | -0.20 | -0.10 | 0.30 | 209.00 | 115.00 |
| 27 | 397 | -424 | -449 | 394 | 134 | -218 | 170 | -175 | -0.10 | -0.40 | 0.40 | 252.30 | 112.40 |
| 28 | 461 | -503 | -525 | 468 | 176 | -250 | 195 | -208 | 0.20 | -0.20 | 0.20 | 311.70 | 110.20 |
| 29 | 511 | -552 | -586 | 520 | 149 | -224 | 195 | -205 | 0.20 | 0.20 | 0.30 | 51.71 | 111.00 |
| 30 | 285 | -336 | -361 | 298 | 205 | -290 | 236 | -253 | -0.90 | 0.20 | 0.90 | 168.60 | 113.30 |
| 31 | 373 | -428 | -434 | 369 | 86 | -171 | 130 | -134 | -0.10 | 0.50 | 0.50 | 98.08 | 106.30 |
| 32 | 343 | -368 | -403 | 351 | 56 | -137 | 90 | -101 | -0.20 | 0.30 | 0.40 | 115.30 | 107.10 |
| 33 | 189 | -221 | -255 | 198 | 173 | -260 | 192 | -220 | -0.20 | 0.30 | 0.40 | 126.00 | 106.50 |
| 34 | 365 | -396 | -431 | 376 | 313 | -392 | 331 | -346 | 0.40 | 0.30 | 0.50 | 32.66 | 104.80 |
| 35 | 254 | -281 | -303 | 243 | 378 | -449 | 413 | -400 | -0.30 | -0.10 | 0.30 | 195.80 | 111.10 |
| 36 | 373 | -399 | -437 | 377 | 169 | -241 | 170 | -196 | -0.10 | 0.50 | 0.50 | 97.70 | 106.70 |
| 37 | 443 | -463 | -500 | 440 | 90 | -162 | 112 | -122 | 0.10 | 0.40 | 0.50 | 72.41 | 107.80 |
| 38 | 328 | -350 | -384 | 325 | 196 | -271 | 233 | -237 | -0.30 | 0.20 | 0.40 | 141.20 | 112.00 |
| 39 | 300 | -320 | -345 | 286 | 138 | -211 | 166 | -192 | -0.20 | 0.70 | 0.80 | 101.80 | 109.00 |
| 40 | 396 | -430 | -448 | 394 | 304 | -362 | 313 | -342 | 0.40 | 0.80 | 0.90 | 60.57 | 111.10 |
| 41 | 202 | -246 | -257 | 205 | 522 | -571 | 539 | -554 | -0.50 | -0.60 | 0.70 | 228.20 | 130.60 |
| 42 | 349 | -382 | -402 | 346 | -8 | -64 | 28 | -36 | 0.00 | 1.00 | 1.00 | 92.34 | 112.10 |
| 43 | 473 | -497 | -520 | 460 | 336 | -397 | 356 | -364 | -0.50 | 0.30 | 0.50 | 150.50 | 125.50 |
| 44 | 389 | -405 | -426 | 373 | 249 | -296 | 265 | -276 | 0.30 | 0.50 | 0.60 | 56.67 | 111.80 |
| 45 | 251 | -273 | -289 | 238 | 288 | -359 | 319 | -325 | -0.20 | -0.10 | 0.20 | 200.40 | 146.90 |
| 46 | 307 | -330 | -333 | 294 | 274 | -335 | 295 | -304 | -0.30 | 0.30 | 0.40 | 131.10 | 133.70 |
| 47 | 258 | -284 | -292 | 246 | 300 | -360 | 323 | -335 | -0.20 | -0.10 | 0.20 | 198.00 | 137.30 |
| 48 | 316 | -340 | -364 | 304 | 320 | -379 | 340 | -356 | -0.10 | 0.40 | 0.40 | 103.30 | 102.60 |
| 49 | 253 | -278 | -292 | 256 | 447 | -504 | 463 | -472 | 0.20 | -0.20 | 0.30 | 313.10 | 284.70 |
| 50 | 218 | -242 | -254 | 217 | 394 | -459 | 407 | -429 | -0.20 | 0.10 | 0.20 | 154.40 | 154.40 |
| 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

