

COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

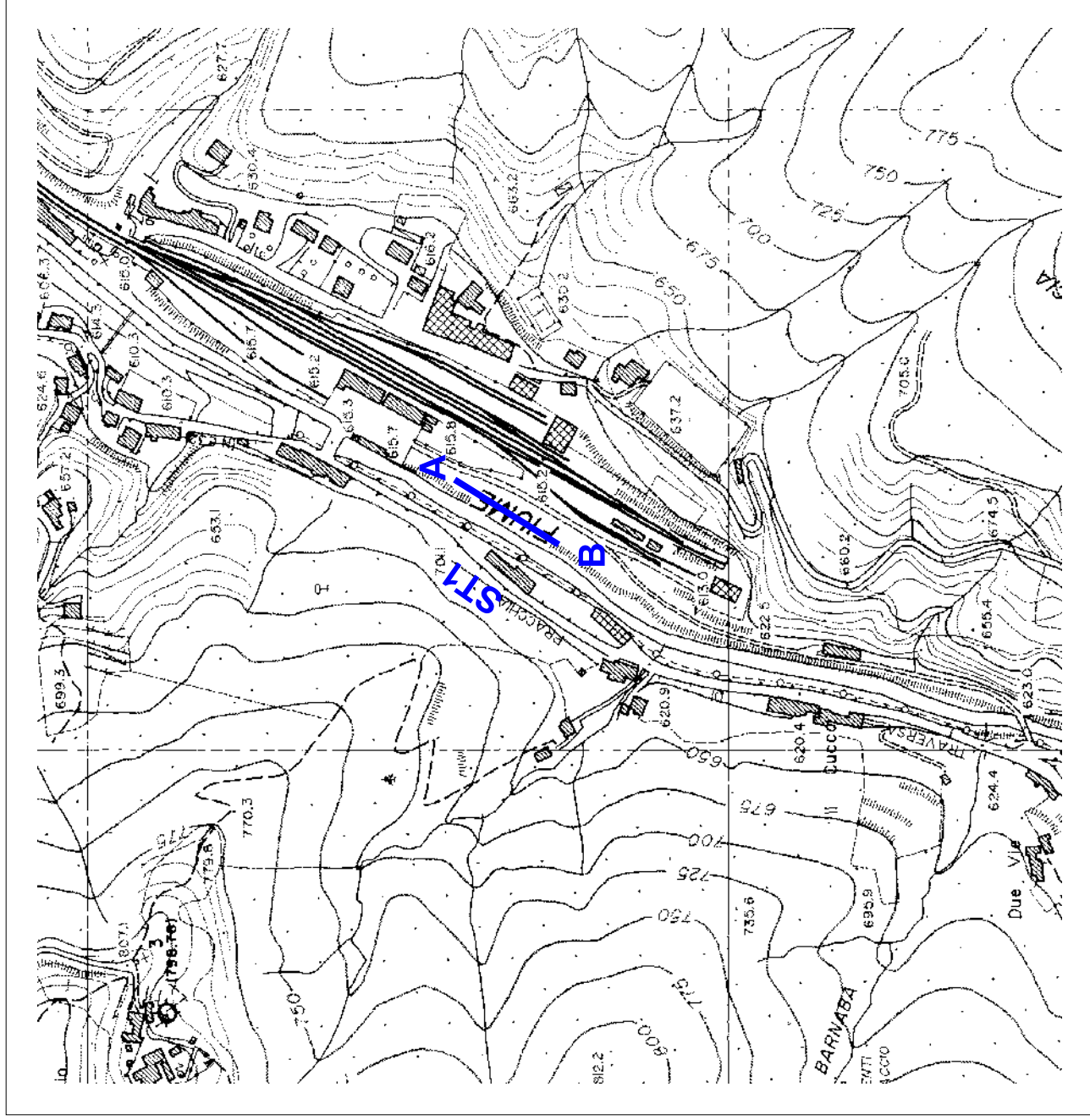
Committente: COMUNE DI PISTOIA
Località: Pracchia
Data: 24 aprile 2013

PLANIMETRIA IN SCALA 1:5.000

LEGENDA

ST1

Linea sismica



COMUNE DI PISTOIA
 PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
 CON ONDE P ED ONDE SH

Committente: COMUNE DI PISTOIA
 Località: Pracchia
 Data: 24 aprile 2013

PLANIMETRIA IN SCALA 1:1.000

LEGENDA

ST1



Linea sismica (96 m)

X G1-G24

Posizione geofoni

● A

Tiro estremo sinistro

● B

Tiro estremo destro

● C

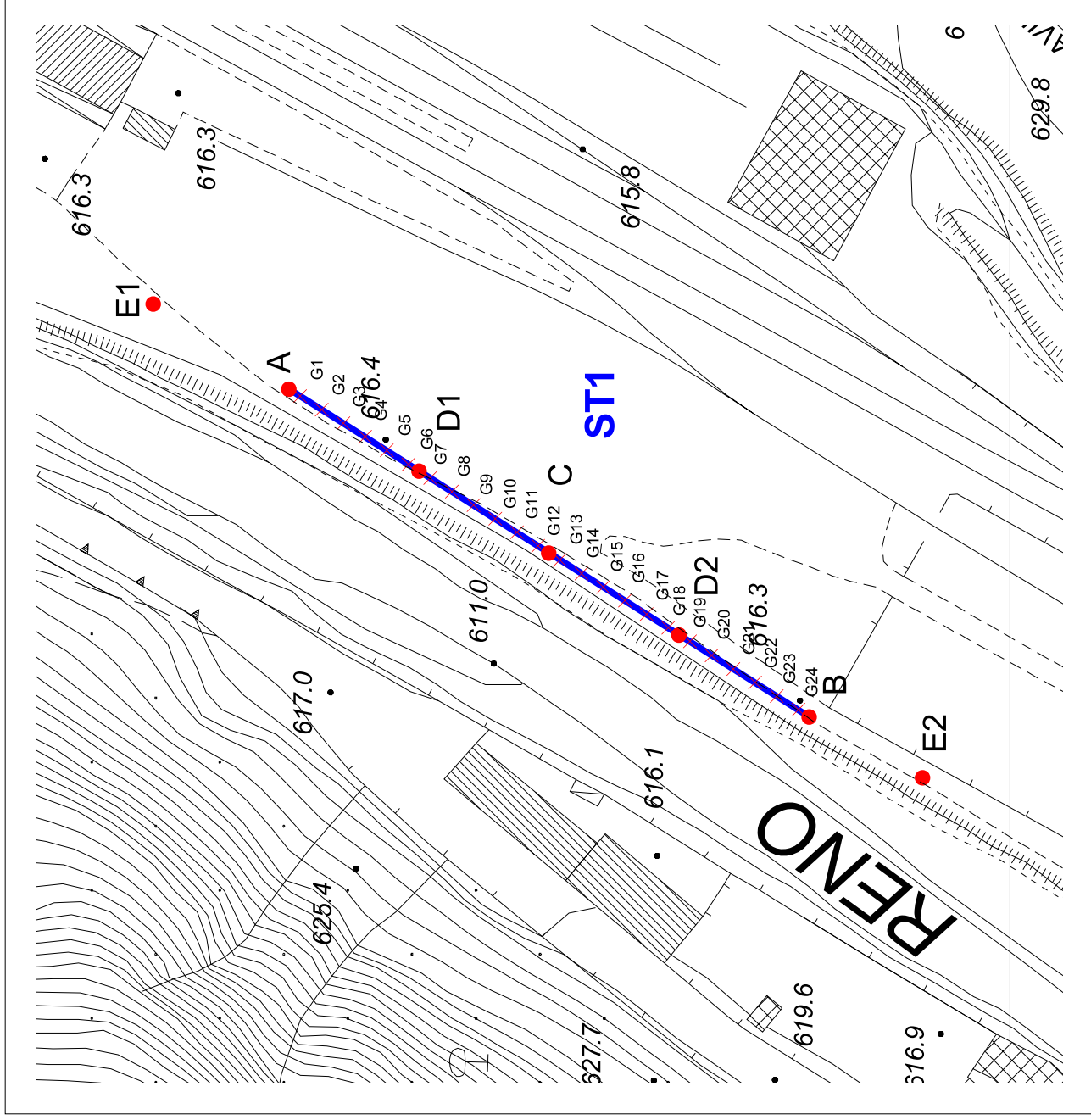
Tiro centrale

● D1-D2

Tiri intermedi

● E1-E2

Tiri esterni



LINEA SISMICA ST1

SCHEMA DETTAGLIATO DELLA LINEA DI ACQUISIZIONE

Geofoni n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dist. Progressiva (m)	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74	78	82	86	90	94
Dist. Parziale (m)	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2
Quota (m s.l.m.)	616.4	616.4	616.4	616.4	616.4	616.4	616.4	616.4	616.4	616.4	616.4	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3

COORDINATE GAUSS BOAGA DI G1 E G24

	GEOFONO N.1 (G1)	GEOFONO N.24 (G24)
X(m)	1652711.45	1652662.46
Y(m)	4879710.81	4879632.94

PUNTI DI ENERGIZZAZIONE

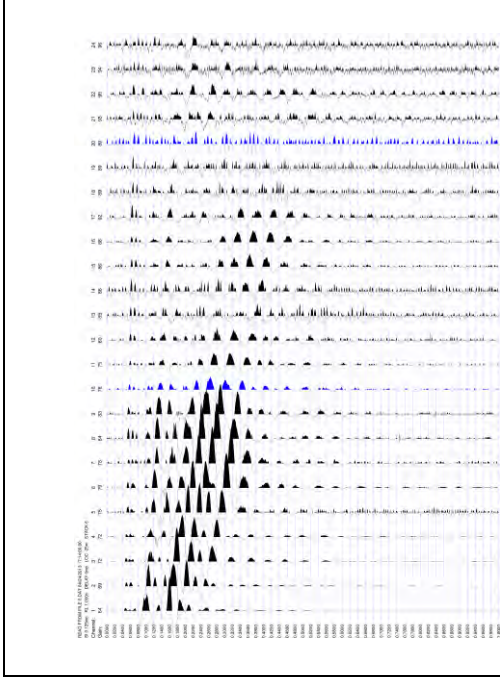
	E1	A	D1	C	D2	B	E2
	esterno sx	estremo sx	intermedio sx	centrale	intermedio dx	estremo dx	esterno dx
Onde P	15.dat	16.dat	17.dat	18.dat	19.dat	20.dat	21.dat
Onde SH	14.dat	12.dat	10.dat	8.dat	6.dat	2.dat	4.dat
Posiz. dal Geof.n.1 (m)	-27	-2	22	46	70	94	114
Quota (m)	616.3	616.4	616.4	616.3	616.3	616.3	616.3

COMUNE DI PISTOIA

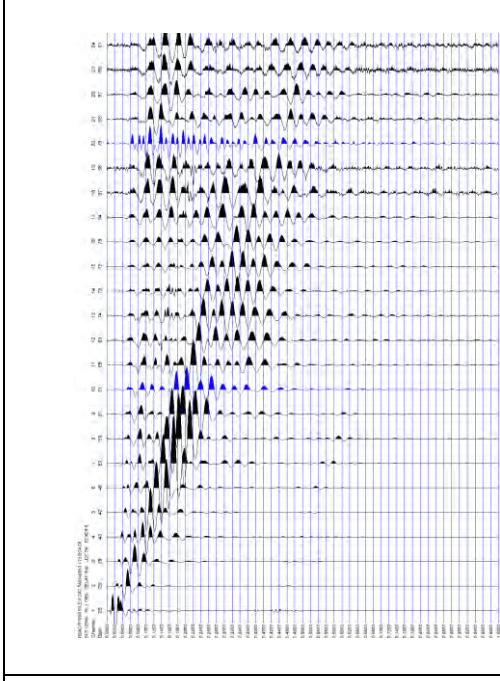
LINEA SISMICA ST1

ONDE P - REGISTRAZIONI DI CAMPAGNA

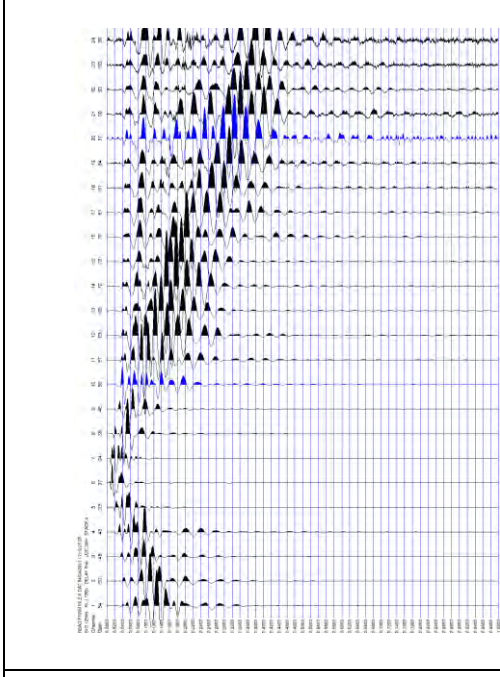
E1 - SCOPPIO ESTERNO SX - STACK 6



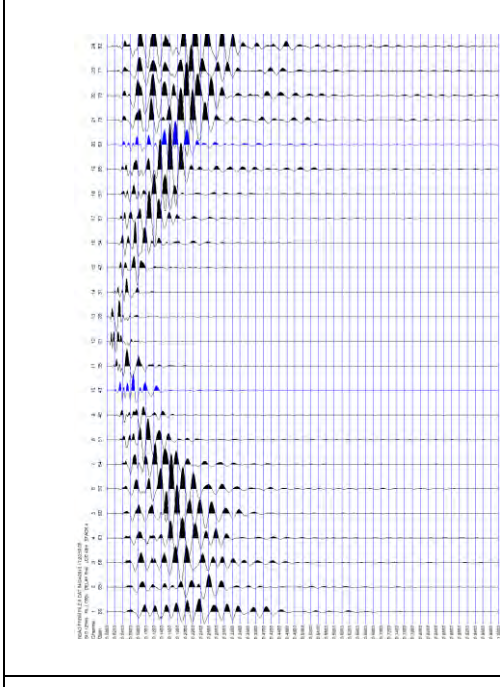
A - SCOPPIO ESTREMO SX - STACK 6



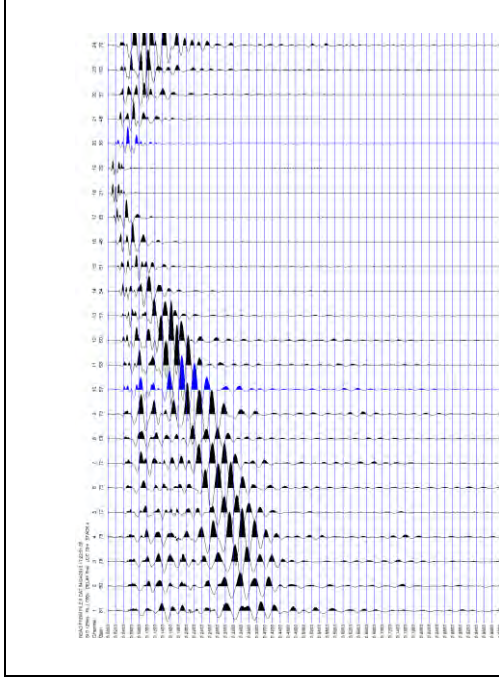
D1 - SCOPPIO INTERMEDIO SX - STACK 4



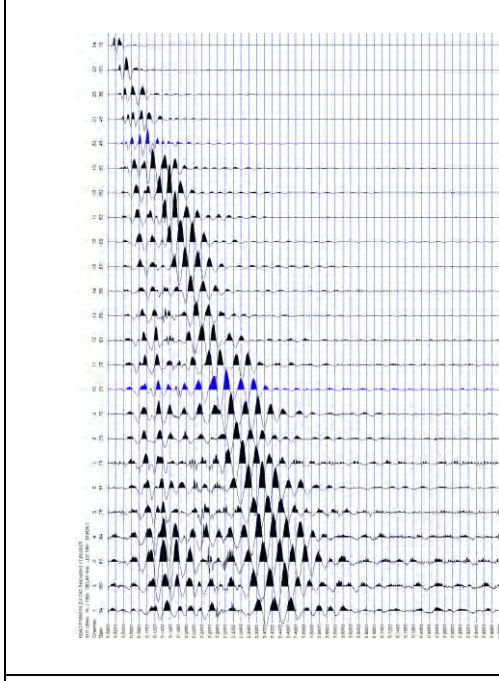
C - SCOPPIO CENTRALE - STACK 4



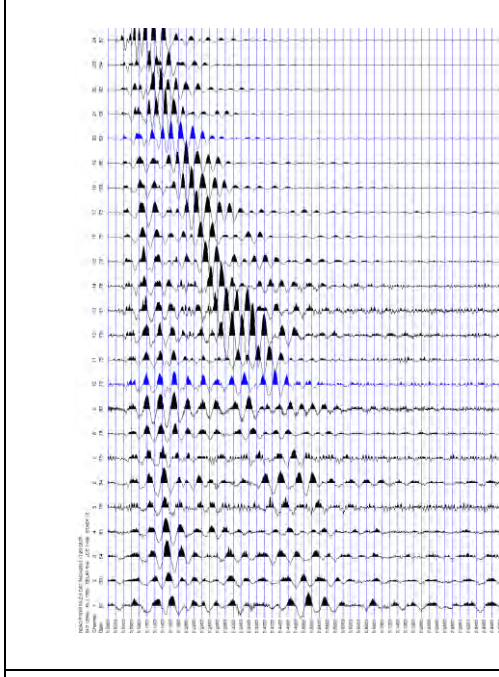
D2 - SCOPPIO INTERMEDIO DX - STACK 4



B - SCOPPIO ESTREMO DX - STACK 7



E2 - SCOPPIO ESTERNO DX - STACK 10

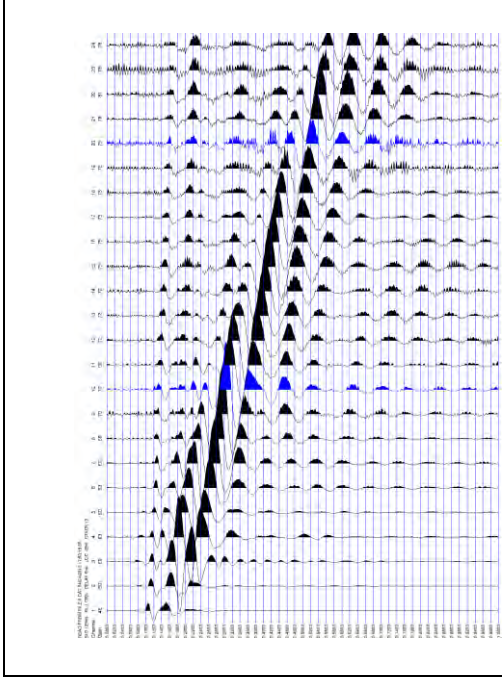


COMUNE DI PISTOIA

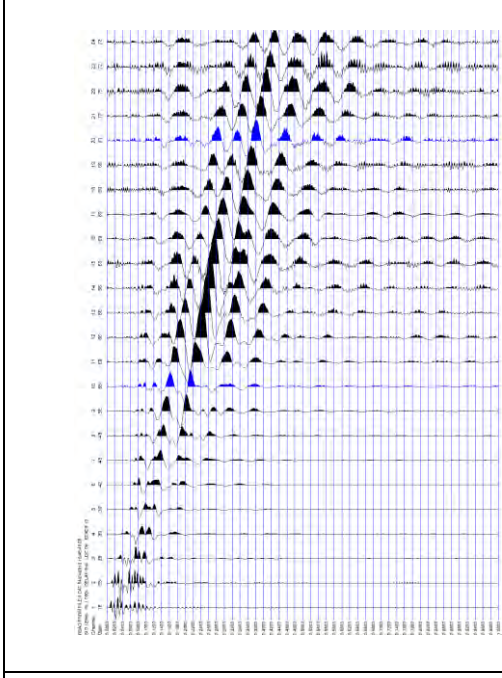
LINEA SISMICA ST1

ONDE SH - REGISTRAZIONI DI CAMPAGNA

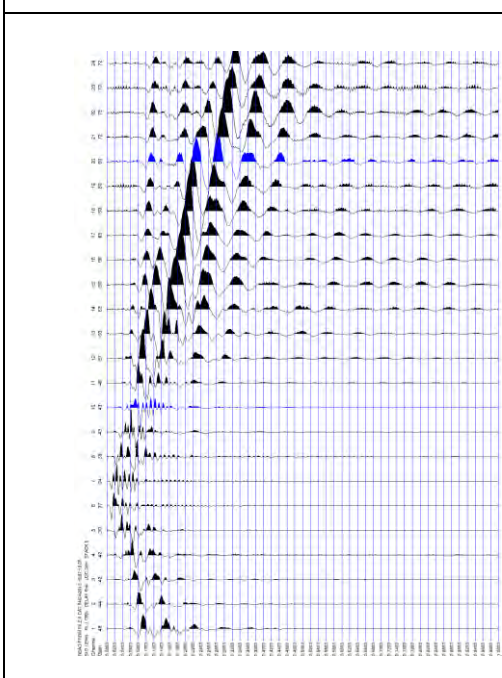
E1 - SCOPPIO ESTERNO SX - STACK 10



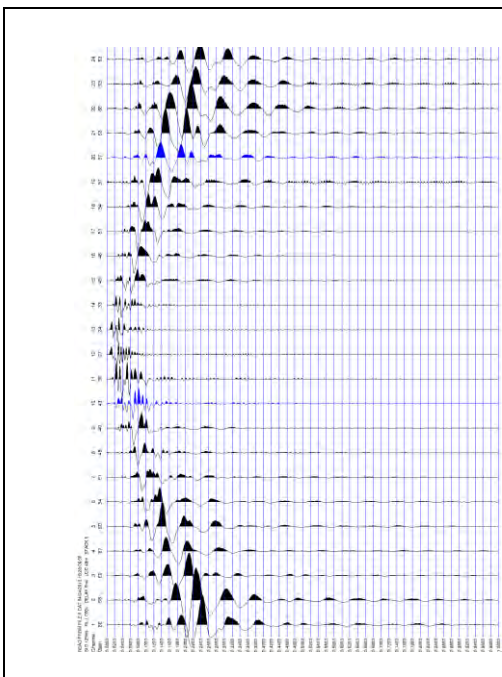
A - SCOPPIO ESTREMO SX - STACK 10



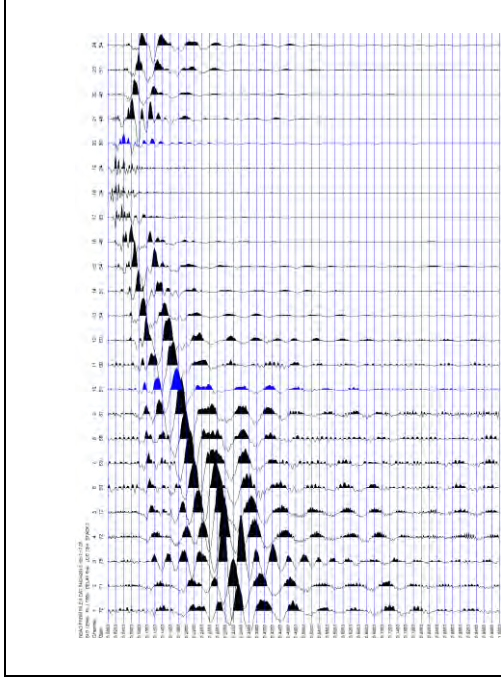
D1 - SCOPPIO INTERMEDIO SX - STACK 6



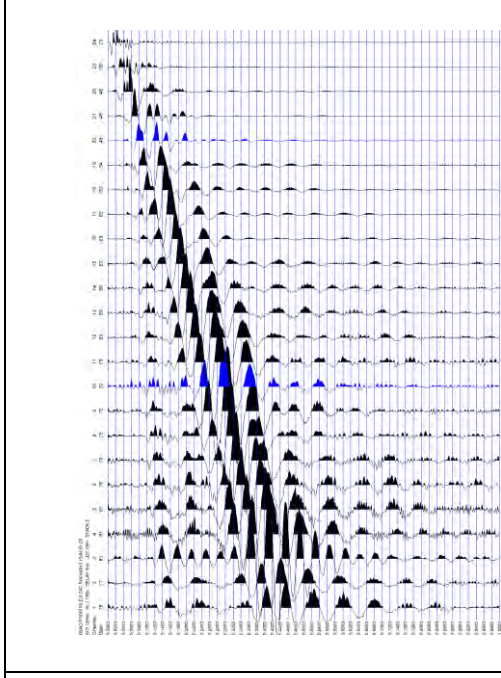
C - SCOPPIO CENTRALE - STACK 6



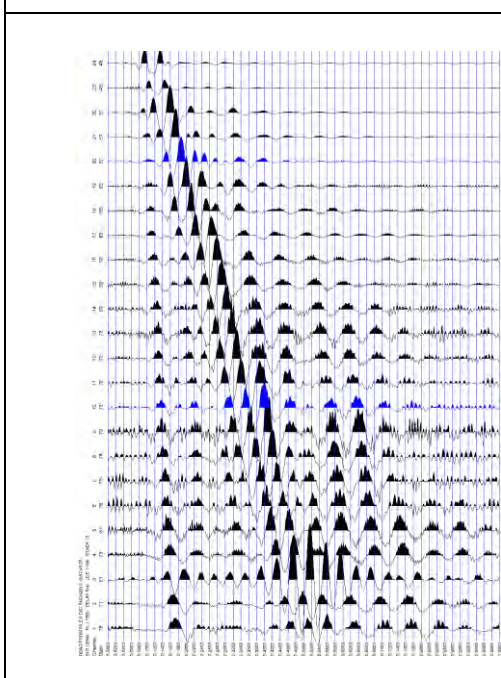
D2 - SCOPPIO INTERMEDIO DX - STACK 7



B - SCOPPIO ESTREMO DX - STACK 8



E2 - SCOPPIO ESTERNO DX - STACK 10



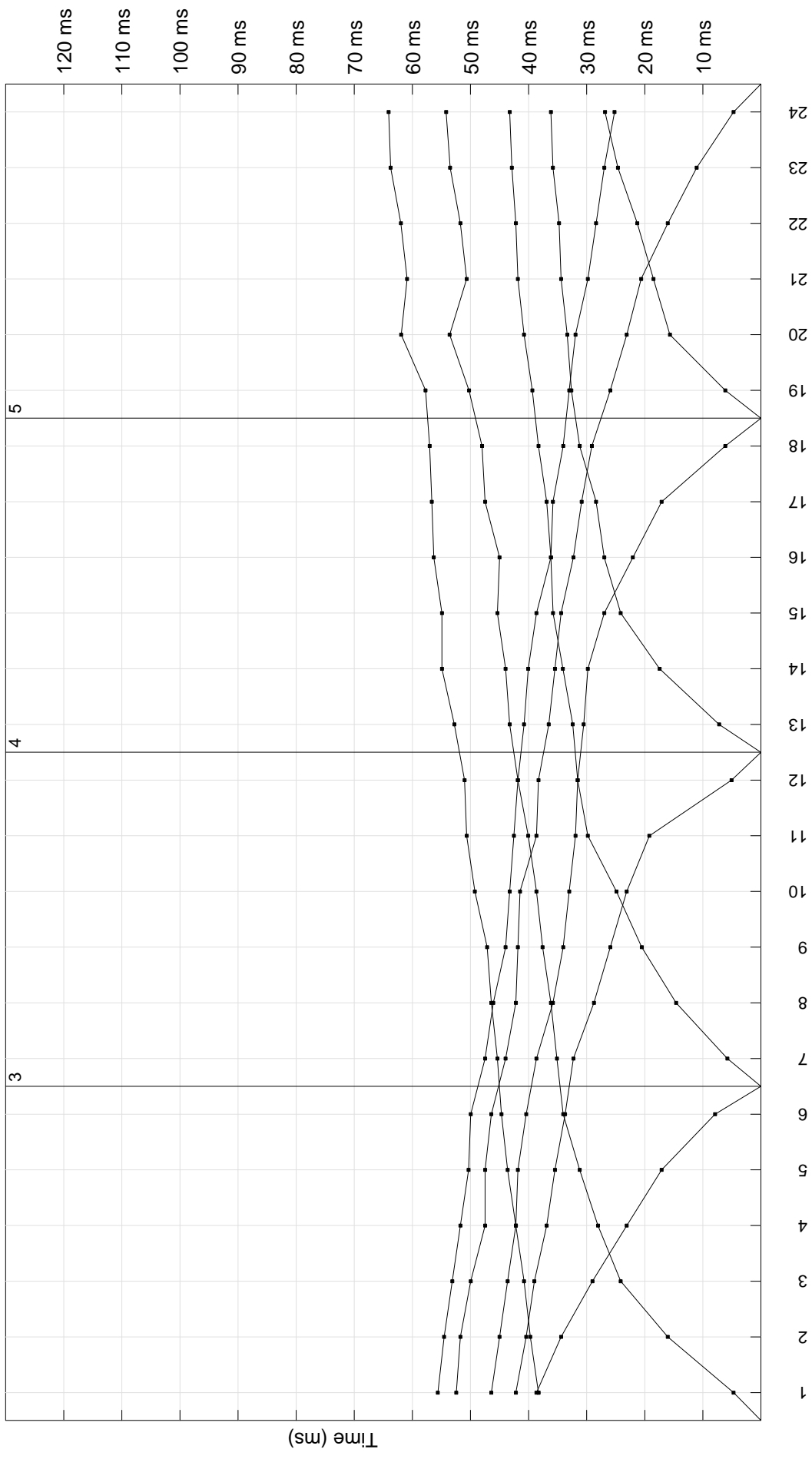
LINEA SISMICA ST1

TEMPI DI PROPAGAZIONE DELLE ONDE P ED SH

ONDE P												ONDE SH				
	E1	A	D1	C	D2	B	E2		E1	A	D1	C	D2	B	E2	
G1	38.29	4.71	38.65	42.18	46.4	52.43	55.61		96.83	5.5	68.11	85.22	108.4	125.22	155.69	
G2	39.7	16.03	34.4	40.4	45	51.72	54.54		104.19	18.2	61.75	81.3	102.08	121.01	151.5	
G3	40.77	24.13	29	39	43.59	49.95	53.13		107.33	30.94	48.54	75.93	-	117.01	144.13	
G4	42.18	28.04	23.1	36.88	42.18	47.47	51.72		109.44	47.56	40.22	72.51	95.01	112.61	143.08	
G5	43.59	31.2	17.09	35.45	41.83	47.47	50.31		112.58	57.34	21.62	68.58	92.05	108.69	140.99	
G6	44.65	34.04	7.9	33.7	40.4	46.4	49.95		115.76	66.15	7.48	65.66	90.58	106.25	136.77	
G7	45.36	35.11	5.78	32.27	38.65	43.95	47.47		119.94	71.51	8.52	62.24	87.18	103.3	135.72	
G8	46.4	36.15	14.6	28.75	35.81	42.18	46.06		121.01	73.69	28.45	54.79	84.73	99.9	132.58	
G9	47.13	37.59	20.51	25.92	34.04	41.83	43.95		123.12	76.86	40.22	49.52	79.36	96.94	130.47	
G10	49.25	38.65	24.86	23.1	32.99	41.47	43.24		126.26	81.05	53.43	0	75.93	93.05	127.3	
G11	50.65	40.06	29.79	19.2	31.93	38.65	42.52		128.36	87.37	61.25	0	73	89.12	126.26	
G12	51	41.83	31.54	5.07	31.55	38.29	41.83		131.52	91.58	65.16	7.48	69.08	86.19	122.05	
G13	52.77	43.24	32.4	7.19	30.52	36.52	40.77		134.66	96.83	69.08	6.48	64.19	82.29	119.94	
G14	54.9	43.95	34.09	17.44	29.79	35.45	40.06		136.77	99.98	71.61	20.18	56.36	79.36	117.86	
G15	54.9	45.36	35.79	24.13	26.95	34.4	38.65		137.83	101.83	74.76	34.84	48.04	76.41	113.66	
G16	56.31	45	36.15	26.95	22.04	32.27	36.15		139.94	106.25	76.86	52.45	32.88	73	108.4	
G17	56.65	47.47	36.88	28.37	17.09	30.87	35.81		142.02	109.19	78.97	54.9	17.2	67.62	105.25	
G18	57.02	48	38.29	31.2	6.13	29.1	34.04		143.08	111.15	82.12	60.27	6.42	62.24	101.04	
G19	57.72	50.24	39.34	32.63	6.13	25.92	32.99		144.13	114.55	84.22	65.66	5.98	56.88	96.83	
G20	61.93	53.58	40.77	33.34	15.67	23.1	31.93		146.24	117.01	87.37	71.51	23.6	51.47	94.73	
G21	60.9	50.65	41.83	34.4	18.5	20.62	29.79		150.44	118.48	90.51	74.94	32.88	46.09	89.48	
G22	61.97	51.72	42.18	34.75	21.28	16.03	28.37		153.6	120.44	93.68	76.86	45.61	35.83	83.16	
G23	63.74	53.49	42.88	35.81	24.62	11.06	26.95		154.63	121.41	95.79	81.05	54.9	18.7	77.91	
G24	64.08	54.18	43.24	36.15	26.85	4.71	25.2		155.69	123.37	97.87	85.26	59.79	5.38	70.55	

Profilo ST1 - Pistoia - Pracchia - Onde P

A



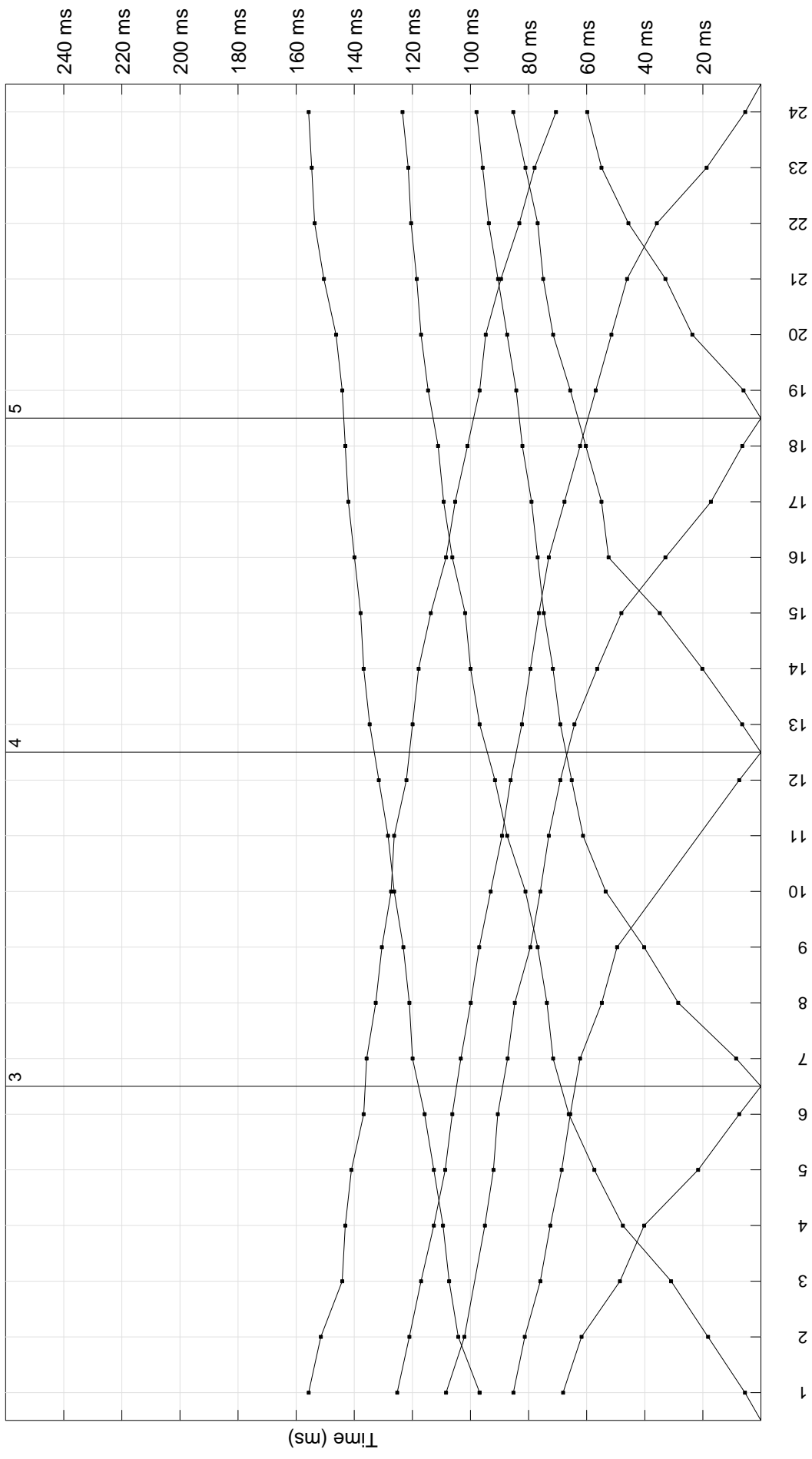
B

Calculs d'épaisseur

Profilo ST1 - Pistoia - Pracchia - Onde SH

A

B



**COMUNE DI PISTOIA
PROVINCIA DI PISTOIA**

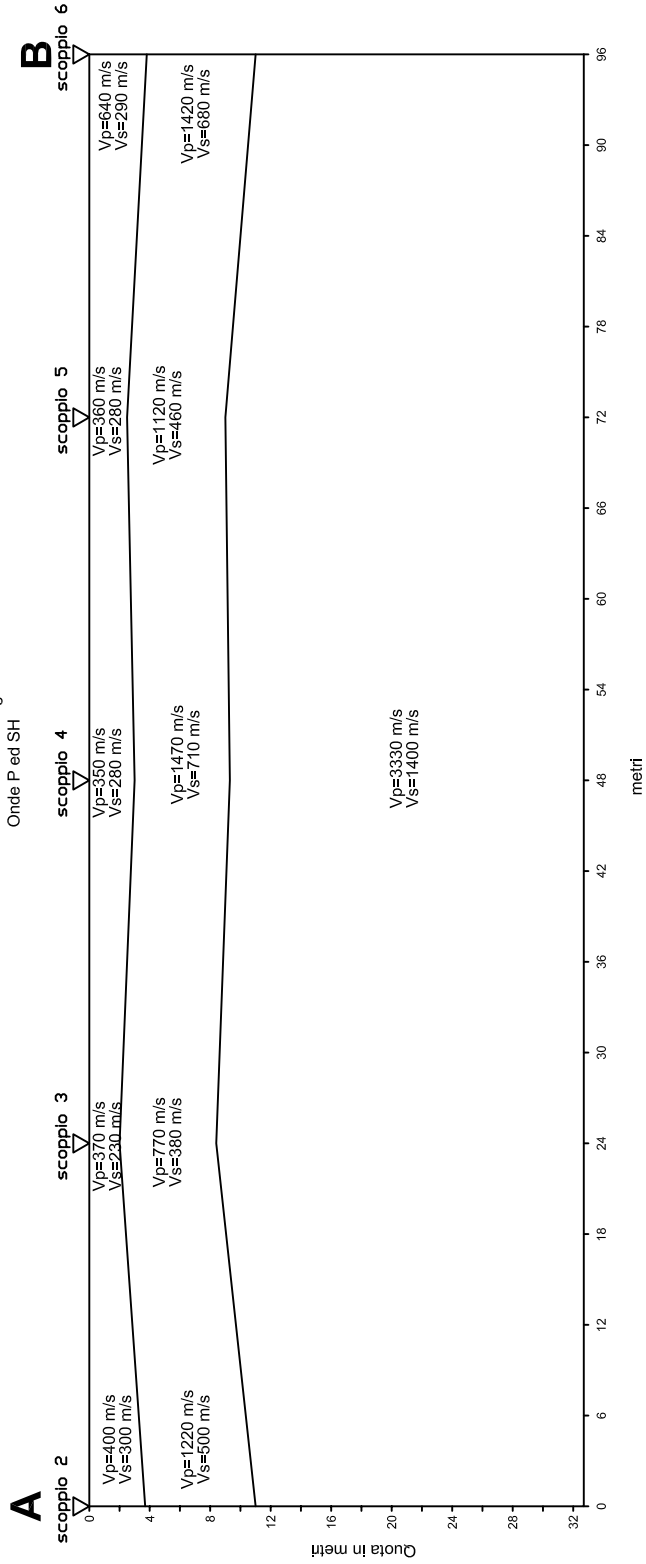
MICROZONAZIONE SISMICA LIVELLO 1

PROFILO ST1 – Pracchia

**Ricostruzione sismostratigrafica
Onde P ed SH**

scoppi	distanze (m)	Profondità 1° livello	Profondità 2° livello	Vp1 (m/sec)	Vp2 (m/sec)	Vp3 (m/sec)	Vs1 (m/sec)	Vs2 (m/sec)	Vs3 (m/sec)
2	0	2.7	11.0	400	1220	3330	300	500	1400
3	24	2.0	8.4	370	770	3330	230	380	1400
4	48	3.0	9.3	350	1470	3330	280	710	1400
5	72	2.5	9.0	360	1120	3330	280	460	1400
6	96	3.8	11.0	640	1420	3330	290	680	1400

Profilo ST1 - Pracchia
Comune di Pistoia
Ricostruzione sismostratigrafica
Onde P ed SH

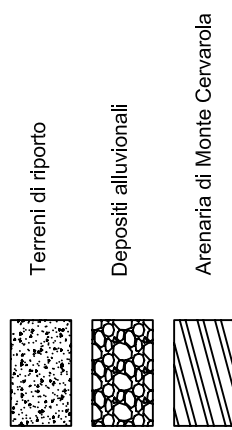


**SEZIONE LITOSTRATIGRAFICA
 INTERPRETATIVA**

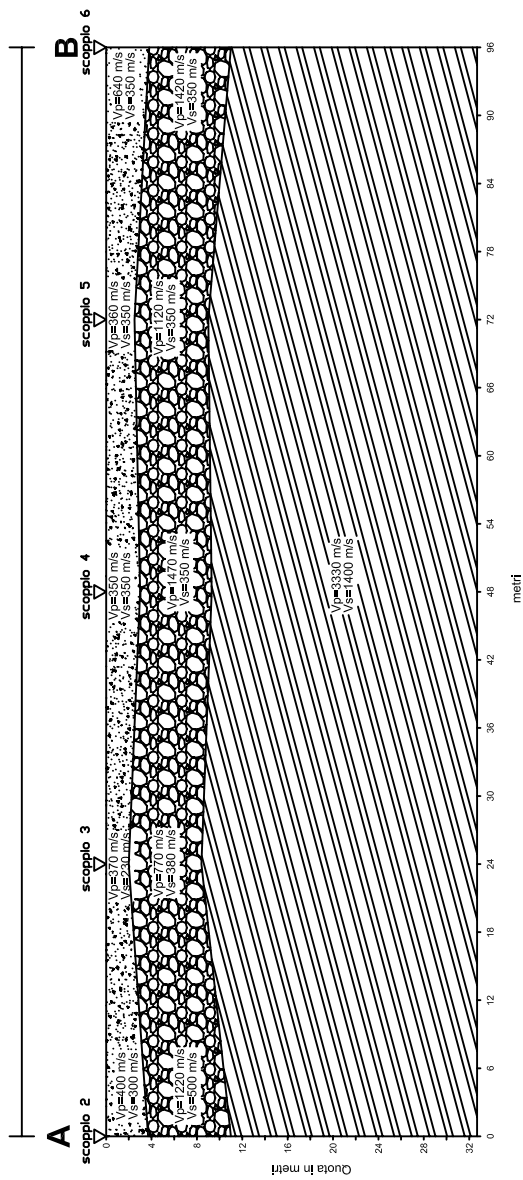
Base sismica: ST1
 Committente: COMUNE DI PISTOIA
 Località: Pracchia
 Data: 24 aprile 2013

LEGENDA

Vp=1260 m/s Velocità sismica onde P in metri al secondo
 Vs=420 m/s Velocità sismica onde SH in metri al secondo



ST1



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

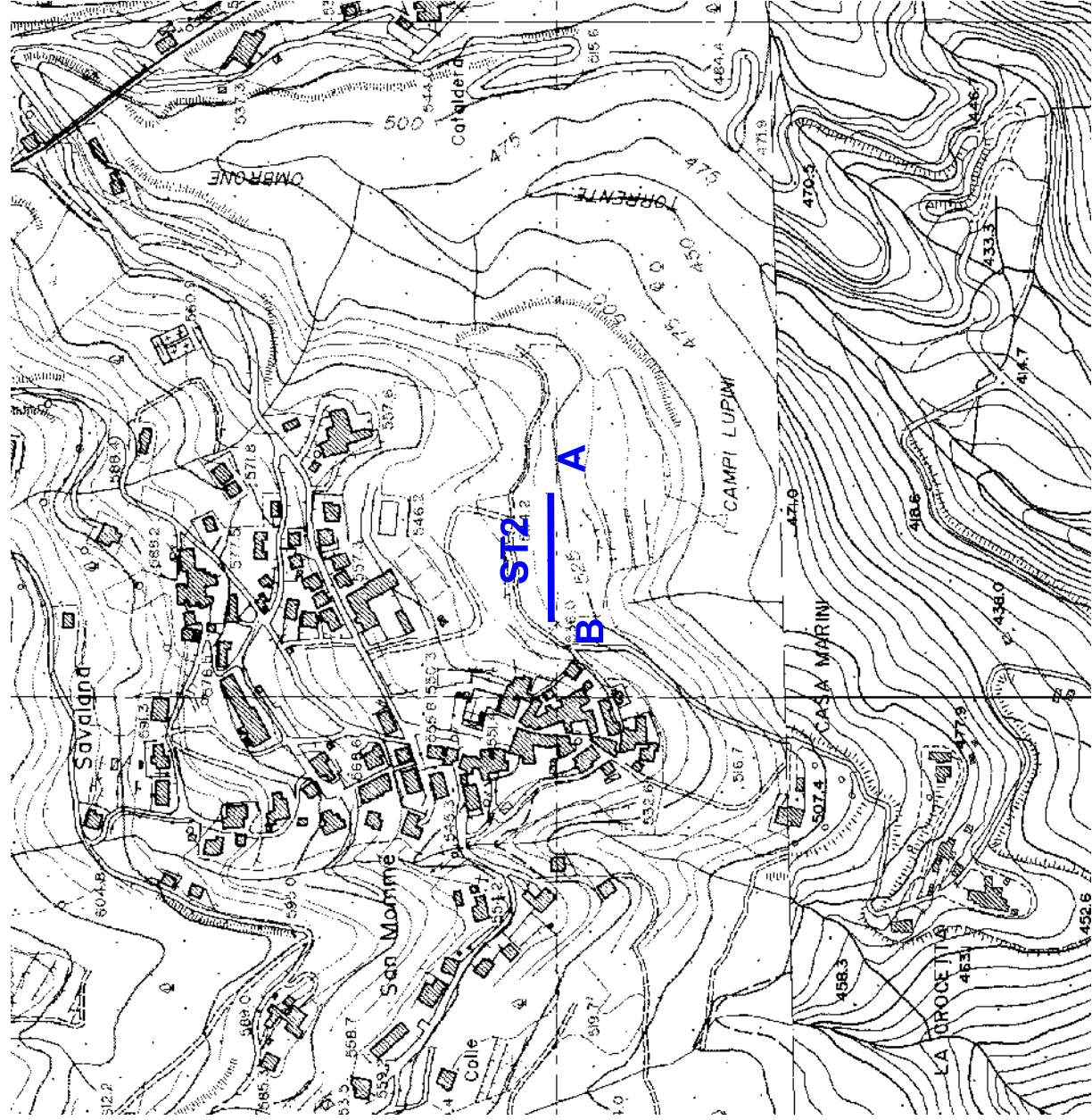
Committente: COMUNE DI PISTOIA
Località: San Mommè
Data: 26 aprile 2013

PLANIMETRIA IN SCALA 1:5.000

LEGENDA

ST2

Linea sismica



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSEZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

Committente: COMUNE DI PISTOIA
Località: San Mommè
Data: 26 aprile 2013

PLANIMETRIA IN SCALA 1:1.000

LEGENDA

ST2



Linea sismica (96 m)

X G1-G24

Posizione geofoni

● A

Tiro estremo sinistro

● B

Tiro estremo destro

● C

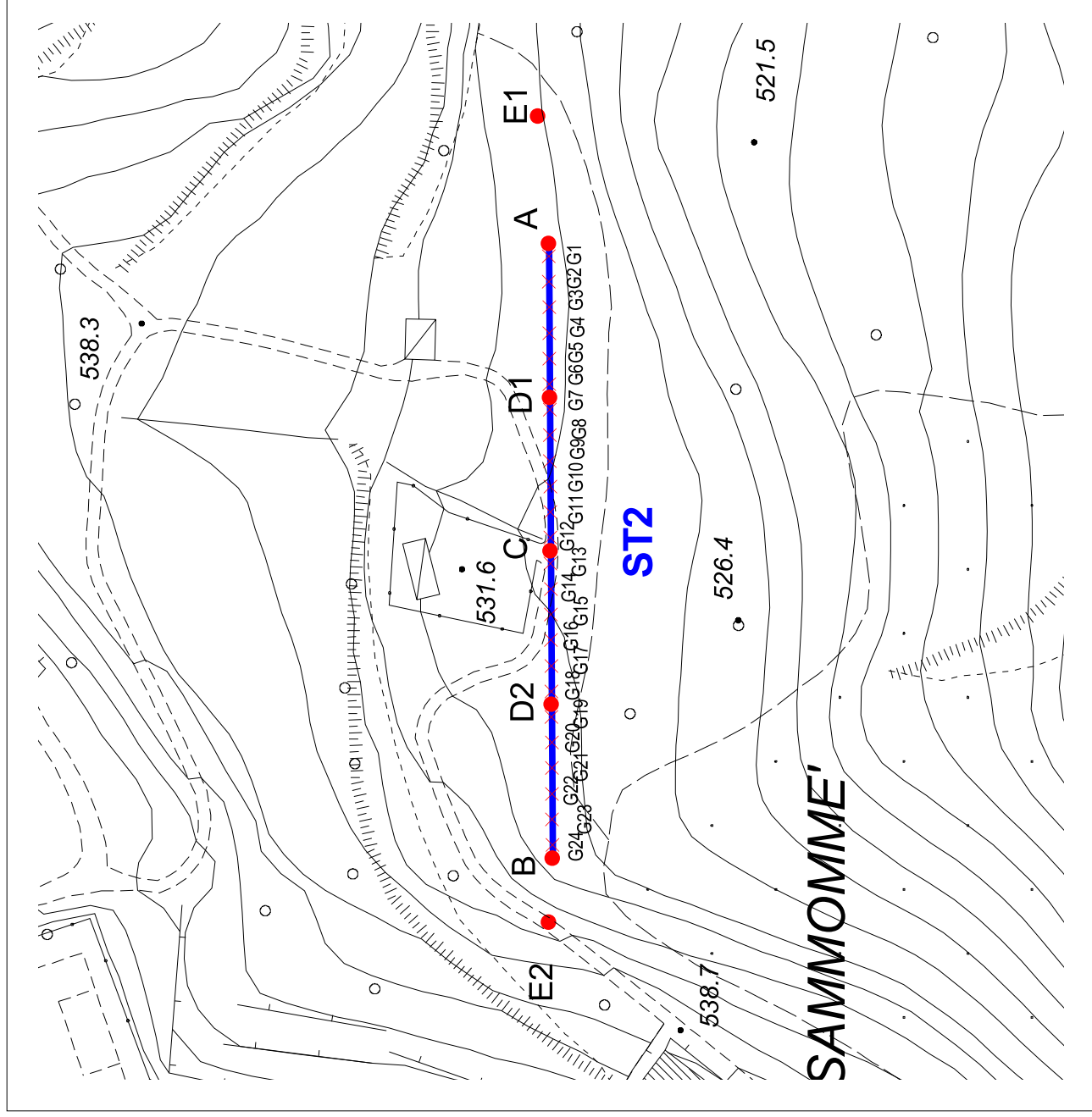
Tiro centrale

● D1-D2

Tiri intermedi

● E1-E2

Tiri esterni



LINEA SISMICA ST2

-SCHEMA DETTAGLIATO DELLA LINEA DI ACQUISIZIONE

Geofoni n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dist. Progressiva (m)	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74	78	82	86	90	94
Dist. Parziale (m)	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2
Quota (m s.l.m.)	530.5	530.5	530.5	530.5	530.5	530.5	530.5	530.5	530.0	529.7	529.7	529.5	529.7	529.7	530.0	530.5	530.5	530.5	530.5	530.5	530.5	530.5	531.0	531.0