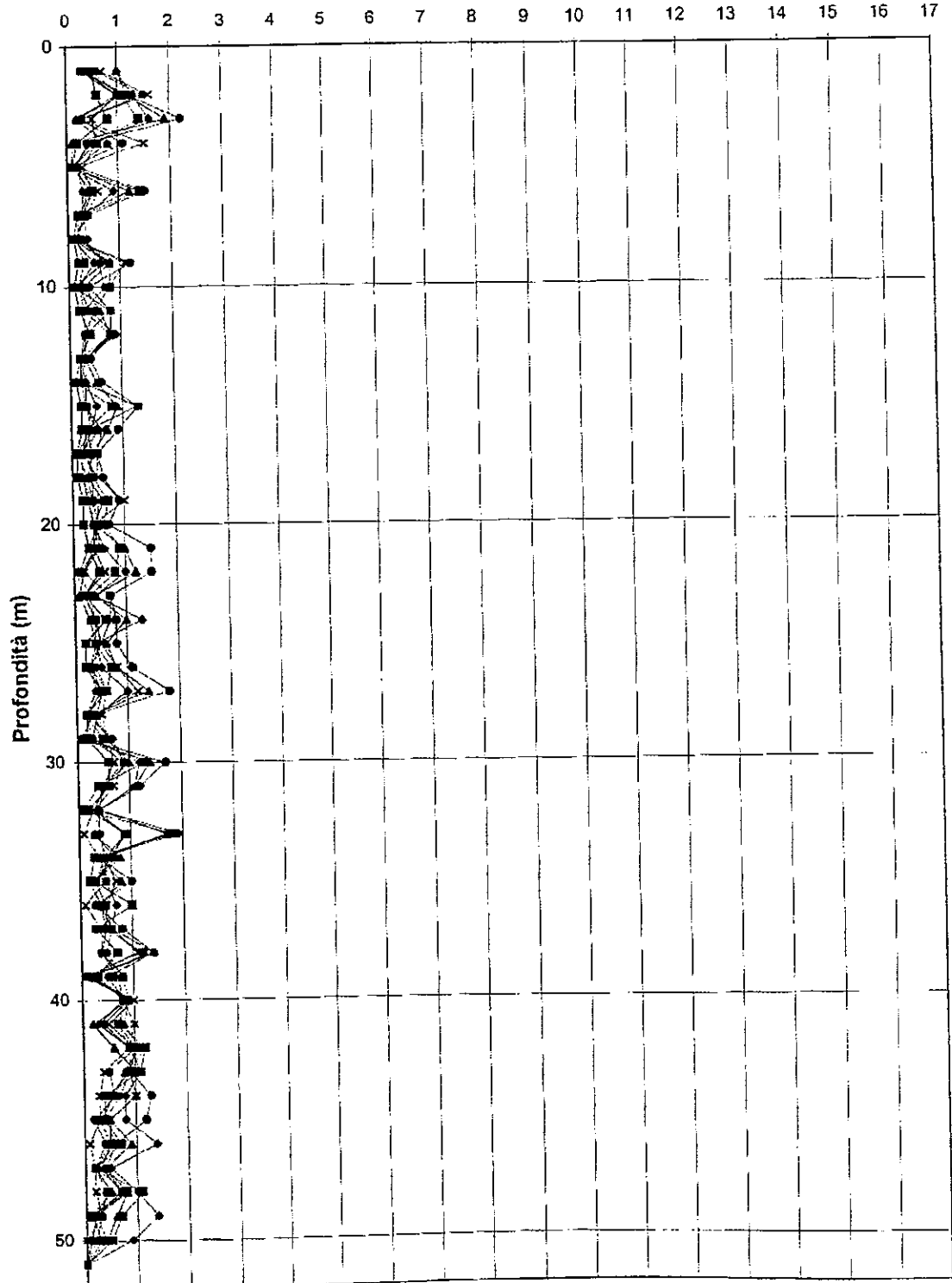
LETTURA INCLINOMETRICA

| | | | |
|---------------------|------------|-----------------------|--------|
| Committente: | ANAS SpA | Numero lettura: | 10 |
| Località: | La Spezia | Sonda usata: | OG310S |
| Data: | 28/02/2007 | Correzione angolare: | 0 |
| Sigla inclinometro: | I9 | Correzione azimutale: | 100 |

| Profondità (m) | Dati campagna | | | | | | | | Movimento per punti | | | | |
|----------------|---------------|------|------|------|-----|------|-----|------|---------------------|--------|-----------------|------------|----------------|
| | A1 | A2 | B3 | B4 | B1 | B2 | A3 | A4 | X (mm) | Y (mm) | Risultante (mm) | Azimut (°) | Risultante (°) |
| 1 | 34 | -38 | -53 | 30 | 126 | -182 | 162 | -114 | 0.50 | -0.60 | 0.70 | 308.90 | 279.70 |
| 2 | -11 | -16 | -48 | -11 | 135 | -213 | 189 | -170 | -0.80 | -1.40 | 1.60 | 238.80 | 277.40 |
| 3 | -126 | 115 | 80 | -144 | 201 | -267 | 245 | -228 | -0.20 | -0.20 | 0.30 | 225.80 | 285.10 |
| 4 | -80 | 110 | 88 | -119 | 229 | -297 | 252 | -228 | 0.20 | -1.40 | 1.50 | 279.60 | 287.40 |
| 5 | -112 | 111 | 99 | -138 | 212 | -239 | 243 | -244 | -0.10 | 0.20 | 0.20 | 112.70 | 289.40 |
| 6 | -161 | 151 | 119 | -184 | 95 | -164 | 142 | -126 | -0.40 | -0.40 | 0.60 | 219.90 | 289.40 |
| 7 | -174 | 159 | 126 | -184 | 94 | -156 | 138 | -120 | -0.30 | -0.30 | 0.40 | 226.30 | 294.70 |
| 8 | -171 | 154 | 123 | -180 | 110 | -184 | 156 | -142 | -0.10 | 0.00 | 0.10 | 186.70 | 298.80 |
| 9 | -53 | 48 | 16 | -76 | 61 | -141 | 113 | -96 | 0.80 | -0.80 | 1.10 | 316.80 | 299.70 |
| 10 | 6 | -29 | -56 | -3 | 88 | -160 | 136 | -115 | 0.50 | -0.50 | 0.80 | 316.30 | 295.60 |
| 11 | 9 | -35 | -69 | 10 | 63 | -141 | 113 | -95 | 0.10 | -0.50 | 0.50 | 276.90 | 291.80 |
| 12 | -14 | -8 | -40 | -25 | 145 | -219 | 195 | -175 | 0.30 | 0.00 | 0.30 | 356.90 | 293.80 |
| 13 | 11 | -33 | -61 | -1 | 231 | -303 | 281 | -264 | 0.20 | -0.30 | 0.30 | 302.60 | 288.80 |
| 14 | -21 | 3 | -33 | -30 | 265 | -340 | 310 | -294 | 0.20 | 0.00 | 0.20 | 350.00 | 287.30 |
| 15 | 109 | -129 | -161 | 99 | 229 | -306 | 276 | -259 | -0.10 | -0.30 | 0.30 | 243.30 | 283.80 |
| 16 | 111 | -129 | -160 | 99 | 206 | -274 | 247 | -231 | 0.20 | -0.50 | 0.60 | 289.30 | 288.10 |
| 17 | 125 | -146 | -175 | 117 | 208 | -274 | 249 | -229 | 0.30 | -0.40 | 0.50 | 301.80 | 287.80 |
| 18 | 210 | -222 | -254 | 199 | 249 | -322 | 292 | -275 | -0.20 | -0.40 | 0.50 | 242.70 | 283.60 |
| 19 | 186 | -201 | -230 | 173 | 238 | -311 | 281 | -265 | 0.20 | -0.50 | 0.50 | 294.60 | 296.70 |
| 20 | 205 | -221 | -251 | 192 | 253 | -324 | 292 | -276 | 0.20 | -0.40 | 0.50 | 295.60 | 297.90 |
| 21 | 384 | -395 | -426 | 370 | 253 | -329 | 295 | -276 | 0.20 | -0.40 | 0.50 | 296.30 | 300.70 |
| 22 | 359 | -367 | -400 | 341 | 152 | -228 | 194 | -179 | 0.10 | -0.20 | 0.20 | 301.60 | 98.69 |
| 23 | 365 | -380 | -411 | 353 | 175 | -241 | 209 | -192 | 0.60 | -0.20 | 0.70 | 338.80 | 115.10 |
| 24 | 341 | -350 | -385 | 326 | 192 | -265 | 231 | -219 | 0.30 | -0.50 | 0.70 | 302.50 | 144.70 |