COORDINATE GAUSS BOAGA DI G1 E G24

	GEOFONO N.1 (G1)	GEOFONO N.24 (G24)
X(m)	1653150.53	1653058.53
Y(m)	4876503.25	4876502.67

PUNTI DI ENERGIZZAZIONE

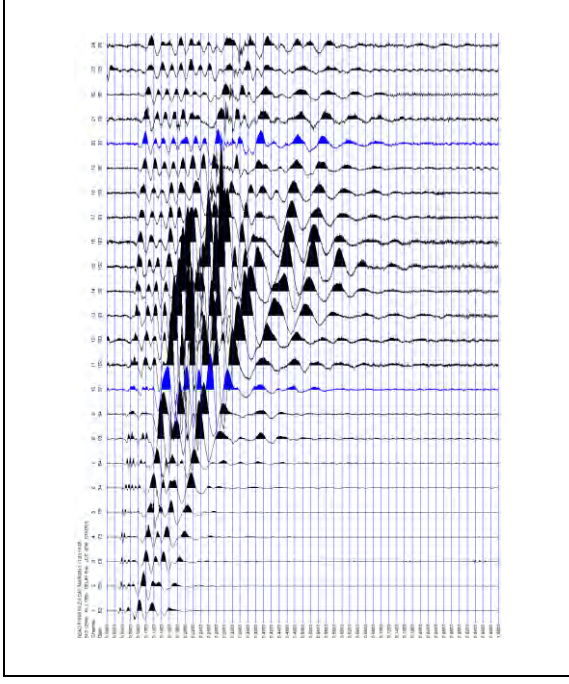
	E1	A	D1	C	D2	B	E2
	esterno sx	estremo sx	intermedio sx	centrale	intermedio dx	estremo dx	esterno dx
Onde P	15.dat	16.dat	17.dat	18.dat	19.dat	20.dat	21.dat
Onde SH	14.dat	12.dat	10.dat	8.dat	6.dat	2.dat	4.dat
Posiz. dal Geof.n.1 (m)	-22	-2	22	46	70	94	104
Quota (m)	529.5	530.5	530.5	529.5	530.5	531.5	534.5

COMUNE DI PISTOIA

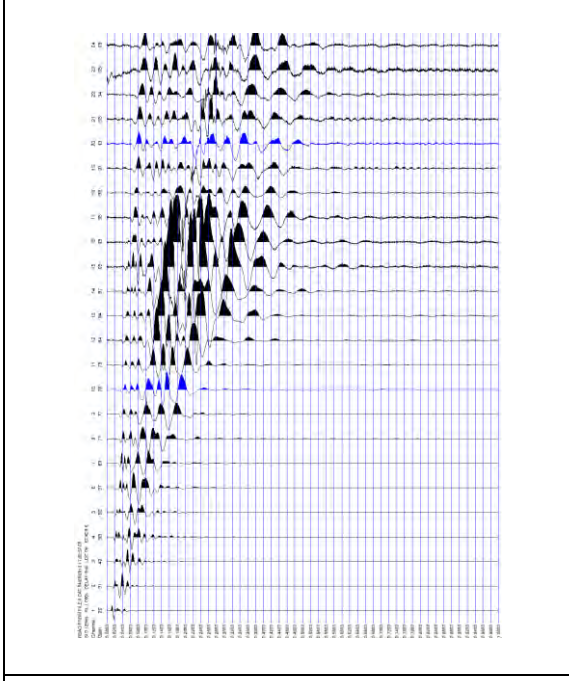
LINEA SISMICA ST2

ONDE P - REGISTRAZIONI DI CAMPAGNA

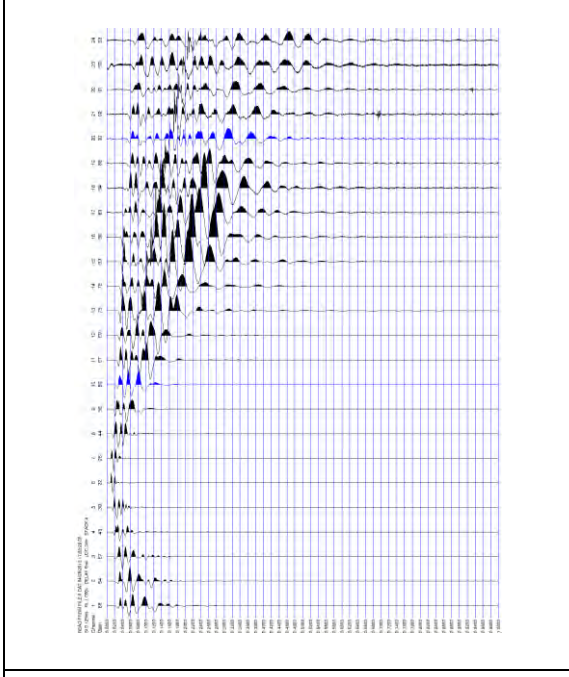
E1 - SCOPPIO ESTERNO SX - STACK 5



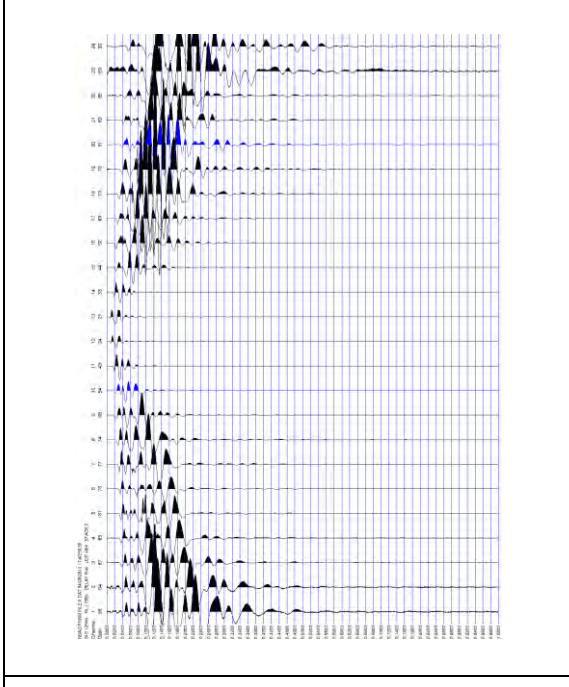
A - SCOPPIO ESTREMO SX - STACK 6



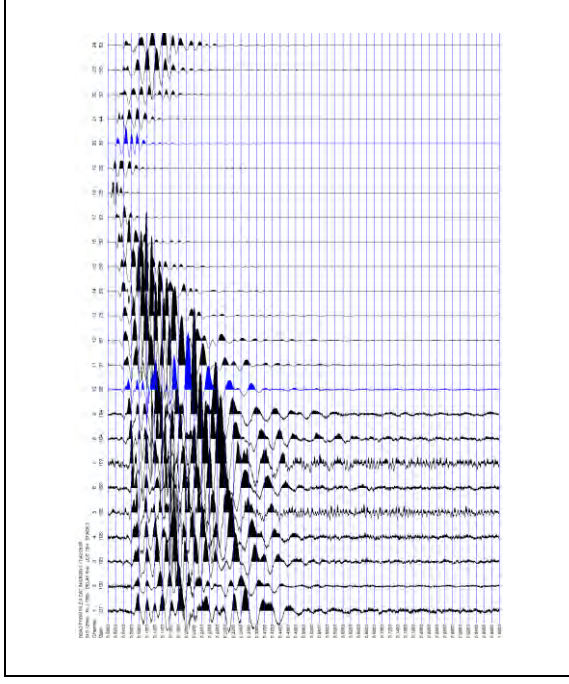
D1 - SCOPPIO INTERMEDIO SX - STACK 4



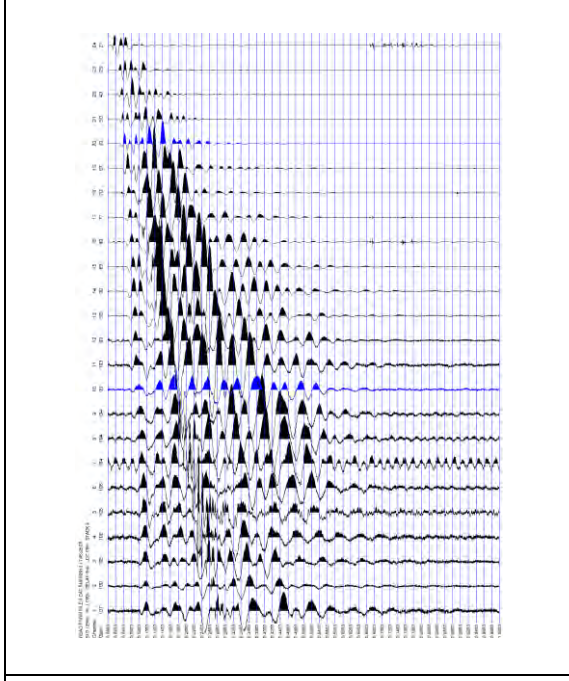
C - SCOPPIO CENTRALE - STACK 3



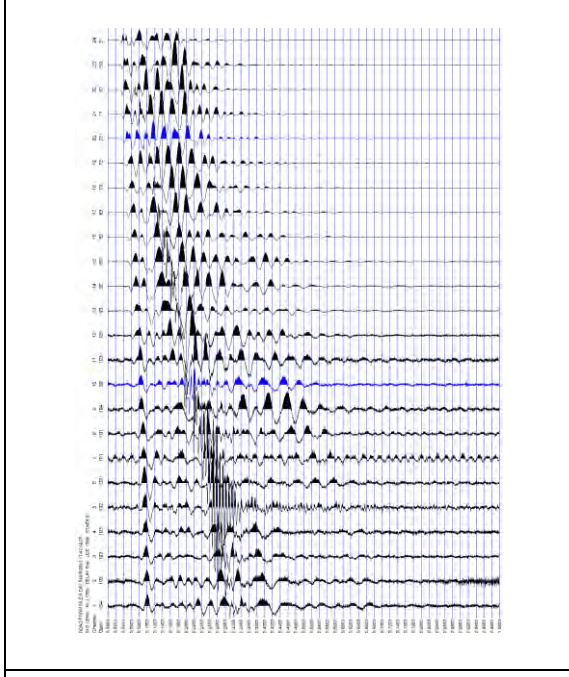
D2 - SCOPPIO INTERMEDIO DX - STACK 3



B - SCOPPIO ESTREMO DX - STACK 4



E2 - SCOPPIO ESTERNO DX - STACK 6

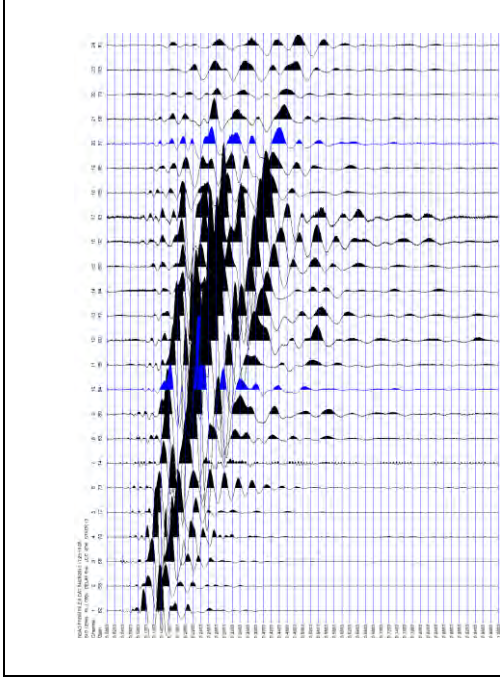


COMUNE DI PISTOIA

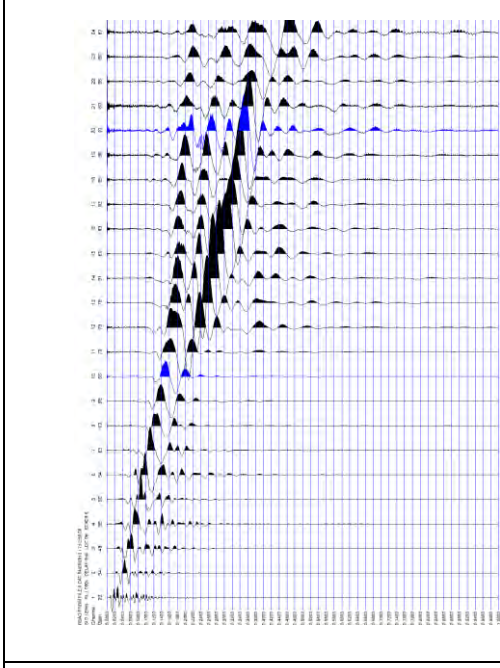
LINEA SISMICA ST2

ONDE SH - REGISTRAZIONI DI CAMPAGNA

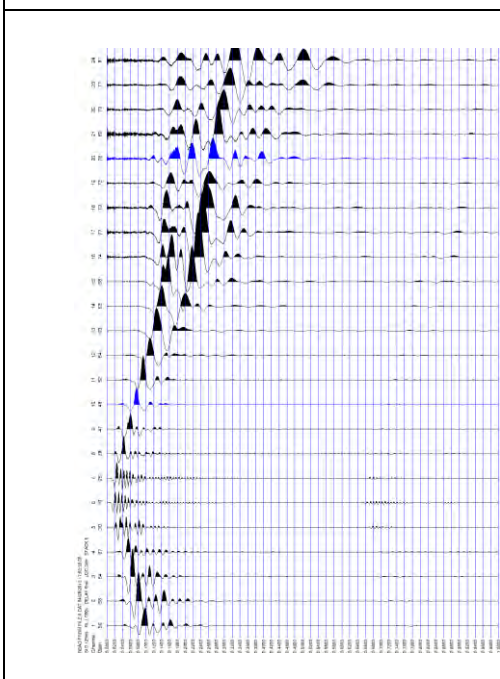
E1 - SCOPPIO ESTERNO SX - STACK 10



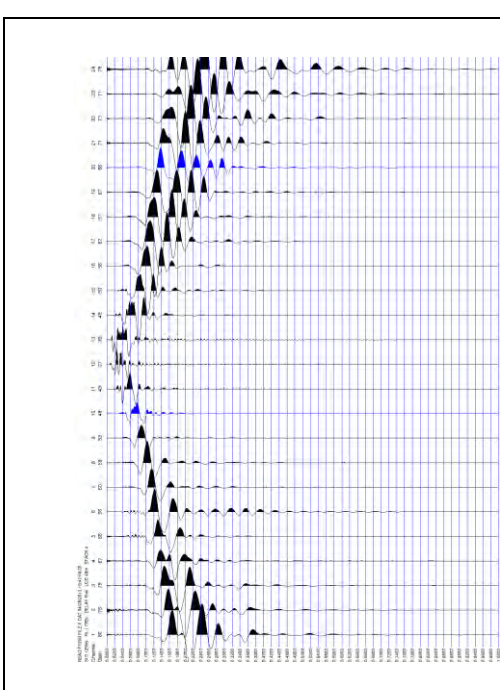
A - SCOPPIO ESTREMO SX - STACK 6



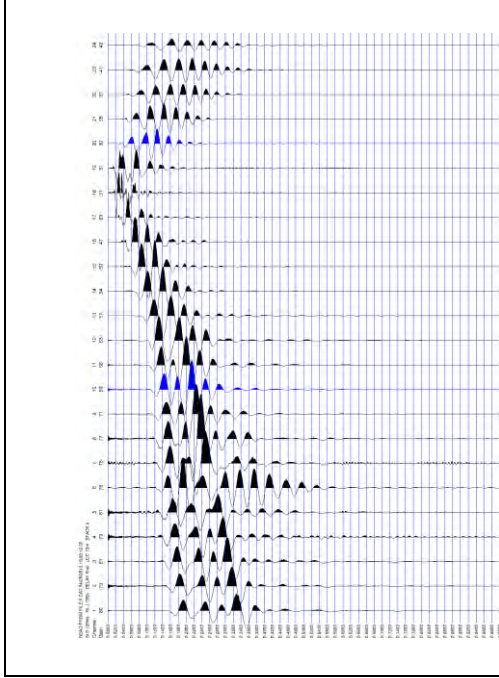
D1 - SCOPPIO INTERMEDIO SX - STACK 6



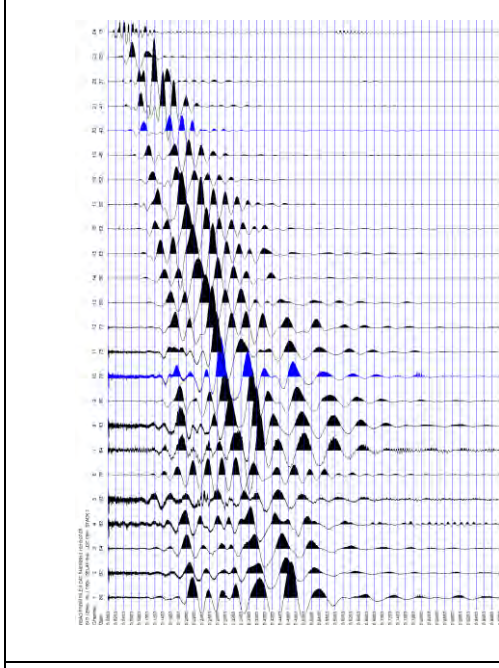
C - SCOPPIO CENTRALE - STACK 4



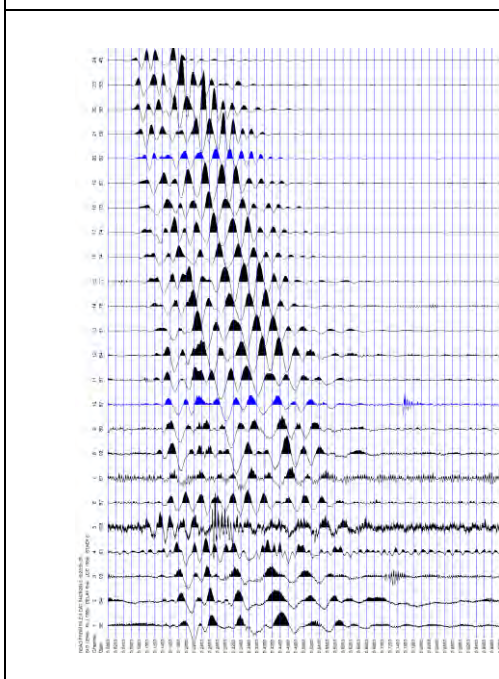
D2 - SCOPPIO INTERMEDIO DX - STACK 4



B - SCOPPIO ESTREMO DX - STACK 7



E2 - SCOPPIO ESTERNO DX - STACK 8



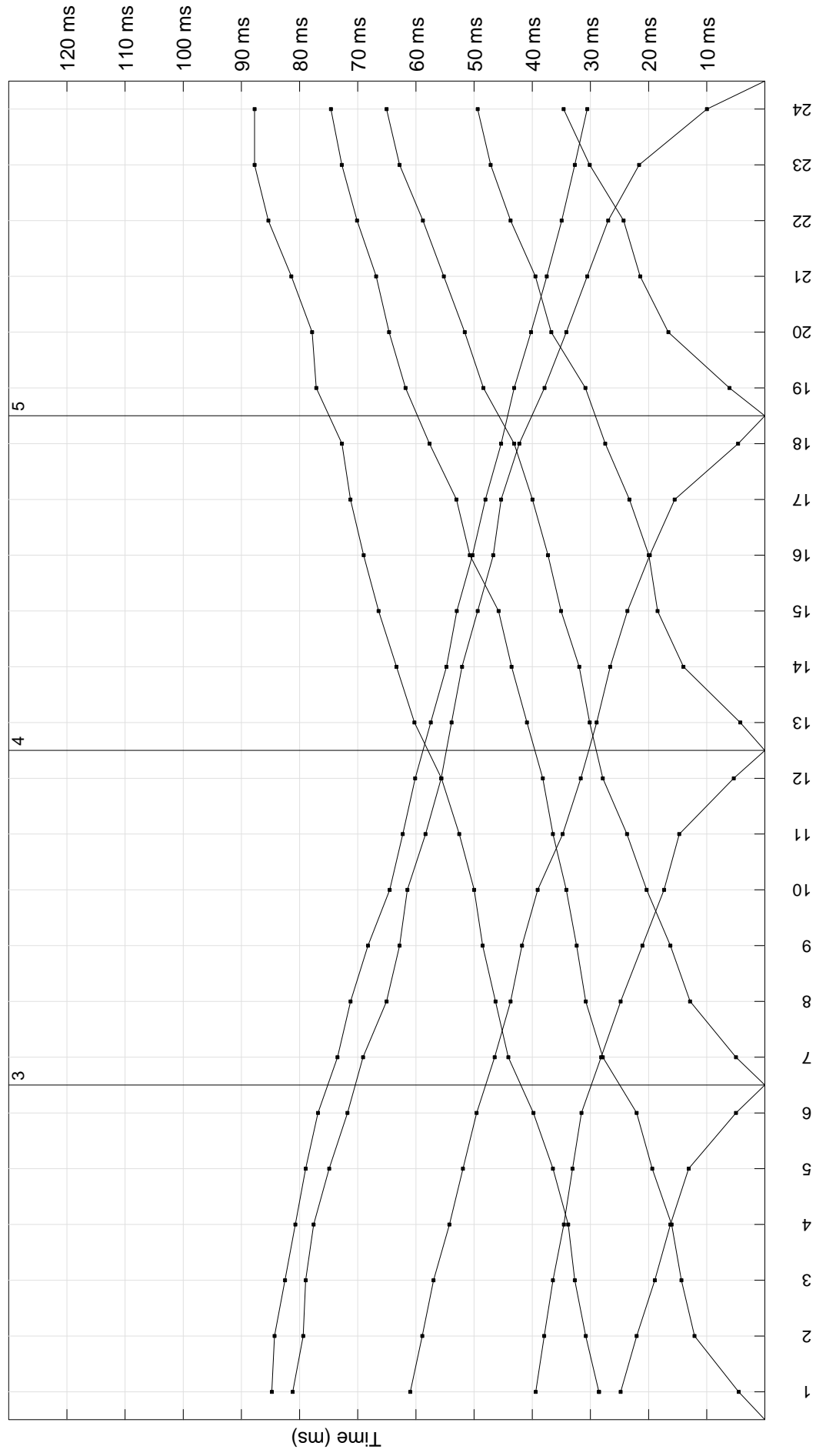
LINEA SISMICA ST2**TEMPI DI PROPAGAZIONE DELLE ONDE P ED SH**

ONDE P												ONDE SH				
	E1	A	D1	C	D2	B	E2		E1	A	D1	C	D2	B	E2	
G1	28.54	4.51	27.22	39.4	60.97	81.18	84.76		87.3	8.22	73.12	121.58	159.3	178.55	185.66	
G2	30.79	12.1	24.12	37.93	58.9	79.37	84.3		97.44	31.19	61.97	117.91	154.22	175.52	181.6	
G3	32.68	14.35	20.12	36.43	56.97	78.94	82.51		104.55	39.65	49.79	111.77	148.13	170.44	176.52	
G4	33.81	16.04	17.01	34.56	54.24	77.58	80.73		116.72	54.86	38.65	106.87	142.05	165.38	171.46	
G5	36.43	19.37	13.1	33.06	51.9	74.91	78.94		122.8	65.01	27.5	99.51	135.97	162.33	0	
G6	39.79	22.04	4.98	31.54	49.56	71.76	76.83		127.87	76.16	9.25	93.4	129.88	155.24	159.3	
G7	44.11	27.87	4.98	28.14	46.45	69.08	73.48		133.94	87.3	10.26	84.26	123.8	153.21	155.24	
G8	46.31	30.79	12.85	24.79	43.72	65.05	71.23		141.05	99.48	28.34	75.15	121.79	150.16	153.21	
G9	48.52	32.36	16.25	21.04	41.77	62.81	68.23		147.13	106.58	37.63	59.93	117.73	142.05	151.19	
G10	49.99	34.15	20.34	17.34	39.06	61.47	64.5		152.19	115.69	49.79	47.77	112.66	136.99	147.13	
G11	52.54	36.43	23.7	14.72	34.77	58.34	62.25		159.3	125.83	66.01	35.61	107.58	134.97	144.08	
G12	55.61	38.18	27.87	5.36	31.64	55.65	60.13		163.35	135.97	84.26	13.3	101.51	129.88	140.02	
G13	60.24	40.9	30.12	4.23	28.93	53.86	57.45		172.47	145.1	96.44	11.27	90.36	121.79	133.94	
G14	63.33	43.54	31.92	14.01	26.59	52.06	54.75		177.55	151.19	107.58	39.38	74.12	111.65	125.83	
G15	66.41	45.79	35.04	18.45	23.62	49.38	52.97		180.58	156.25	114.69	54.86	57.9	104.55	115.69	
G16	68.98	50.72	37.29	19.95	19.79	46.7	50.27		183.63	157.27	119.76	70.05	46.75	98.47	108.61	
G17	71.25	53.04	39.97	23.29	15.51	45.34	48.04		184.63	159.3	123.8	79.19	35.7	91.37	101.51	
G18	72.72	57.65	43.11	27.44	4.61	42.22	45.34		186.66	161.32	127.87	89.33	14.85	85.29	92.37	
G19	77.12	61.79	48.4	30.87	6.11	37.88	43.11		187.66	163.35	133.94	99.48	14.85	74.12	88.33	
G20	77.83	64.61	51.61	36.72	16.59	34.15	40.22		189.71	167.08	140.02	112.66	38.15	62.97	85.29	
G21	81.41	66.83	55.2	39.45	21.45	30.54	37.5		192.75	170.97	146.11	119.76	46.75	54.86	76.16	
G22	85.37	70.11	58.79	43.72	24.29	26.95	34.93		196.8	176.8	150.16	123.8	55.88	42.7	70.08	
G23	87.73	72.73	62.81	47.15	30.12	21.62	32.68		202.88	178.74	154.22	131.91	67.04	36.61	66.01	
G24	89.12	74.61	65.05	49.38	34.61	9.97	30.54		204.91	183.63	157.27	134.97	82.25	16.35	61.97	

Profilo ST2 - Pistoia - San Mommè - Onde P

A

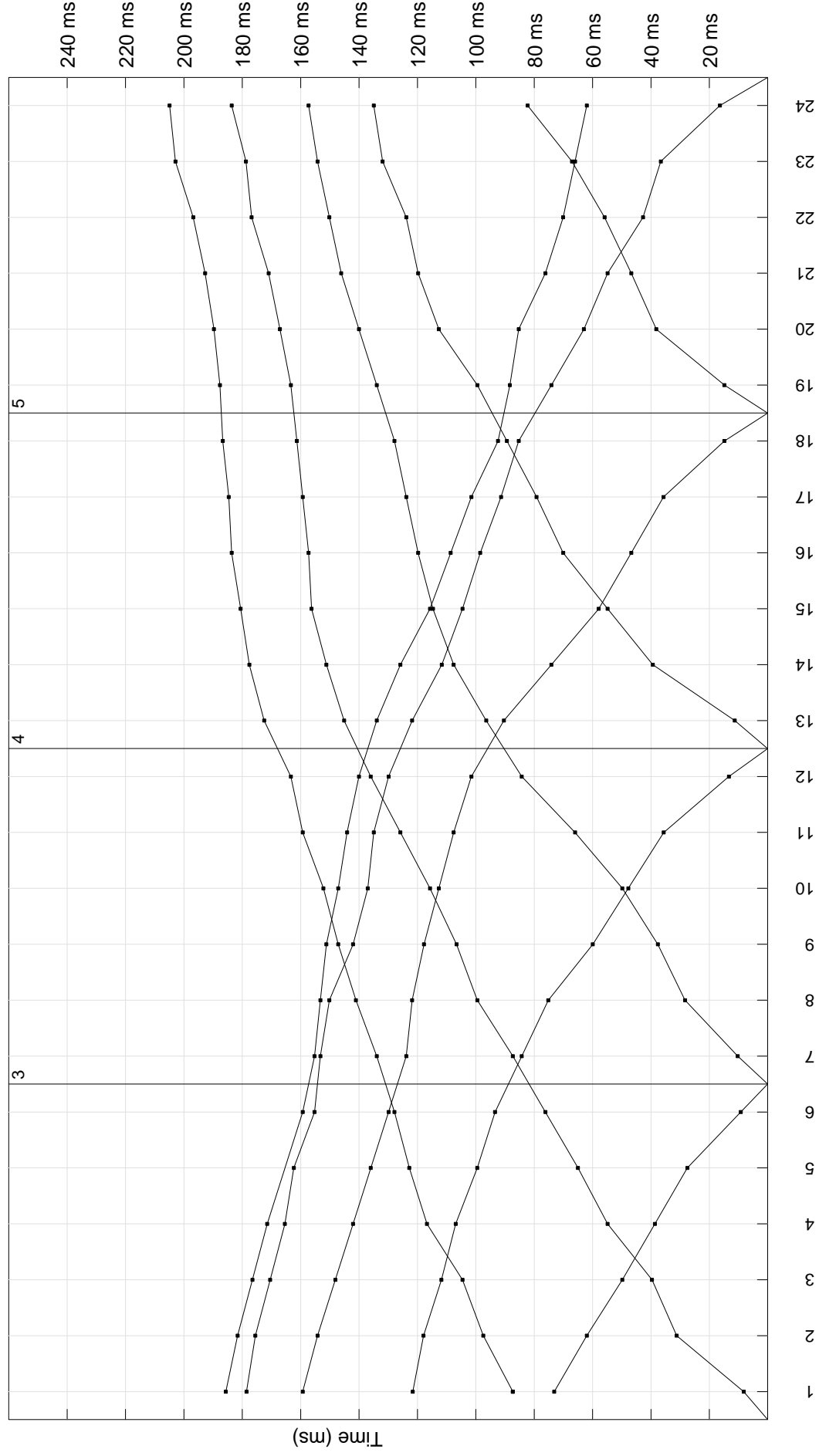
B



Profilo ST2 - Pistoia - San Mommè - Onde SH

A

B



**COMUNE DI PISTOIA
PROVINCIA DI PISTOIA**

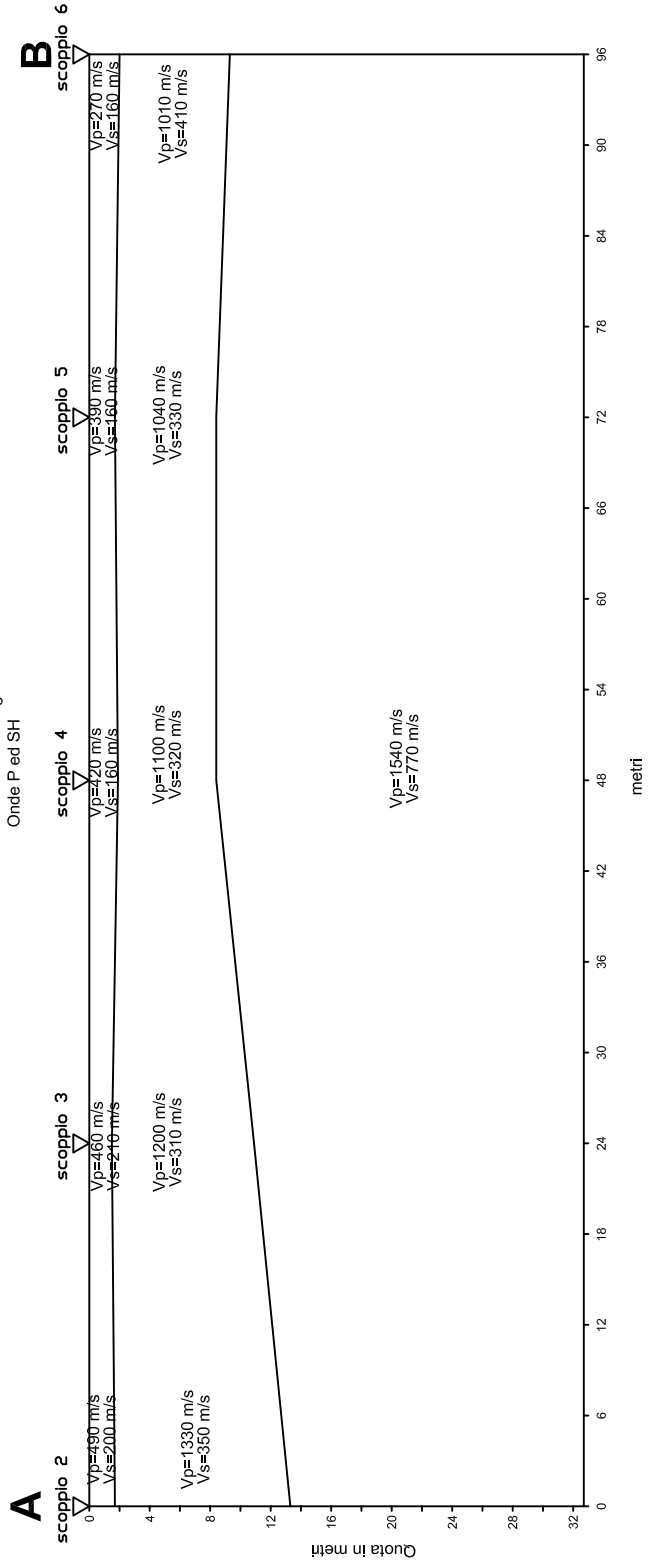
MICROZONAZIONE SISMICA LIVELLO 1

PROFILO ST2 – San Mommè

**Ricostruzione sismostratigrafica
Onde P ed SH**

scoppi	distanze (m)	Profondità 1° livello	Profondità 2° livello	Vp1 (m/sec)	Vp2 (m/sec)	Vp3 (m/sec)	Vs1 (m/sec)	Vs2 (m/sec)	Vs3 (m/sec)
2	0	1.7	13.3	490	1330	1540	200	350	770
3	24	1.5	10.9	460	1100	1540	210	310	770
4	48	1.9	8.4	420	1140	1540	160	320	770
5	72	1.7	8.4	370	1020	1540	160	330	770
6	96	2.0	9.3	270	1010	1540	160	410	770

Profilo ST2 - San Mommè
Comune di Pisisola
Ricostruzione sismostratigrafica
Onde P ed SH



SEZIONE LITOSTRATIGRAFICA INTERPRETATIVA

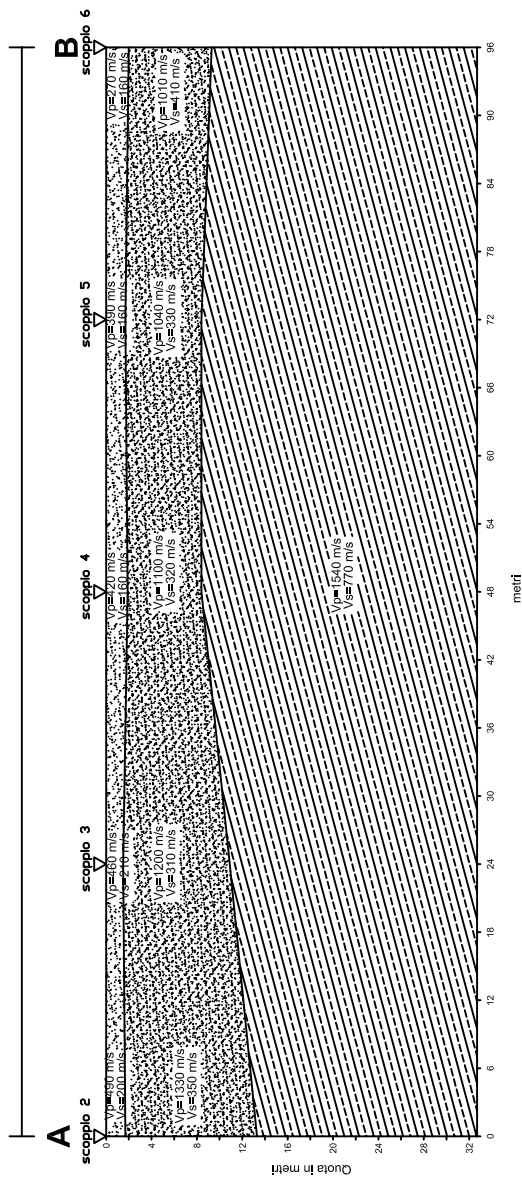
Base sismica: ST2
Committente: COMUNE DI PISTOIA
Località: San Mommè
Data: 26 aprile 2013

LEGENDA

Vp=1260 m/s Velocità sismica onde P in metri al secondo
Vs=420 m/s Velocità sismica onde SH in metri al secondo

- Terreno superficiale aerato
- Coltre detritica
- Arenarie Macigno

ST2



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

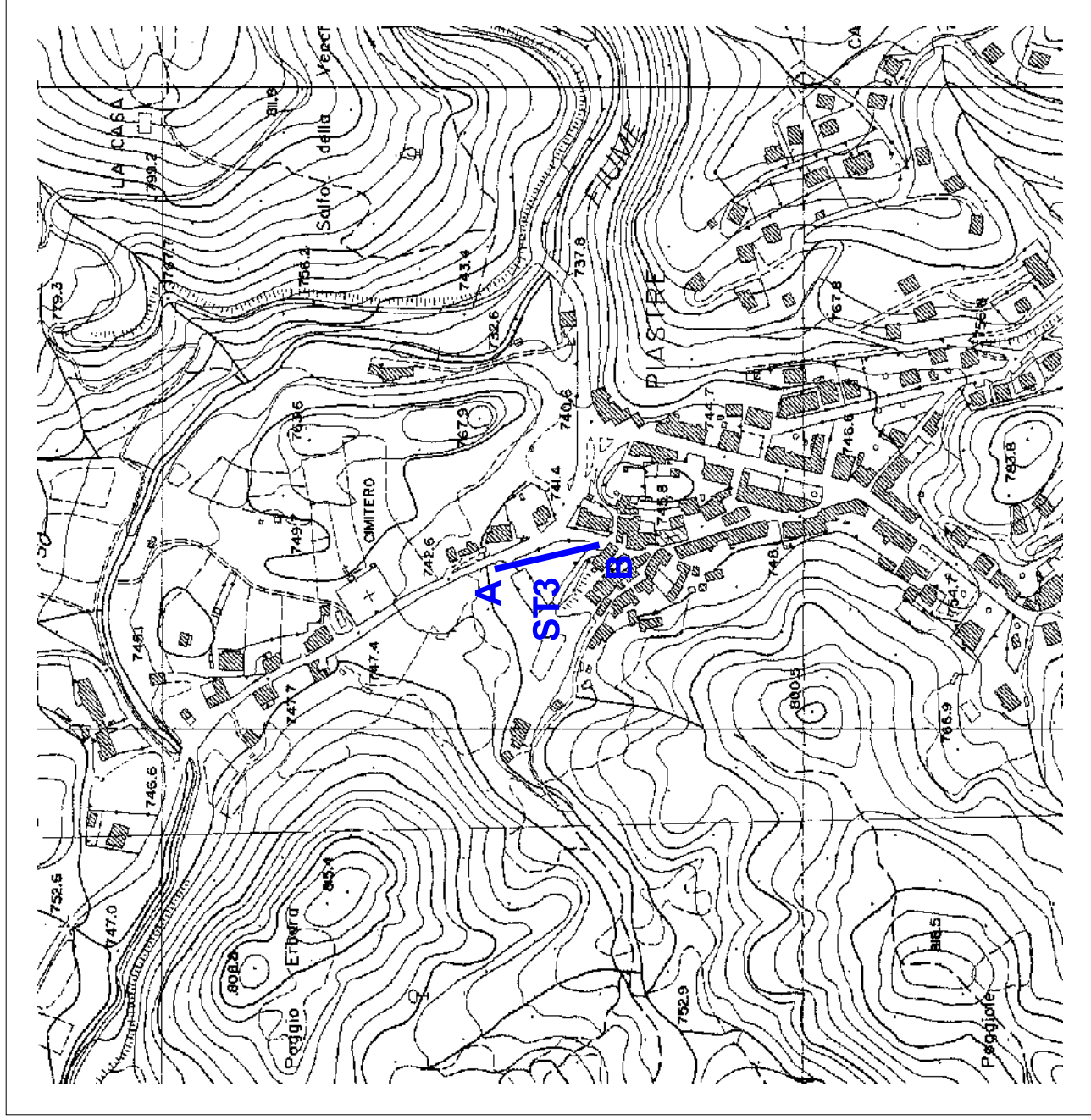
Committente: COMUNE DI PISTOIA
Località: Le Piastre
Data: 23 aprile 2013

PLANIMETRIA IN SCALA 1:5.000

LEGENDA

ST3

Linea sismica



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

Committente: COMUNE DI PISTOIA
Località: Le Piastre
Data: 23 aprile 2013

PLANIMETRIA IN SCALA 1:1.000

LEGENDA

ST3



Linea sismica (96 m)

X G1-G24

Posizione geofoni

● A

Tiro estremo sinistro

● B

Tiro estremo destro

● C

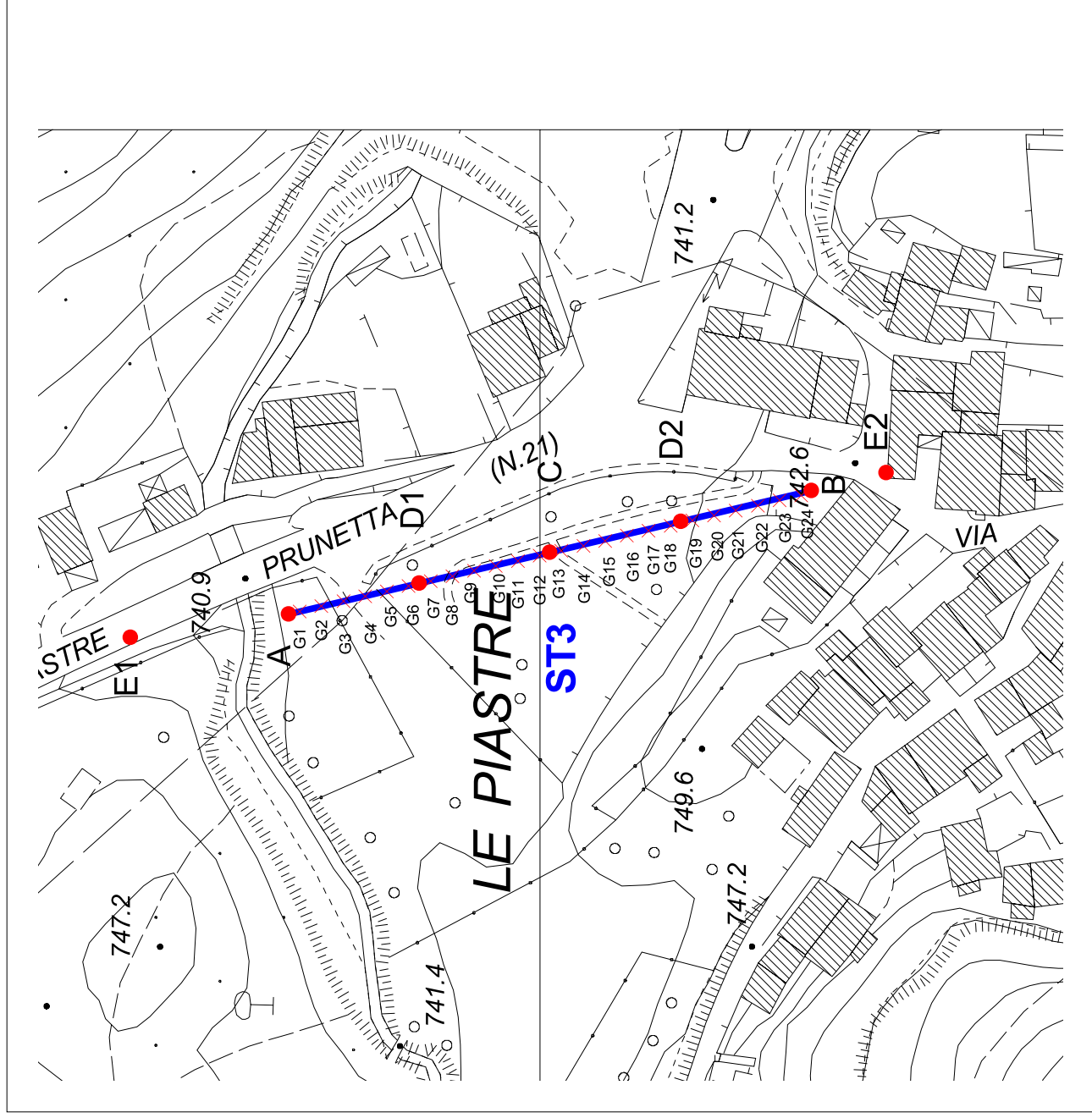
Tiro centrale

● D1-D2

Tiri intermedi

● E1-E2

Tiri esterni



LINEA SISMICA ST3

-SCHEMA DETTAGLIATO DELLA LINEA DI ACQUISIZIONE

Geofoni n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dist. Progressiva (m)	1.75	5.25	8.75	12.25	15.75	19.25	22.75	26.25	29.75	33.25	36.75	40.25	43.75	47.25	50.75	54.25	57.75	61.25	64.75	68.25	71.75	75.25	78.75	82.25
Dist. Parziale (m)	1.75	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	1.75
Quota (m s.l.m.)	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.5	741.7	742.0	742.0	742.3	742.3	742.3	742.5

COORDINATE GAUSS BOAGA DI G1 E G24

	GEOFONO N.1 (G1)	GEOFONO N.24 (G24)
X(m)	1647124.64	1647143.22
Y(m)	4874237.49	4874159.17

PUNTI DI ENERGIZZAZIONE

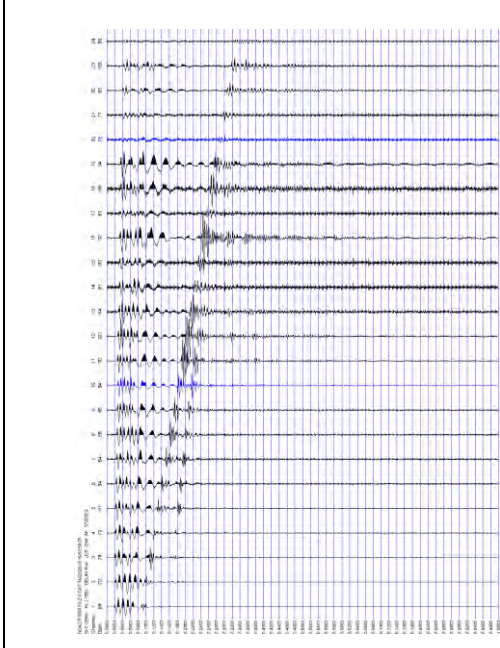
	E1	A	D1	C	D2	B	E2
esterno sx	15.dat	estremo sx	intermedio sx	centrale	intermedio dx	estremo dx	esterno dx
Onde P	15.dat	16.dat	17.dat	18.dat	19.dat	20.dat	21.dat
Onde SH	14.dat	2.dat	4.dat	6.dat	8.dat	10.dat	12.dat
Posiz. dal Geof.n.1 (m)	-26.75	-1.75	19.25	40.25	61.25	82.25	104
Quota (m)	740.9	741.0	741.0	741.0	741.7	742.5	742.6