| 25 | 291 | -304 | -334 | 275 | 244 | -320 | 284 | -271 | 0.10 | -0.50 | 0.50 | 276.00 | 135.60 |
| 26 | 246 | -258 | -290 | 231 | 195 | -264 | 228 | -214 | 0.00 | -0.30 | 0.30 | 266.50 | 125.80 |
| 27 | 406 | -422 | -455 | 396 | 145 | -224 | 186 | -169 | 0.00 | -0.60 | 0.60 | 268.80 | 121.50 |
| 28 | 481 | -495 | -528 | 469 | 177 | -254 | 220 | -204 | 0.30 | -0.50 | 0.50 | 300.40 | 114.30 |
| 29 | 538 | -551 | -588 | 526 | 160 | -233 | 195 | -177 | 0.50 | 0.30 | 0.60 | 25.33 | 115.30 |
| 30 | 299 | -324 | -360 | 303 | 216 | -299 | 264 | -245 | -0.90 | -0.20 | 0.90 | 195.10 | 125.30 |
| 31 | 381 | -401 | -435 | 376 | 86 | -169 | 135 | -119 | -0.20 | 0.60 | 0.70 | 103.80 | 110.00 |
| 32 | 354 | -367 | -404 | 346 | 64 | -136 | 101 | -84 | -0.10 | 0.30 | 0.30 | 108.00 | 111.60 |
| 33 | 206 | -221 | -256 | 198 | 185 | -258 | 225 | -209 | -0.10 | 0.00 | 0.10 | 189.90 | 112.20 |
| 34 | 386 | -394 | -426 | 366 | 321 | -390 | 359 | -345 | 0.40 | -0.10 | 0.40 | 352.70 | 109.10 |
| 35 | 259 | -264 | -299 | 239 | 379 | -446 | 413 | -396 | -0.50 | 0.00 | 0.50 | 180.00 | 118.30 |
| 36 | 390 | -396 | -434 | 376 | 173 | -241 | 205 | -190 | 0.00 | 0.10 | 0.10 | 99.65 | 106.20 |
| 37 | 449 | -457 | -493 | 435 | 91 | -161 | 127 | -114 | 0.00 | 0.40 | 0.40 | 88.97 | 106.60 |
| 38 | 336 | -345 | -381 | 319 | 208 | -270 | 236 | -228 | -0.30 | 0.20 | 0.40 | 152.00 | 110.70 |
| 39 | 300 | -316 | -346 | 281 | 146 | -210 | 185 | -179 | -0.30 | 0.60 | 0.70 | 112.20 | 100.10 |
| 40 | 407 | -420 | -450 | 394 | 305 | -365 | 333 | -330 | 0.50 | 0.70 | 0.80 | 55.68 | 89.22 |
| 41 | 217 | -234 | -259 | 196 | 524 | -586 | 551 | -547 | -0.60 | -0.80 | 1.00 | 233.10 | 168.60 |
| 42 | 365 | -385 | -409 | 345 | 0 | -69 | 28 | -29 | 0.20 | 0.90 | 0.90 | 77.46 | 81.33 |
| 43 | 489 | -494 | -522 | 459 | 345 | -399 | 358 | -360 | -0.30 | 0.20 | 0.40 | 156.30 | 203.60 |
| 44 | 394 | -403 | -430 | 365 | 253 | -313 | 271 | -272 | 0.30 | 0.20 | 0.30 | 43.14 | 327.20 |
| 45 | 258 | -275 | -297 | 231 | 300 | -360 | 321 | -325 | -0.10 | -0.20 | 0.30 | 244.30 | 273.70 |
| 46 | 317 | -330 | -355 | 290 | 281 | -340 | 295 | -304 | 0.00 | 0.10 | 0.10 | 92.99 | 306.70 |
| 47 | 266 | -285 | -304 | 239 | 308 | -367 | 321 | -335 | 0.00 | -0.20 | 0.20 | 257.20 | 294.60 |
| 48 | 322 | -354 | -370 | 301 | 324 | -392 | 339 | -356 | 0.10 | 0.20 | 0.20 | 61.55 | 329.10 |
| 49 | 255 | -285 | -299 | 229 | 449 | -510 | 459 | -480 | 0.10 | -0.30 | 0.30 | 283.40 | 285.70 |
| 50 | 221 | -253 | -275 | 201 | 392 | -461 | 406 | -434 | 0.00 | 0.00 | 0.00 | 34.99 | 34.99 |
| 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

RISULTANTE (Movimento per punti rispetto all'origine)

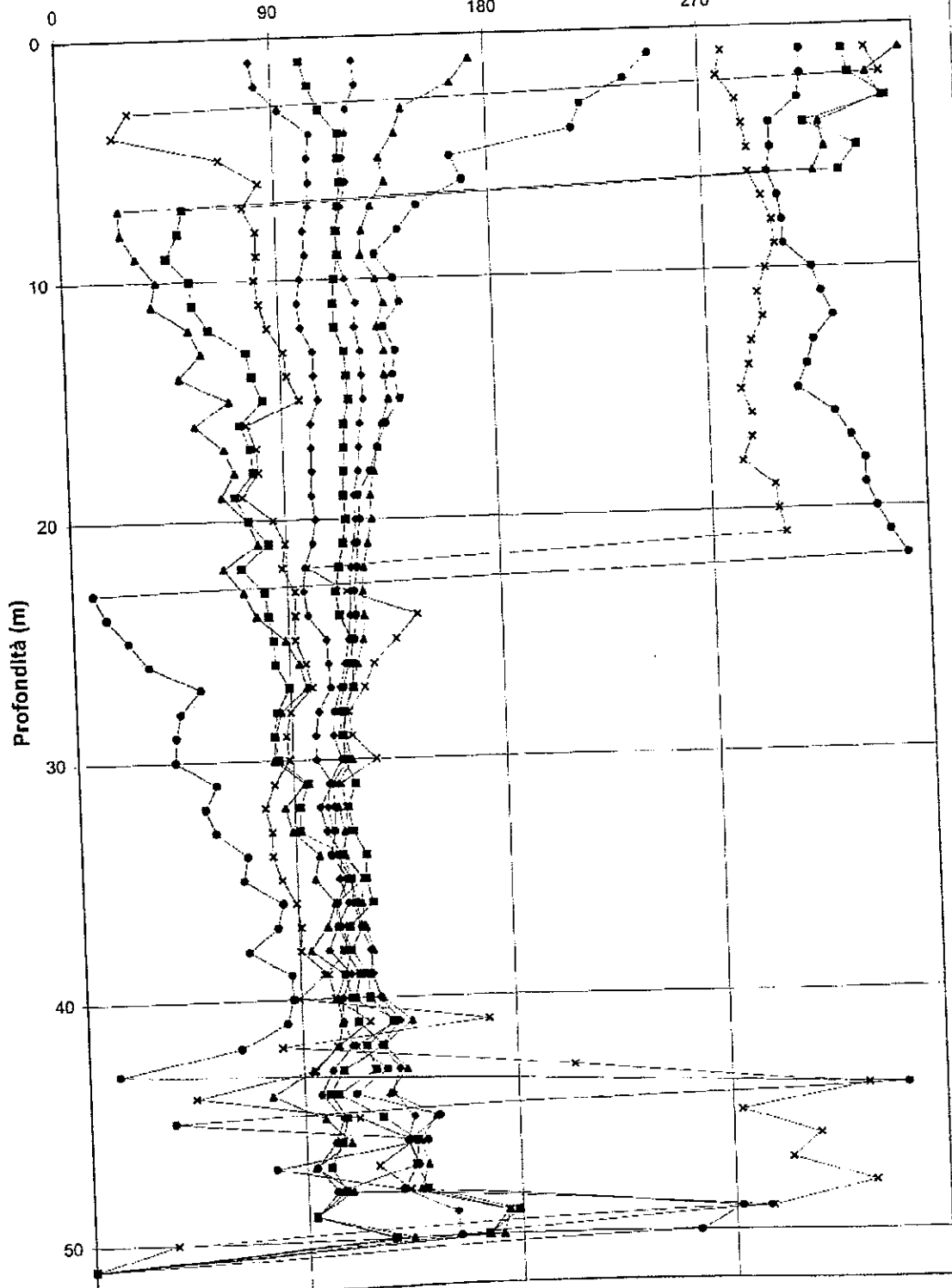
Risultante (mm)