COMUNE DI PISTOIA

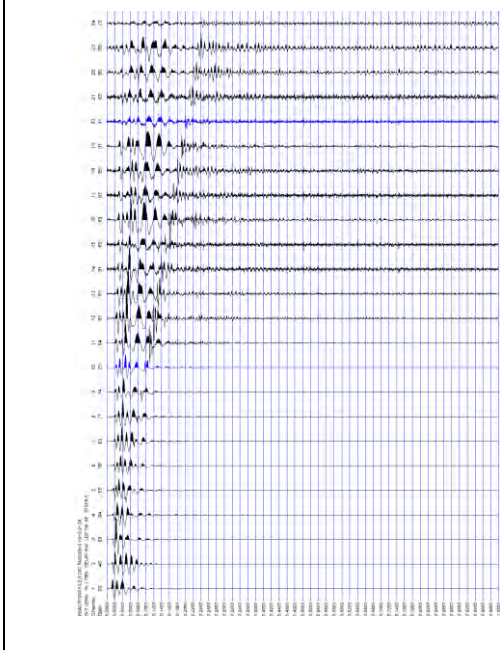
LINEA SISMICA ST3

ONDE P - REGISTRAZIONI DI CAMPAGNA

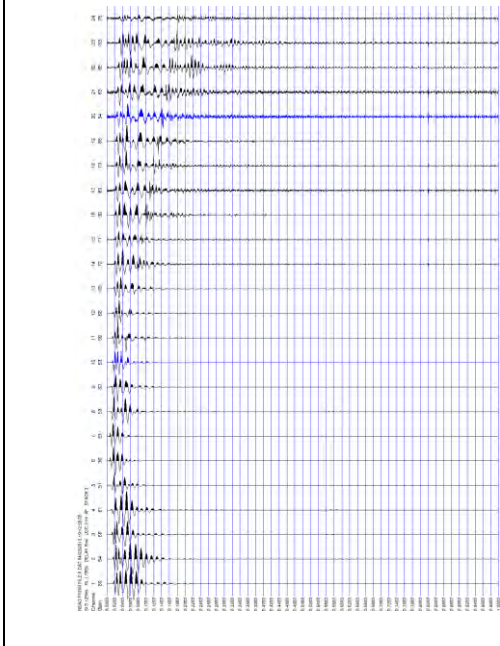
E1 - SCOPPIO ESTERNO SX - STACK 4



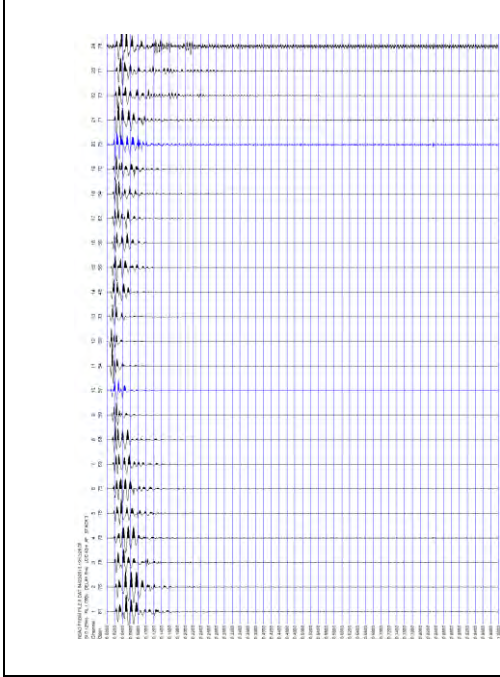
A - SCOPPIO ESTREMO SX - STACK 6



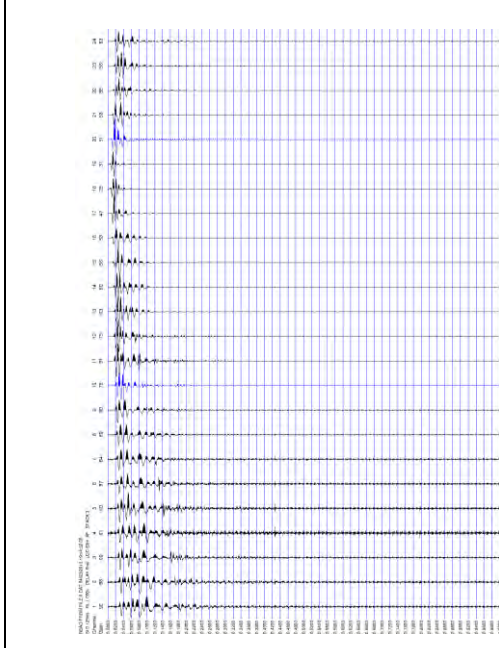
D1 - SCOPPIO INTERMEDIO SX - STACK 3



C - SCOPPIO CENTRALE - STACK 3



D2 - SCOPPIO INTERMEDIO DX - STACK 3



B - SCOPPIO ESTREMO DX - STACK 4



E2 - SCOPPIO ESTERNO DX - STACK 6

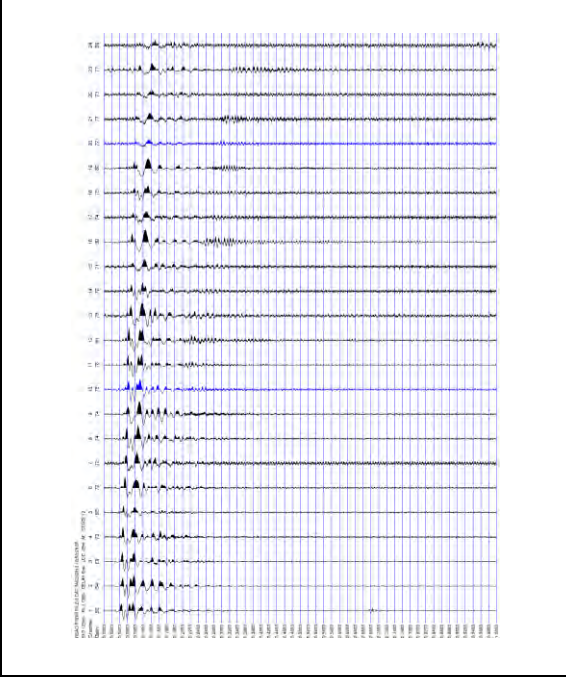


COMUNE DI PISTOIA

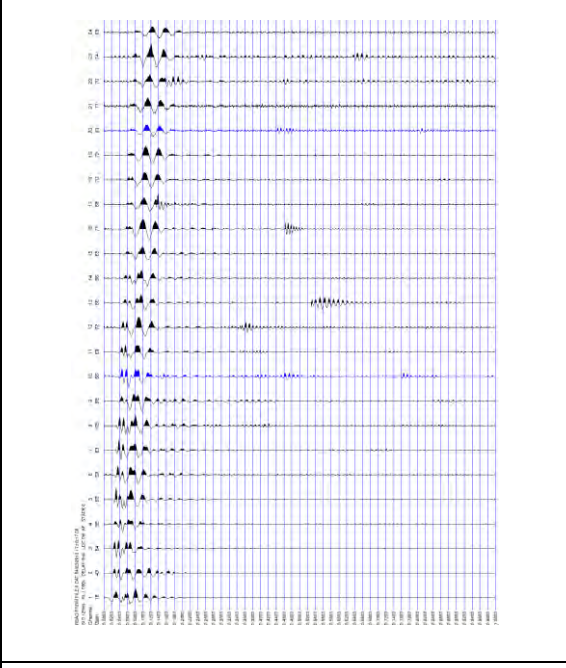
LINEA SISMICA ST3

ONDE SH - REGISTRAZIONI DI CAMPAGNA

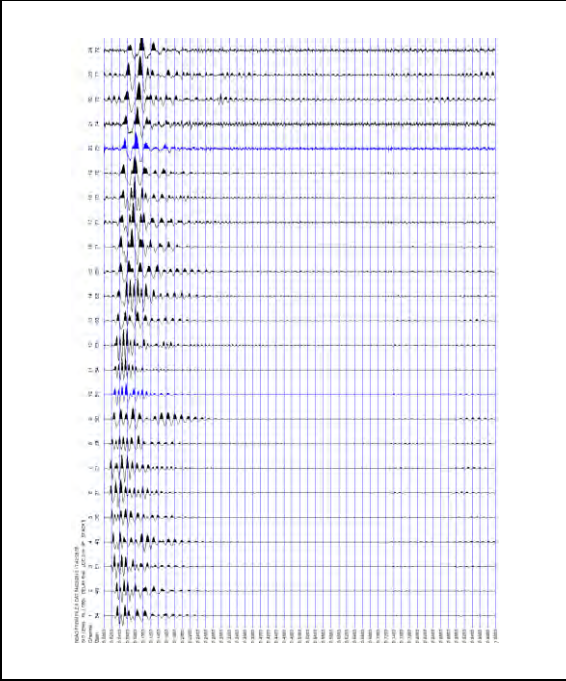
E1 - SCOPPIO ESTERNO SX - STACK 10



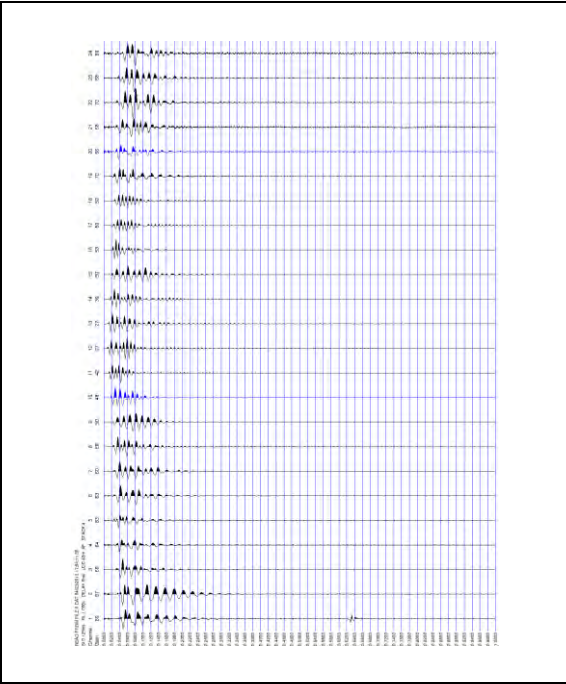
A - SCOPPIO ESTREMO SX - STACK 6



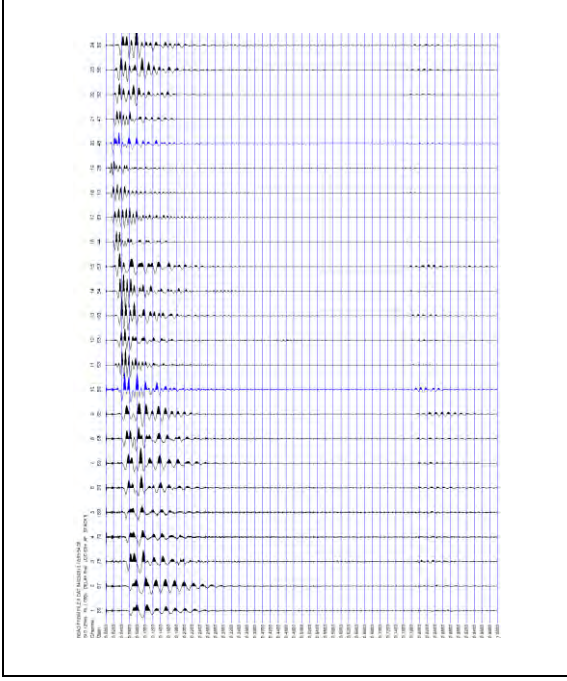
D1 - SCOPPIO INTERMEDIO SX - STACK 6



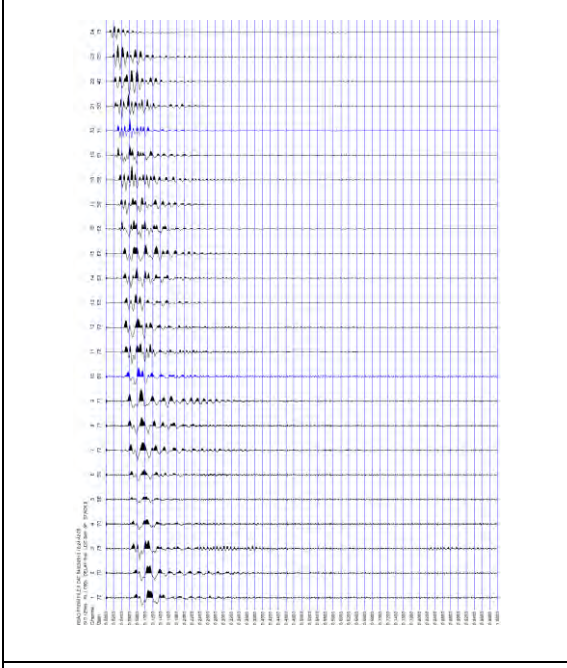
C - SCOPPIO CENTRALE - STACK 4



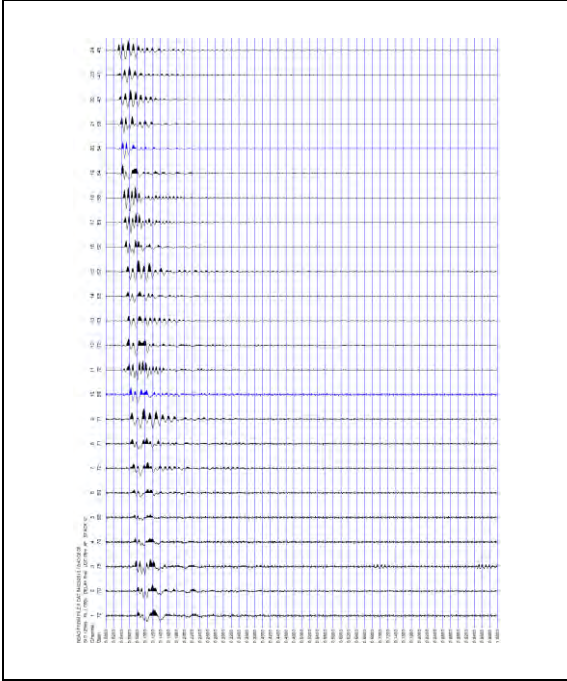
D2 - SCOPPIO INTERMEDIO DX - STACK 4



B - SCOPPIO ESTREMO DX - STACK 7



E2 - SCOPPIO ESTERNO DX - STACK 8



LINEA SISMICA ST3

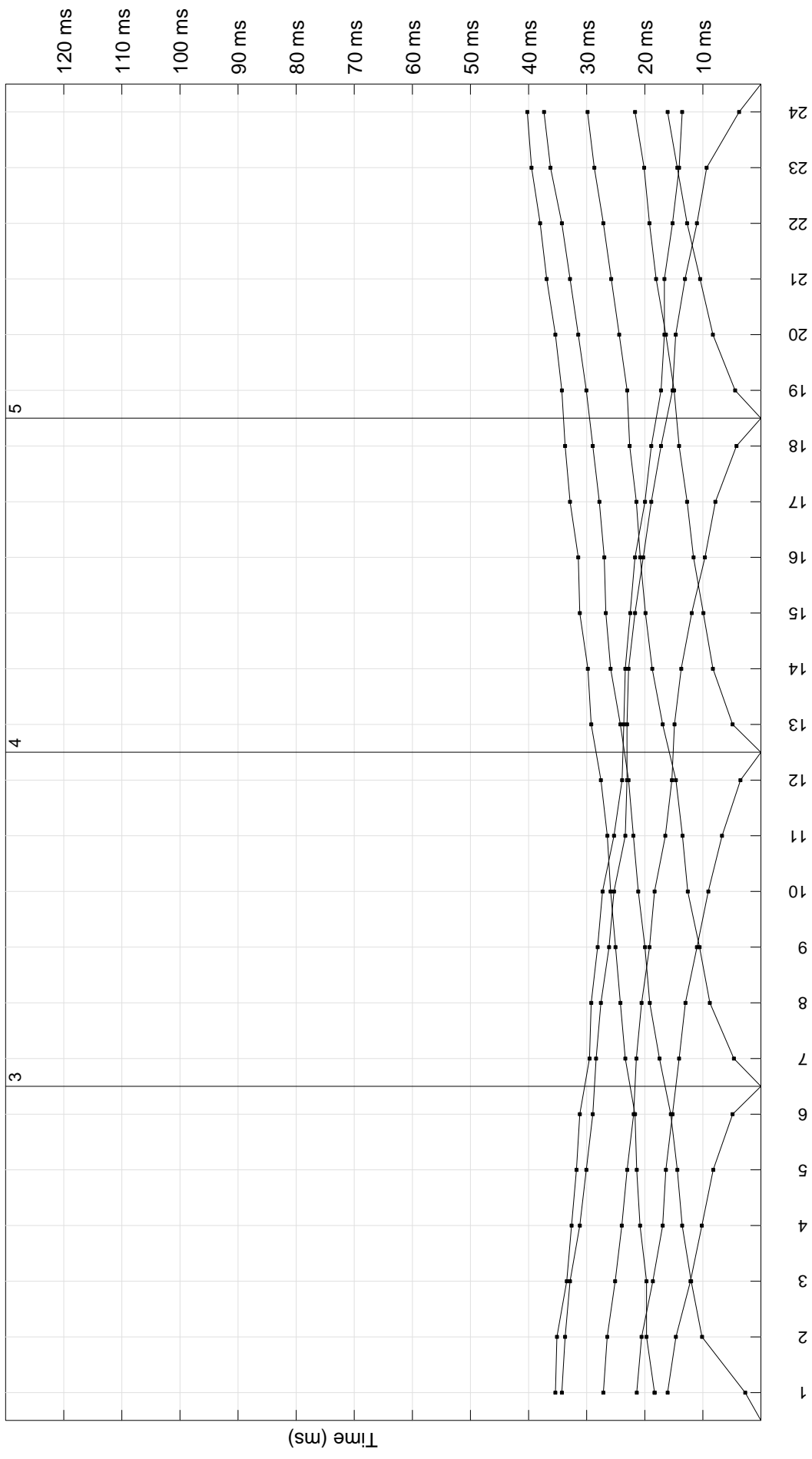
TEMPI DI PROPAGAZIONE DELLE ONDE P ED SH

ONDE P												ONDE SH				
	E1	A	D1	C	D2	B	E2		E1	A	D1	C	D2	B	E2	
G1	18.29	2.72	16.05	21.37	27.12	34.27	35.38		40.29	8.26	24.04	39.72	58.47	72.97	78.26	
G2	19.7	10.14	14.64	20.54	26.45	33.7	35.11		42.59	21.75	21.75	37.2	56.34	70.15	76.51	
G3	19.7	12.01	12.14	18.6	25.09	32.86	33.43		43.38	24.53	18.63	34.49	53.52	67.3	73.33	
G4	20.8	13.56	10.18	16.92	23.95	31.19	32.59		45.38	25.2	15.68	32.56	50.34	64.48	71.19	
G5	21.37	14.39	8.22	16.36	23.04	30.04	31.75		47.15	28.77	12.5	29.86	47.86	62	68.73	
G6	21.67	15.52	4.88	15.22	21.89	28.95	31.19		49.99	32.65	7.07	27.13	46.45	60.95	67.66	
G7	23.35	17.45	4.65	14.1	21.45	28.37	29.51		53.15	36.2	6.3	24.45	45.74	58.83	66.26	
G8	24.19	19.13	8.8	13	20.54	27.54	29.2		55.29	37.61	17.5	20.95	43.27	56.34	64.12	
G9	25.03	19.96	10.56	11.02	19.19	26.12	28.11		56.7	40.79	21.36	18.27	40.79	54.93	61.65	
G10	25.87	21.11	12.6	9.06	18.29	25.29	27.27		58.47	42.9	24.45	15.18	37.25	52.45	59.88	
G11	26.43	21.95	13.51	6.71	16.45	23.35	25.29		58.47	43.27	27	11.8	34.77	49.27	55.65	
G12	27.54	22.79	14.64	3.51	15.31	23.04	23.88		60.59	45.38	29.79	5.92	32.31	47.15	54.22	
G13	29.2	24.19	16.92	4.88	14.88	23.04	23.62		64.83	49.99	32.65	6.3	31.6	46.09	53.52	
G14	29.79	25.87	18.71	8.27	13.72	22.79	23.35		66.94	51.4	34.77	14.8	28.77	43.61	51.75	
G15	31.19	26.7	19.87	9.92	11.93	21.67	22.51		67.66	55.29	37.95	18.63	25.59	42.9	50.7	
G16	31.45	26.96	20.78	11.6	9.64	20.27	21.67		68.73	56.34	38.65	20.59	20.95	39.02	48.22	
G17	32.86	27.8	21.45	12.72	7.84	18.87	19.96		70.5	59.18	42.9	23.79	16.75	36.54	46.45	
G18	33.7	28.95	22.59	14.1	4.21	17.2	18.87		72.97	61.29	45.74	24.87	7.07	33	43.97	
G19	34.27	30.04	23.04	14.96	4.44	15.22	17.2		74.37	63.77	47.15	25.94	4.36	30.18	40.43	
G20	35.38	31.45	24.39	16.36	8.27	14.68	16.62		76.87	65.9	49.99	29.12	16.04	28.77	40.09	
G21	36.88	32.86	25.77	18.04	10.47	13.06	16.62		79.69	68.37	52.11	31.25	20.28	25.2	36.54	
G22	38	34.27	27.12	19.19	12.72	11.02	15.22		82.51	71.55	53.88	33.34	25.94	20.59	33	
G23	39.49	36.22	28.67	20.1	14.39	9.35	14.1		85.83	73.68	57.4	35.27	29.79	16.04	31.6	
G24	40.22	37.34	29.85	21.68	16.05	3.75	13.56		87.4	75.44	58.83	37.2	33.36	6.84	28.77	

Profilo ST3 - Pistoia - Le Piastre - Onde P

A

B



**COMUNE DI PISTOIA
PROVINCIA DI PISTOIA**

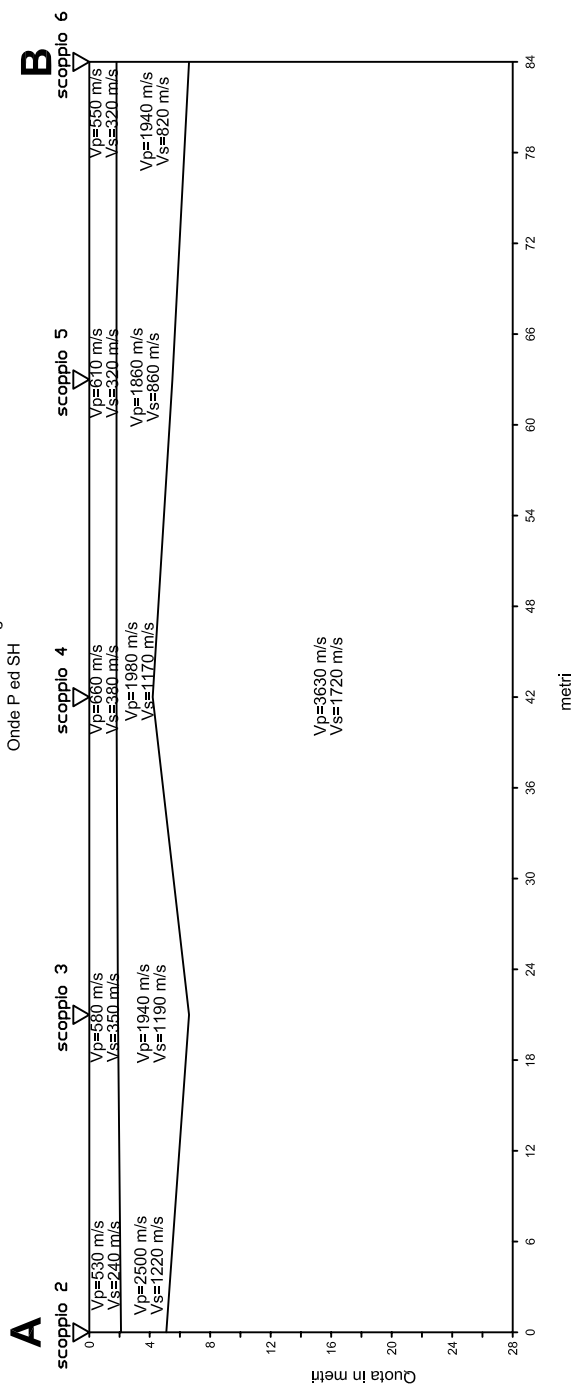
MICROZONAZIONE SISMICA LIVELLO 1

PROFILO ST3 – Le Piastre

**Ricostruzione sismostratigrafica
Onde P ed SH**

scoppi	distanze (m)	Profondità 1° livello	Profondità 2° livello	Vp1 (m/sec)	Vp2 (m/sec)	Vp3 (m/sec)	Vs1 (m/sec)	Vs2 (m/sec)	Vs3 (m/sec)
2	0	2.1	5.1	530	2550	3630	240	1220	1720
3	21	1.9	6.6	580	1940	3630	350	1190	1720
4	42	1.8	4.2	660	1980	3630	380	1170	1720
5	63	1.8	5.5	610	1860	3630	320	860	1720
6	84	1.8	6.2	550	1940	3630	320	820	1720

Profilo ST3 - Le Piastre
 Comune di Pistoia
 Ricostruzione sismostratigrafica
 Onde P ed SH



SEZIONE LITOSTRATIGRAFICA INTERPRETATIVA

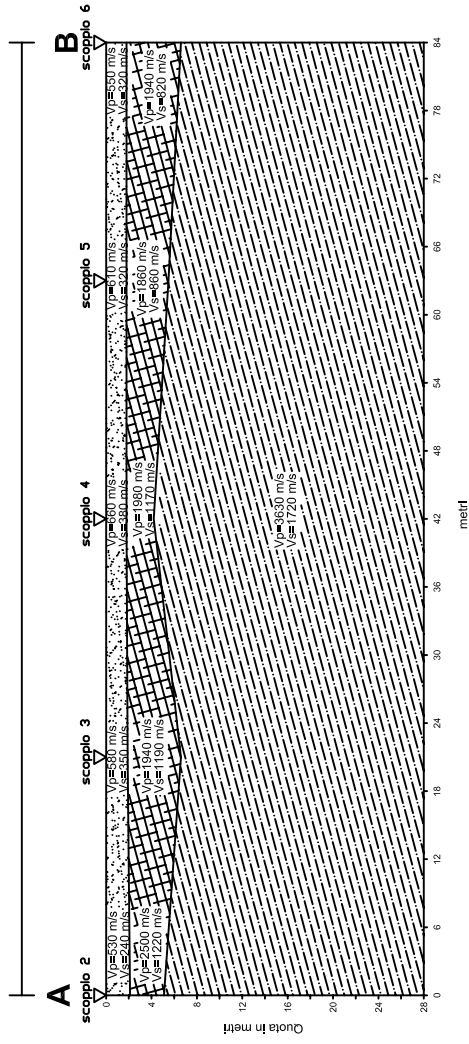
Base sismica: ST3
Committente: COMUNE DI PISTOIA
Località: Le Piastre
Data: 23 aprile 2013

LEGENDA

Vp=1260 m/s Velocità sismica onde P in metri al secondo
Vs=420 m/s Velocità sismica onde SH in metri al secondo

- Depositi alluvionali e/o rimaneggiati
- Marne di Marmoreto (livello alterato/fratturato)
- Marne di Marmoreto

ST3



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

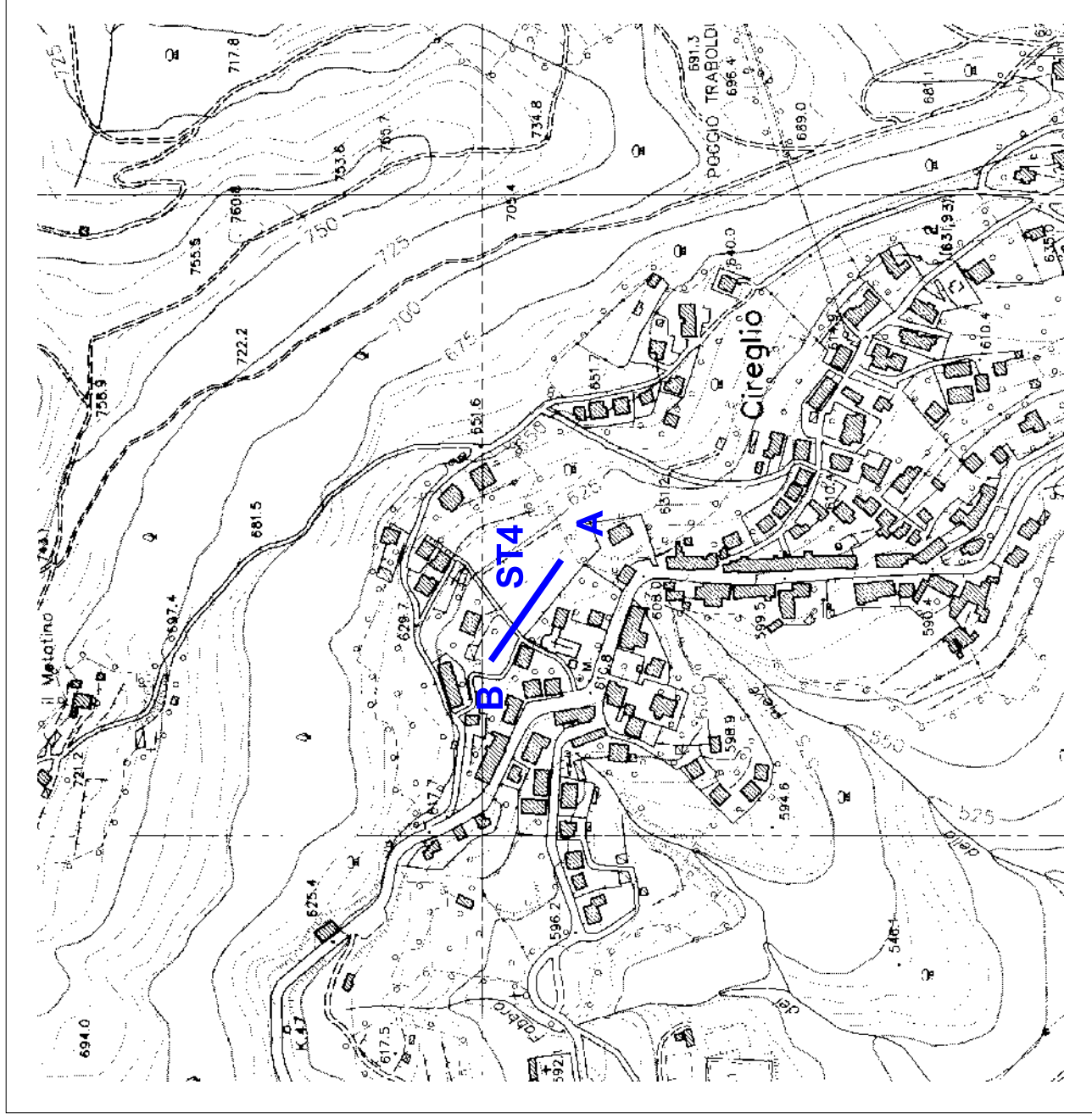
Committente: COMUNE DI PISTOIA
Località: Cireglio
Data: 18 aprile 2013

PLANIMETRIA IN SCALA 1:5.000

LEGENDA

ST4

Linea sismica



COMUNE DI PISTOIA
 PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSEZIONI SISMICHE A RIFRAZIONE
 CON ONDE P ED ONDE SH

Committente: COMUNE DI PISTOIA
 Località: Cireglio
 Data: 18 aprile 2013

PLANIMETRIA IN SCALA 1:1.000

LEGENDA

ST4



Linea sismica (96 m)

X G1-G24

Posizione geofoni

● A

Tiro estremo sinistro

● B

Tiro estremo destro

● C

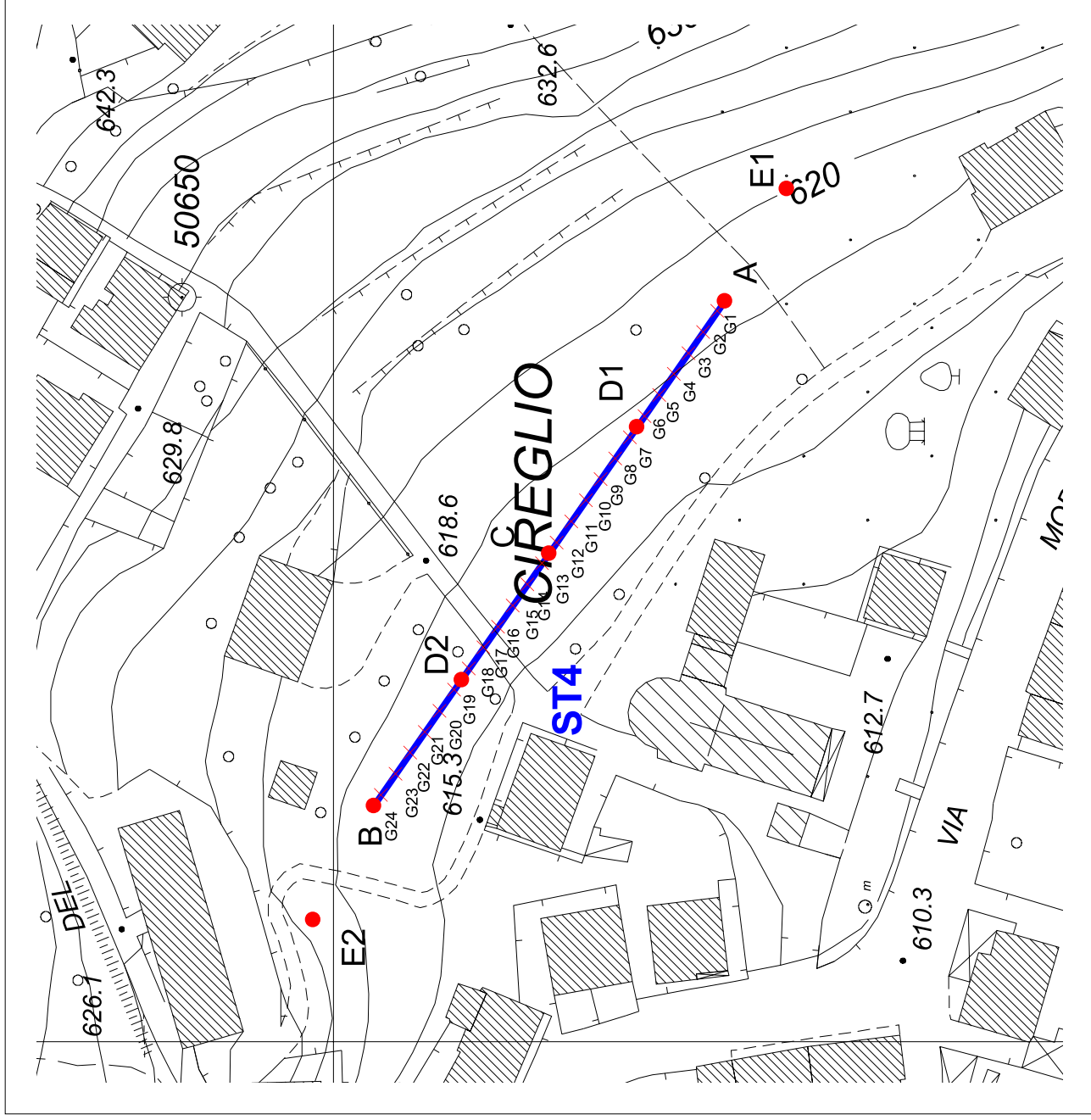
Tiro centrale

● D1-D2

Tiri intermedi

● E1-E2

Tiri esterni



LINEA SISMICA ST4

-SCHEMA DETTAGLIATO DELLA LINEA DI ACQUISIZIONE

Geofoni n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dist. Progressiva (m)	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74	78	82	86	90	94
Dist. Parziale (m)	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2
Quota (m s.l.m.)	618.3	618.2	618.1	618.0	617.7	617.5	617.3	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.3	617.5

COORDINATE GAUSS BOAGA DI G1 E G24

	GEOFONO N.1 (G1)	GEOFONO N.24 (G24)
X(m)	1648714.00	1648638.46
Y(m)	4872940.02	4872992.53

PUNTI DI ENERGIZZAZIONE

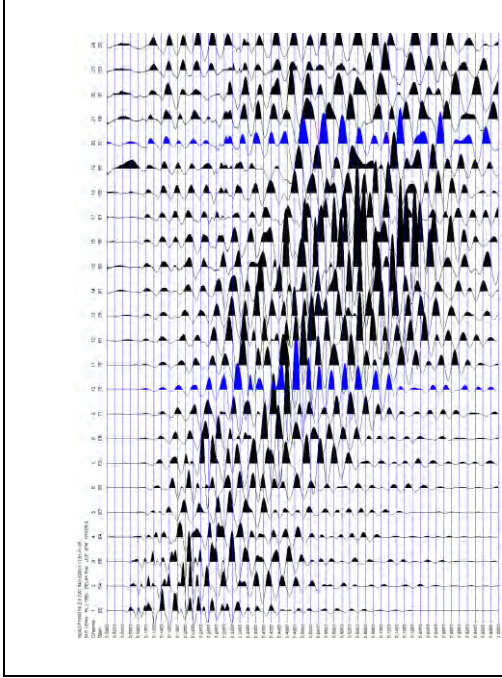
	E1	A	D1	C	D2	B	E2
	esterno sx	estremo sx	intermedio sx	centrale	intermedio dx	estremo dx	esterno dx
Onde P	21.dat	20.dat	19.dat	18.dat	17.dat	16.dat	15.dat
Onde SH	4.dat	2.dat	6.dat	8.dat	10.dat	12.dat	14.dat
Posiz. dal Geof.n.1 (m)	-22	-2	22	46	70	94	114
Quota (m)	620.0	618.3	617.5	617.0	617.0	617.5	619.7

COMUNE DI PISTOIA

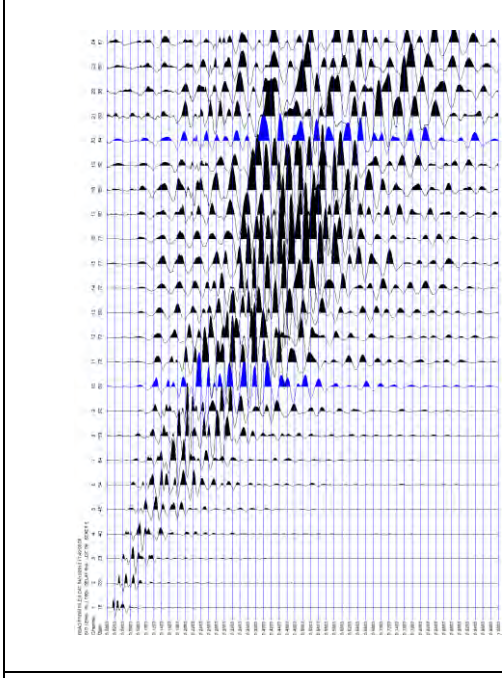
LINEA SISMICA ST4

ONDE P - REGISTRAZIONI DI CAMPAGNA

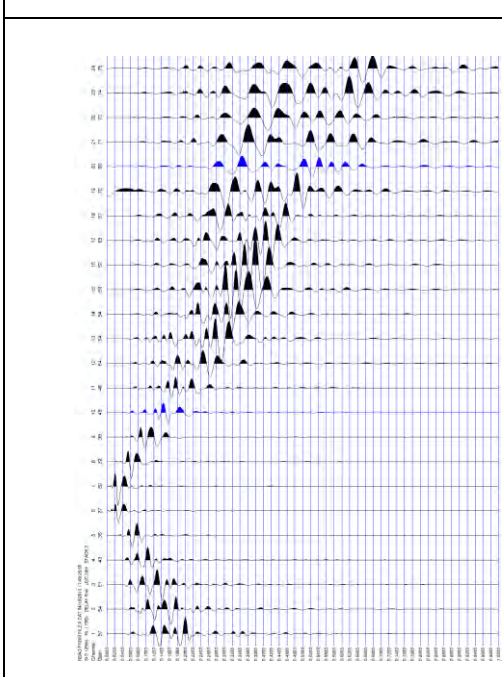
E1 - SCOPPIO ESTERNO SX - STACK 4



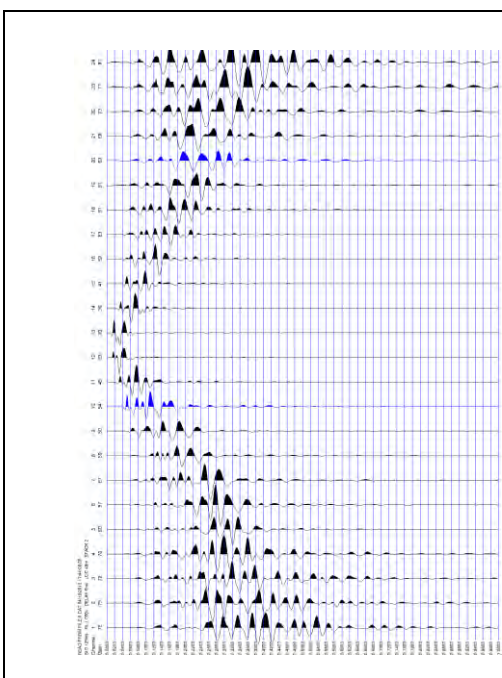
A - SCOPPIO ESTREMO SX - STACK 5



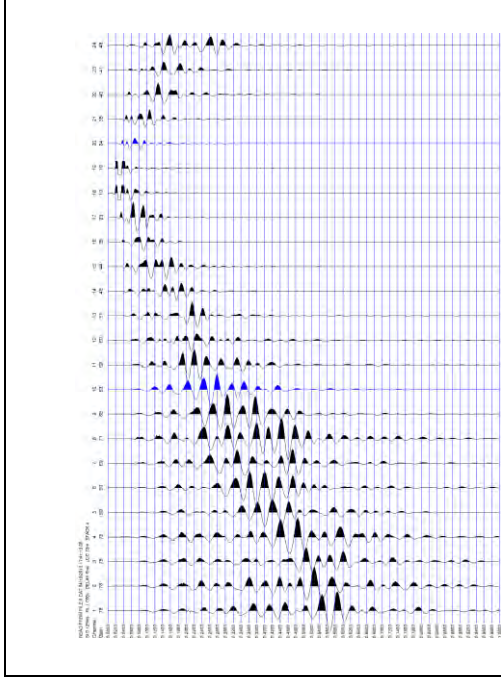
D1 - SCOPPIO INTERMEDIO SX - STACK 3



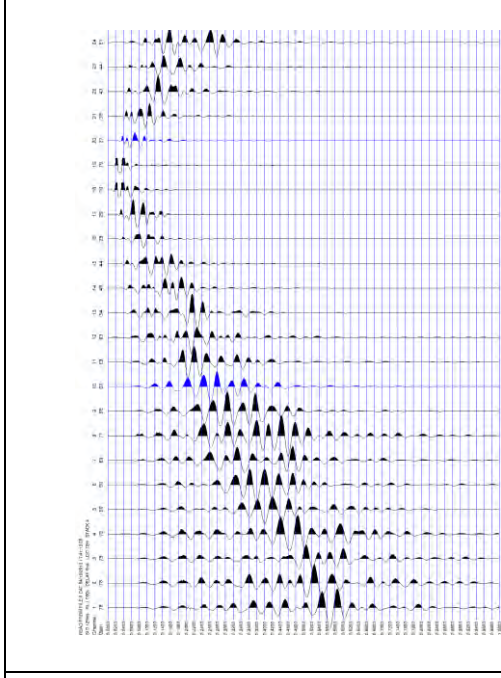
C - SCOPPIO CENTRALE - STACK 2



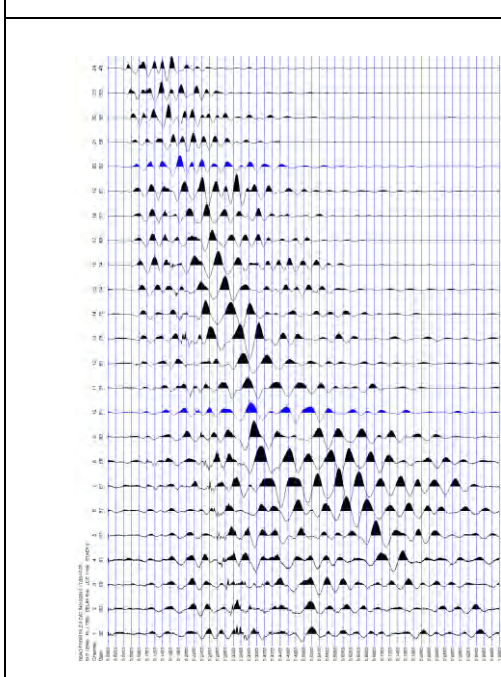
D2 - SCOPPIO INTERMEDIO DX - STACK 4



B - SCOPPIO ESTREMO DX - STACK 4



E2 - SCOPPIO ESTERNO DX - STACK 9

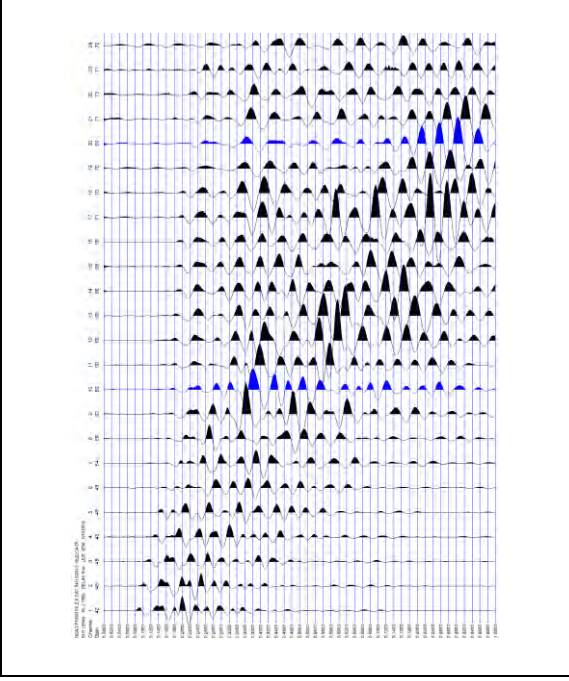


COMUNE DI PISTOIA

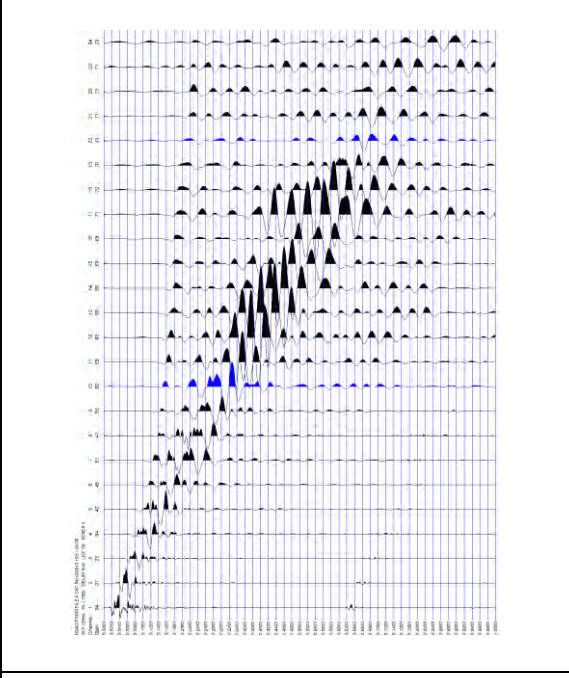
LINEA SISMICA ST4

ONDE SH - REGISTRAZIONI DI CAMPAGNA

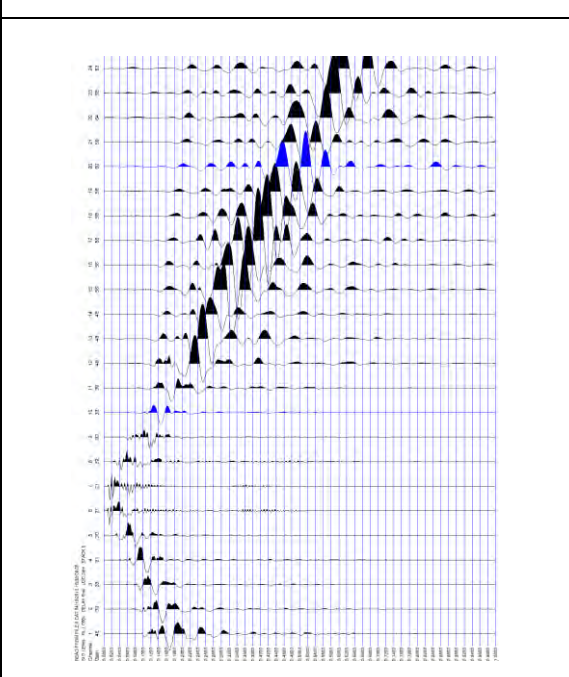
E1 - SCOPPIO ESTERNO SX - STACK 8



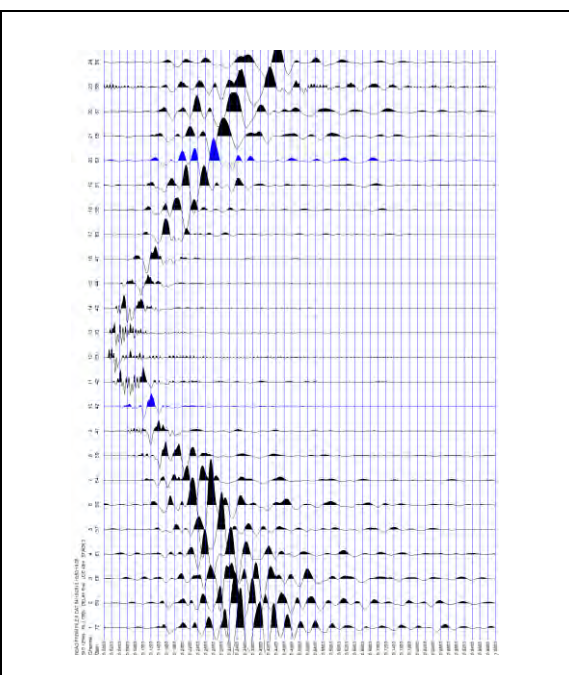
A - SCOPPIO ESTREMO SX - STACK 4



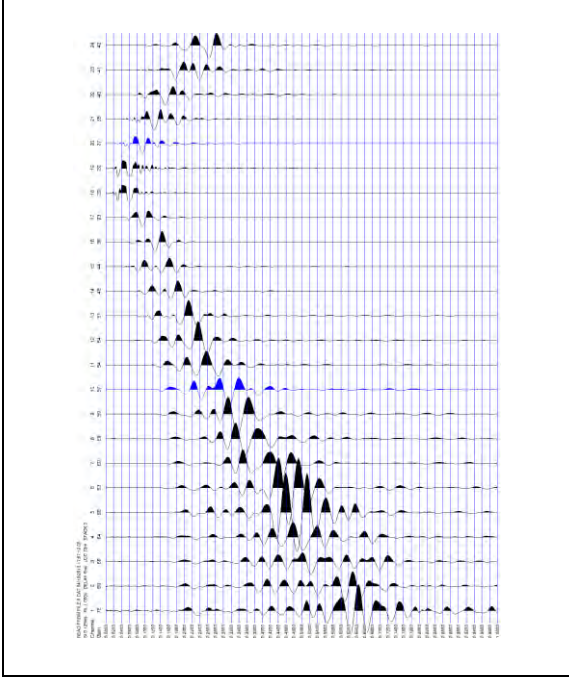
D1 - SCOPPIO INTERMEDIO SX - STACK 6



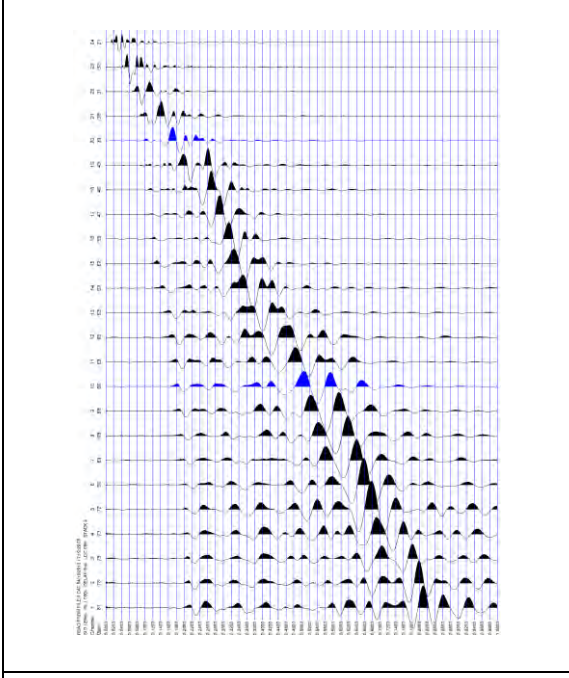
C - SCOPPIO CENTRALE - STACK 3



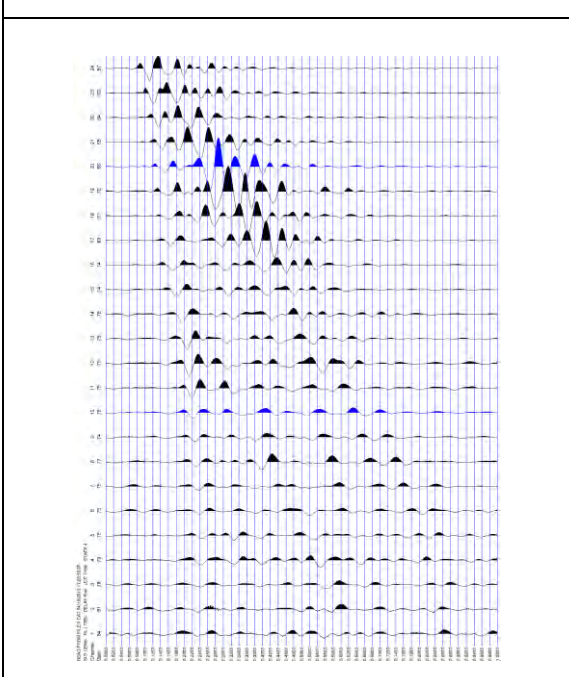
D2 - SCOPPIO INTERMEDIO DX - STACK 3



B - SCOPPIO ESTREMO DX - STACK 4



E2 - SCOPPIO ESTERNO DX - STACK 4

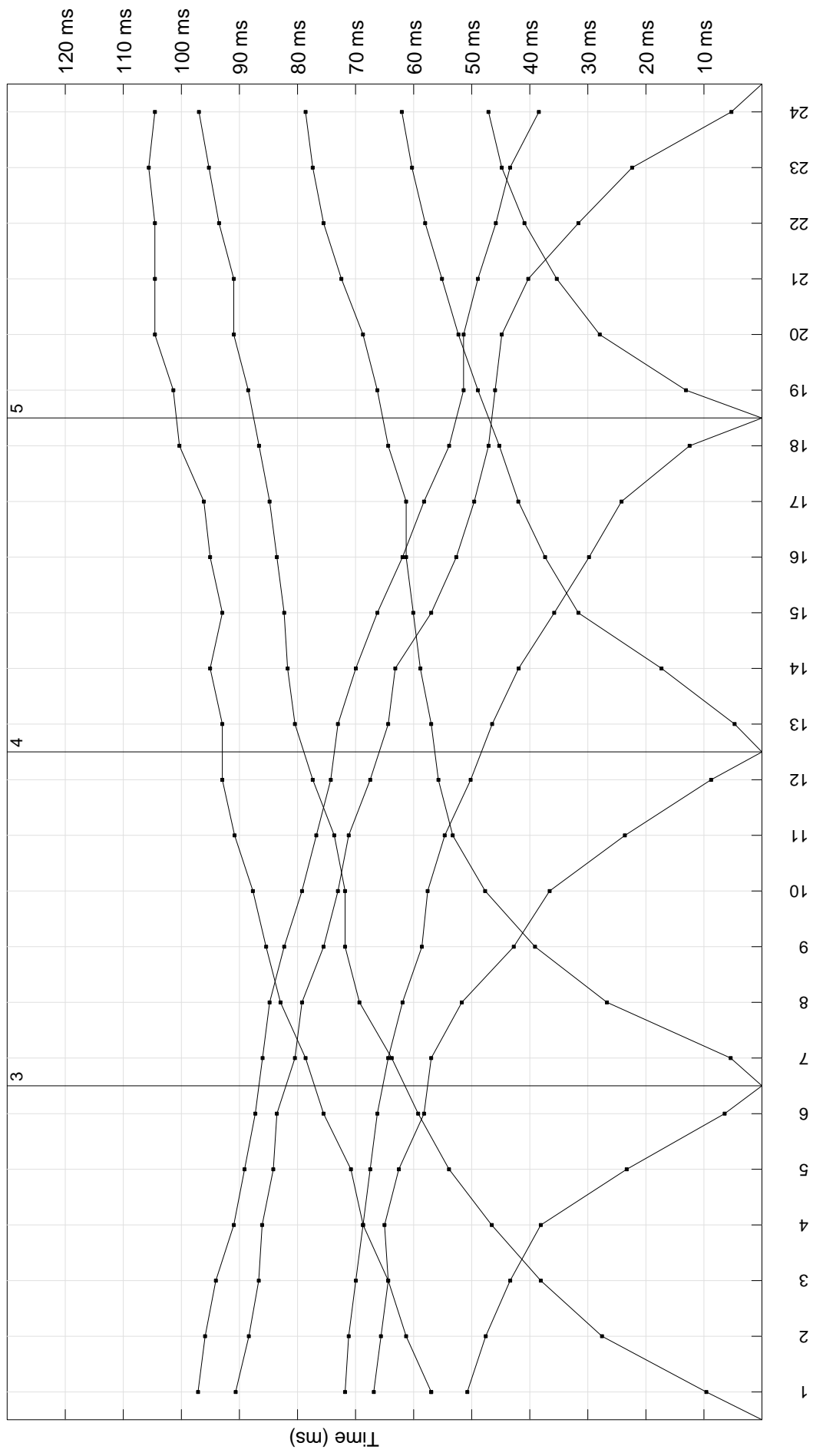


LINEA SISMICA ST4**TEMPI DI PROPAGAZIONE DELLE ONDE P ED SH**

ONDE P												ONDE SH											
	E1	A	D1	C	D2	B	E2		E1	A	D1	C	D2	B	E2								
G1	56.97	9.6	50.75	66.86	71.8	90.66	97.12		83.61	15.93	98.8	158.35	171	204.77	230.99								
G2	61.29	27.54	47.59	65.62	71.19	88.37	95.91		95.26	38.09	89.79	155.19	167.85	202.66	229.16								
G3	64.37	38.09	43.36	64.37	69.94	86.66	94.05		106.91	52.86	83.41	150.97	164.66	197.38	226.46								
G4	68.69	46.54	38.09	65.01	68.72	86.08	90.97		119.3	68.69	68.01	146.75	161.52	194.77	226.91								
G5	70.8	53.9	23.29	62.54	67.48	84.16	89.11		135.13	86.12	35.99	142.52	158.35	193.86	225.33								
G6	75.51	59.2	6.44	58.2	66.25	83.55	87.26		144.63	99.69	7.51	135.13	157.3	189.33	223.38								
G7	78.61	63.77	5.4	56.97	64.37	80.44	86.01		152.02	114.19	10.67	127.76	152.02	183	219.52								
G8	82.93	69.33	26.7	51.7	61.9	79.22	84.79		158.35	123.25	33.61	113.29	144.63	177.57	215.63								
G9	85.4	71.8	39.09	42.75	58.58	75.51	82.3		161.52	130.49	63.5	106.94	138.3	171.22	211.75								
G10	87.68	71.8	47.68	36.58	57.59	73.04	79.22		164.66	137.74	83.41	93.37	129.86	165.8	205.91								
G11	90.83	73.66	53.27	23.61	54.63	71.19	76.75		169.96	143.16	99.69	57.15	123.54	160.46	203.97								
G12	92.94	77.37	55.74	8.77	50.18	67.48	74.26		171	147.8	115.08	17	116.16	149.5	200.1								
G13	92.94	80.44	56.97	4.71	46.47	64.37	73.04		174.16	152.02	122.48	18.04	108.76	143.16	190.38								
G14	95.05	81.69	58.83	17.29	41.9	63.15	69.94		177.33	158.35	127.76	65.3	96.08	135.02	182.61								
G15	92.94	82.3	60.06	31.62	35.79	56.97	66.25		180.5	161.52	133.02	82.51	74.36	121.43	168.88								
G16	95.05	83.55	61.29	37.36	29.79	52.65	61.9		183.66	166.77	137.25	98.8	62.36	112.98	159.41								
G17	96.12	84.79	61.29	41.95	24.2	49.56	58.2		187.88	171	142.52	114.05	45.47	106.66	152.02								
G18	100.33	86.62	64.37	45.24	12.47	47.09	53.88		192.11	177.33	150.97	121.43	11.72	103.5	148.86								
G19	101.37	88.48	66.25	48.93	13.1	45.97	51.4		197.38	180.5	157.3	131.97	17	98.23	144.63								
G20	104.55	90.97	68.72	52.27	27.93	44.81	51.4		204.77	188.94	164.66	141.47	45.47	91.9	135.13								
G21	104.55	90.97	72.43	55.11	35.34	40.24	48.93		210.02	197.38	174.16	153.08	73.94	84.3	127.76								
G22	104.55	93.51	75.51	58	40.9	31.62	45.84		211.1	204.77	181.55	160.46	88.83	67.62	122.48								
G23	105.61	95.25	77.37	60.29	44.81	22.37	43.38		215.32	207.91	186.83	167.61	97	49.9	110.87								
G24	104.55	96.97	78.61	62.02	47.11	5.28	38.43		215.32	208.99	192.11	174.86	102.44	12.8	102.44								

Profilo ST4 - Pistoia - Cireglio - Onde P

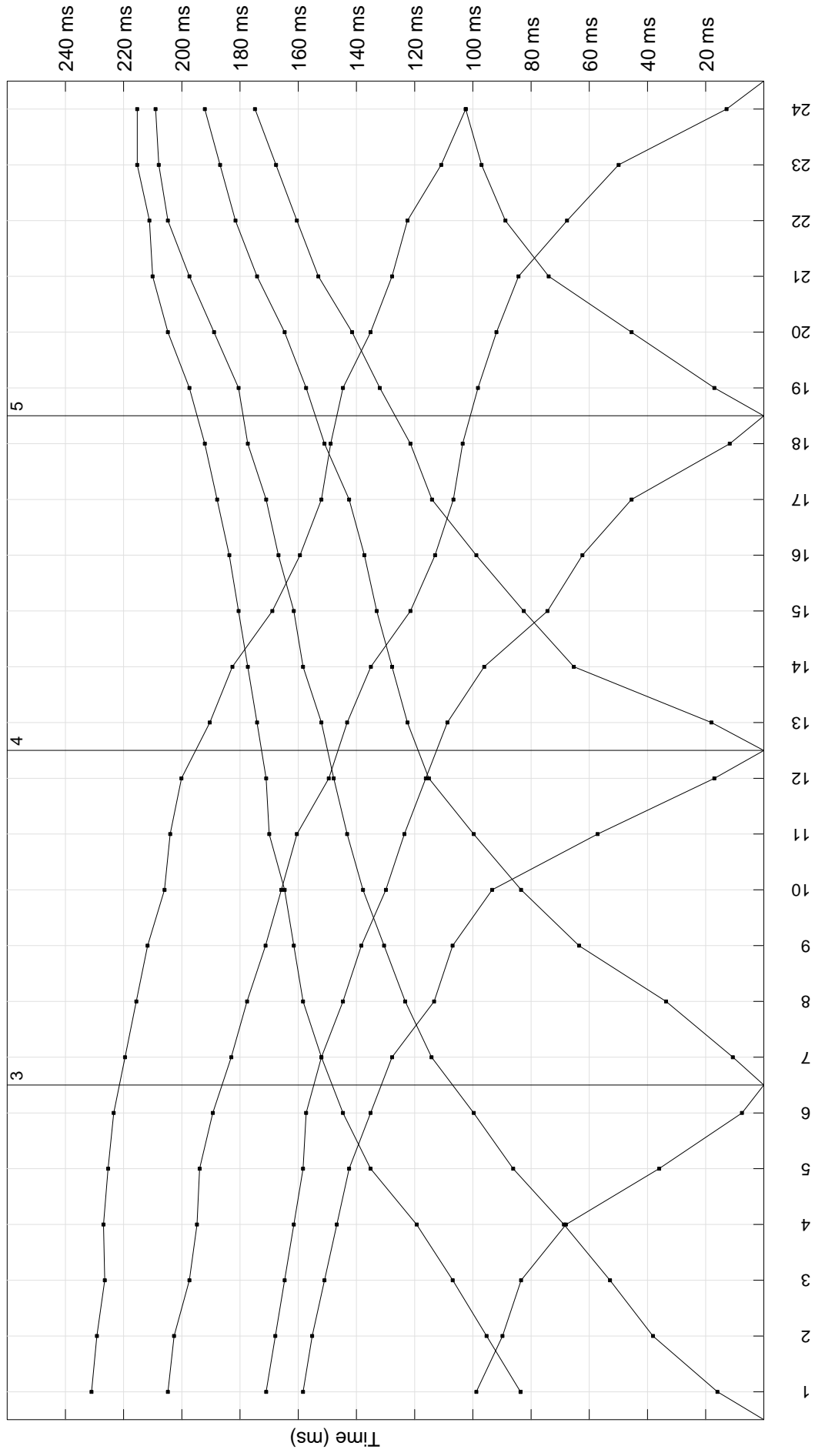
A



B

Profilo ST4 - Pistoia - Cireglio - Onde SH

A



B

**COMUNE DI PISTOIA
PROVINCIA DI PISTOIA**

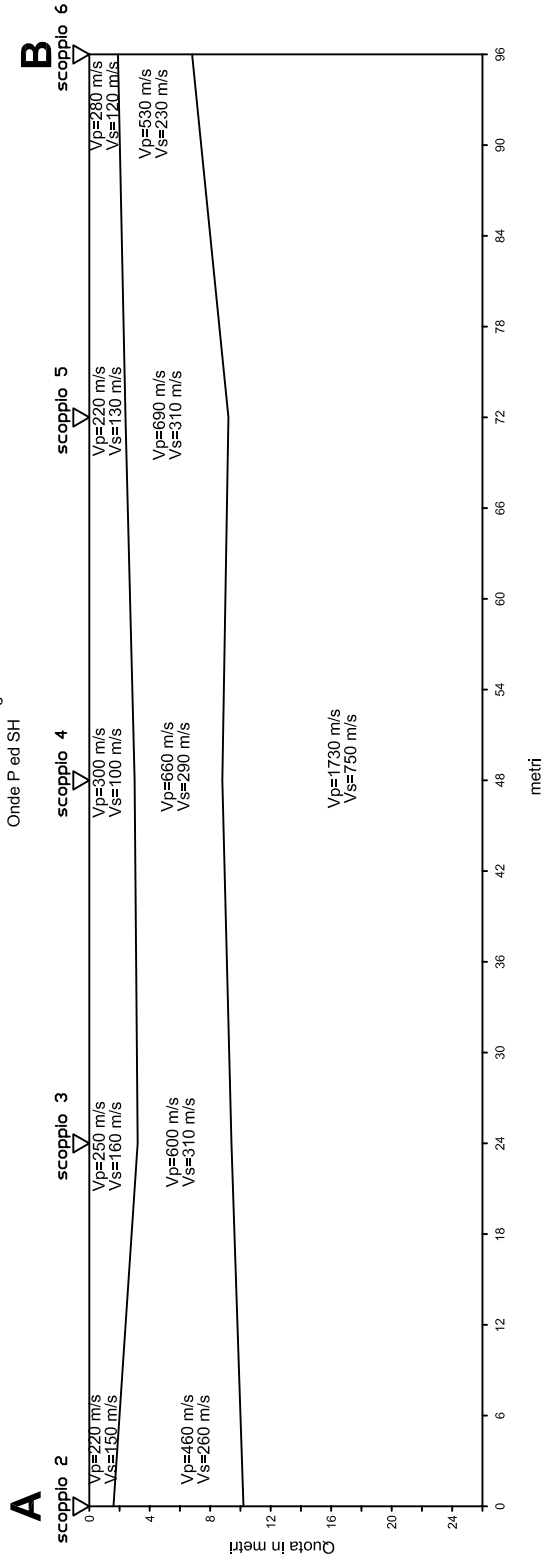
MICROZONAZIONE SISMICA LIVELLO 1

PROFILO ST4 – Cireglio

**Ricostruzione sismostratigrafica
Onde P ed SH**

scoppi	distanze (m)	Profondità 1° livello	Profondità 2° livello	Vp1 (m/sec)	Vp2 (m/sec)	Vp3 (m/sec)	Vs1 (m/sec)	Vs2 (m/sec)	Vs3 (m/sec)
2	0	1.6	10.2	220	460	1730	150	260	750
3	24	3.2	9.4	250	600	1730	160	310	750
4	48	3.0	8.8	300	660	1730	100	290	750
5	72	2.4	9.2	220	690	1730	130	310	750
6	96	1.9	6.8	280	530	1730	120	230	750

Profilo ST4 - Cireglio
Comune di Pistoia
Ricostruzione sismostratigrafica
Onde P ed SH

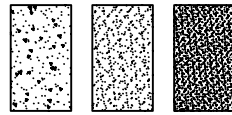


SEZIONE LITOSTRATIGRAFICA INTERPRETATIVA

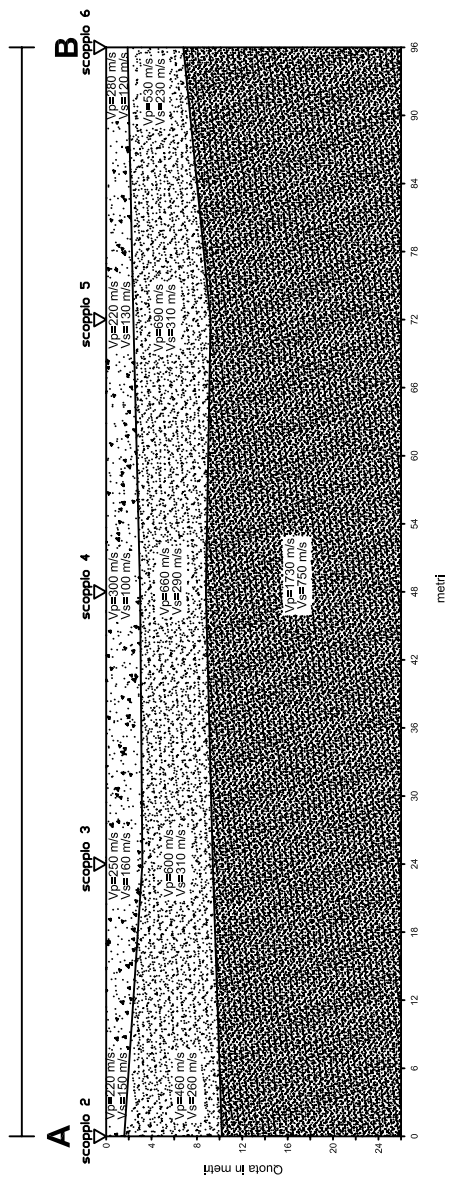
Base sismica: ST4
Committente: COMUNE DI PISTOIA
Località: Cireglio
Data: 18 aprile 2013

LEGENDA

Vp=1260 m/s Velocità sismica onde P in metri al secondo
Vs=420 m/s Velocità sismica onde SH in metri al secondo



ST4



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

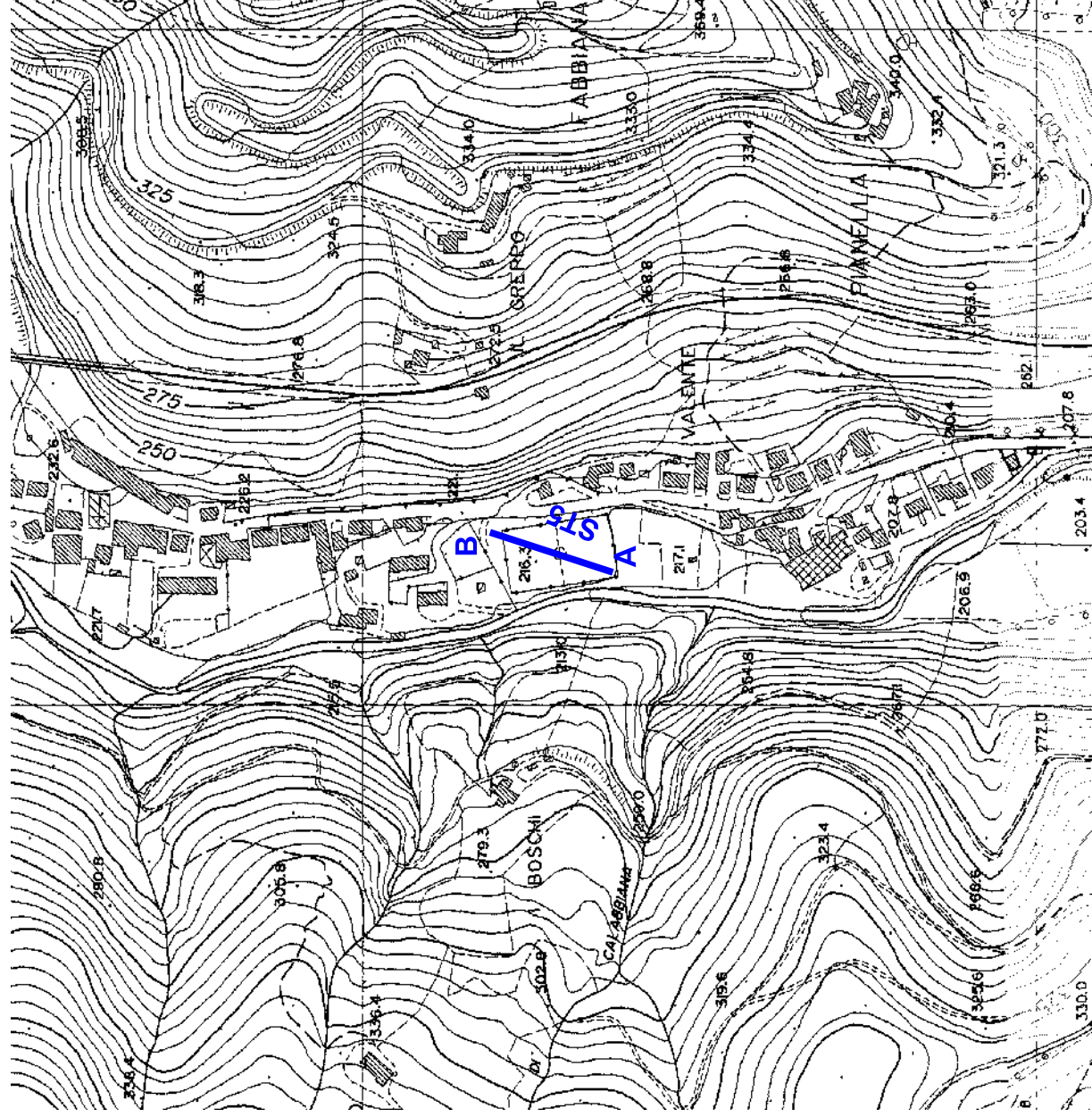
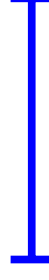
Committente: COMUNE DI PISTOIA
Località: Piteccio
Data: 19 aprile 2013

PLANIMETRIA IN SCALA 1:5.000

LEGENDA

ST5

Linea sismica



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

Committente: COMUNE DI PISTOIA
Località: Piteccio
Data: 19 aprile 2013

PLANIMETRIA IN SCALA 1:1.000

LEGENDA

ST5



Linea sismica (96 m)

X G1-G24

Posizione geofoni

● A

Tiro estremo sinistro

● B

Tiro estremo destro

● C

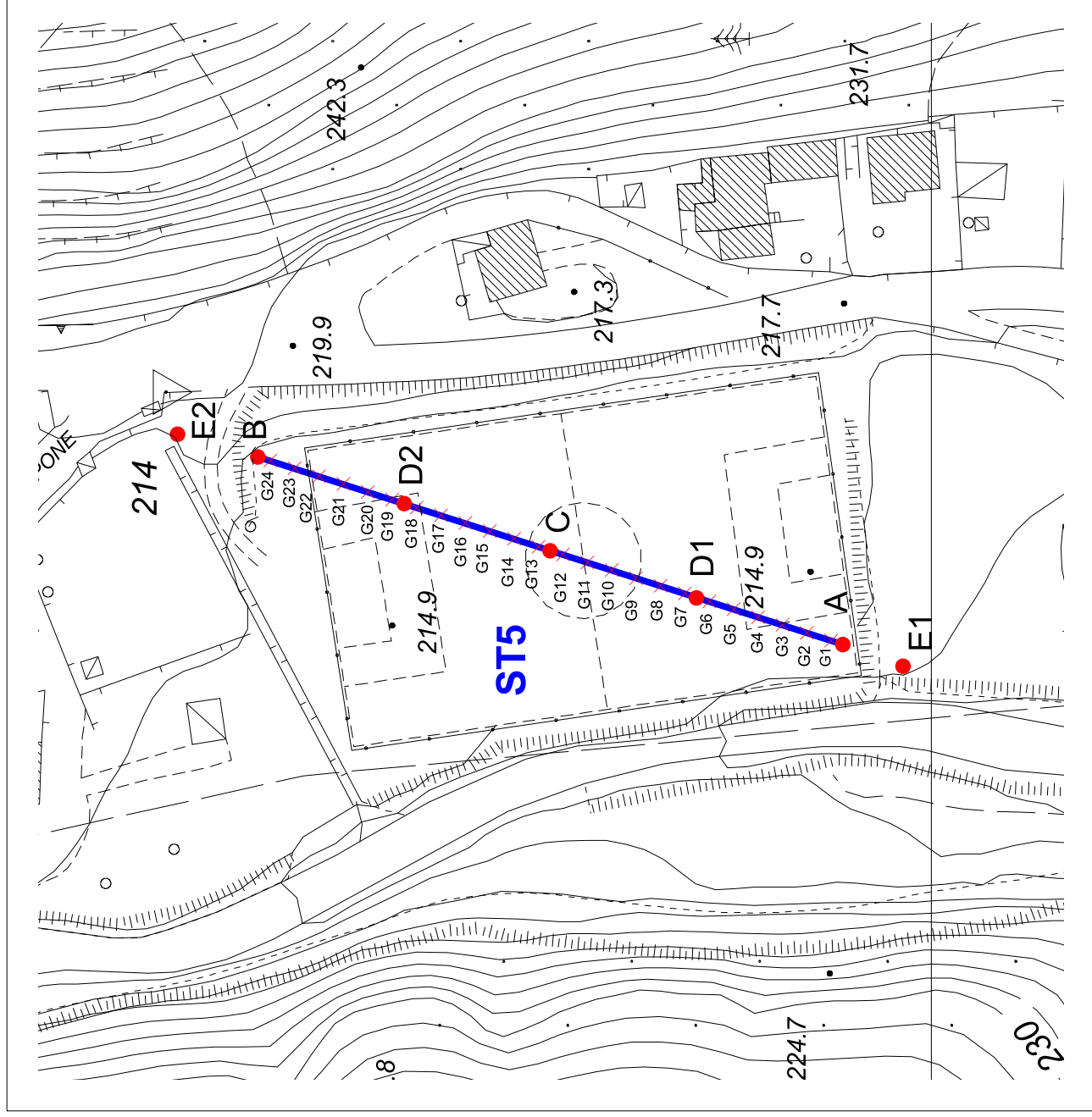
Tiro centrale

● D1-D2

Tiri intermedi

● E1-E2

Tiri esterni



LINEA SISMICA ST5

-SCHEMA DETTAGLIATO DELLA LINEA DI ACQUISIZIONE

Geofoni n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dist. Progressiva (m)	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74	78	82	86	90	94
Dist. Parziale (m)	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2
Quota (m s.l.m.)	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	214.9	215.0	215.4	215.7

COORDINATE GAUSS BOAGA DI G1 E G24

	GEOFONO N.1 (G1)	GEOFONO N.24 (G24)
X(m)	1652100.07	1652128.19
Y(m)	4873815.59	4873903.18

PUNTI DI ENERGIZZAZIONE

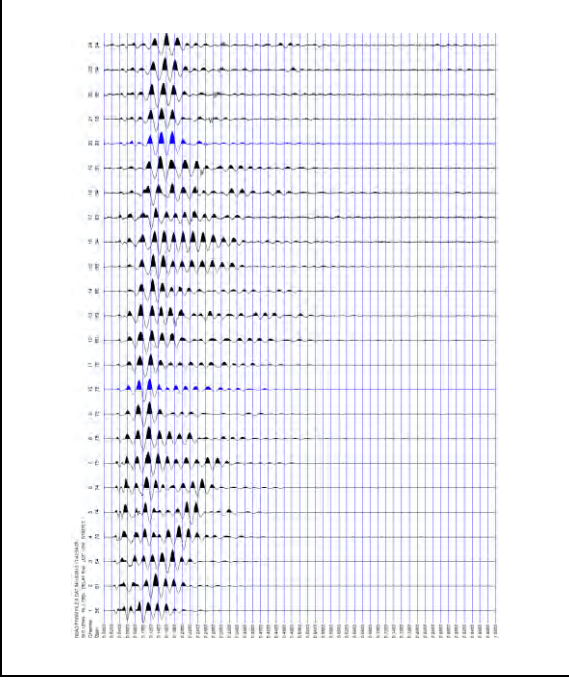
	E1	A	D1	C	D2	B	E2
	esterno sx	estremo sx	intermedio sx	centrale	intermedio dx	estremo dx	esterno dx
Onde P	21.dat	20.dat	19.dat	18.dat	17.dat	16.dat	15.dat
Onde SH	4.dat	2.dat	6.dat	8.dat	10.dat	12.dat	14.dat
Posiz. dal Geof.n.1 (m)	-12	-2	22	46	70	94	107
Quota (m)	212.3	214.9	214.9	214.9	214.9	215.7	219.0

COMUNE DI PISTOIA

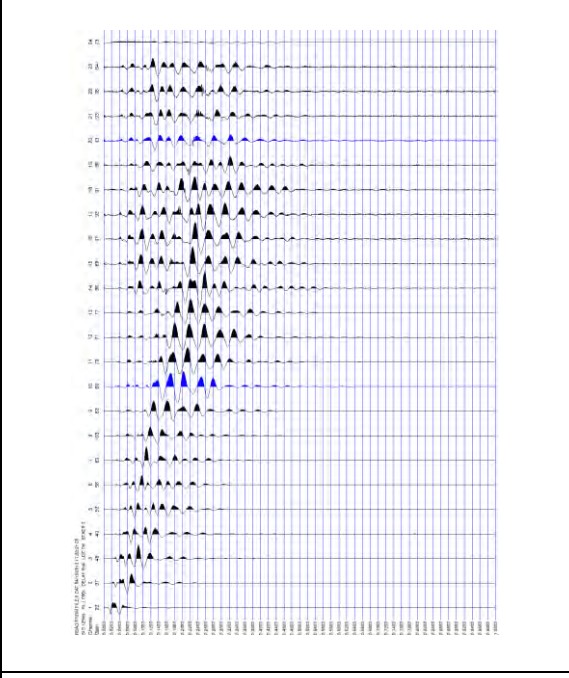
LINEA SISMICA ST5

ONDE P - REGISTRAZIONI DI CAMPAGNA

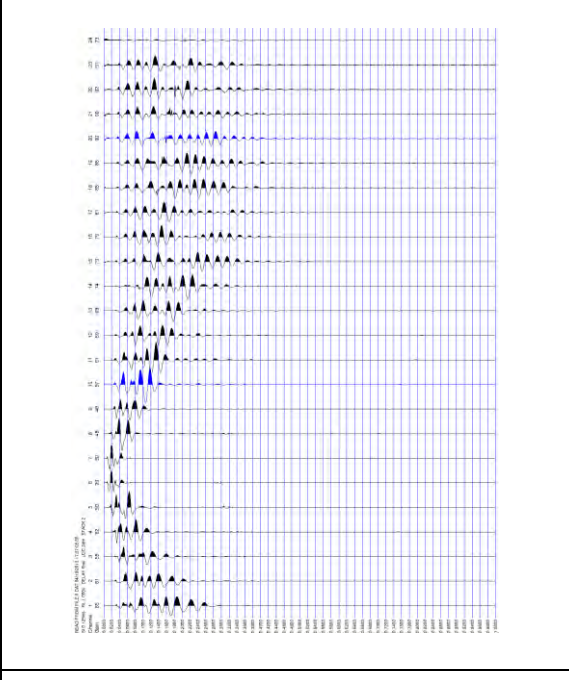
E1 - SCOPPIO ESTERNO SX - STACK 3



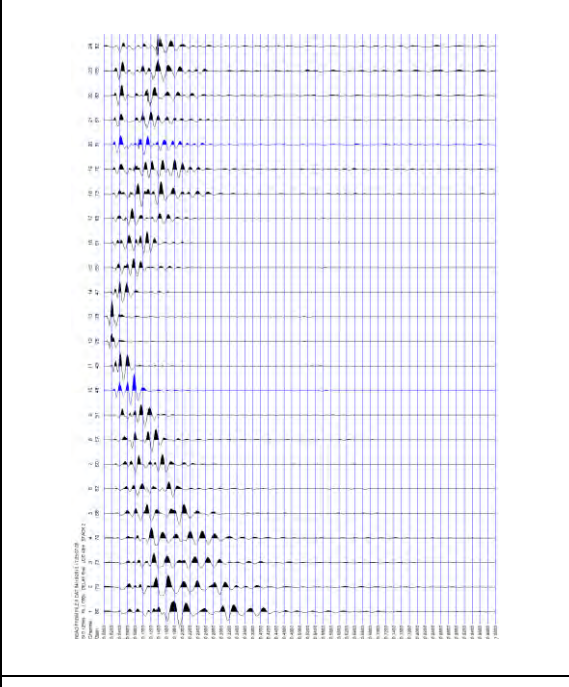
A - SCOPPIO ESTREMO SX - STACK 3



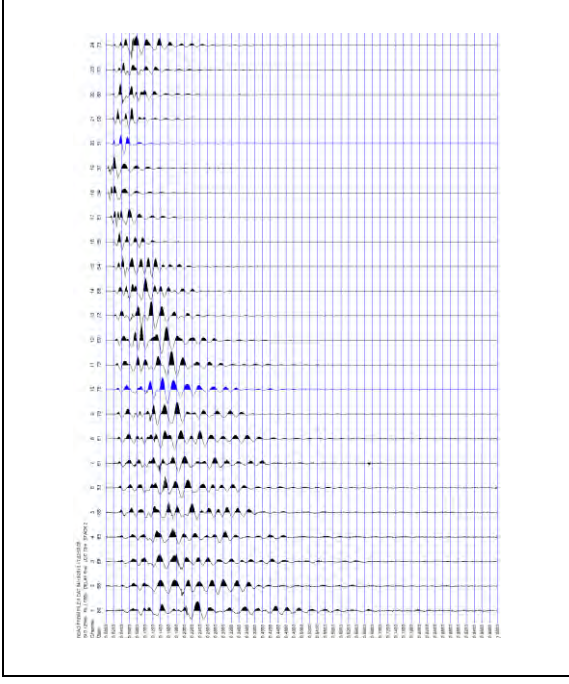
D1 - SCOPPIO INTERMEDIO SX - STACK 2



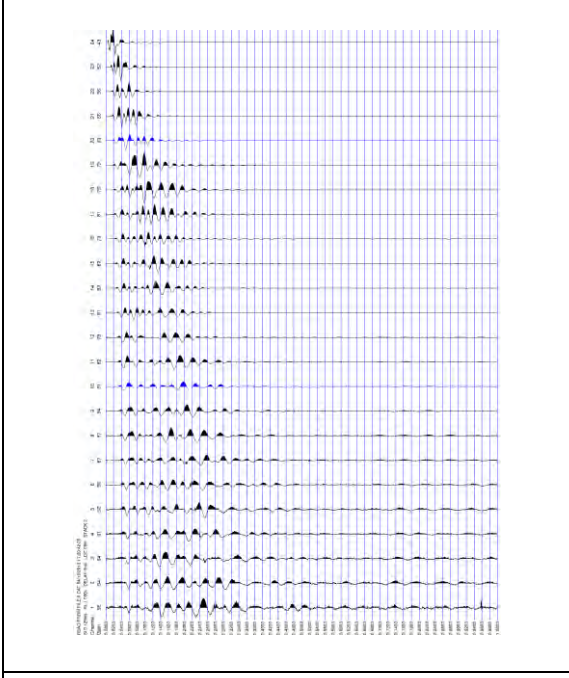
C - SCOPPIO CENTRALE - STACK 2



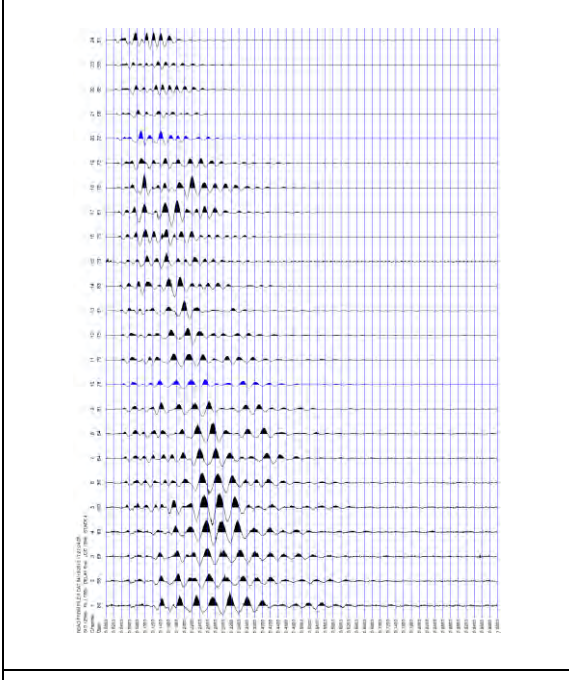
D2 - SCOPPIO INTERMEDIO DX - STACK 2



B - SCOPPIO ESTREMO DX - STACK 2



E2 - SCOPPIO ESTERNO DX - STACK 4

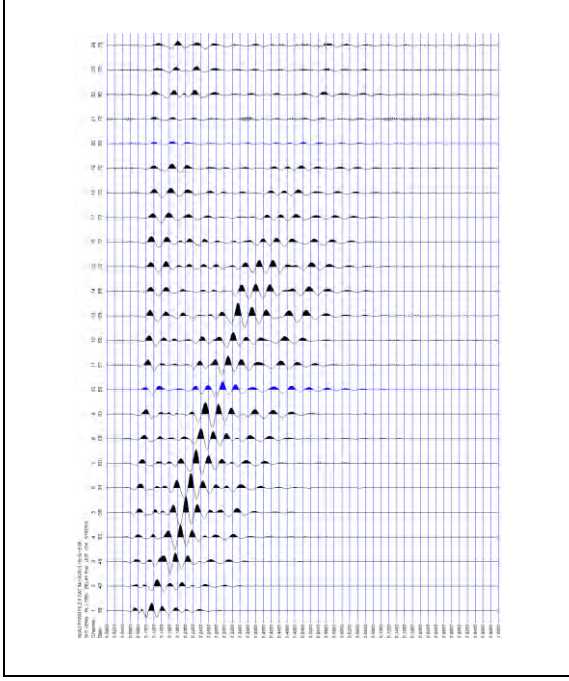


COMUNE DI PISTOIA

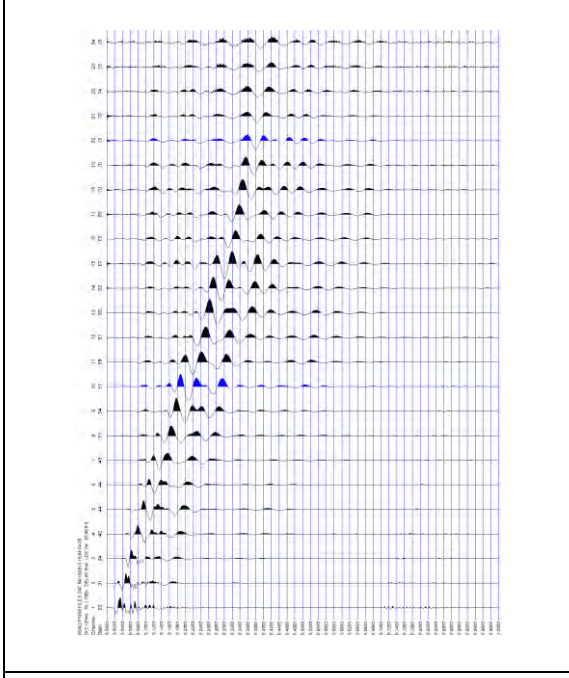
LINEA SISMICA ST5

ONDE SH - REGISTRAZIONI DI CAMPAGNA

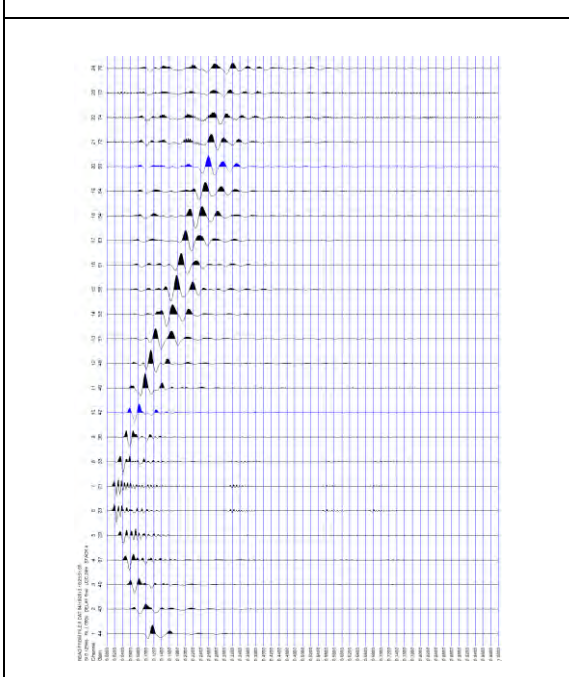
E1 - SCOPPIO ESTERNO SX - STACK 8



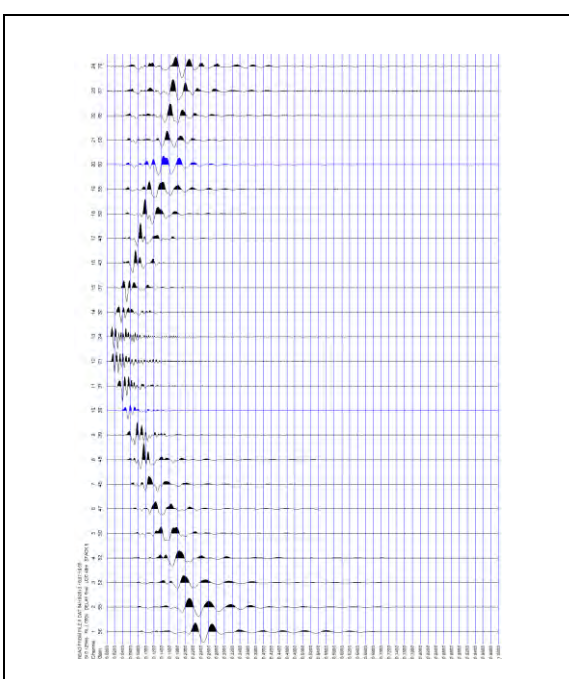
A - SCOPPIO ESTREMO SX - STACK 6



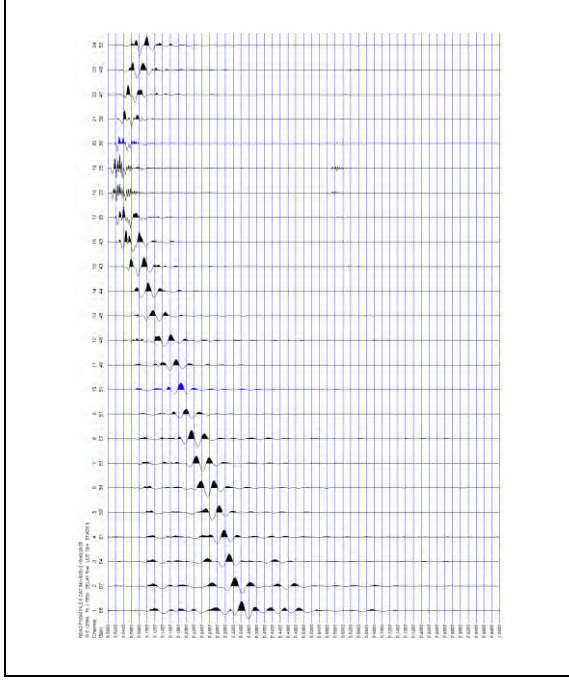
D1 - SCOPPIO INTERMEDIO SX - STACK 4



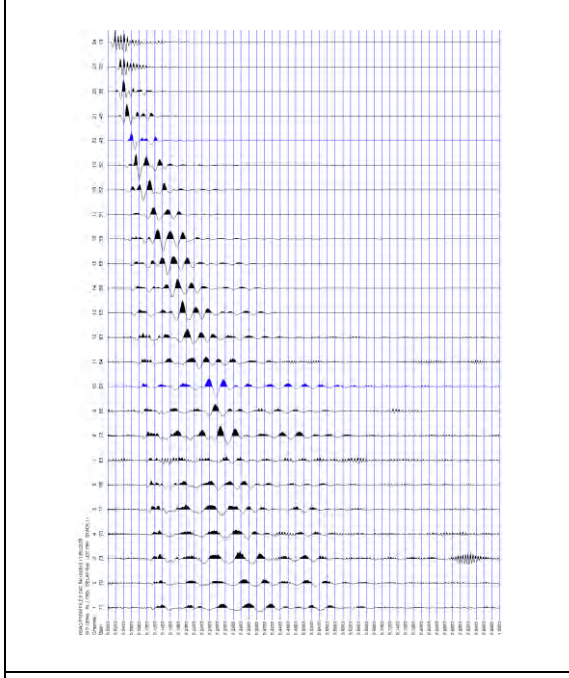
C - SCOPPIO CENTRALE - STACK 6



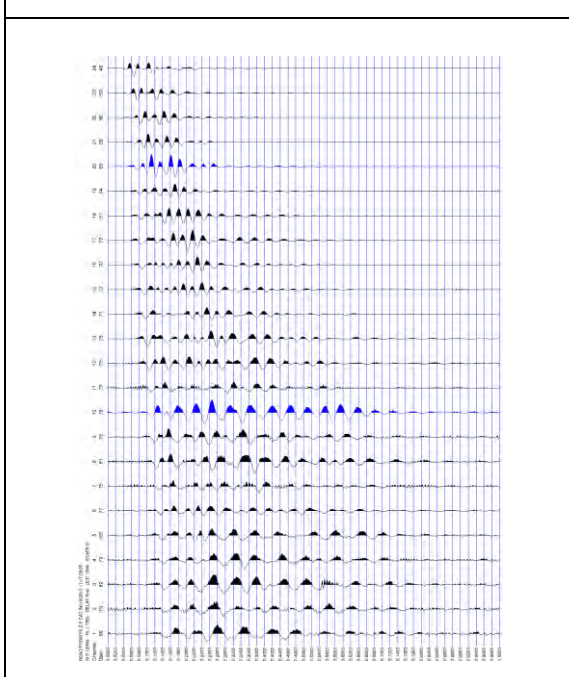
D2 - SCOPPIO INTERMEDIO DX - STACK 6



B - SCOPPIO ESTREMO DX - STACK 11



E2 - SCOPPIO ESTERNO DX - STACK 6



LINEA SISMICA ST5

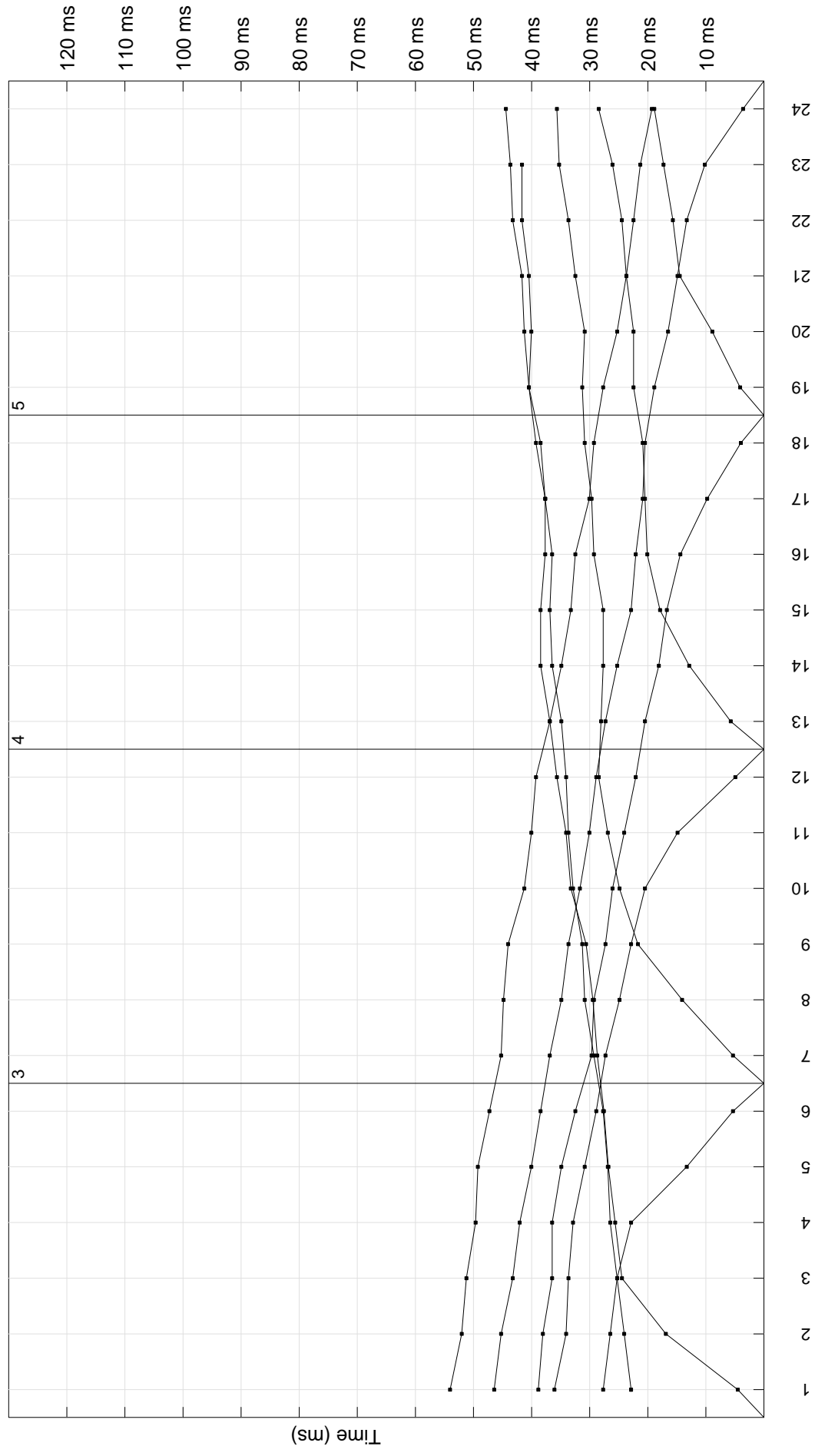
TEMPI DI PROPAGAZIONE DELLE ONDE P ED SH