- | | | | | | |
|--------------|--------------|--------------|--------------|--------------|--------------|
| ■ Lettura 1 | ◆ Lettura 2 | ▲ Lettura 3 | ● Lettura 4 | × Lettura 5 | ■ Lettura 6 |
| ◆ Lettura 7 | ▲ Lettura 8 | ● Lettura 9 | × Lettura 10 | ■ Lettura 11 | ◆ Lettura 12 |
| ▲ Lettura 13 | ○ Lettura 14 | × Lettura 15 | ■ Lettura 16 | ◆ Lettura 17 | |

Azimut (Sommatoria rispetto all'origine)

Azimut (°)



- | | | | | | |
|--------------|--------------|--------------|--------------|--------------|--------------|
| ■ Lettura 1 | ● Lettura 2 | ▲ Lettura 3 | ○ Lettura 4 | × Lettura 5 | ■ Lettura 6 |
| ◆ Lettura 7 | ▲ Lettura 8 | ▼ Lettura 9 | × Lettura 10 | ■ Lettura 11 | ◆ Lettura 12 |
| * Lettura 13 | ● Lettura 14 | × Lettura 15 | ■ Lettura 16 | ◆ Lettura 17 | |



GE 50/08

ANAS SPA

Compartimento della viabilità della Liguria

41

**ANAS SPA COMPARTIMENTO VIABILITA'
DELLA LIGURIA S.S. 1. LAVORI DI INDAGINI
GEOGNOSTICHE INTEGRATIVE, PROVE IN
SITU E DI LABORATORIO, INSTALLAZIONE
STRUMENTAZIONE GEOTECNICA, LETTURE
INCLINOMETRICHE E PIEZOMETRICHE,
NECESSARI PER LA PROGETTAZIONE
ESECUTIVA DELLA VARIANTE ALLA S.S.1**