ONDE P												ONDE SH											
	E1	A	D1	C	D2	B	E2		E1	A	D1	C	D2	B	E2								
G1	22.87	4.51	27.67	36.06	38.84	46.43	54.02		66.5	4.38	58.97	77.36	93.05	110.18	137.69								
G2	24.06	16.87	26.46	34.06	38.06	45.24	52.02		68.91	22.13	56.9	76.15	92.44	107.08	135.88								
G3	25.28	24.45	25.28	33.65	36.45	43.25	51.22		70.72	50.54	52.77	74.94	90.01	104.76	132.86								
G4	26.46	25.61	22.87	32.86	36.45	42.04	49.63		72.51	54.81	39.95	72.51	87.01	102.44	131.66								
G5	26.87	26.77	13.3	30.87	34.86	40.04	49.24		73.73	59.77	26.96	70.12	82.19	99.76	130.46								
G6	27.67	27.54	5.32	28.87	32.47	38.45	47.24		76.15	62.88	10.38	66.5	79.16	97.44	126.83								
G7	29.27	28.7	5.32	27.28	29.67	36.86	45.24		78.55	65.9	11.59	61.65	76.76	94.86	123.8								
G8	30.87	29.46	14.1	24.87	29.27	34.86	44.84		82.79	69.51	27.28	53.83	71.33	90.01	118.37								
G9	31.27	30.62	21.69	22.87	27.28	33.65	44.04		87.01	73.12	41.75	48.4	66.5	85.19	113.55								
G10	32.86	33.25	24.87	20.47	26.06	31.67	41.25		90.01	76.76	51.4	38.13	62.88	82.19	108.12								
G11	33.65	34.06	26.87	14.89	24.06	30.05	40.04		93.65	80.37	56.24	26.67	58.65	75.55	106.3								
G12	34.06	35.65	28.45	4.92	22.06	28.87	39.25		97.26	84.3	61.06	9.18	55.63	71.33	100.87								
G13	34.86	36.86	28.05	5.71	20.47	27.28	36.86		99.08	88.16	64.08	8.56	48.4	64.69	96.05								
G14	36.45	38.45	27.67	12.86	18.09	25.28	34.86		101.5	89.33	65.9	23.63	44.15	61.65	91.83								
G15	36.86	38.45	27.67	17.88	16.72	22.87	33.25		102.69	91.26	66.5	35.72	39.34	57.45	87.01								
G16	36.45	37.65	29.27	20.09	14.4	22.06	32.47		103.91	92.41	68.3	39.34	32.7	53.22	84								
G17	37.65	37.65	29.67	20.47	9.77	20.87	30.05		106.3	92.8	70.12	43.56	21.21	50.2	81.58								
G18	38.45	39.25	30.87	20.87	3.99	20.47	29.27		108.12	94.73	72.51	46.59	7.36	47.79	79.16								
G19	40.45	40.45	31.27	22.46	4.11	18.87	27.67		110.55	97.05	74.33	47.79	7.96	44.77	73.73								
G20	41.25	40.04	30.87	22.46	8.89	16.5	25.28		111.75	98.19	77.36	49.59	21.21	39.36	69.51								
G21	41.65	40.45	32.47	23.68	14.5	14.89	23.68		112.94	98.58	78.55	51.4	32.11	35.72	64.69								
G22	43.25	41.65	33.65	24.46	15.68	13.3	22.46		115.37	100.91	80.37	50.81	37.29	29.95	58.65								
G23	43.65	41.65	35.25	26.06	17.29	10.17	21.29		117.18	101.69	81.58	53.22	41.43	20.71	50.7								
G24	44.43	0	35.65	28.45	18.87	3.59	19.29		117.79	104.37	83.37	0	44.52	7.34	44.52								

Profilo ST5 - Pistoia - Piteccio - Onde P

A

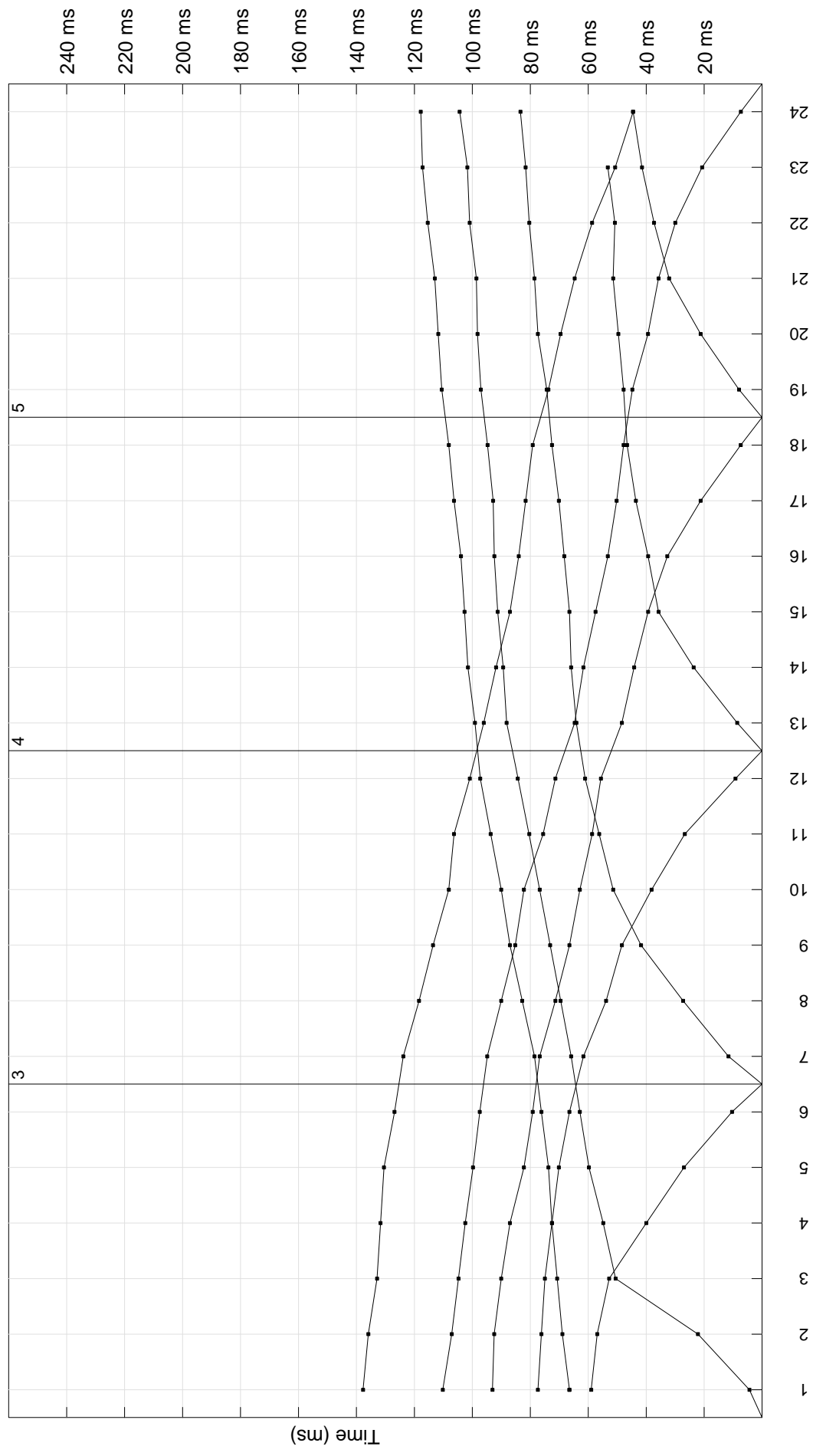
B



Profilo ST5 - Pistoia - Piteccio - Onde SH

A

B



**COMUNE DI PISTOIA
PROVINCIA DI PISTOIA**

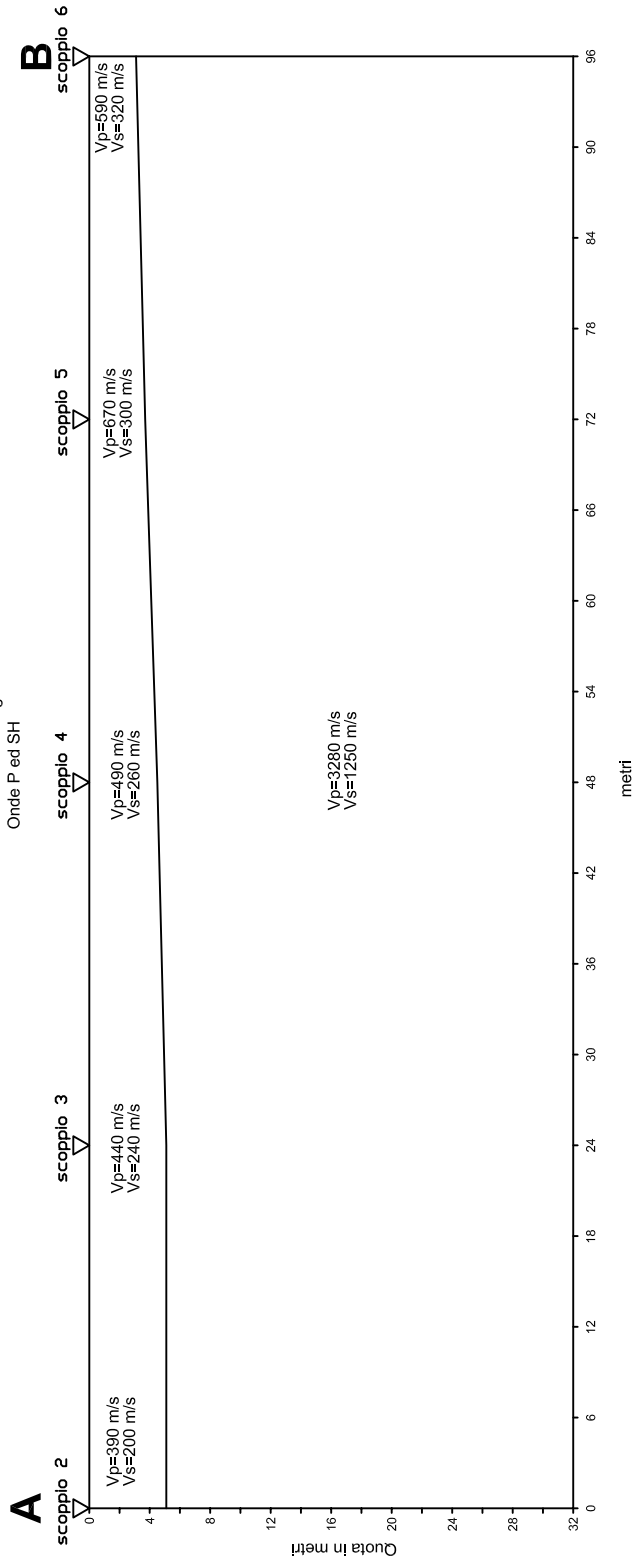
MICROZONAZIONE SISMICA LIVELLO 1

PROFILO ST5 – Piteccio

**Ricostruzione sismostratigrafica
Onde P ed SH**

scoppi	distanze (m)	Profondità 1° livello	Vp1 (m/sec)	Vp2 (m/sec)	Vs1 (m/sec)	Vs2 (m/sec)
2	0	5.1	390	3280	200	1250
3	24	5.1	440	3280	240	1250
4	48	4.5	490	3280	260	1250
5	72	3.7	670	3280	300	1250
6	96	3.1	590	3280	320	1250

Profilo ST5 - Piteccio
Comune di Pistoia
Ricostruzione sismostratigrafica
Onde P ed SH

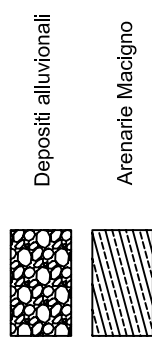


SEZIONE LITOSTRATIGRAFICA INTERPRETATIVA

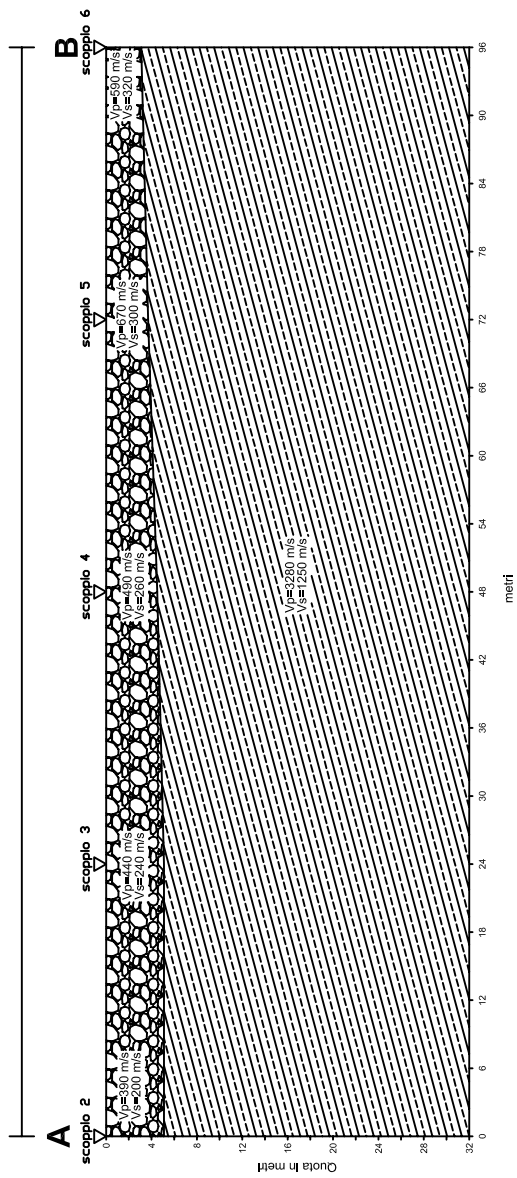
Base sismica: ST5
Committente: COMUNE DI PISTOIA
Località: Piteccio
Data: 19 aprile 2013

LEGENDA

Vp=1260 m/s Velocità sismica onde P in metri al secondo
Vs=420 m/s Velocità sismica onde SH in metri al secondo



ST5



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

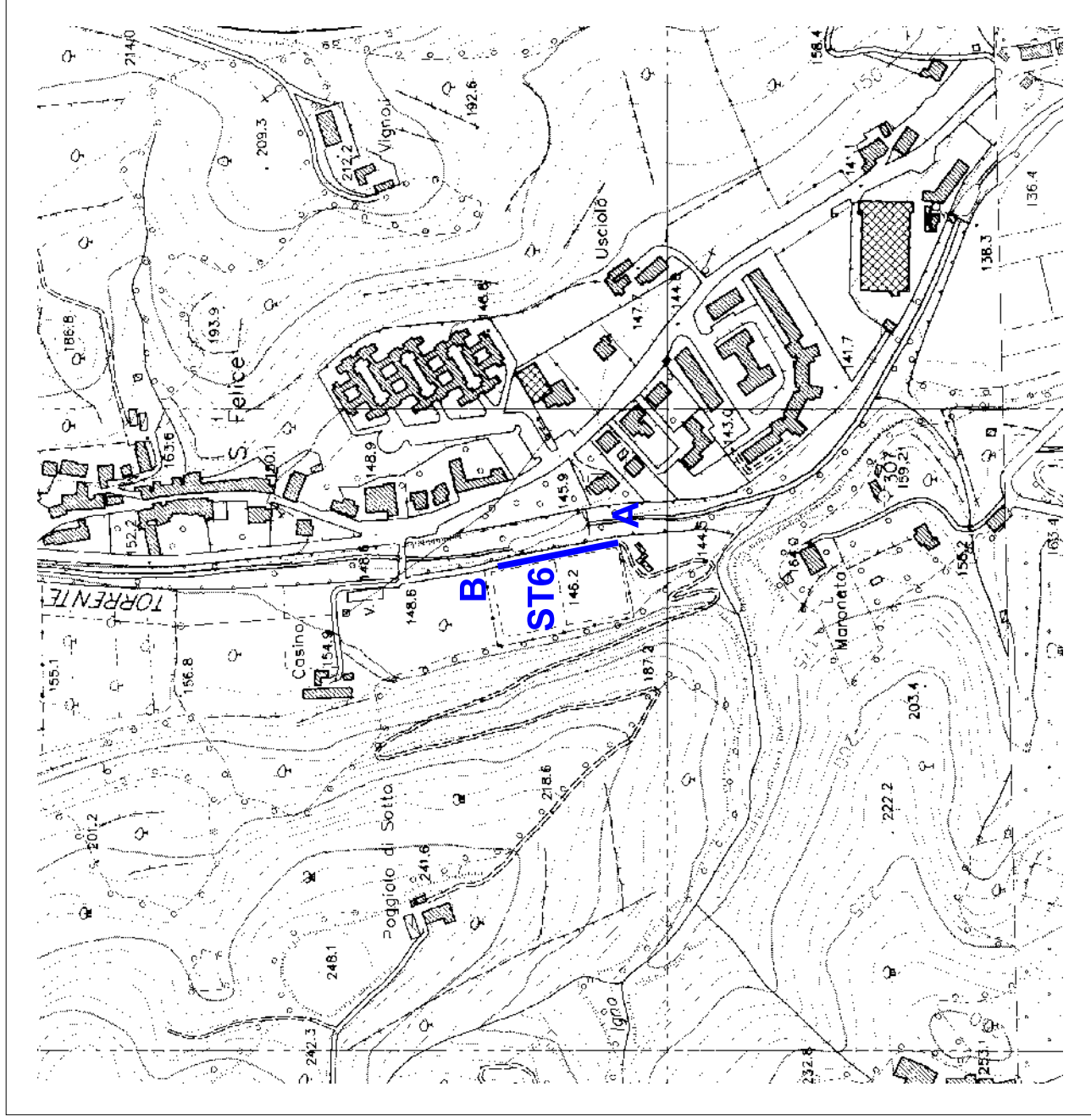
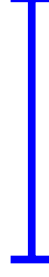
Committente: COMUNE DI PISTOIA
Località: San Felice
Data: 16 aprile 2013

PLANIMETRIA IN SCALA 1:5.000

LEGENDA

ST6

Linea sismica



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

Committente: COMUNE DI PISTOIA
Località: San Felice
Data: 16 aprile 2013

PLANIMETRIA IN SCALA 1:1.000

LEGENDA

ST6



Linea sismica (96 m)

X G1-G24

Posizione geofoni

● A

Tiro estremo sinistro

● B

Tiro estremo destro

● C

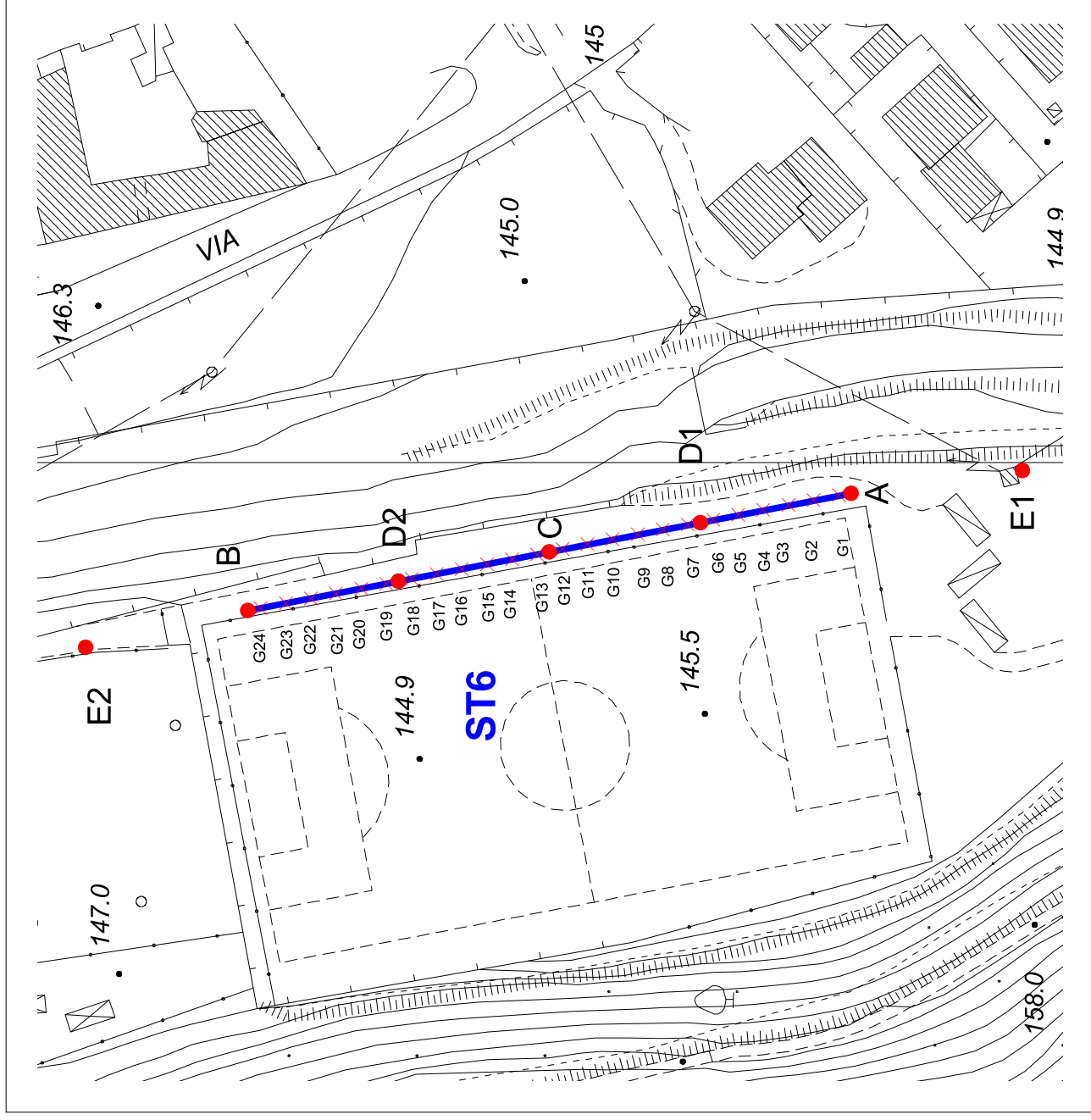
Tiro centrale

● D1-D2

Tiri intermedi

● E1-E2

Tiri esterni



LINEA SISMICA ST6

-SCHEMA DETTAGLIATO DELLA LINEA DI ACQUISIZIONE

Geofoni n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dist. Progressiva (m)	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74	78	82	86	90	94
Dist. Parziale (m)	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2
Quota (m s.l.m.)	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2	145.2

COORDINATE GAUSS BOAGA DI G1 E G24

	GEOFONO N.1 (G1)	GEOFONO N.24 (G24)
X(m)	1651394.82	1651377.21
Y(m)	4871040.24	4871130.54

PUNTI DI ENERGIZZAZIONE

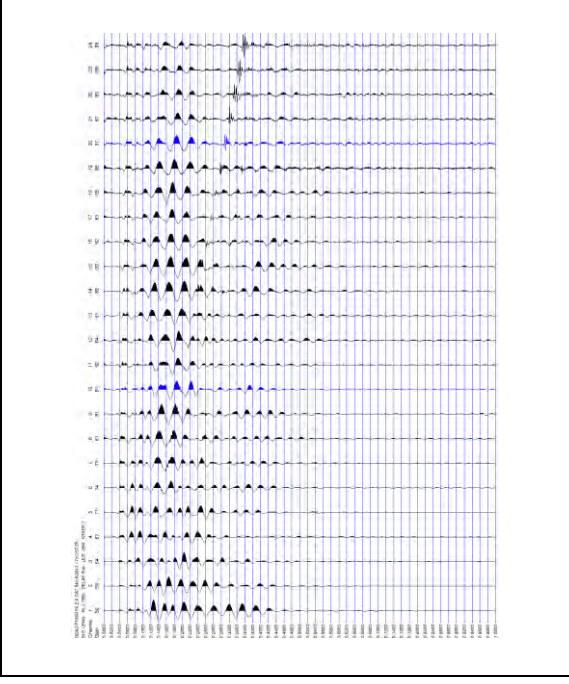
	E1	A	D1	C	D2	B	E2
	esterno sx	estremo sx	intermedio sx	centrale	intermedio dx	estremo dx	esterno dx
Onde P	22.dat	21.dat	20.dat	19.dat	18.dat	17.dat	16.dat
Onde SH	4.dat	2.dat	6.dat	8.dat	10.dat	12.dat	14.dat
Posiz. dal Geof.n.1 (m)	-29	-2	22	46	70	94	107
Quota (m)	145.0	145.2	145.2	145.2	145.2	145.2	146.3

COMUNE DI PISTOIA

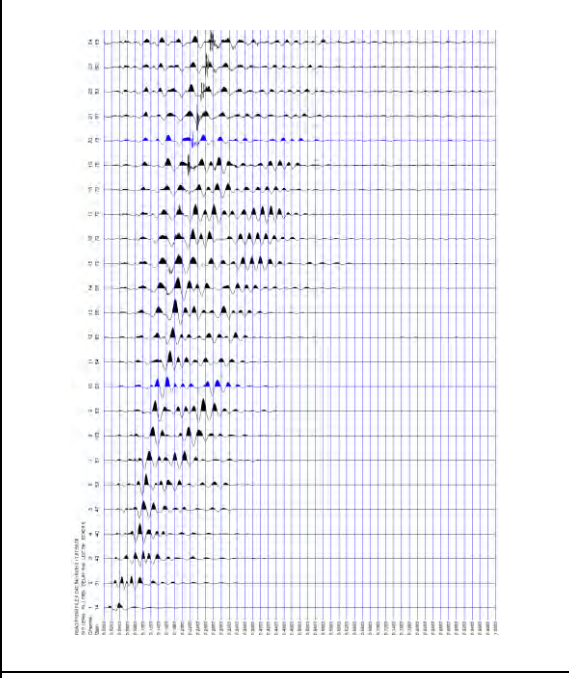
LINEA SISMICA ST6

ONDE P - REGISTRAZIONI DI CAMPAGNA

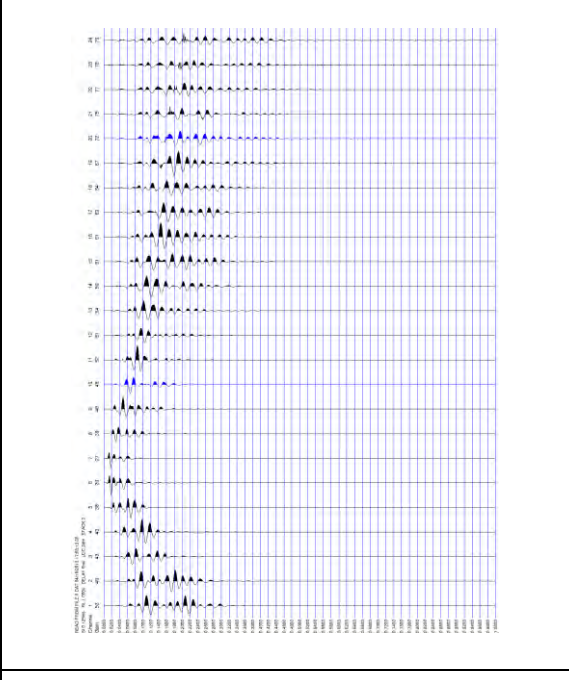
E1 - SCOPPIO ESTERNO SX - STACK 7



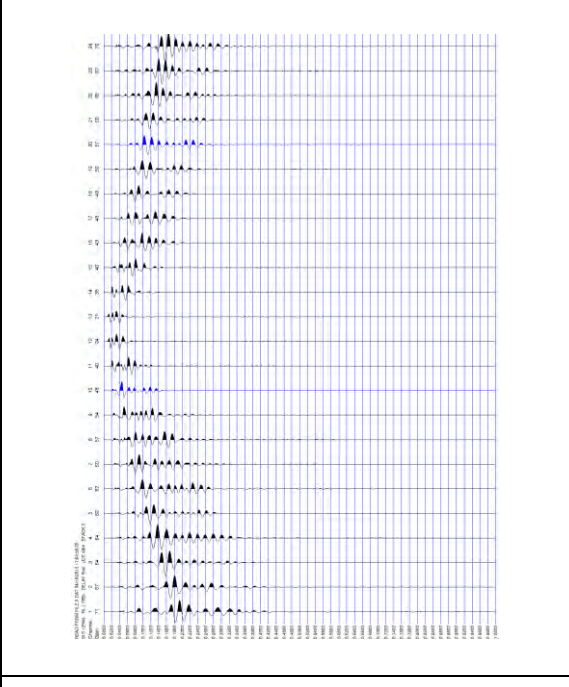
A - SCOPPIO ESTREMO SX - STACK 6



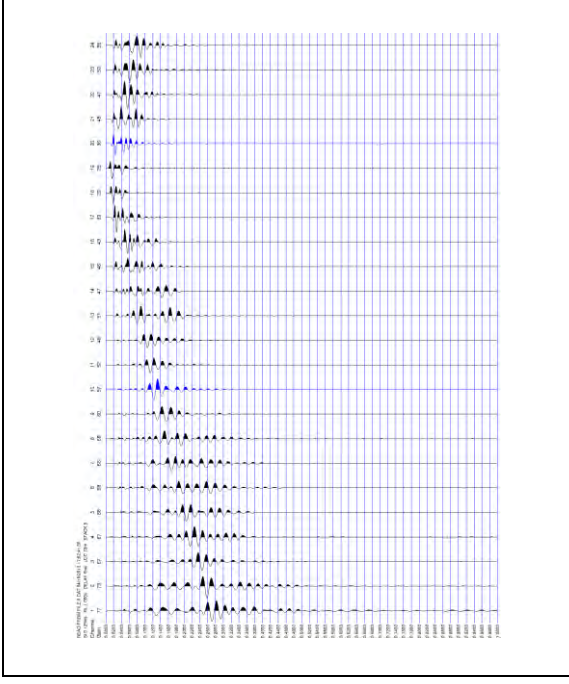
D1 - SCOPPIO INTERMEDIO SX - STACK 3



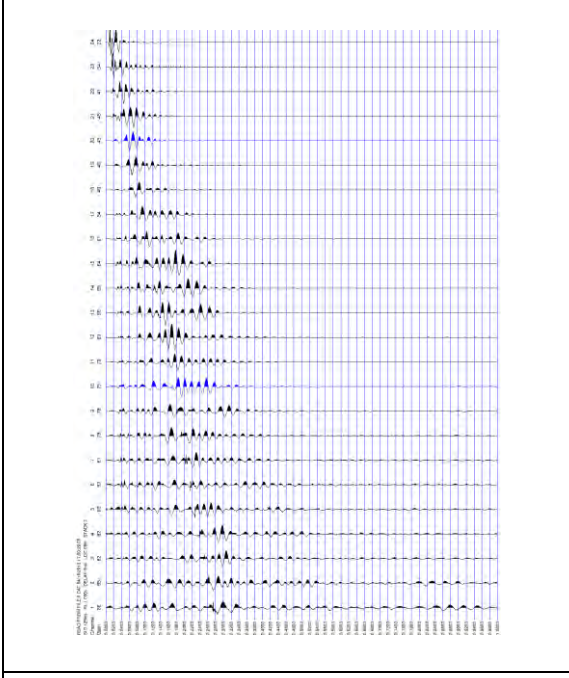
C - SCOPPIO CENTRALE - STACK 3



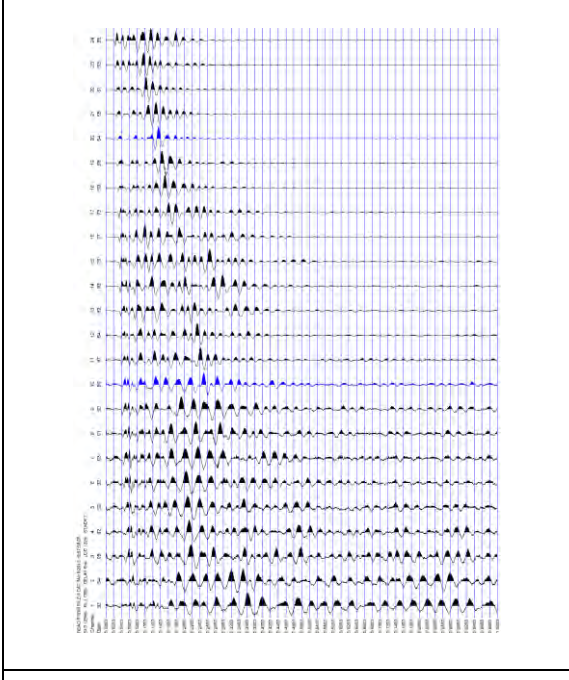
D2 - SCOPPIO INTERMEDIO DX - STACK 5



B - SCOPPIO ESTREMO DX - STACK 7



E2 - SCOPPIO ESTERNO DX - STACK 7

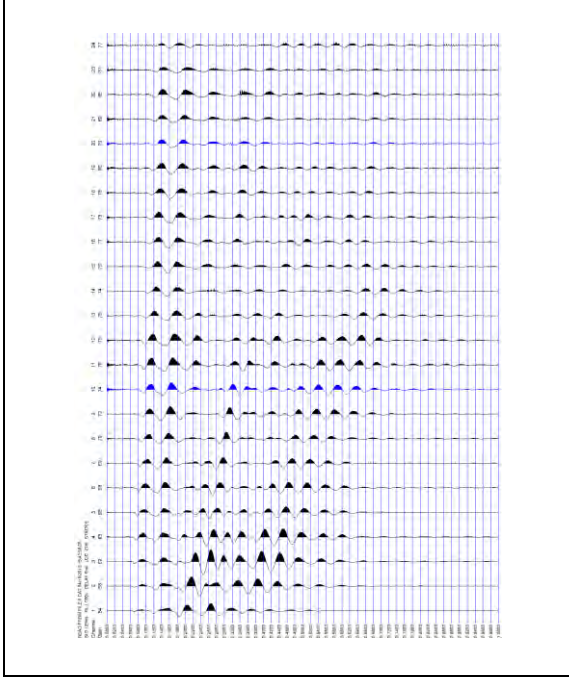


COMUNE DI PISTOIA

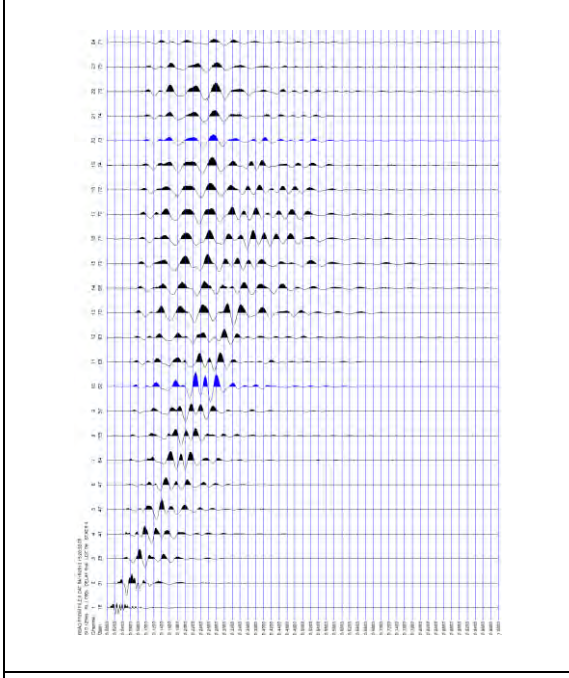
LINEA SISMICA ST6

ONDE SH - REGISTRAZIONI DI CAMPAGNA

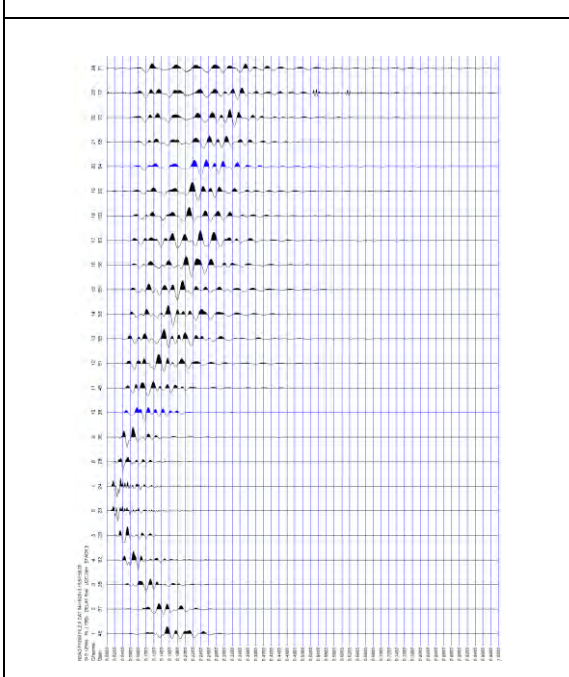
E1 - SCOPPIO ESTERNO SX - STACK 5



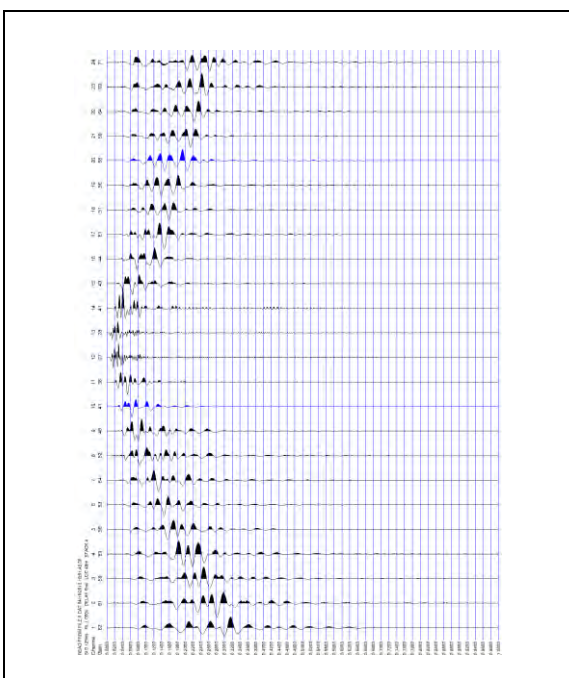
A - SCOPPIO ESTREMO SX - STACK 4



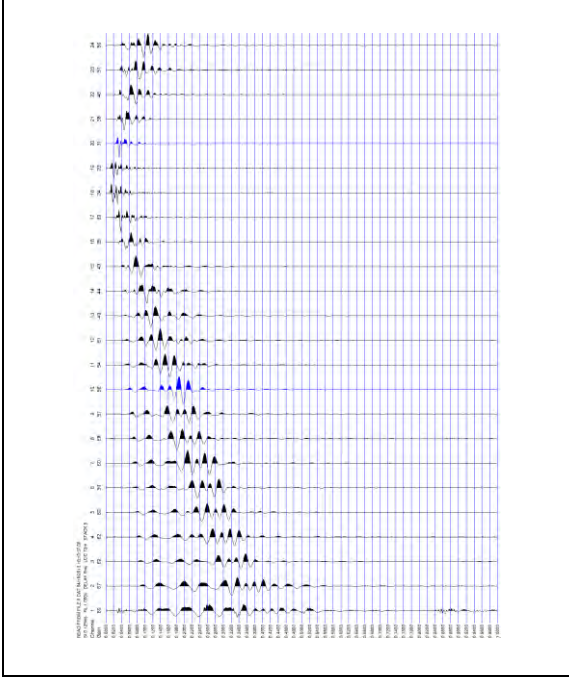
D1 - SCOPPIO INTERMEDIO SX - STACK 5



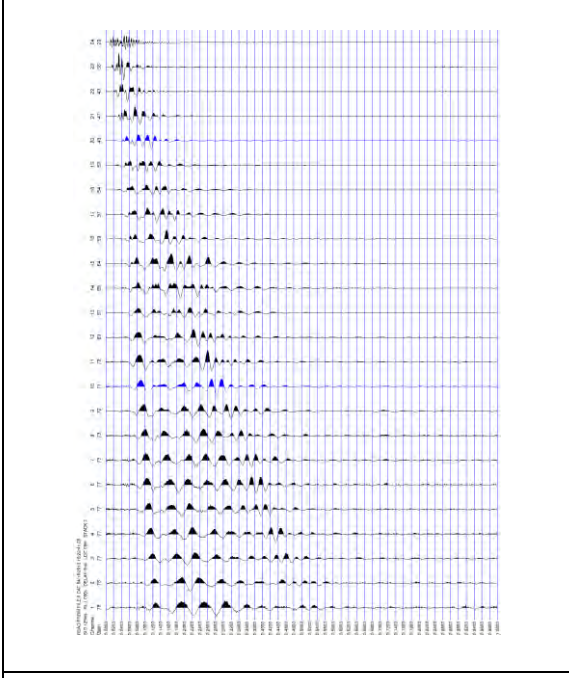
C - SCOPPIO CENTRALE - STACK 4



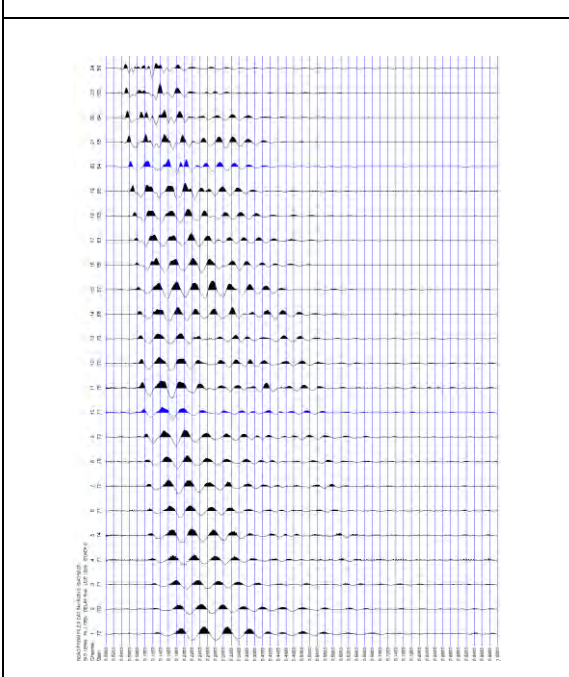
D2 - SCOPPIO INTERMEDIO DX - STACK 5



B - SCOPPIO ESTREMO DX - STACK 7



E2 - SCOPPIO ESTERNO DX - STACK 8



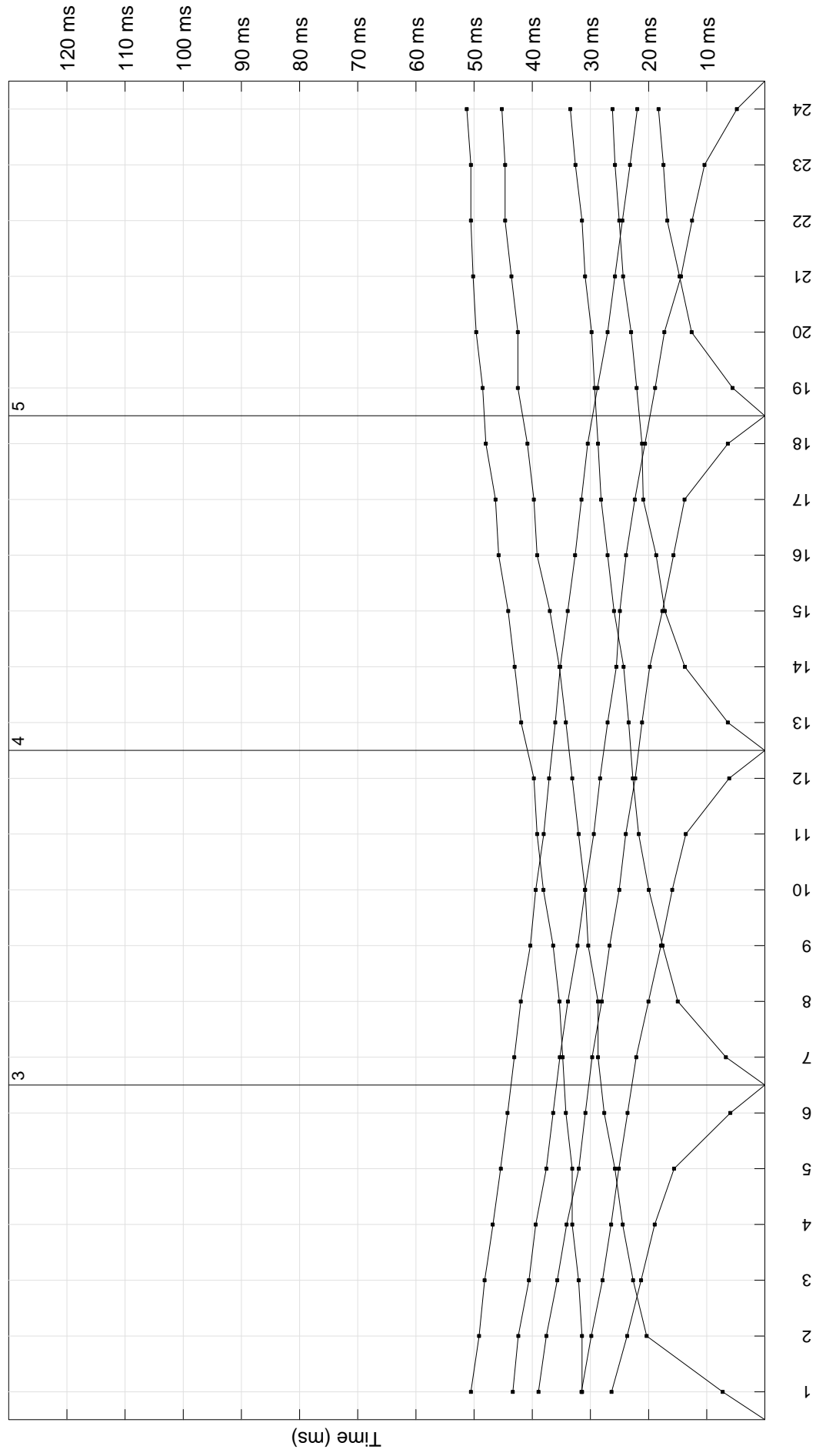
LINEA SISMICA ST6**TEMPI DI PROPAGAZIONE DELLE ONDE P ED SH**

ONDE P												ONDE SH											
	E1	A	D1	C	D2	B	E2		E1	A	D1	C	D2	B	E2								
G1	31.45	7.26	26.37	31.54	38.93	43.33	50.54		65.4	7.38	53.02	67.48	87.16	101.66	121.36								
G2	31.45	20.34	23.69	29.85	37.56	42.4	49.13		66	30.75	48.86	64.37	85.08	98.26	118								
G3	32.02	22.67	21.29	27.92	35.7	40.56	48.18		67.3	38.99	43.95	60.22	80.94	94.41	114.22								
G4	33.13	24.44	18.95	26.43	34.09	39.4	46.79		69.29	43.18	38.65	56.08	77.19	90.04	109.68								
G5	33.13	25.79	15.6	25.12	32	37.56	45.4		71.26	48.61	30.17	52.97	71.62	85.51	106.83								
G6	34.22	27.62	5.94	23.62	30.86	36.4	44.25		73.9	51.29	8.39	49.86	68.51	81.73	103.73								
G7	34.77	28.7	6.71	22.12	29.7	35.25	43.09		76.8	54.33	9.93	48.2	65.33	77.94	100.62								
G8	35.33	28.7	14.97	20.01	28.04	33.86	41.95		78.87	58.13	28.04	45.58	61.38	74.16	96.08								
G9	36.4	30.37	17.59	17.87	26.7	32.2	40.33		80.94	61.25	36.36	39.65	57.43	71.15	93.37								
G10	38.08	30.92	19.95	15.93	25.04	30.92	39.4		83.01	63.33	40.97	32.4	54	65.86	90.26								
G11	39.15	32.02	21.7	13.6	23.92	29.42	38.02		86.12	66.44	46.75	23.95	49.86	62.84	85.51								
G12	39.72	33.13	22.7	6.13	22.29	28.35	37.09		88.19	69.55	47.79	7.38	44.68	59.06	81.98								
G13	41.9	34.22	23.43	6.36	21.12	27.04	36.04		90.26	70.58	52.97	6.34	40.54	56.79	80.94								
G14	43.02	35.33	24.29	13.76	19.79	25.54	35.18		93.37	73.69	58.15	22.92	38.45	55.27	78.87								
G15	44.13	36.97	25.95	17.2	17.62	24.93	33.9		96.48	76.8	59.18	31.7	33.06	53.02	74.73								
G16	45.77	39.15	27.04	18.7	15.72	23.86	32.63		100.62	78.87	62.29	38.65	27.79	49.86	71.62								
G17	46.31	39.72	28.17	20.92	13.81	22.36	31.54		102.69	81.98	65.4	42.61	20.54	46.75	69.55								
G18	47.97	40.83	28.7	21.12	6.36	20.62	30.45		104.76	83.01	67.48	44.25	8.02	44.68	66.44								
G19	48.52	42.47	29.27	22.04	5.55	18.87	28.78		107.87	85.08	68.51	46.24	9.35	39.65	61.38								
G20	49.63	42.47	29.79	23	12.6	17.29	27.04		110.98	88.19	70.58	48.2	22.52	36.36	56.77								
G21	50.15	43.58	30.92	24.37	14.67	14.43	25.79		112.01	90.26	71.62	50.84	29.11	28.45	53.47								
G22	50.54	44.65	31.45	25.04	16.79	12.52	24.5		114.08	93.37	72.66	54.13	33.06	23.18	49.52								
G23	50.54	44.65	32.58	25.77	17.45	10.39	23.2		117.19	95.44	74.73	56.11	36.36	17.7	46.75								
G24	51.25	45.22	33.45	26.2	18.29	4.82	21.94		118.25	98.55	76.8	58.09	38.33	5.3	42.61								

Profilo ST6 - Pistoia - San Felice - Onde P

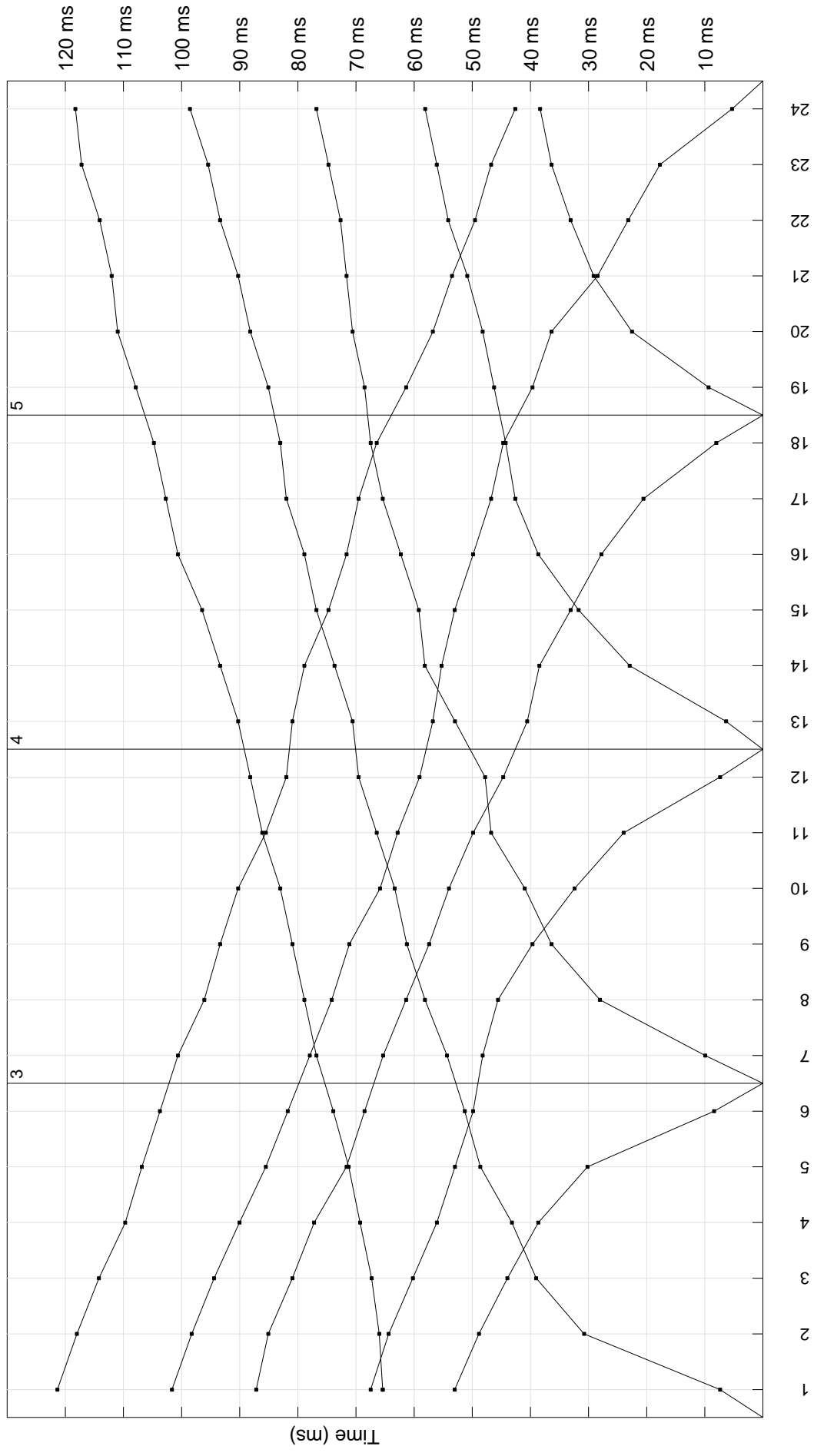
A

B



Profilo ST6 - Pistoia - San Felice - Onde SH

A



B

Calculs d'épaisseur

**COMUNE DI PISTOIA
PROVINCIA DI PISTOIA**

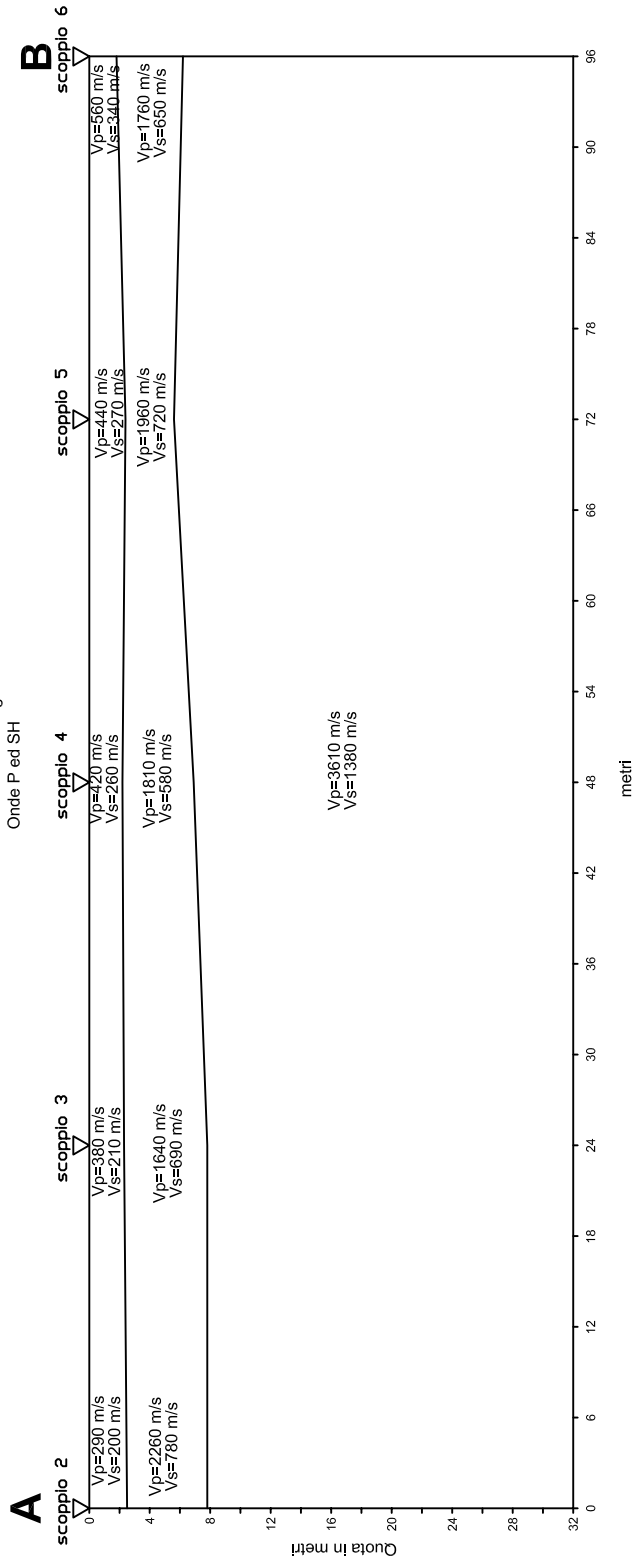
MICROZONAZIONE SISMICA LIVELLO 1

PROFILO ST6 – San Felice

**Ricostruzione sismostratigrafica
Onde P ed SH**

scoppi	distanze (m)	Profondità 1° livello	Profondità 2° livello	Vp1 (m/sec)	Vp2 (m/sec)	Vp3 (m/sec)	Vs1 (m/sec)	Vs2 (m/sec)	Vs3 (m/sec)
2	0	2.5	7.8	290	2260	3610	200	780	1380
3	24	2.3	7.8	380	1640	3610	210	690	1380
4	48	2.2	6.9	420	1810	3610	260	580	1380
5	72	2.4	5.6	440	1960	3610	270	720	1380
6	96	1.8	6.2	560	1760	3610	340	650	1380

Profilo ST6 - San Felice
Comune di Pistoia
Ricostruzione sismostratigrafica
Onde P ed SH

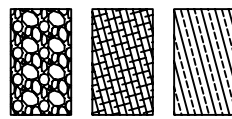


**SEZIONE LITOSTRATIGRAFICA
 INTERPRETATIVA**

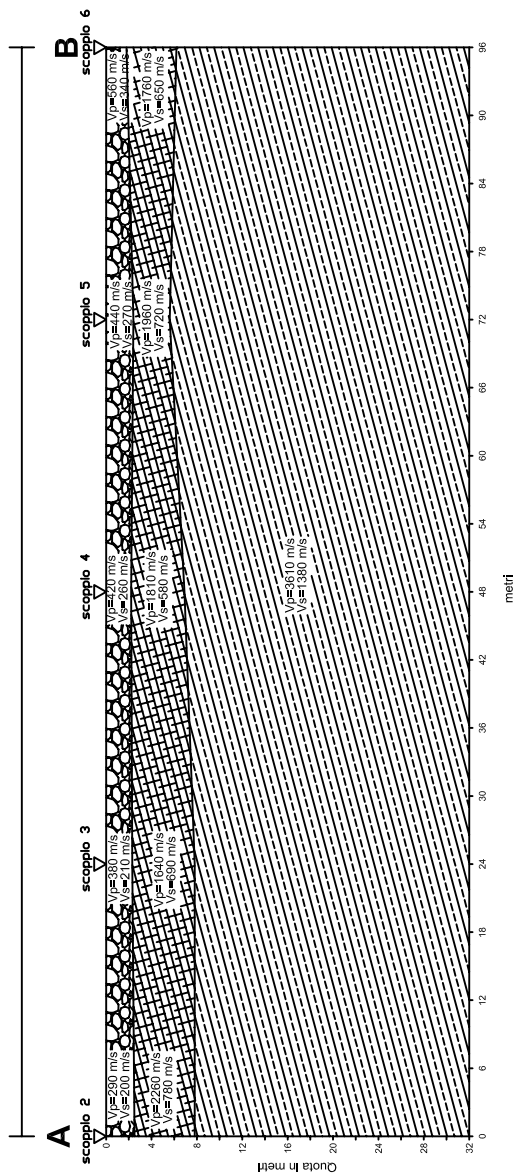
Base sismica: ST6
 Committente: COMUNE DI PISTOIA
 Località: San Felice
 Data: 16 aprile 2013

LEGENDA

Vp=1260 m/s Velocità sismica onde P in metri al secondo
 Vs=420 m/s Velocità sismica onde SH in metri al secondo



ST6



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

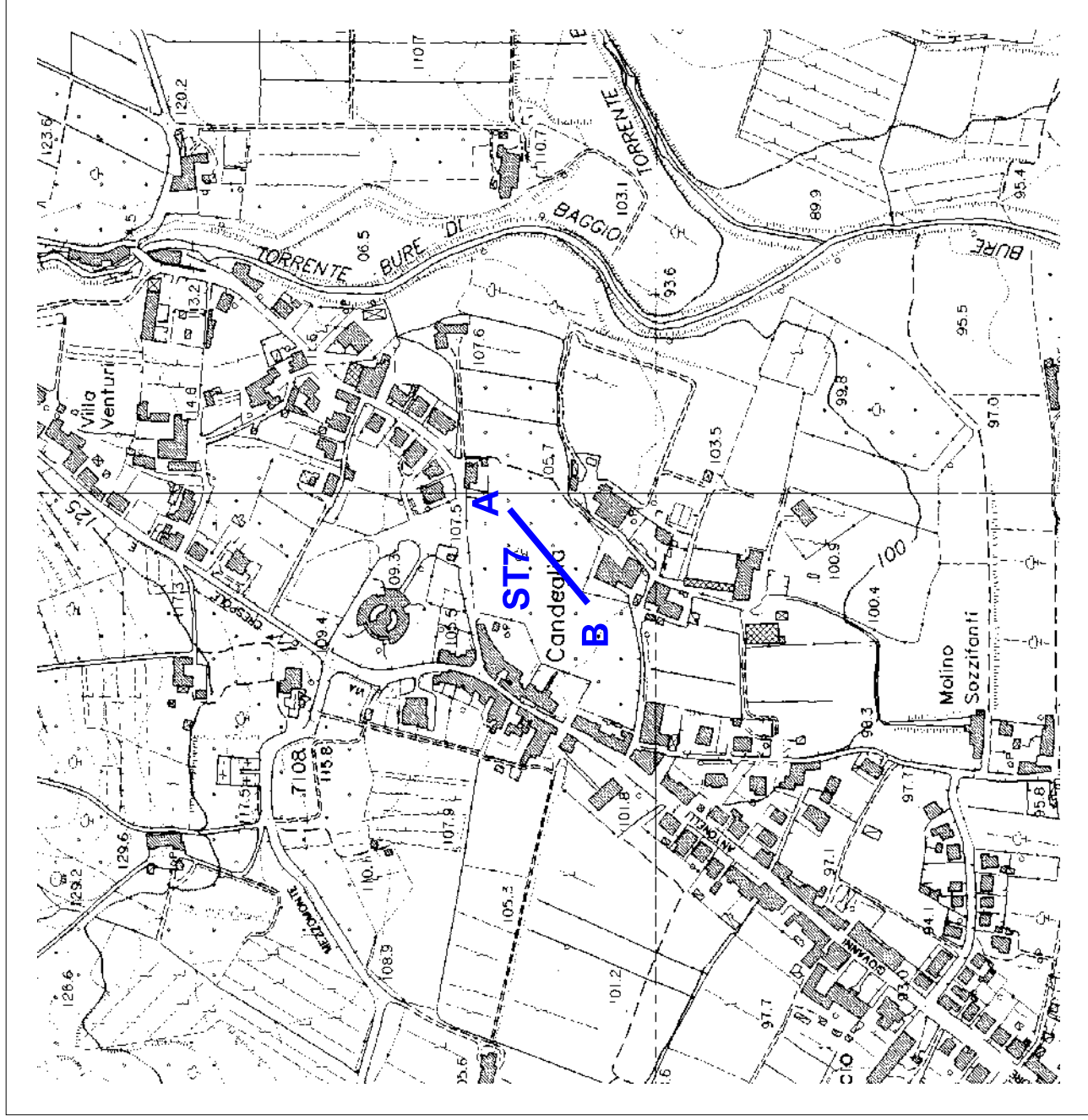
Committente: COMUNE DI PISTOIA
Località: Candeglia
Data: 15 marzo 2013

PLANIMETRIA IN SCALA 1:5.000

LEGENDA

ST7

Linea sismica



COMUNE DI PISTOIA
 PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
 CON ONDE P ED ONDE SH

Committente: COMUNE DI PISTOIA
 Località: Candeglia
 Data: 15 marzo 2013

PLANIMETRIA IN SCALA 1:1.000

LEGENDA

ST7



Linea sismica (96 m)

X G1-G24

Posizione geofoni

● A

Tiro estremo sinistro

● B

Tiro estremo destro

● C

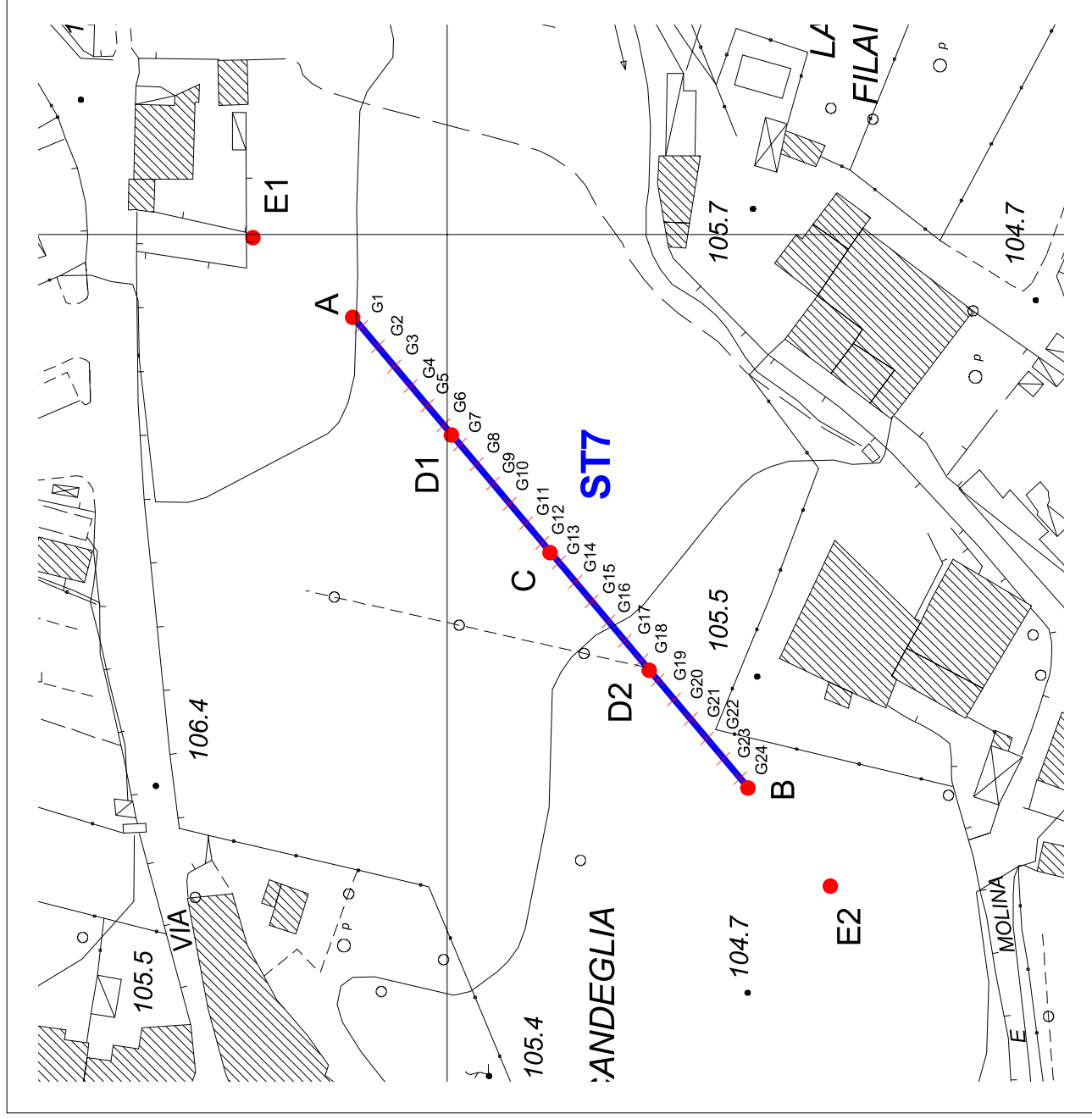
Tiro centrale

● D1-D2

Tiri intermedi

● E1-E2

Tiri esterni



LINEA SISMICA ST7

-SCHEMA DETTAGLIATO DELLA LINEA DI ACQUISIZIONE

Geofoni n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dist. Progressiva (m)	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74	78	82	86	90	94
Dist. Parziale (m)	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2
Quota (m s.l.m.)	108.0	107.7	107.5	107.3	107.0	107.0	107.0	107.0	107.0	107.0	106.7	106.5	106.5	106.5	106.3	106.0	105.7	105.5	105.5	105.5	105.5	105.3	105.3	105.3

COORDINATE GAUSS BOAGA DI G1 E G24

	GEOFONO N.1 (G1)	GEOFONO N.24 (G24)
X(m)	1655985.50	1655915.06
Y(m)	4868613.36	4868554.18

PUNTI DI ENERGIZZAZIONE

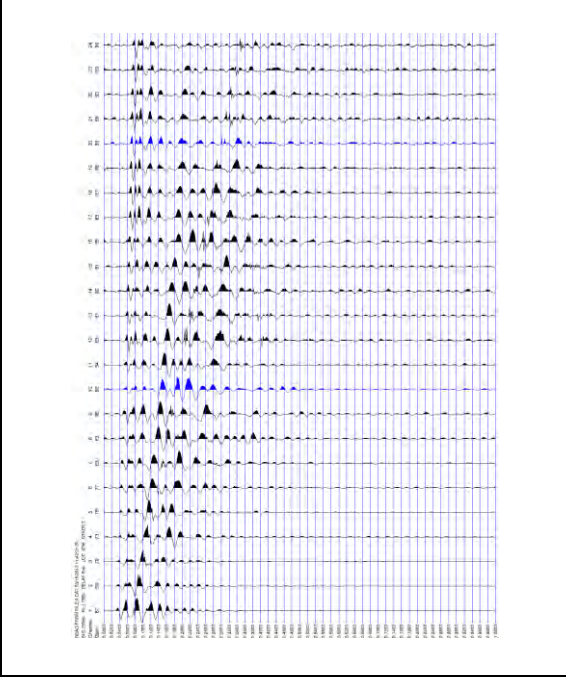
	E1	A	D1	C	D2	B	E2
	esterno sx	estremo sx	intermedio sx	centrale	intermedio dx	estremo dx	esterno dx
Onde P	21.dat	20.dat	19.dat	18.dat	17.dat	16.dat	15.dat
Onde SH	4.dat	2.dat	6.dat	8.dat	10.dat	12.dat	14.dat
Posiz. dal Geof.n.1 (m)	-22	-2	22	46	70	94	114
Quota (m)	108.3	108.0	107.0	106.5	105.5	105.3	104.7

COMUNE DI PISTOIA

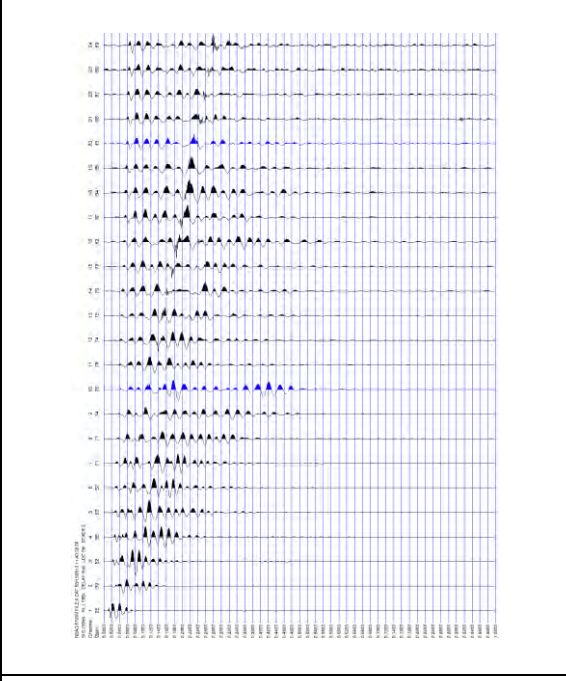
LINEA SISMICA ST7

ONDE P - REGISTRAZIONI DI CAMPAGNA

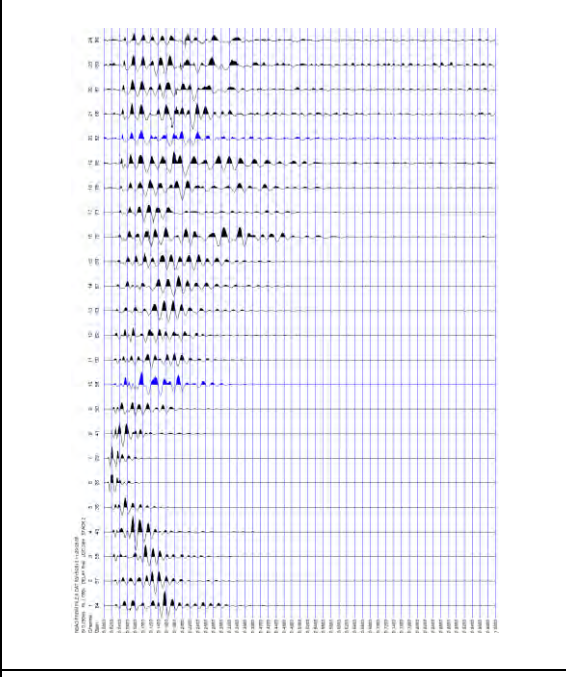
E1 - SCOPPIO ESTERNO SX - STACK 3



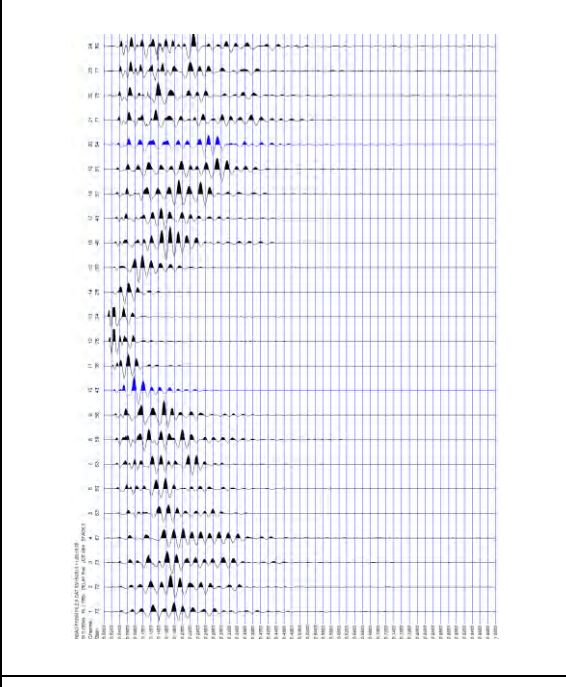
A - SCOPPIO ESTREMO SX - STACK 2



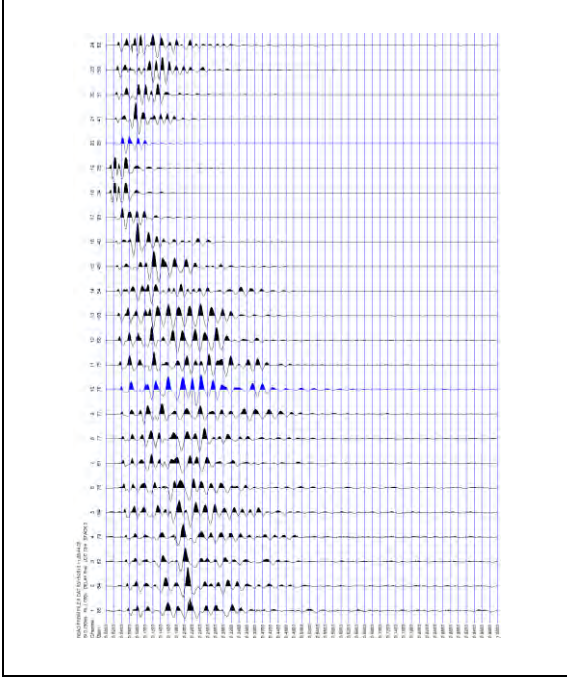
D1 - SCOPPIO INTERMEDIO SX - STACK 2



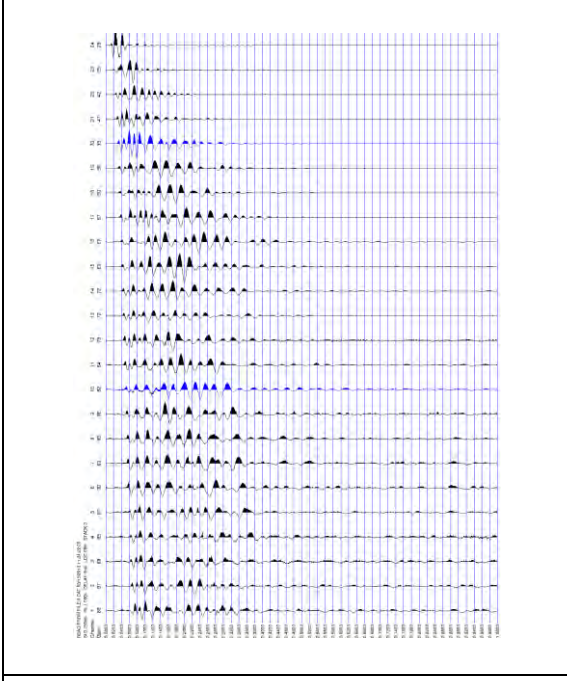
C - SCOPPIO CENTRALE - STACK 3



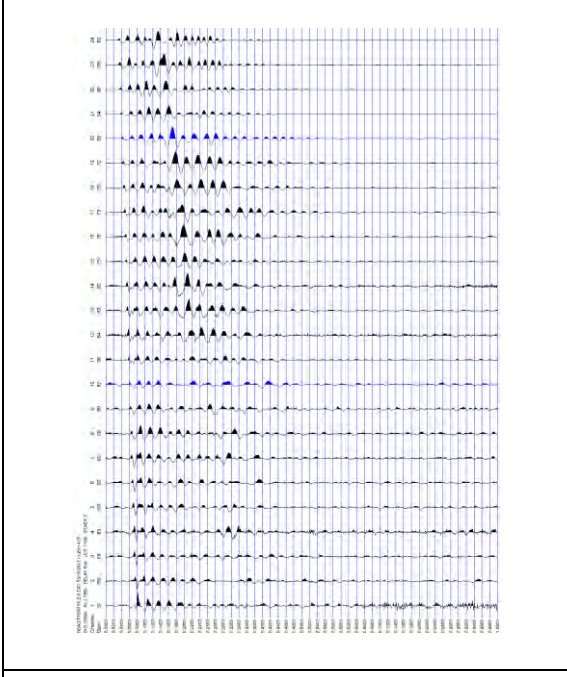
D2 - SCOPPIO INTERMEDIO DX - STACK 3



B - SCOPPIO ESTREMO DX - STACK 3



E2 - SCOPPIO ESTERNO DX - STACK 3

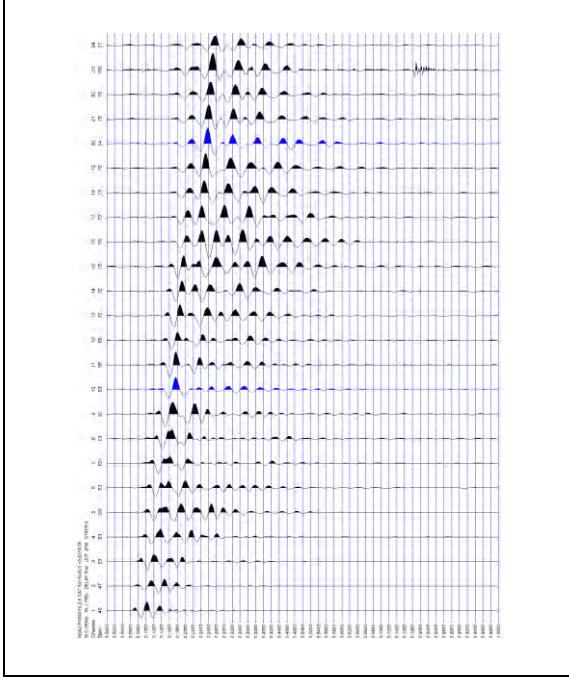


COMUNE DI PISTOIA

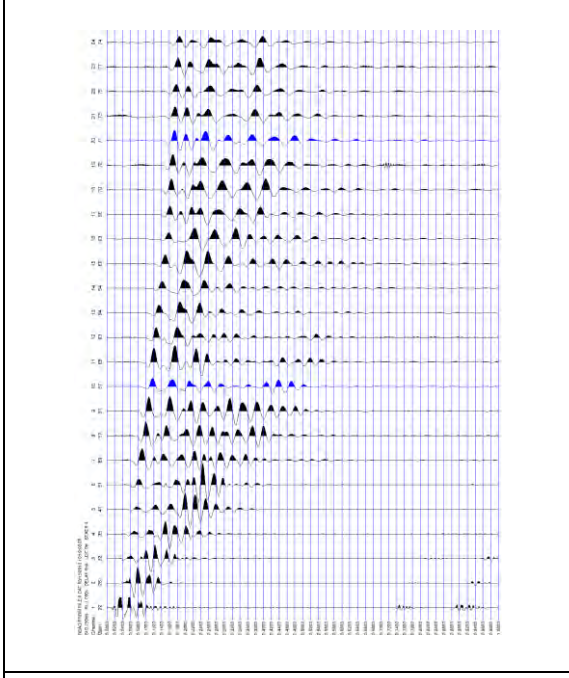
LINEA SISMICA ST7

ONDE SH - REGISTRAZIONI DI CAMPAGNA

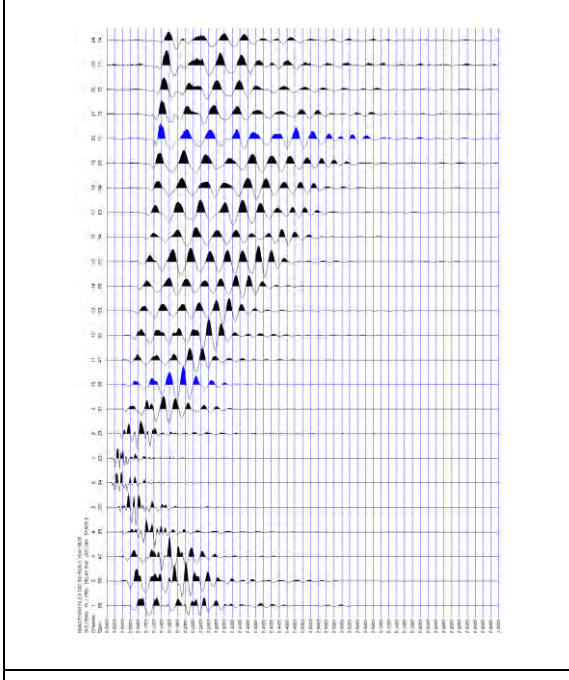
E1 - SCOPPIO ESTERNO SX - STACK 4



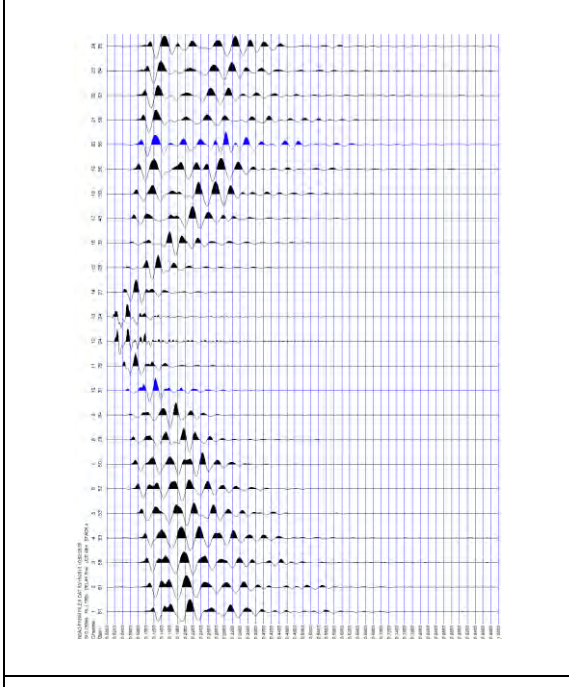
A - SCOPPIO ESTREMO SX - STACK 4



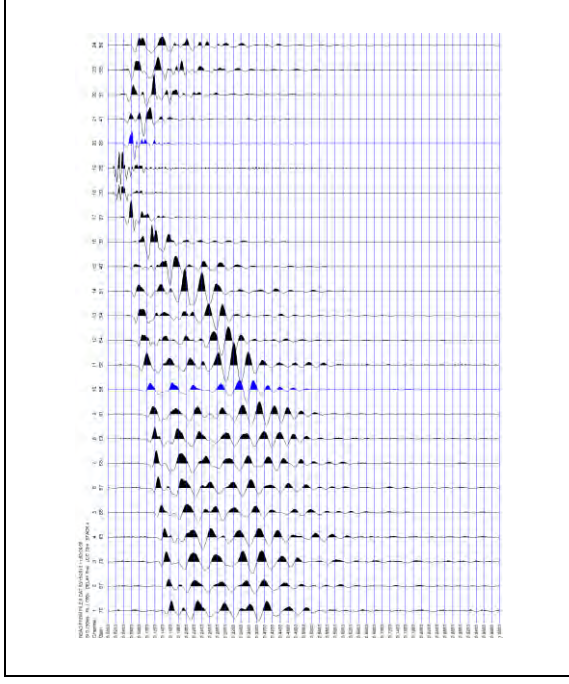
D1 - SCOPPIO INTERMEDIO SX - STACK 5



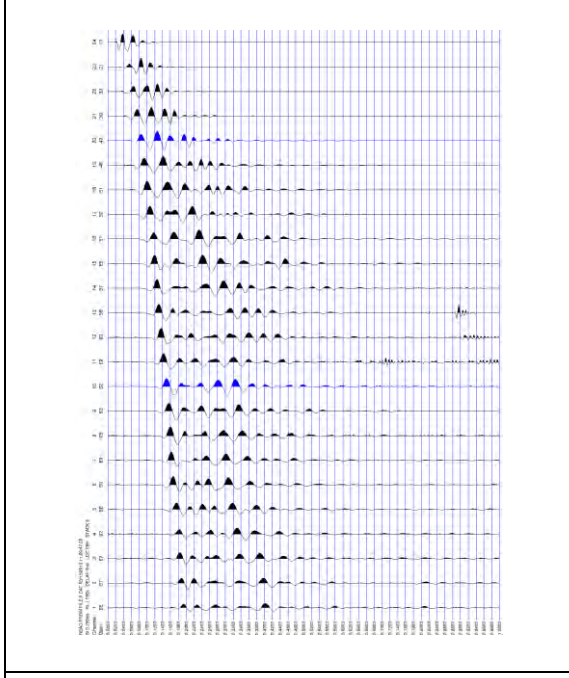
C - SCOPPIO CENTRALE - STACK 4



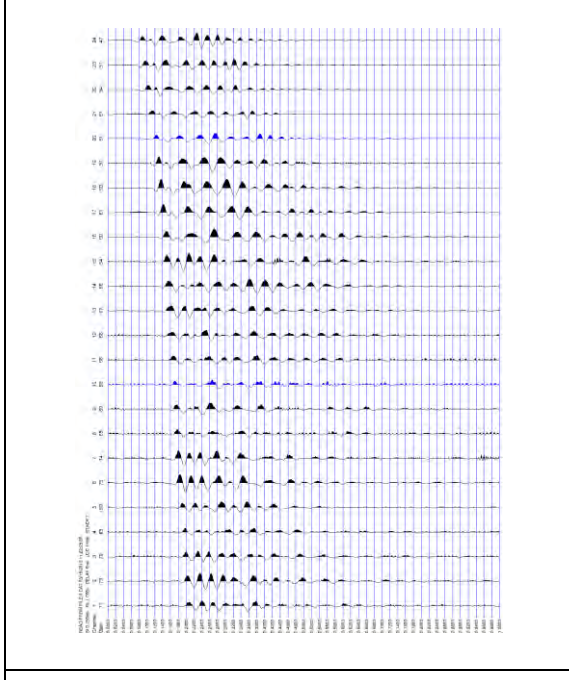
D2 - SCOPPIO INTERMEDIO DX - STACK 4



B - SCOPPIO ESTREMO DX - STACK 6



E2 - SCOPPIO ESTERNO DX - STACK 7



LINEA SISMICA ST7

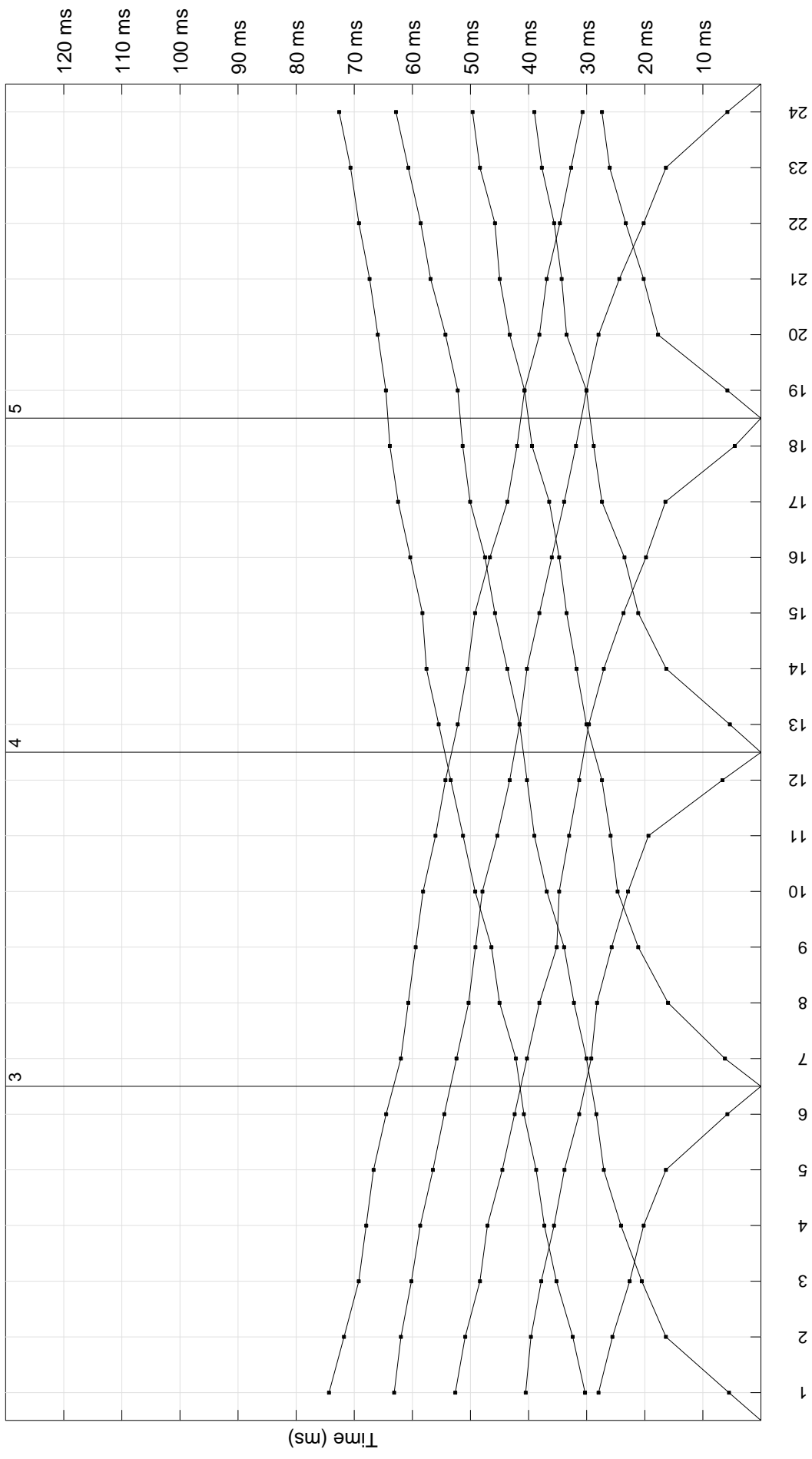
TEMPI DI PROPAGAZIONE DELLE ONDE P ED SH

ONDE P												ONDE SH											
	E1	A	D1	C	D2	B	E2		E1	A	D1	C	D2	B	E2								
G1	30.29	5.51	27.95	40.49	52.61	63.13	74.33		67.94	11.22	61.18	108.58	140.75	167.5	189.25								
G2	32.4	16.35	25.55	39.59	50.9	61.95	71.76		74.08	29.04	53.7	100.91	135.97	163.38	186.61								
G3	35.2	20.52	22.6	37.81	48.36	60.15	69.22		82.01	39.31	46.86	92.51	131.85	160.25	183.25								
G4	37.29	24.09	20.2	35.61	47.08	58.65	67.94		89.91	47.54	41.38	86.93	127.05	154.47	181.21								
G5	38.7	27.05	16.35	33.83	44.52	56.45	66.66		95.19	55.08	31.78	78.54	120.87	148.19	175.02								
G6	40.79	28.35	5.78	31.29	42.4	54.5	64.51		100.47	62.65	13.35	70.55	112.66	142.16	168.86								
G7	42.18	30.04	6.21	29.2	40.27	52.4	61.97		107.5	68.8	12.43	64.55	107.18	137.88	164.07								
G8	44.99	32.18	16	28.21	38.13	50.31	60.7		113.43	77.61	34	58.27	101.69	133.58	160.63								
G9	46.38	33.88	21.11	25.69	35.15	49.13	59.43		119.3	83.76	41.49	51.81	93.91	130.13	157.22								
G10	49.18	36.86	24.67	22.87	34.72	47.93	58.15		125.97	89.91	49.93	45.24	88.36	124.98	153.97								
G11	51.27	38.99	25.87	19.37	33.02	45.38	56.02		131.24	96.05	54.61	37.75	80.44	119.51	148.3								
G12	53.38	40.27	27.37	6.63	31.29	43.25	54.31		136.5	103.11	63.04	18.04	74.94	114.72	142.82								
G13	55.47	41.54	30.04	5.36	29.62	41.54	52.18		140.91	110.12	67.73	18.04	68.79	106.05	138.71								
G14	57.56	43.65	31.75	16.29	27.04	40.27	50.49		146.16	118.05	75.23	37.75	61.75	100.3	134.6								
G15	58.27	45.79	33.45	21.11	23.67	38.13	49.2		150.58	126.83	83.68	47.11	54.08	93.47	130.47								
G16	60.36	47.5	34.72	23.5	19.79	36	46.65		154.97	133	91.68	55.47	45.68	87.98	127.73								
G17	62.45	50.06	36.43	27.37	16.43	33.88	43.65		158.49	136.5	96.8	61.75	28.2	79.76	122.94								
G18	63.86	51.34	39.4	28.79	4.51	31.84	41.97		161.13	139.13	105.23	66.8	8.64	72.51	116.76								
G19	64.55	52.18	40.68	30.04	5.78	30.04	40.68		163.77	143.55	111.8	71.55	9.34	67.33	111.29								
G20	65.94	54.31	43.25	33.45	17.7	27.95	38.13		167.1	147.05	116.48	78.54	28.37	57.56	103.75								
G21	67.36	56.86	44.95	34.31	20.2	24.37	36.86		168.97	150.58	118.36	84.12	40.79	52.72	96.19								
G22	69.18	58.56	45.79	35.59	23.26	20.2	34.61		171.77	154.1	122.11	89.73	48.59	43.25	85.93								
G23	70.62	60.7	48.36	37.7	26.03	16.35	32.68		175.52	156.72	125.86	95.3	54.75	37.24	79.08								
G24	72.58	62.83	49.63	38.99	27.37	5.78	30.7		177.41	160.25	127.73	100.19	60.02	13.27	72.22								

Profilo ST7 - Pistoia - Candeglia - Onde P

A

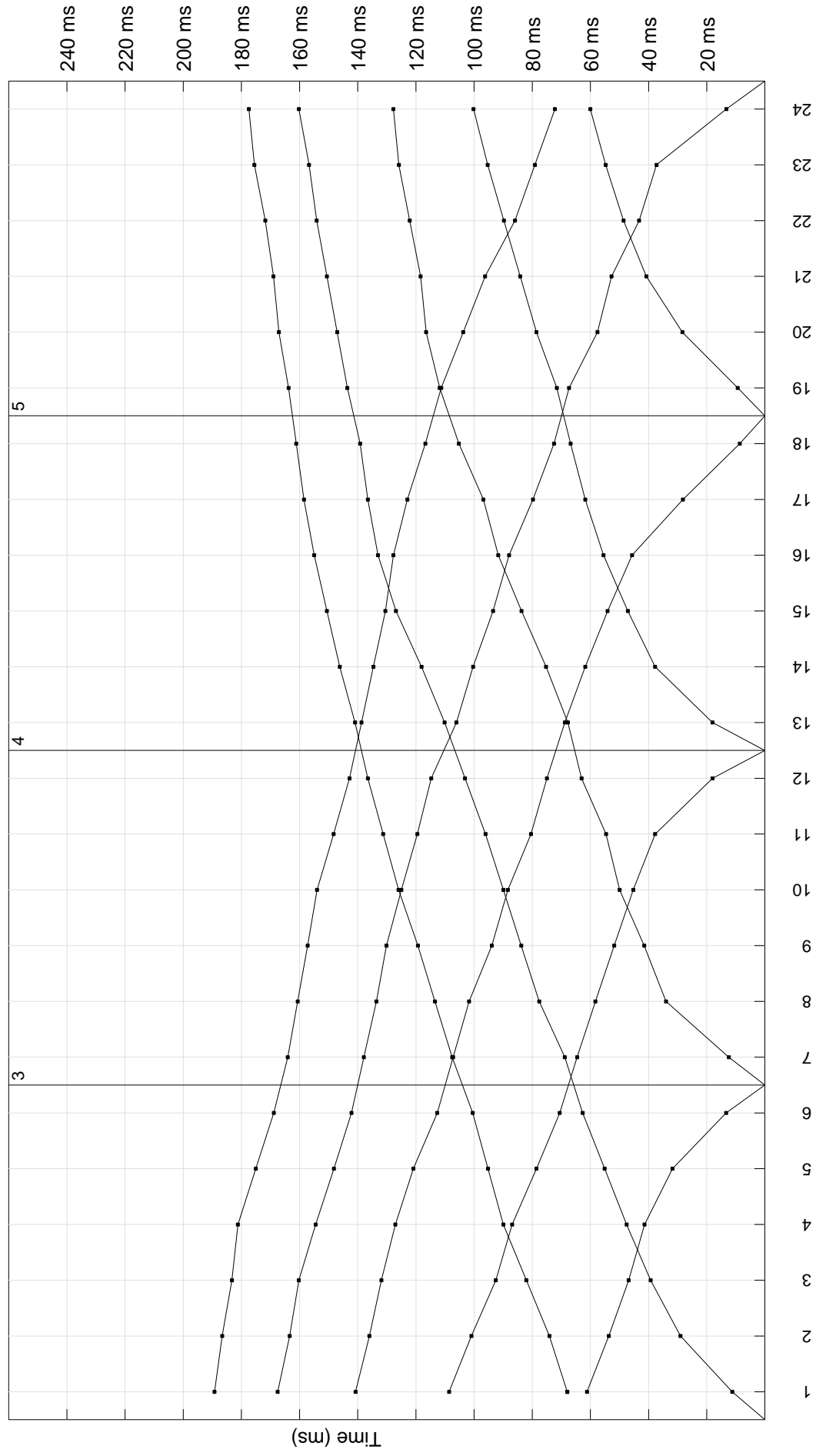
B



Profilo ST7 - Pistoia - Candeglia - Onde SH

A

B



**COMUNE DI PISTOIA
PROVINCIA DI PISTOIA**

MICROZONAZIONE SISMICA LIVELLO 1

PROFILO ST7 – Candeglia

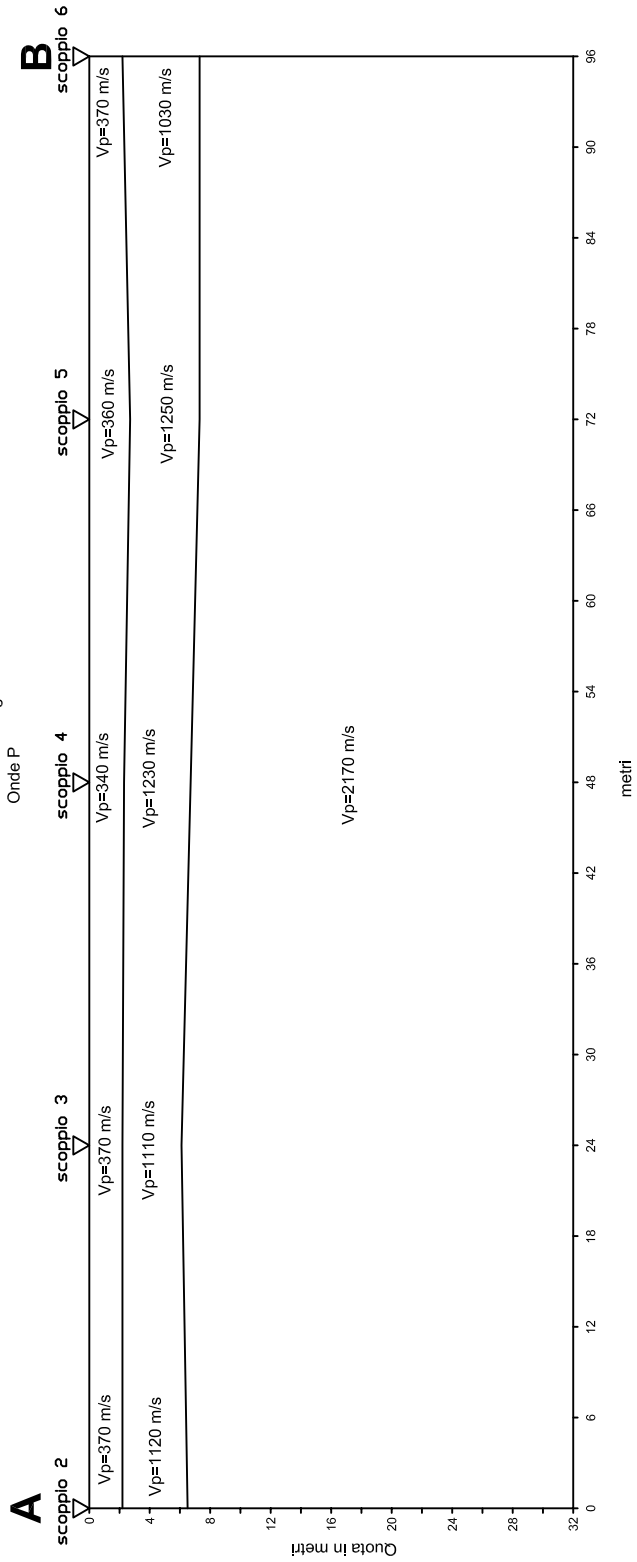
**Ricostruzione sismostratigrafica
Onde P**

scoppi	distanze (m)	Profondità 1° livello	Profondità 2° livello	Vp1 (m/sec)	Vp2 (m/sec)	Vp3 (m/sec)
2	0	2.2	6.5	370	1120	2170
3	24	2.2	6.1	370	1110	2170
4	48	2.3	6.7	340	1230	2170
5	72	2.7	7.3	360	1260	2170
6	96	2.2	7.3	370	1030	2170