ELABORATO

7.2

REVISIONE 1

Elaborazione dati letture inclinometriche e
piezometriche

DATA

Febbraio 2007

GEOGNOSTICA

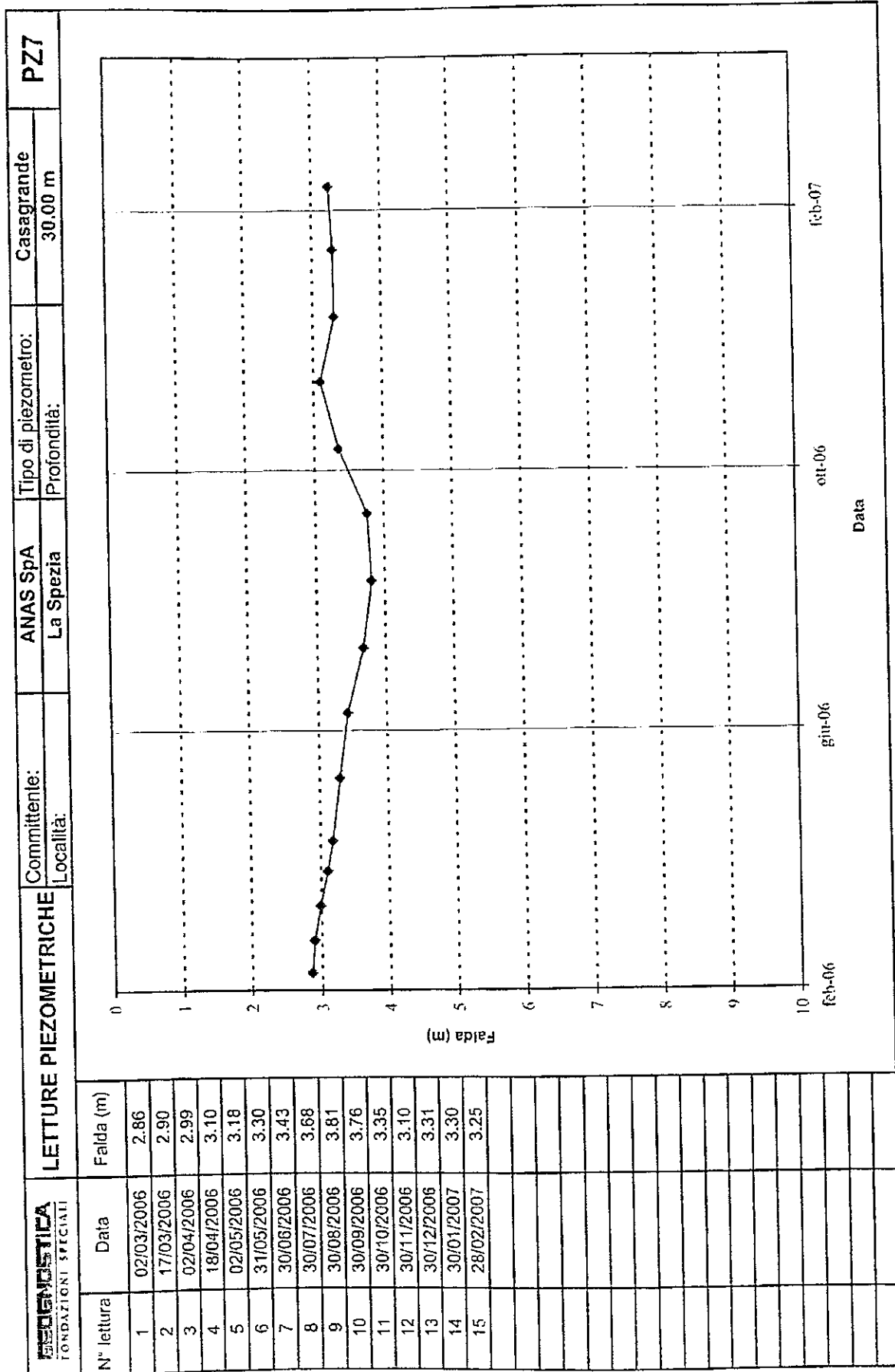
FONDAZIONI SPECIALI

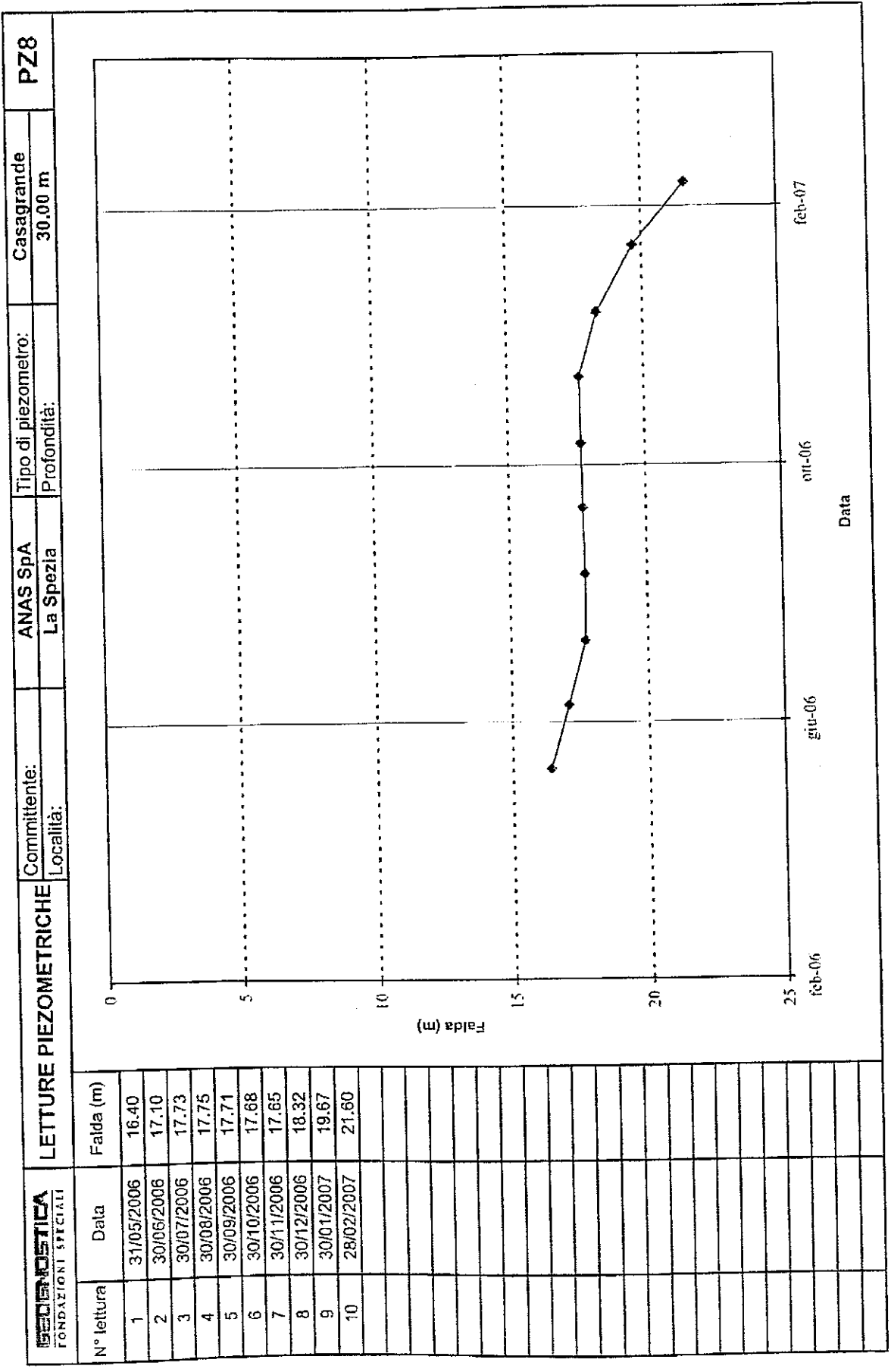
Geognostica s.r.l.

Zona Ind. le Ponte Rio, 148/q

06059 Todi (Perugia) Italia

Tel. 075.8989113 (r.a.) - Fax. 075.8989440





| | | | | | | |
|--|--|---|--|-----------------------|------------------------------------|-----------------------|
| GEONOSTICA FONDAZIONI SPECIALI | | LETTURE PIEZOMETRICHE Località: | | ANAS SpA La Spezia | Tipo di piezometro: Profondità: | Casagrande 30,00 m |
| | | Committente: Località: | | PZ8 | | |

LETTURE PIEZOMETRICHE

Committente: ANAS SpA
Località: La Spezia
Tipo di piezometro:
Profondità: 25

Casagrande
PZ9

| N° lettura | Data | Falda (m) |
|------------|------------|-----------|
| 1 | 10/07/2006 | 14.50 |
| 2 | 31/08/2006 | 14.48 |
| 3 | 30/09/2006 | 14.41 |
| 4 | 30/10/2006 | 14.35 |
| 5 | 30/11/2006 | 13.58 |
| 6 | 30/12/2006 | 13.68 |
| 7 | 30/01/2007 | 13.80 |
| 8 | 28/02/2007 | 13.90 |
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