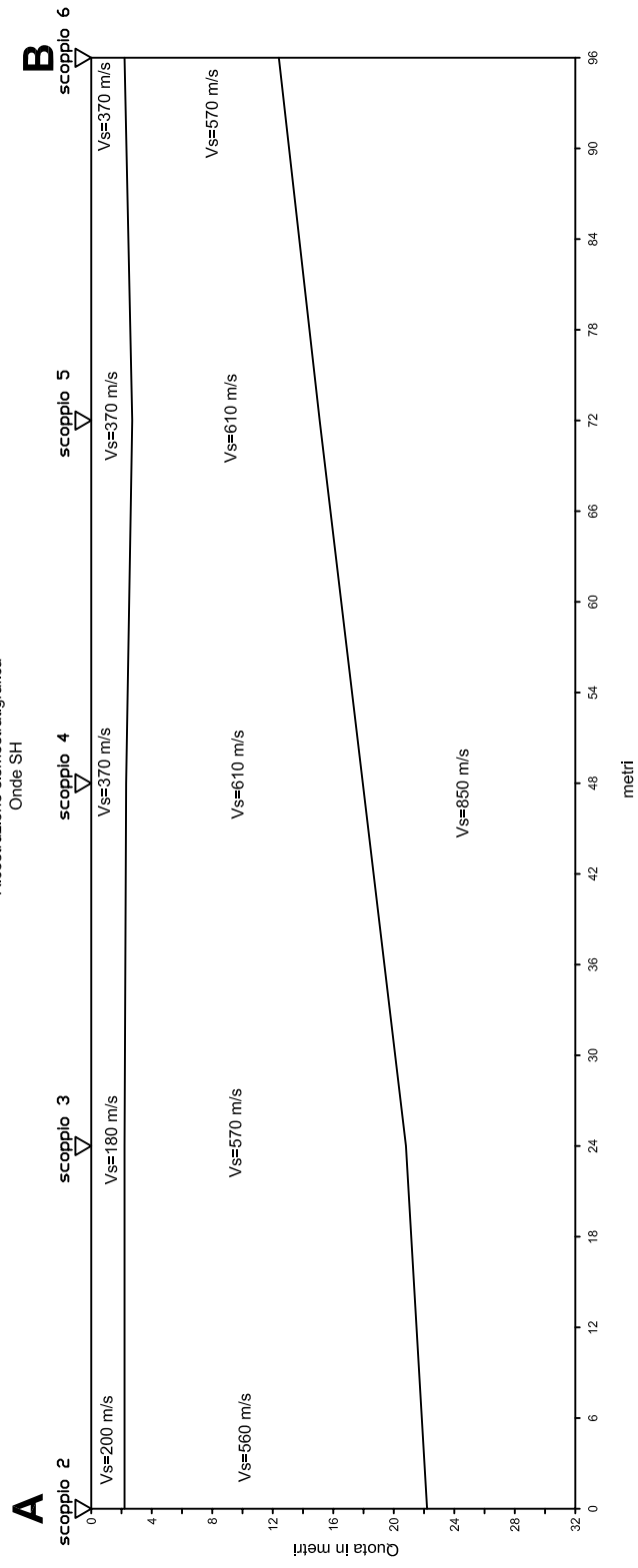
**Ricostruzione sismostratigrafica
Onde SH**

scoppi	distanze (m)	Profondità 1° livello	Profondità 2° livello	Vs1 (m/sec)	Vs2 (m/sec)	Vs3 (m/sec)
2	0	2.2	22.2	200	560	850
3	24	2.2	20.8	180	570	850
4	48	2.3	-	150	610	850
5	72	2.7	15.1	210	610	850
6	96	2.2	12.4	160	570	850

Profilo ST7 - Candeglia
Comune di Pistoia
Ricostruzione sismostratigrafica
Onde P



Profilo ST7 - Candeglia
Comune di Pistoia
Ricostruzione sismostratigrafica
Onde SH



SEZIONE LITOSTRATIGRAFICA INTERPRETATIVA

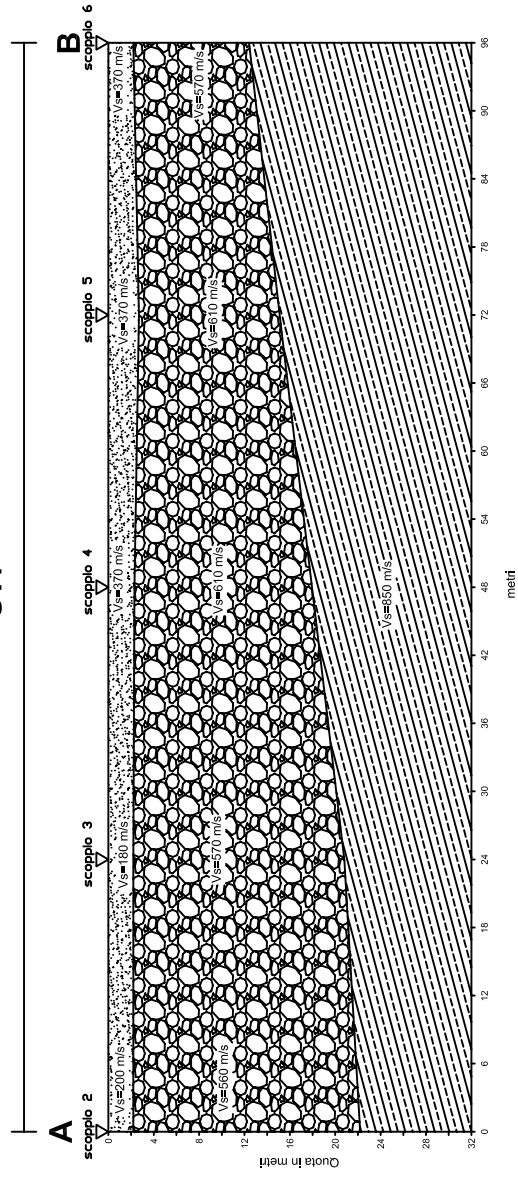
Base sismica: ST7
Committente: COMUNE DI PISTOIA
Località: Candeglia
Data: 15 marzo 2013

LEGENDA

$V_s=420$ m/s Velocità sismica onde SH in metri al secondo

- Depositi alluvionali e/o rimaneggiati
- Depositi alluvionali addensati
- Argilliti del Complesso di Base (Formazione Sillano)

ST7



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

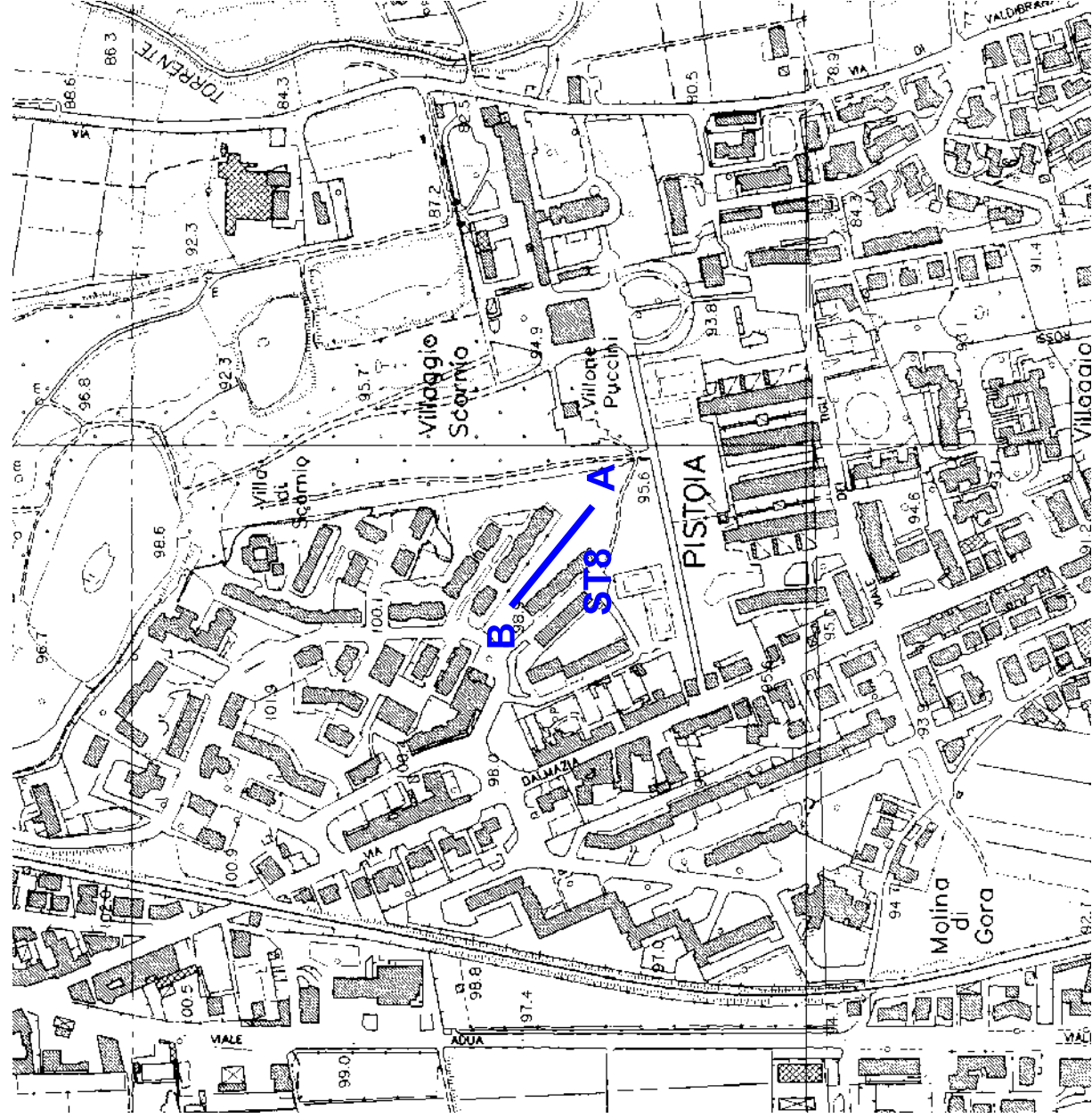
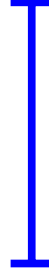
Committente: COMUNE DI PISTOIA
Località: Villone Puccini
Data: 15 marzo 2013

PLANIMETRIA IN SCALA 1:5.000

LEGENDA

ST8

Linea sismica



COMUNE DI PISTOIA
 PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

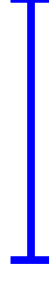
PROSPERZIONI SISMICHE A RIFRAZIONE
 CON ONDE P ED ONDE SH

Committente: COMUNE DI PISTOIA
 Località: Villone Puccini
 Data: 15 marzo 2013

PLANIMETRIA IN SCALA 1:1.000

LEGENDA

ST8



Linea sismica (96 m)

X G1-G24

Posizione geofoni

● A

Tiro estremo sinistro

● B

Tiro estremo destro

● C

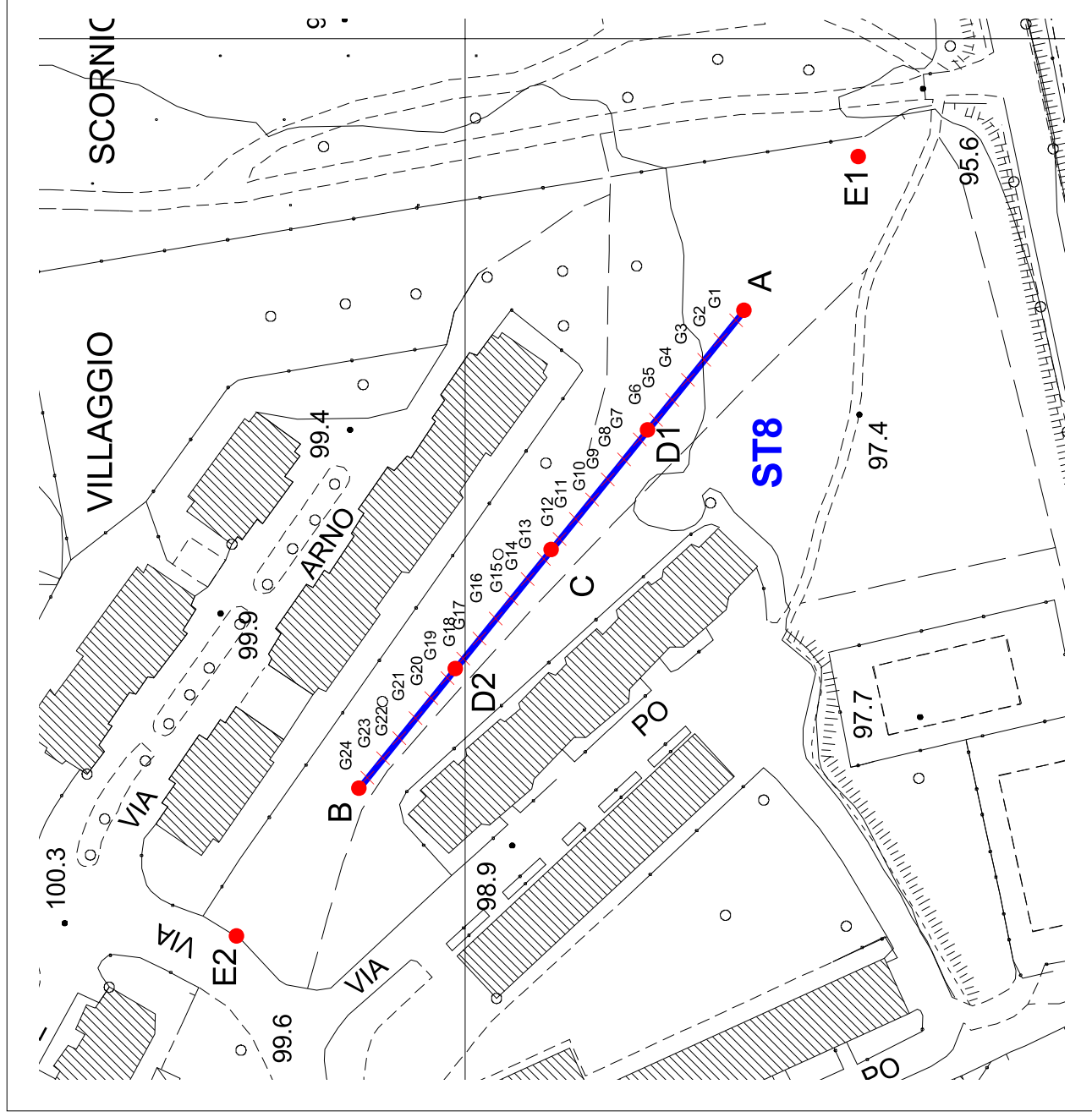
Tiro centrale

● D1-D2

Tiri intermedi

● E1-E2

Tiri esterni



LINEA SISMICA ST8

-SCHEMA DETTAGLIATO DELLA LINEA DI ACQUISIZIONE

Geofoni n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dist. Progressiva (m)	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74	78	82	86	90	94
Dist. Parziale (m)	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2
Quota (m s.l.m.)	97.8	98.0	98.1	98.1	98.2	98.2	98.3	98.3	98.4	98.4	98.5	98.9	99.0	99.0	99.1	99.2	99.3	99.4	99.5	99.5	99.5	99.5	99.5	99.5

COORDINATE GAUSS BOAGA DI G1 E G24

	GEOFONO N.1 (G1)	GEOFONO N.24 (G24)
X(m)	1652955.86	1652884.23
Y(m)	4868157.51	4868215.25

PUNTI DI ENERGIZZAZIONE

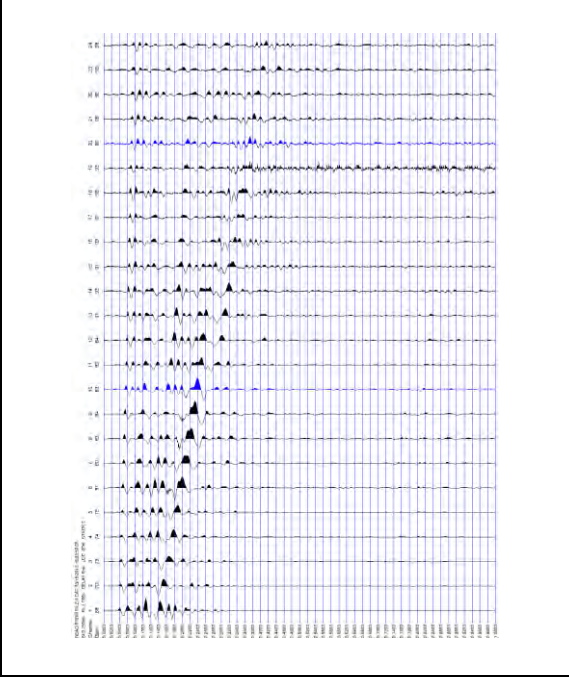
	E1	A	D1	C	D2	B	E2
	esterno sx	estremo sx	intermedio sx	centrale	intermedio dx	estremo dx	esterno dx
Onde P	15.dat	16.dat	17.dat	18.dat	19.dat	20.dat	21.dat
Onde SH	14.dat	12.dat	10.dat	8.dat	6.dat	2.dat	4.dat
Posiz. dal Geof.n.1 (m)	-32	-2	22	46	70	94	124
Quota (m)	96.7	97.7	98.2	98.9	99.4	99.5	99.6

COMUNE DI PISTOIA

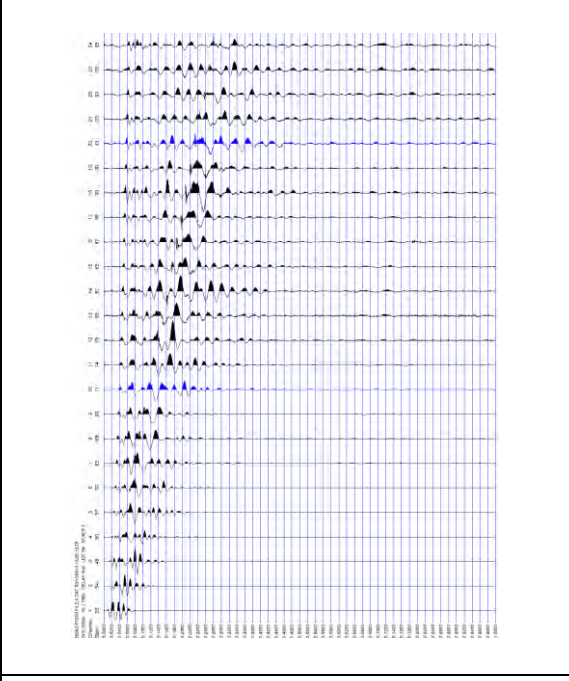
LINEA SISMICA ST8

ONDE P - REGISTRAZIONI DI CAMPAGNA

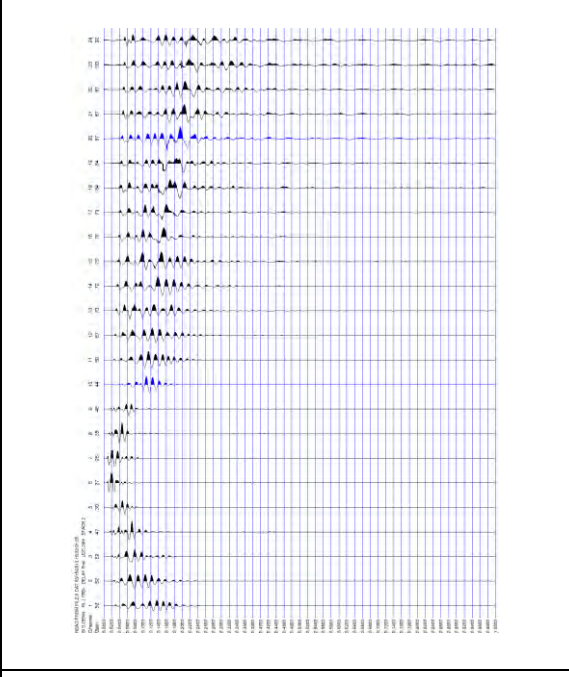
E1 - SCOPPIO ESTERNO SX - STACK 3



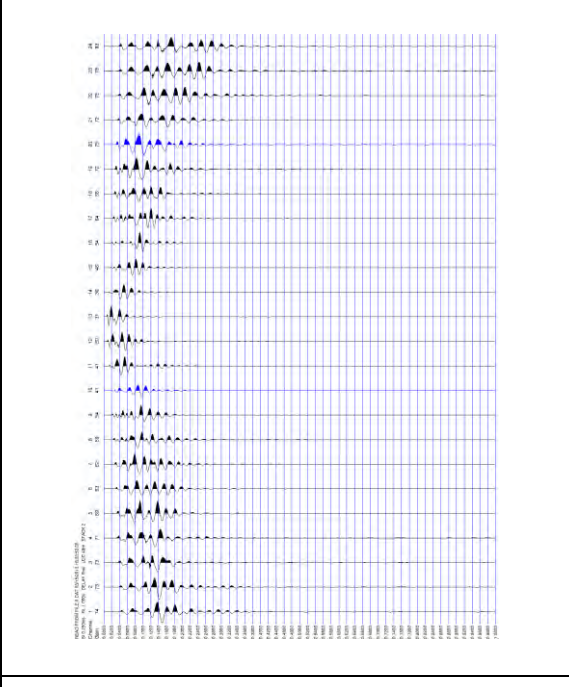
A - SCOPPIO ESTREMO SX - STACK 3



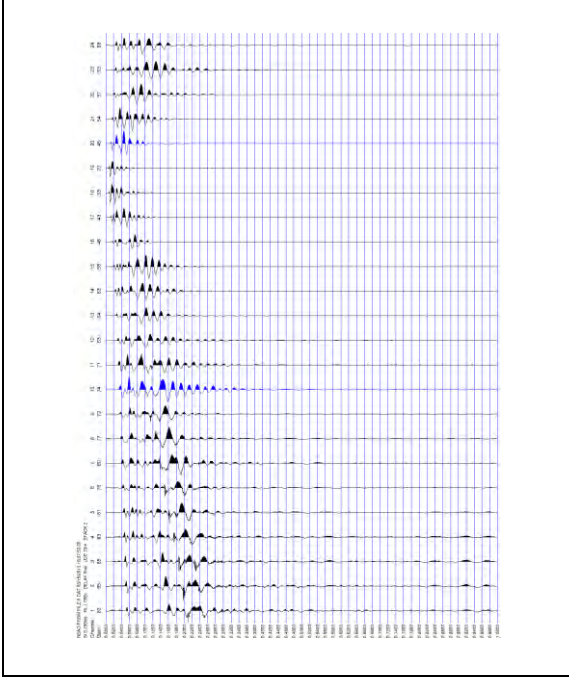
D1 - SCOPPIO INTERMEDIO SX - STACK 2



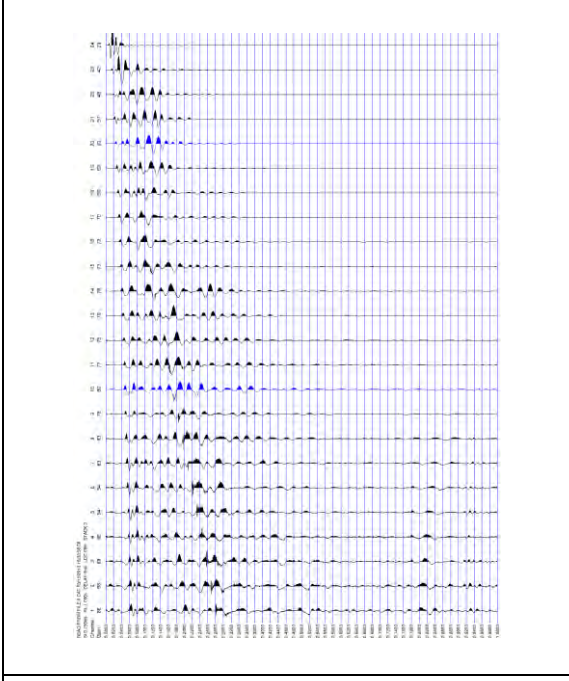
C - SCOPPIO CENTRALE - STACK 2



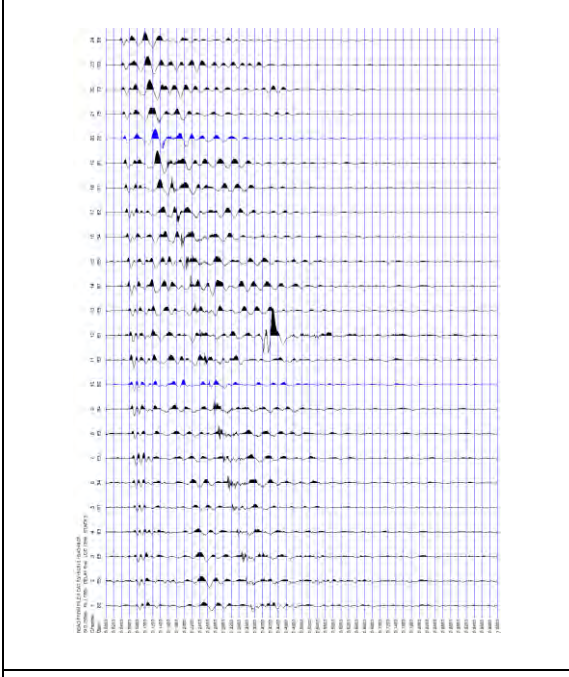
D2 - SCOPPIO INTERMEDIO DX - STACK 2



B - SCOPPIO ESTREMO DX - STACK 3



E2 - SCOPPIO ESTERNO DX - STACK 5

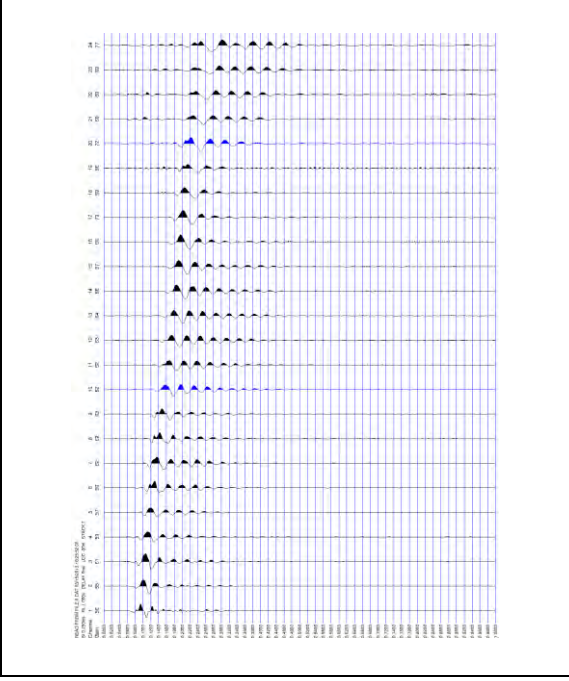


COMUNE DI PISTOIA

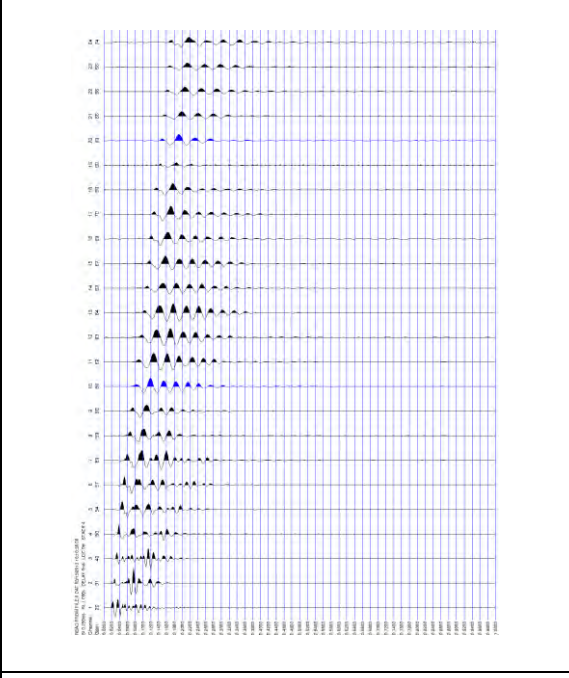
LINEA SISMICA ST8

ONDE SH - REGISTRAZIONI DI CAMPAGNA

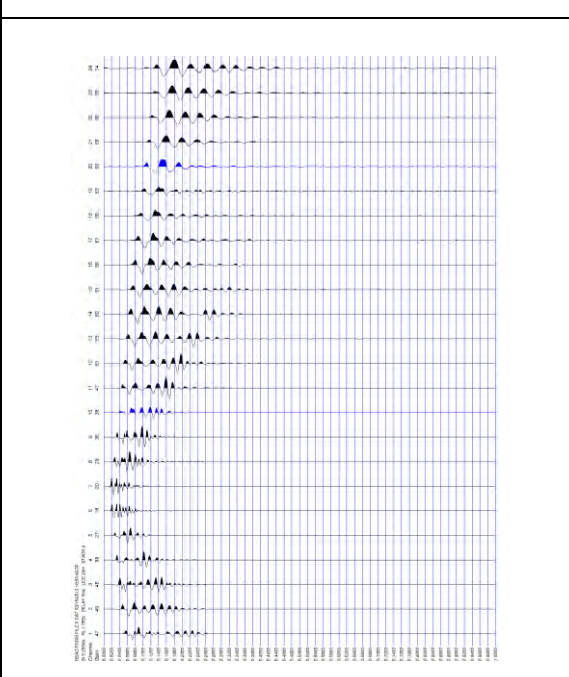
E1 - SCOPPIO ESTERNO SX - STACK 7



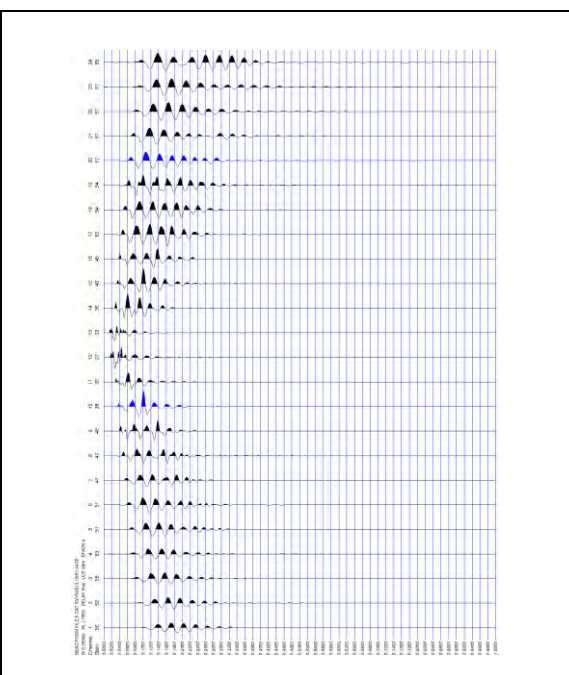
A - SCOPPIO ESTREMO SX - STACK 4



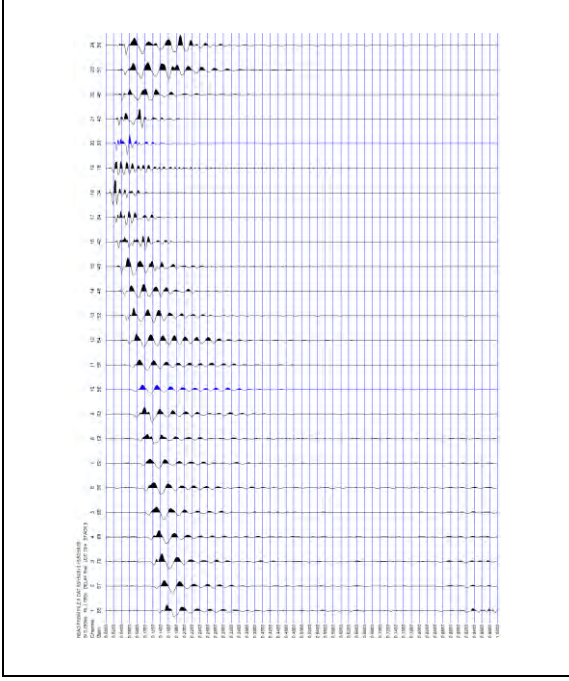
D1 - SCOPPIO INTERMEDIO SX - STACK 4



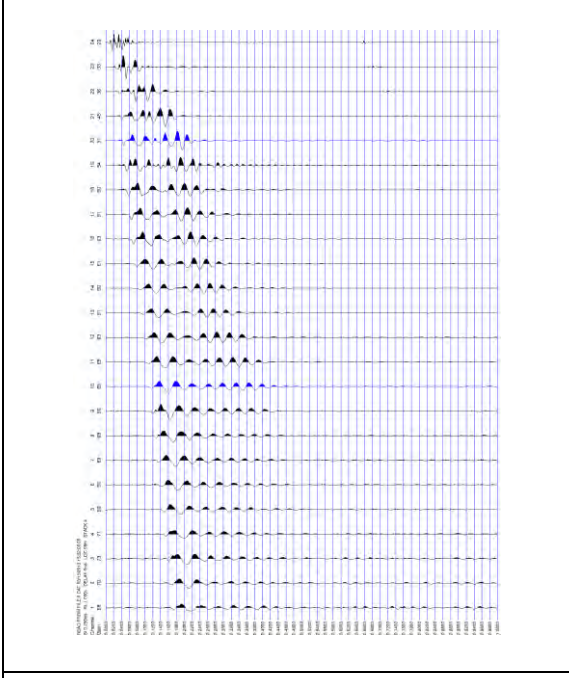
C - SCOPPIO CENTRALE - STACK 4



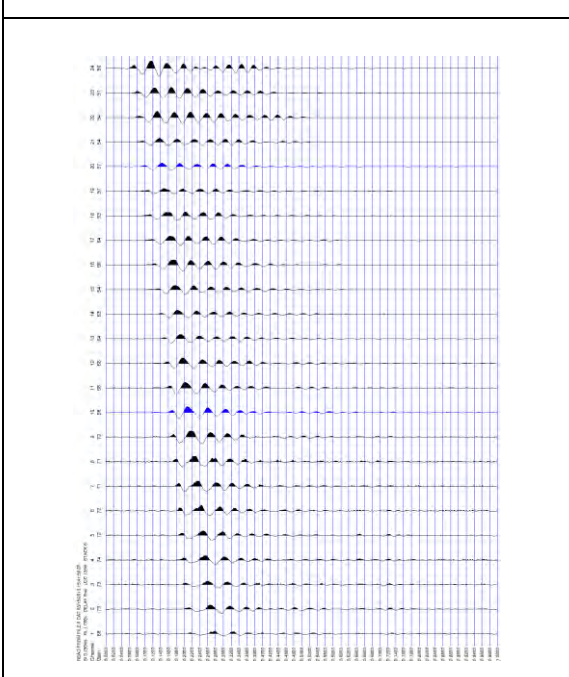
D2 - SCOPPIO INTERMEDIO DX - STACK 5



B - SCOPPIO ESTREMO DX - STACK 4



E2 - SCOPPIO ESTERNO DX - STACK 6

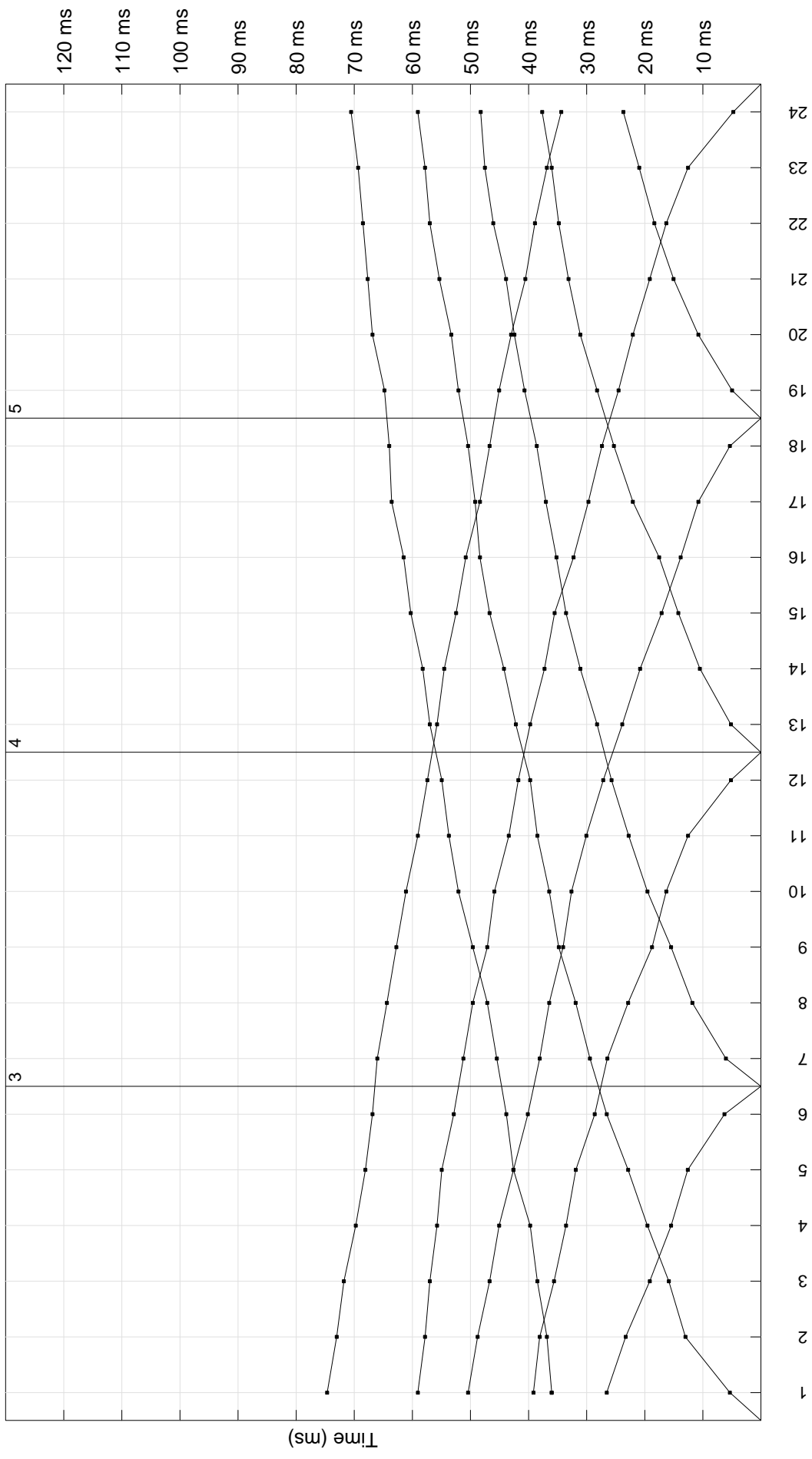


LINEA SISMICA ST8**TEMPI DI PROPAGAZIONE DELLE ONDE P ED SH**

ONDE P												ONDE SH				
	E1	A	D1	C	D2	B	E2		E1	A	D1	C	D2	B	E2	
G1	36.02	5.34	26.54	39.15	50.4	59.04	74.66		69.11	8.25	46.63	91.26	130.66	165.66	207.66	
G2	36.84	13	23.28	38.08	48.77	57.81	73.01		74.41	23.01	42.25	85.15	123.66	161.27	199.8	
G3	38.49	15.85	19.12	35.61	46.7	56.99	71.79		81.01	29.12	36.13	78.15	114.91	156.02	194.55	
G4	39.72	19.54	15.46	33.54	45.06	55.75	69.73		87.65	34.38	30.01	68.51	107.9	149.91	191.05	
G5	42.59	22.86	12.59	31.87	42.59	54.93	68.08		95.58	41.38	23.87	61.52	100.01	142.91	185.8	
G6	43.83	26.54	6.28	28.61	40.13	52.88	66.86		100.87	46.63	10.65	56.27	93.9	135.91	182.3	
G7	45.47	29.44	6.03	26.43	38.08	51.22	66.04		107.51	52.75	9.89	50.13	86.9	128.91	174.41	
G8	47.11	31.87	11.81	22.86	36.43	49.59	64.37		114.12	60.63	23.87	45.75	80.76	122.76	169.16	
G9	49.59	34.79	15.46	18.75	34.06	47.11	62.75		120.76	65.87	31.76	39.63	72.9	115.76	163.91	
G10	52.06	36.43	19.54	16.29	32.61	45.88	61.09		128.69	74.65	39.63	33.5	68.51	110.51	159.52	
G11	53.7	38.49	22.77	12.56	30.04	43.4	59.04		135.33	81.65	44.88	27.37	61.52	101.76	155.16	
G12	54.93	39.72	25.7	5.17	27.14	41.77	57.4		139.3	89.51	49.25	14.17	55.38	93.9	146.41	
G13	56.99	42.18	28.2	5.17	23.87	39.72	55.75		147.24	94.76	55.38	12.02	49.25	88.65	138.52	
G14	58.22	44.24	31.09	10.52	20.79	37.25	54.52		155.19	101.76	60.63	27.37	42.25	82.69	134.16	
G15	60.27	46.7	33.54	14.22	17.11	35.52	52.47		163.13	107.9	64.12	31.76	35.25	75.19	126.26	
G16	61.5	48.36	35.2	17.52	13.81	32.25	50.81		169.75	114.01	70.26	37.88	28.26	66.62	115.76	
G17	63.56	49.18	37.02	22.04	10.77	29.7	48.36		176.38	121.91	78.15	44	23.45	60.22	108.76	
G18	63.97	50.4	38.59	25.29	5.34	27.37	46.7		181.66	128.02	86.01	48.38	10.96	54.33	100.9	
G19	64.8	52.06	40.68	28.2	4.98	24.51	45.06		186.97	136.77	92.15	56.27	11.46	50.04	96.51	
G20	66.86	53.29	42.43	31.09	10.77	22.04	43		190.94	141.16	99.15	62.38	25.06	43.61	86.01	
G21	67.68	55.34	43.88	33.13	15.05	19.12	40.54		196.24	145.52	105.26	68.51	30.01	37.2	81.04	
G22	68.5	56.99	46.06	34.79	18.34	16.29	38.9		200.22	152.52	114.01	73.76	37.88	31.46	75.65	
G23	69.33	57.81	47.52	36.02	20.95	12.56	36.84		202.86	156.91	120.16	79.9	42.25	23.01	69.19	
G24	70.55	59.04	48.24	37.65	23.69	4.76	34.38		206.83	162.88	123.66	82.51	48.38	6.38	62.72	

Profilo ST8 - Pistoia - Villone Puccini - Onde P

A

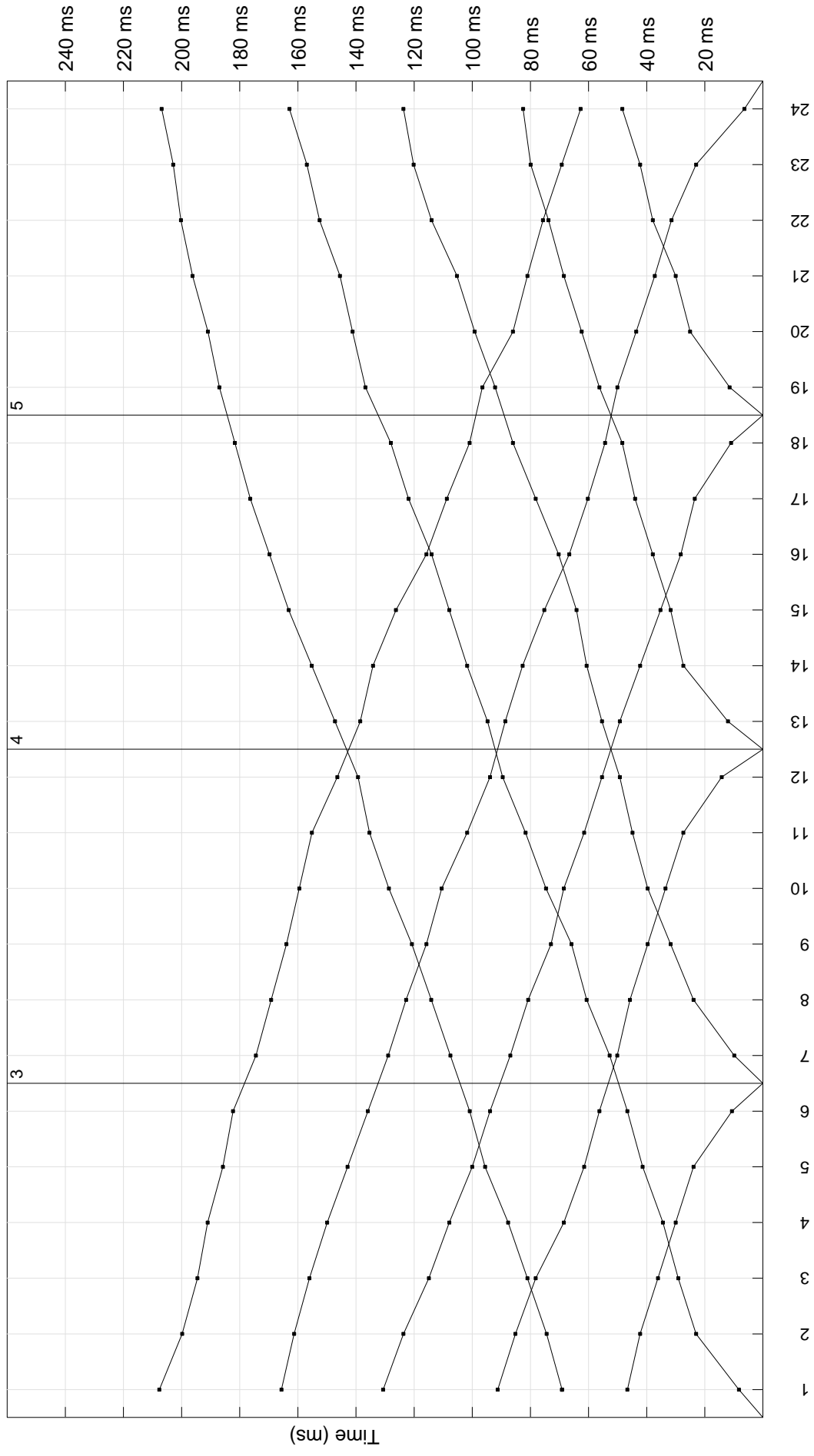


B

Calculs d'épaisseur

Profilo ST8 - Pistoia - Villone Puccini - Onde SH

A



B

**COMUNE DI PISTOIA
PROVINCIA DI PISTOIA**

MICROZONAZIONE SISMICA LIVELLO 1

PROFILO ST8 – Villone Puccini

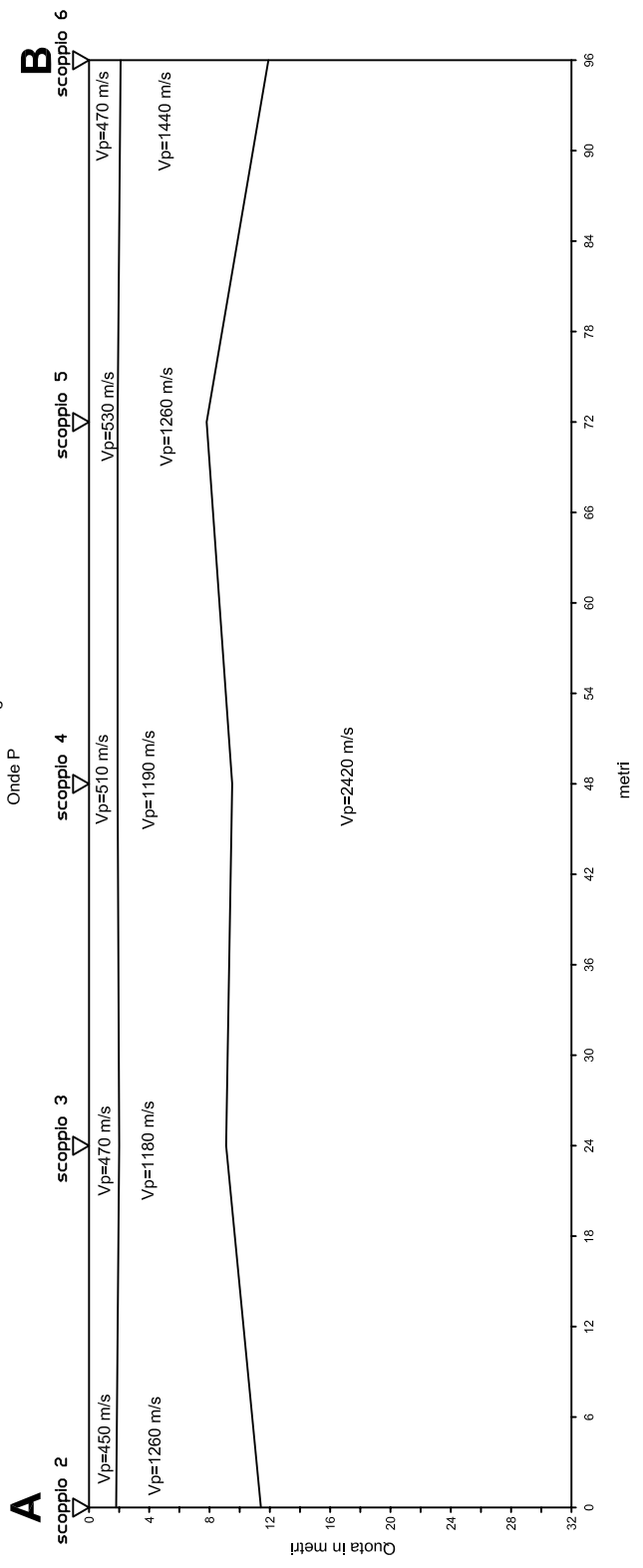
**Ricostruzione sismostratigrafica
Onde P**

scoppi	distanze (m)	Profondità 1° livello	Profondità 2° livello	Vp1 (m/sec)	Vp2 (m/sec)	Vp3 (m/sec)
2	0	1.8	11.4	450	1260	2420
3	24	2.0	9.1	470	1180	2420
4	48	1.9	9.5	510	1190	2420
5	72	1.9	7.8	530	1260	2420
6	96	2.1	11.9	470	1440	2420

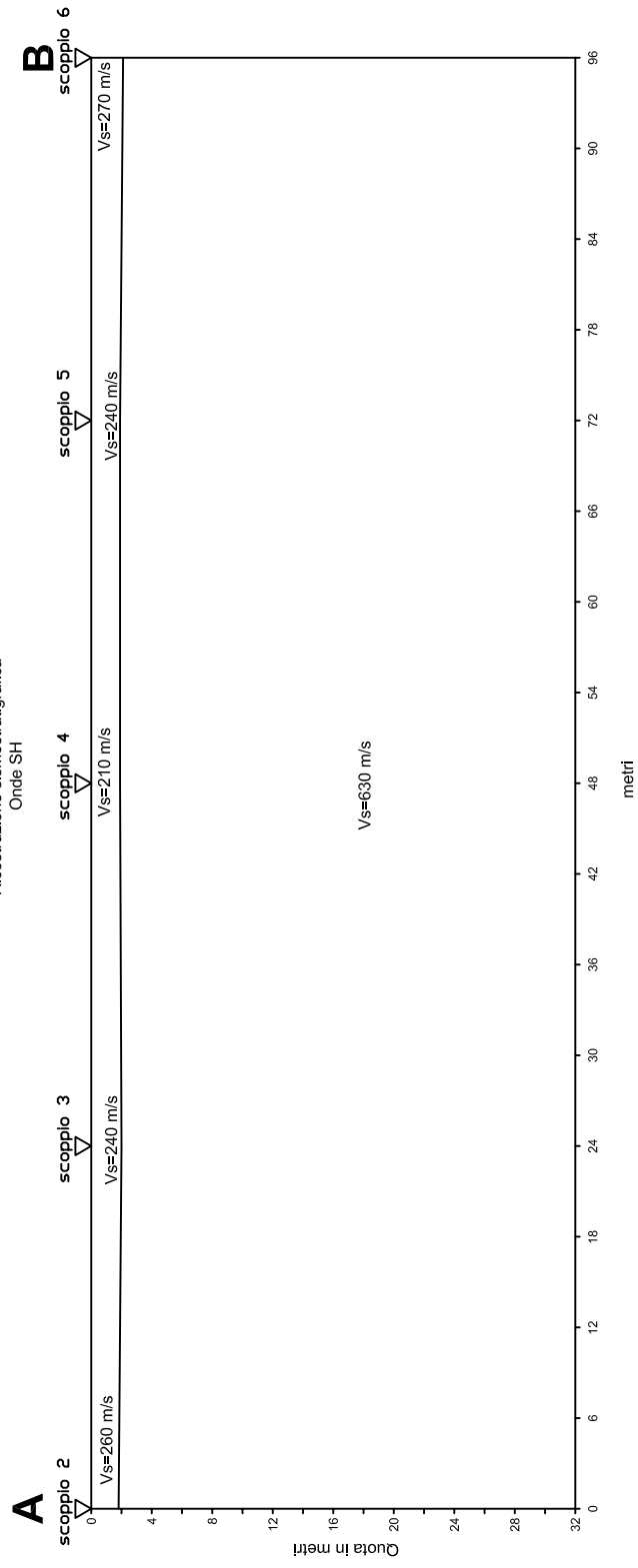
**Ricostruzione sismostratigrafica
Onde SH**

scoppi	distanze (m)	Profondità 1° livello	Vs1 (m/sec)	Vs2 (m/sec)
2	0	1.8	260	630
3	24	2.0	240	630
4	48	1.9	210	630
5	72	1.9	240	630
6	96	2.1	270	630

Profilo ST8 - Villone Puccini
Comune di Pistoia
Ricostruzione sismostratigrafica
Onda P



Profilo ST8 - Villone Puccini
Comune di Pistoia
Ricostruzione sismostratigrafica
Onde SH

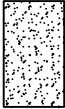




SEZIONE LITOSTRATIGRAFICA INTERPRETATIVA

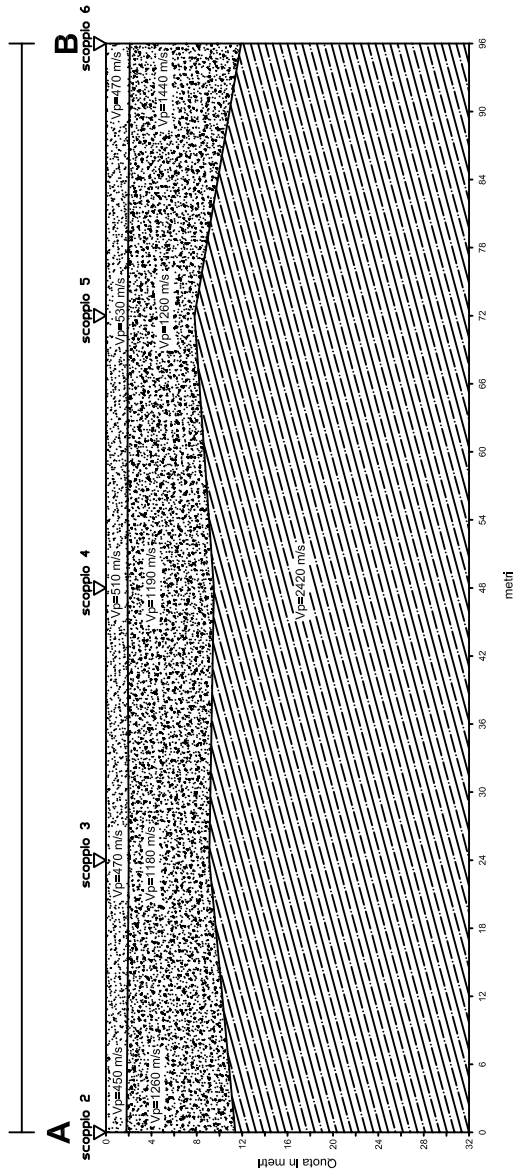
Base sismica: ST8
Committente: COMUNE DI PISTOIA
Località: Villone Puccini
Data: 15 marzo 2013

LEGENDA

Vp=1440 m/s Velocità sismica onde SH in metri al secondo

-  Terreno superficiale rimaneggiato
-  Depositi alluvionali
-  Argilliti del Complesso di Base (Formazione di Sillano)

ST8



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

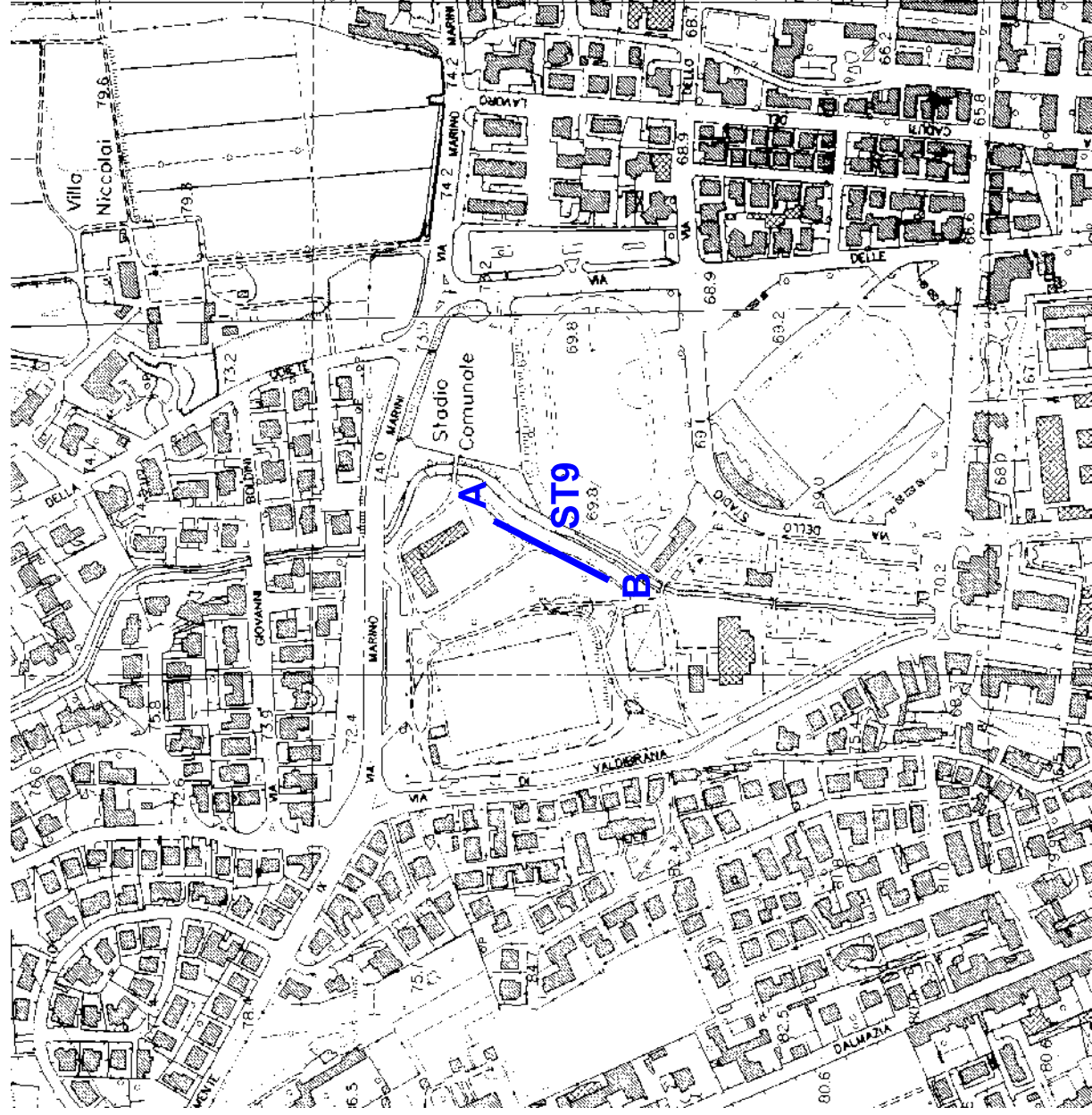
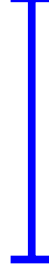
Committente: COMUNE DI PISTOIA
Località: Piazza Oplà
Data: 26 aprile 2013

PLANIMETRIA IN SCALA 1:5.000

LEGENDA

ST9

Linea sismica



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

Committente: COMUNE DI PISTOIA
Località: Piazza Oplà
Data: 26 aprile 2013

PLANIMETRIA IN SCALA 1:1.000

LEGENDA

ST9



Linea sismica (96 m)

X G1-G24

Posizione geofoni

● A

Tiro estremo sinistro

● B

Tiro estremo destro

● C

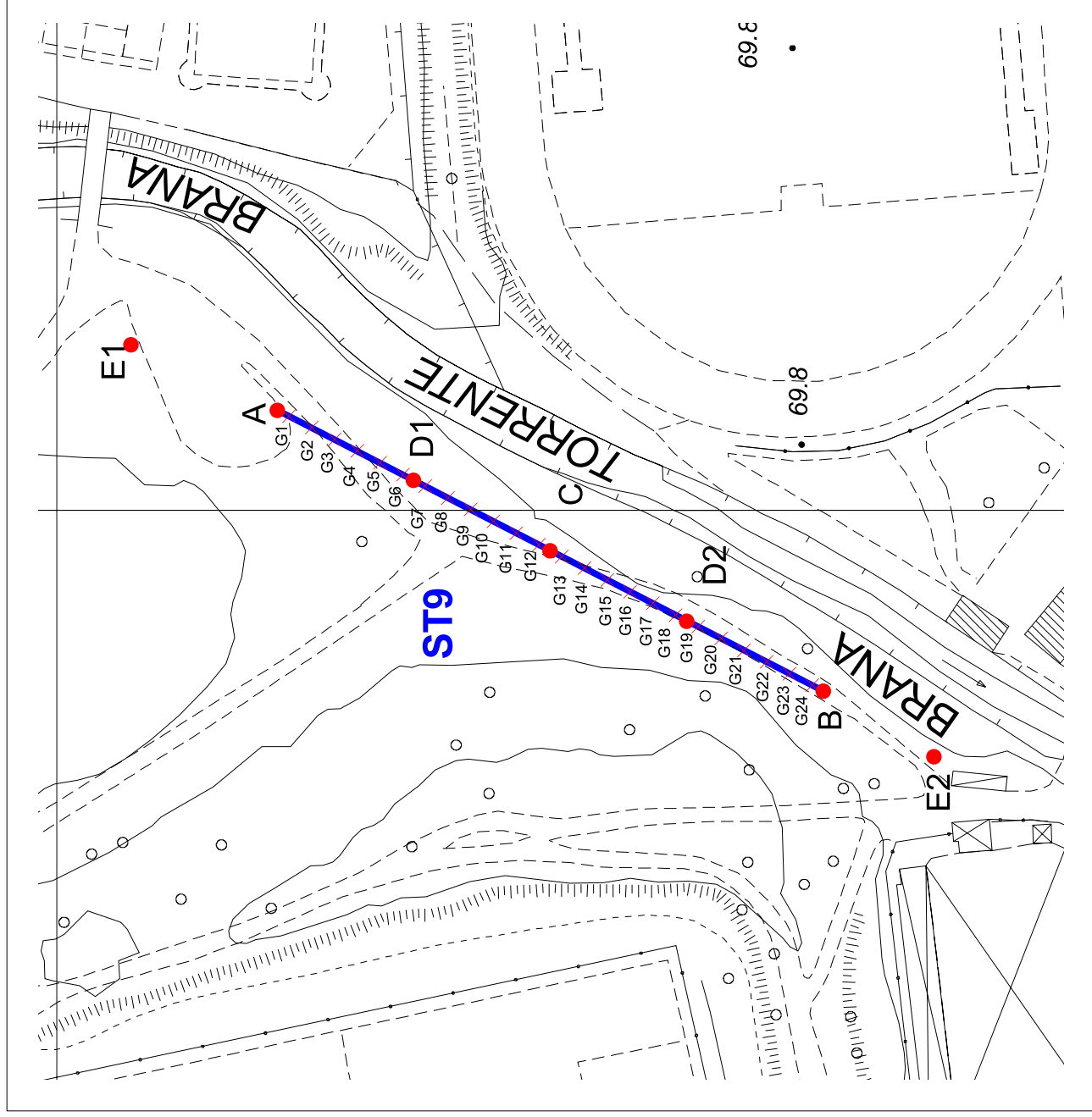
Tiro centrale

● D1-D2

Tiri intermedi

● E1-E2

Tiri esterni



LINEA SISMICA ST9

-SCHEMA DETTAGLIATO DELLA LINEA DI ACQUISIZIONE

Geofoni n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dist. Progressiva (m)	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74	78	82	86	90	94
Dist. Parziale (m)	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2
Quota (m s.l.m.)	70.7	70.7	70.6	70.6	70.6	70.5	70.5	70.5	70.4	70.4	70.4	70.3	70.3	70.3	70.3	70.2	70.2	70.2	70.2	70.5	70.5	70.5	70.5	70.3

COORDINATE GAUSS BOAGA DI G1 E G24

	GEOFONO N.1 (G1)	GEOFONO N.24 (G24)
X(m)	1653614.70	1653572.63
Y(m)	4867363.68	4867281.87

PUNTI DI ENERGIZZAZIONE

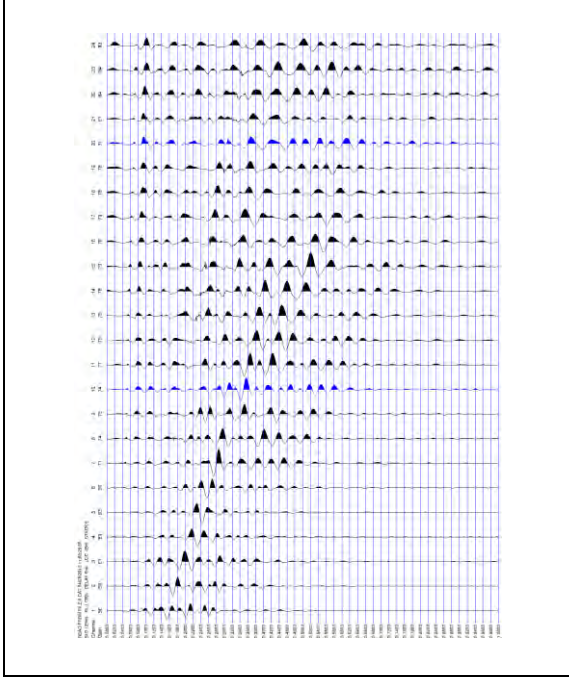
	E1	A	D1	C	D2	B	E2
	esterno sx	estremo sx	intermedio sx	centrale	intermedio dx	estremo dx	esterno dx
Onde P	21.dat	20.dat	19.dat	18.dat	17.dat	16.dat	15.dat
Onde SH	4.dat	2.dat	6.dat	8.dat	10.dat	12.dat	14.dat
Posiz. dal Geof.n.1 (m)	-27	-2	22	46	70	94	114
Quota (m)	71.0	70.7	70.5	70.3	70.2	70.2	70.2

COMUNE DI PISTOIA

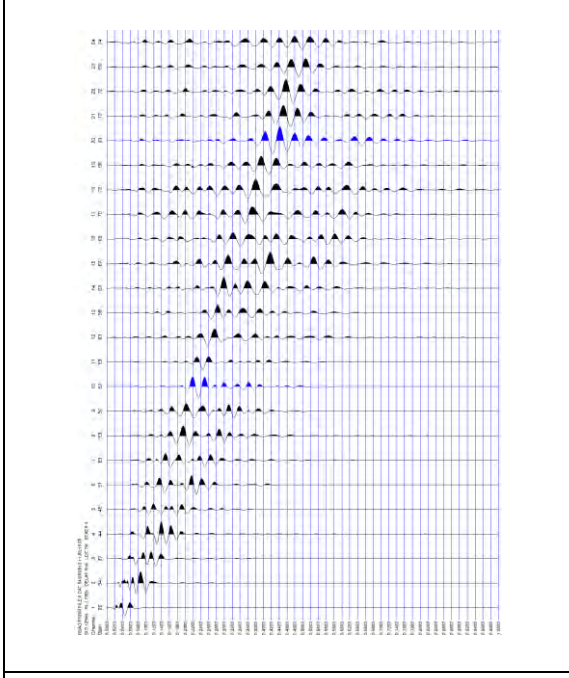
LINEA SISMICA ST9

ONDE P - REGISTRAZIONI DI CAMPAGNA

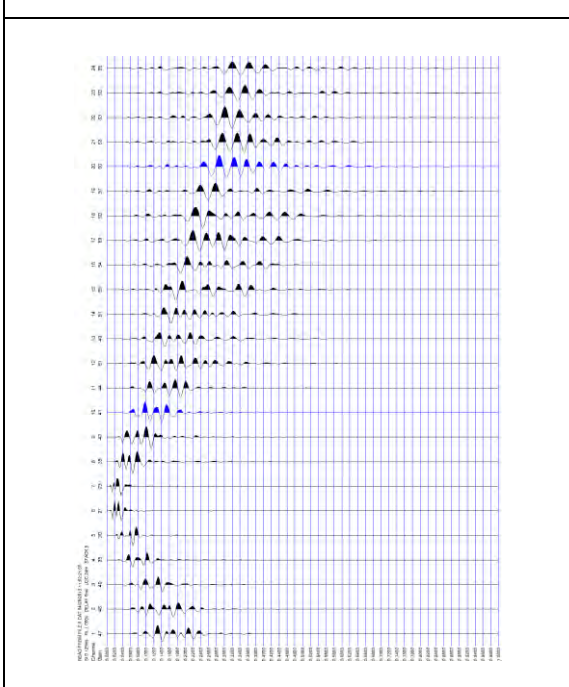
E1 - SCOPPIO ESTERNO SX - STACK 5



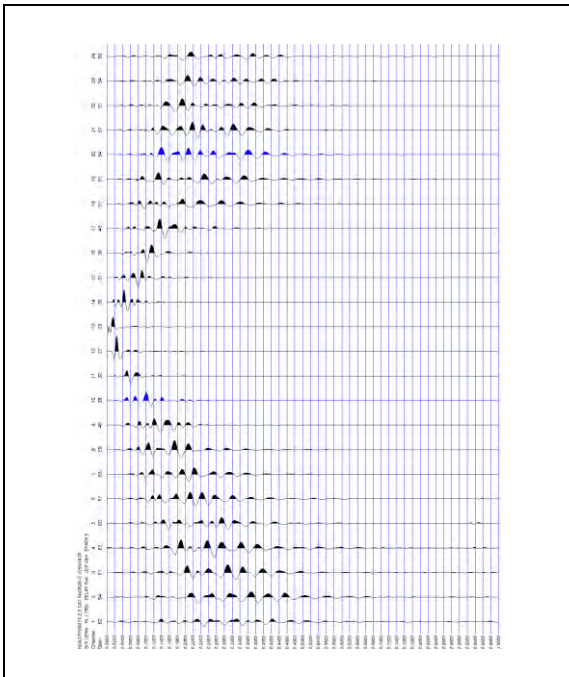
A - SCOPPIO ESTREMO SX - STACK 4



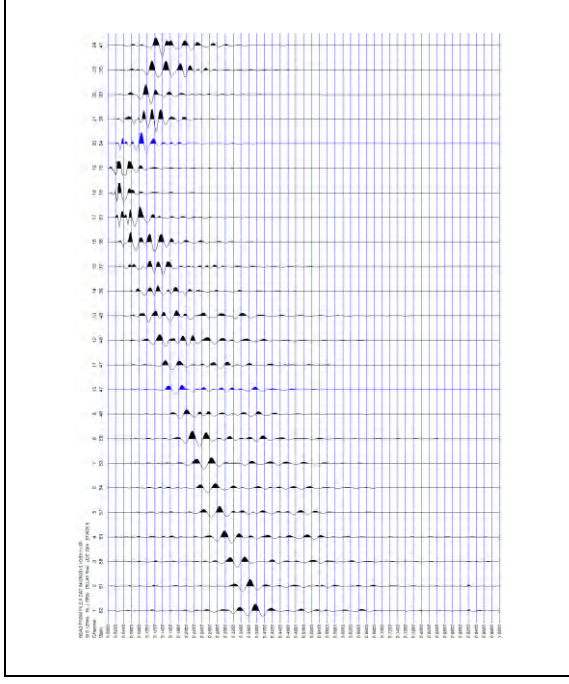
D1 - SCOPPIO INTERMEDIO SX - STACK 5



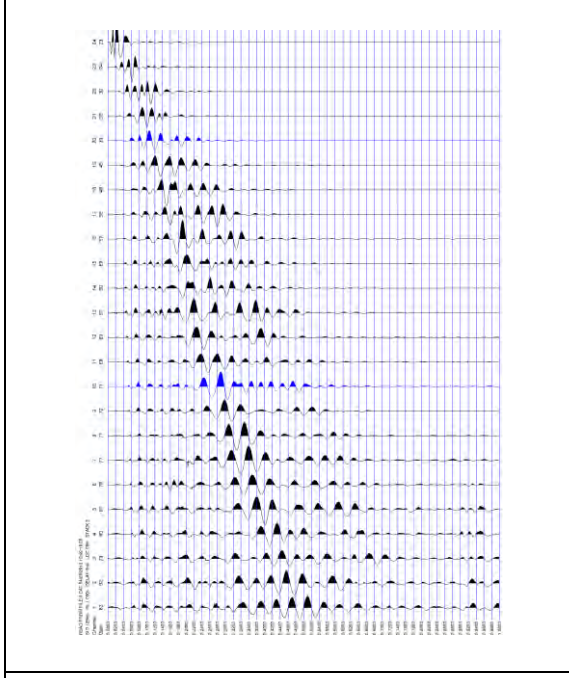
C - SCOPPIO CENTRALE - STACK 5



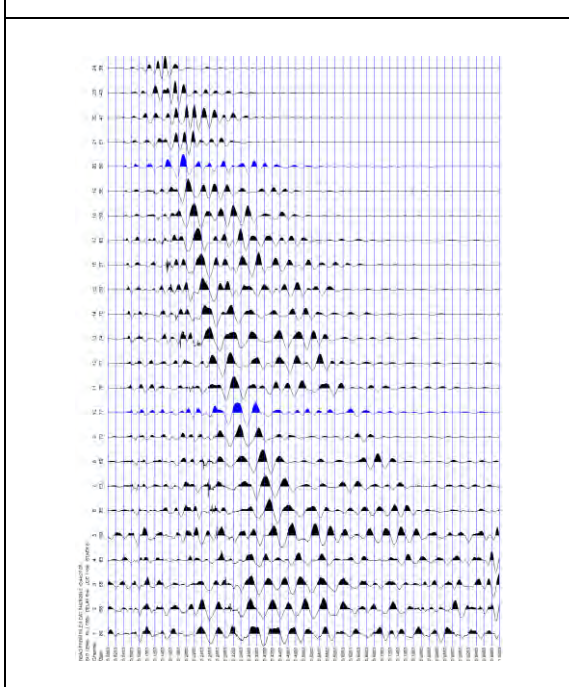
D2 - SCOPPIO INTERMEDIO DX - STACK 6



B - SCOPPIO ESTREMO DX - STACK 5



E2 - SCOPPIO ESTERNO DX - STACK 6

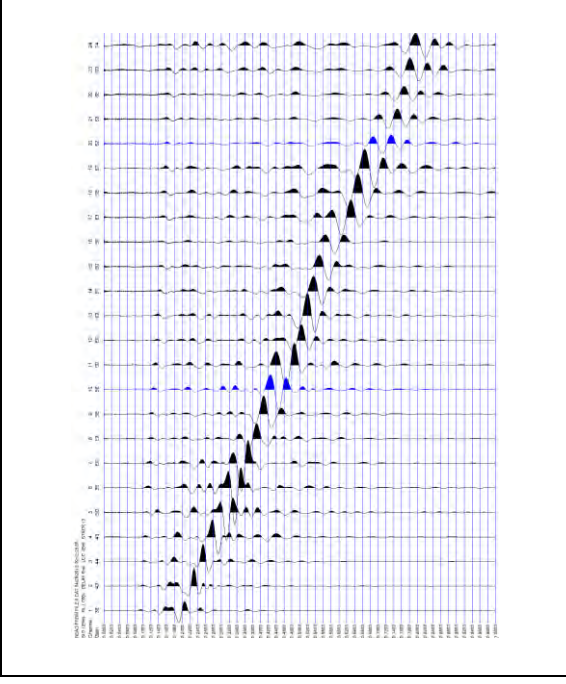


COMUNE DI PISTOIA

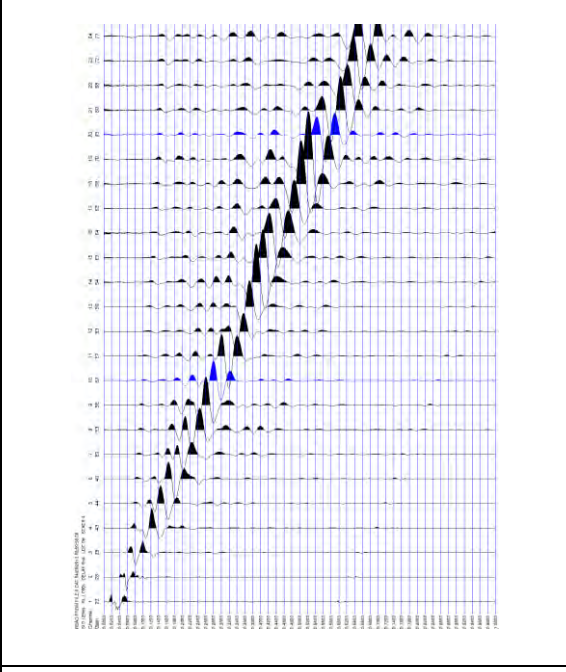
LINEA SISMICA ST9

ONDE SH - REGISTRAZIONI DI CAMPAGNA

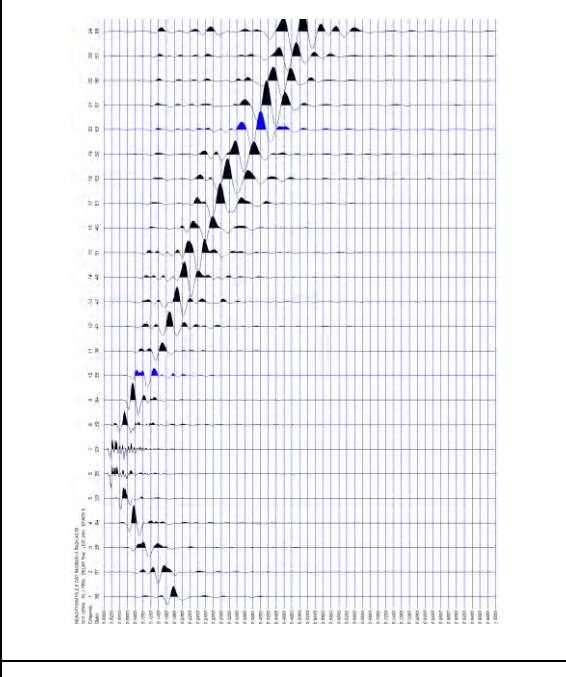
E1 - SCOPPIO ESTERNO SX - STACK 10



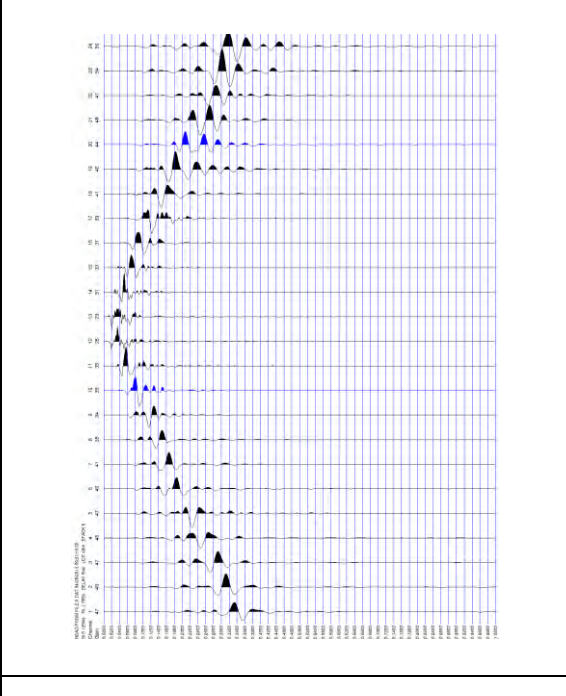
A - SCOPPIO ESTREMO SX - STACK 4



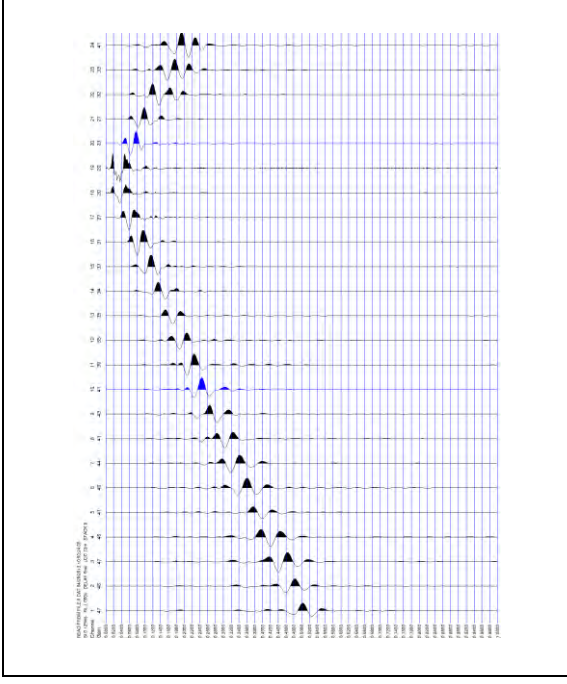
D1 - SCOPPIO INTERMEDIO SX - STACK 6



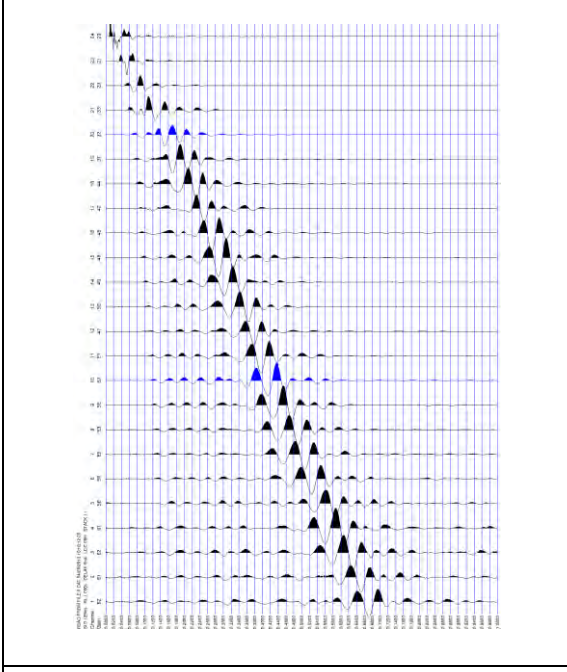
C - SCOPPIO CENTRALE - STACK 6



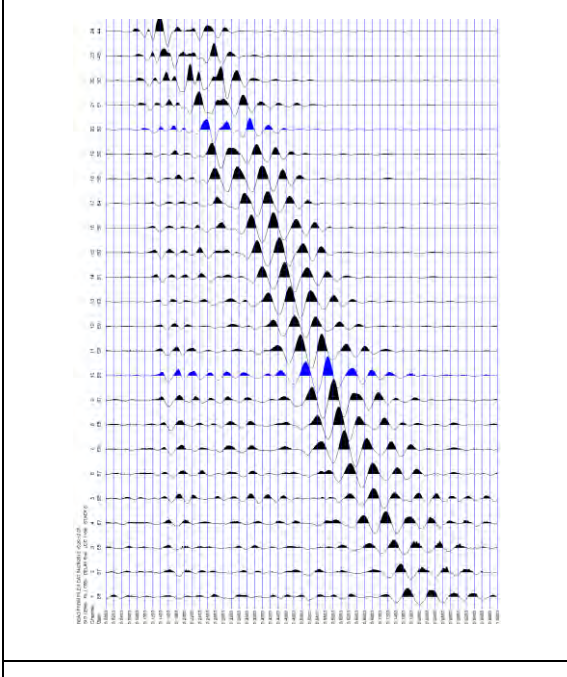
D2 - SCOPPIO INTERMEDIO DX - STACK 8



B - SCOPPIO ESTREMO DX - STACK 11



E2 - SCOPPIO ESTERNO DX - STACK 8



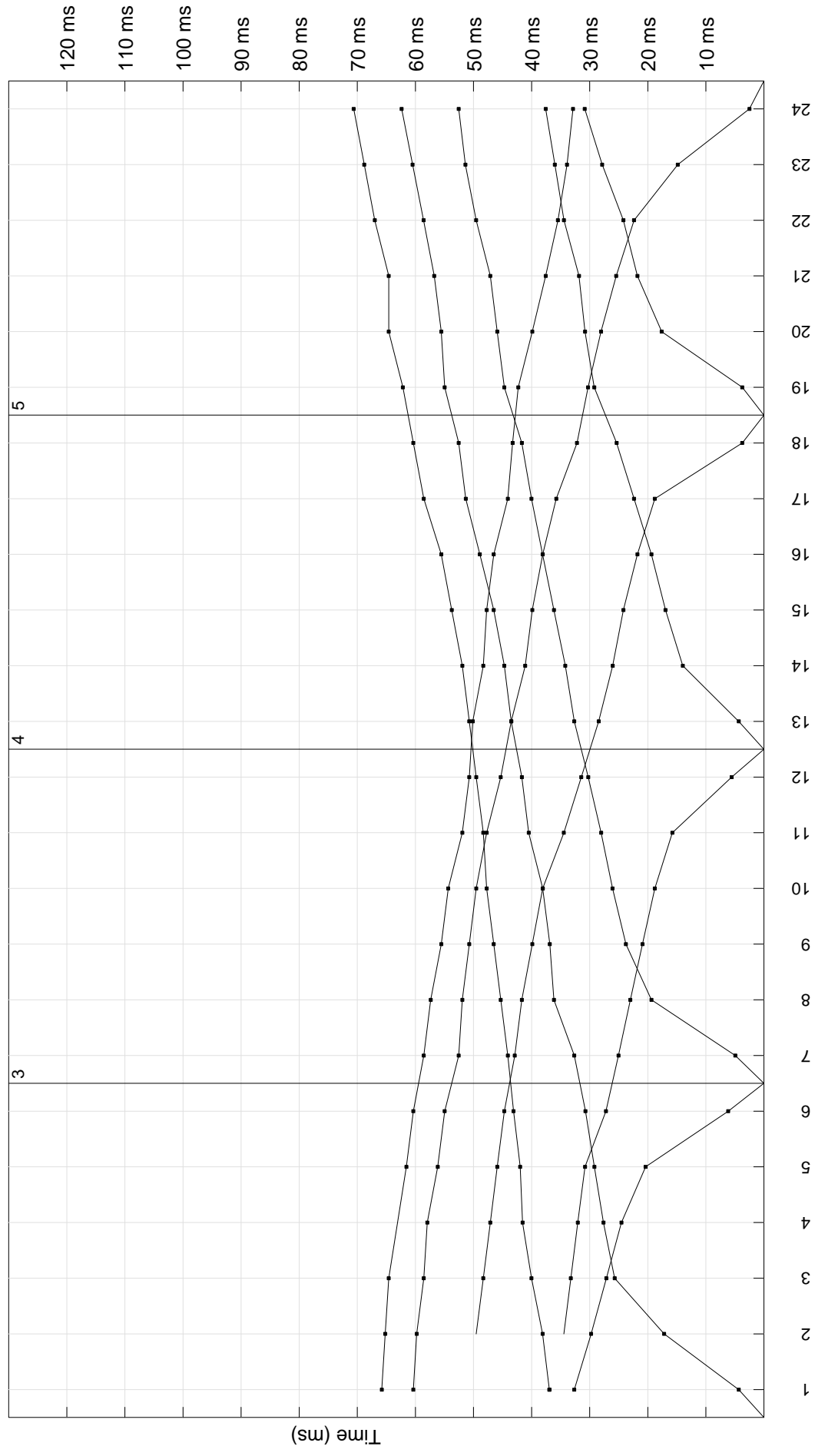
LINEA SISMICA ST9**TEMPI DI PROPAGAZIONE DELLE ONDE P ED SH**

ONDE P												ONDE SH											
	E1	A	D1	C	D2	B	E2		E1	A	D1	C	D2	B	E2								
G1	36.93	4.34	31.01	0	0	60.36	65.79		86.12	14.43	74.98	98.55	124.69	137.33	151.63								
G2	38.09	17.17	28.82	34.45	49.52	59.77	65.19		89.23	38	71.62	96.08	123.01	134.8	149.11								
G3	39.27	25.79	27.12	33.25	48.31	58.56	64.58		93.37	58.15	65.4	91.87	117.97	132.27	146.58								
G4	40.58	27.95	24.54	32.04	47.11	57.95	0		97.51	64.08	58.63	87.66	116.29	129.63	144.05								
G5	41.95	29.7	20.37	30.79	45.9	56.15	61.56		100.62	69.83	36.38	81.98	112.91	126.54	141.52								
G6	43.11	31.44	6.15	27.2	44.7	54.95	60.36		103.73	77.12	9.43	78.87	108.69	122.37	139.86								
G7	44.09	33.61	4.94	25.04	42.9	52.54	58.56		105.8	80.51	10.47	71.62	106.19	119.26	136.88								
G8	45.31	35.36	21	23	41.68	51.93	57.36		109.94	85.08	34.97	66.62	101.98	118.25	135.86								
G9	46.5	37.52	23.61	20.92	39.88	50.72	55.54		114.08	89.23	58.63	59.88	97.51	113.05	132.75								
G10	47.72	40.13	25.79	18.79	38.08	49.52	54.34		116.18	93.37	63.79	52.97	91.3	112.01	129.63								
G11	48.31	41.45	28.02	15.77	34.45	47.72	51.93		121.36	96.48	68.09	37.43	87.16	108.91	127.55								
G12	49.52	42.31	30.56	5.55	31.45	45.31	50.72		125.5	100.62	74.98	12.56	83.01	103.73	123.43								
G13	50.72	43.18	32.31	4.34	28.44	43.5	50.13		127.55	105.8	78.41	14.63	74.73	99.58	121.36								
G14	51.93	44.7	34.49	13.97	26.03	41.09	48.31		131.72	110.37	82.73	35.34	67.48	93.37	116.18								
G15	53.74	46.5	37.52	16.95	24.2	39.88	47.72		133.96	114.58	87.88	52.97	61.25	88.19	109.94								
G16	55.54	48.9	37.97	19.37	21.79	38.08	46.5		138.16	117.12	93.91	62.29	54	83.01	106.83								
G17	58.56	51.33	40.13	22.37	18.79	35.36	44.09		141.02	120.48	98.61	69.55	36.38	79.91	103.73								
G18	60.36	52.54	41.88	25.37	3.74	33.61	43.27		144.13	123.01	101.98	74.73	12.56	75.04	100.62								
G19	62.15	54.95	43.61	29.2	3.74	30.29	42.29		147.25	127.23	106.19	80.94	10.47	66.62	97.51								
G20	64.58	55.54	45.9	30.79	17.6	28.04	39.88		150.36	130.66	109.55	84.05	26.2	61.56	92.33								
G21	64.58	56.75	47.11	31.84	21.79	25.43	37.56		153.47	132.75	113.05	86.12	51.93	54	85.98								
G22	66.98	58.59	47.97	34.43	24.2	22.37	35.47		153.47	136.88	116.18	91.3	58.15	45.72	79.25								
G23	68.8	60.47	49.27	36	27.84	14.84	33.9		155.55	137.91	120.3	94.41	64.08	33.27	75.04								
G24	70.61	62.36	51	37.56	30.85	2.5	32.88		157.61	140	121.36	96.48	69.55	8.39	69.15								

Profilo ST9 - Pistoia - Piazza Oplà - Onde P

A

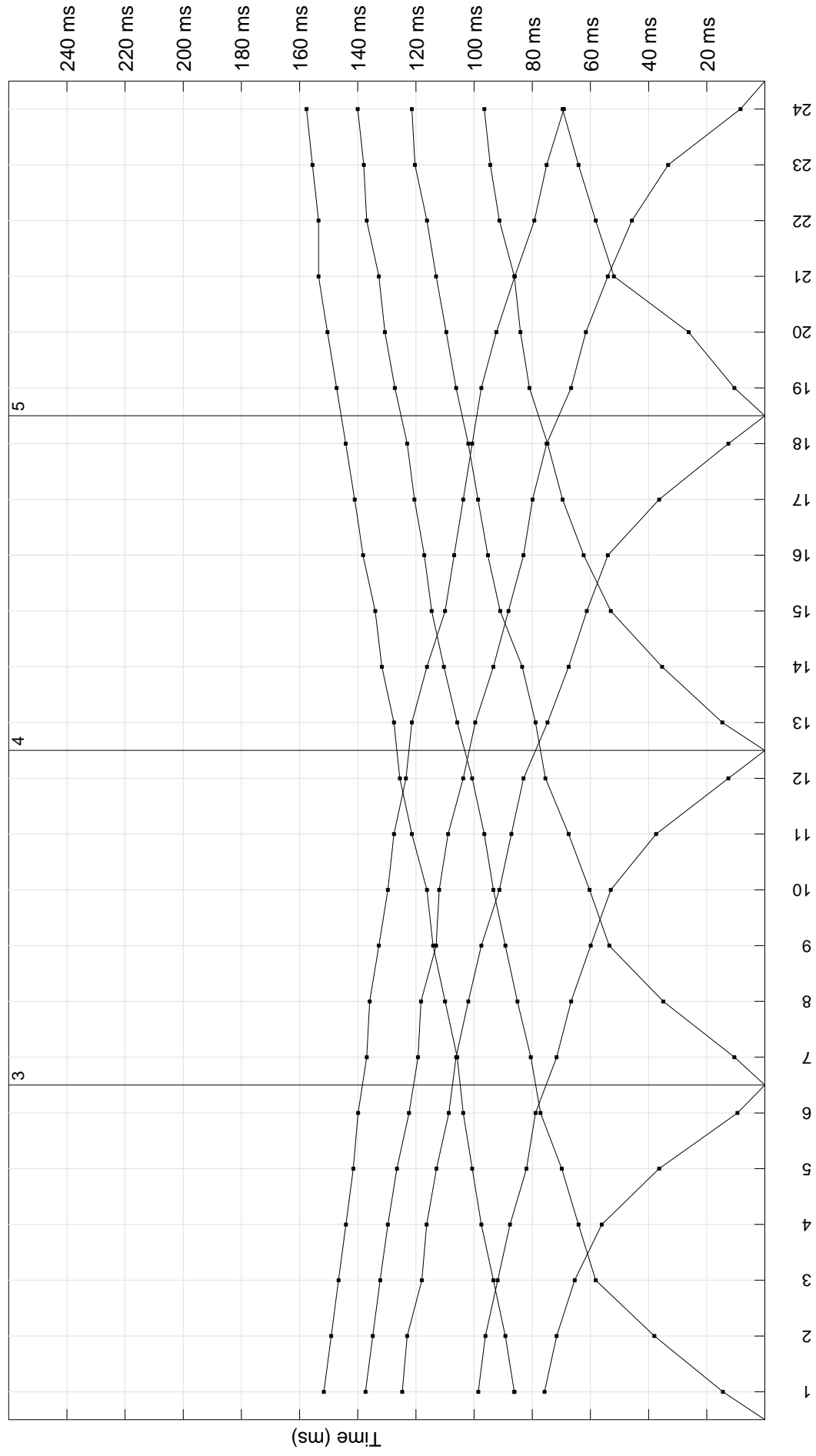
B



Profilo ST9 - Pistoia - Piazza Oplà - Onde SH

A

B



**COMUNE DI PISTOIA
PROVINCIA DI PISTOIA**

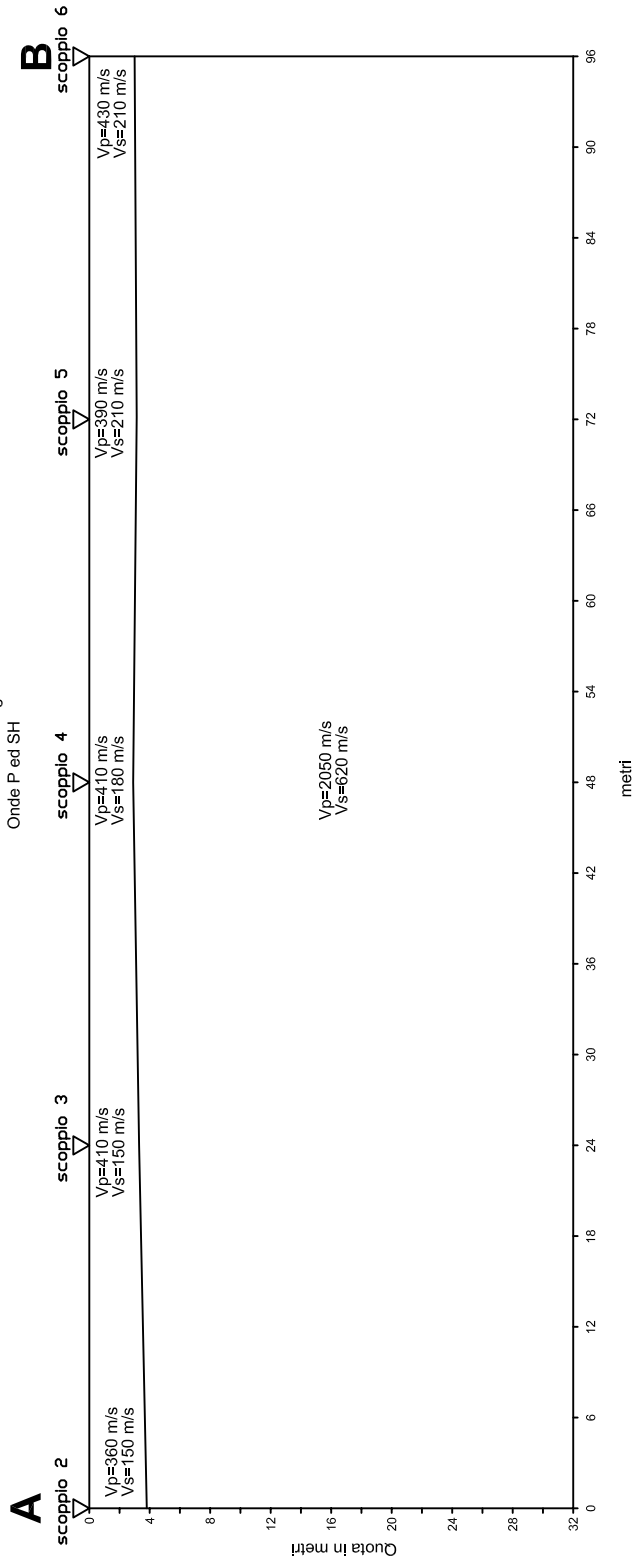
MICROZONAZIONE SISMICA LIVELLO 1

PROFILO ST9 – Piazza Oplà

**Ricostruzione sismostratigrafica
Onde P ed SH**

scoppi	distanze (m)	Profondità 1° livello	Profondità 2° livello	Vp1 (m/sec)	Vp2 (m/sec)	Vp3 (m/sec)	Vs1 (m/sec)	Vs2 (m/sec)	Vs3 (m/sec)
2	0	3.8	8.8	380	2010	2740	170	640	1190
3	24	3.3	6.5	290	1820	2740	170	740	1190
4	48	2.9	9.7	410	1500	2740	180	610	1190
5	72	3.1	11.7	340	1350	2740	190	610	1190
6	96	3.0	10.7	440	1350	2740	190	500	1190

Profilo ST7 - Villa Smilea
Comune di Montale
Ricostruzione sismostratigrafica
Onde P ed SH



SEZIONE LITOSTRATIGRAFICA INTERPRETATIVA

Base sismica: ST9
Committente: COMUNE DI PISTOIA
Località: Piazza Oplà
Data: 26 aprile 2013

LEGENDA

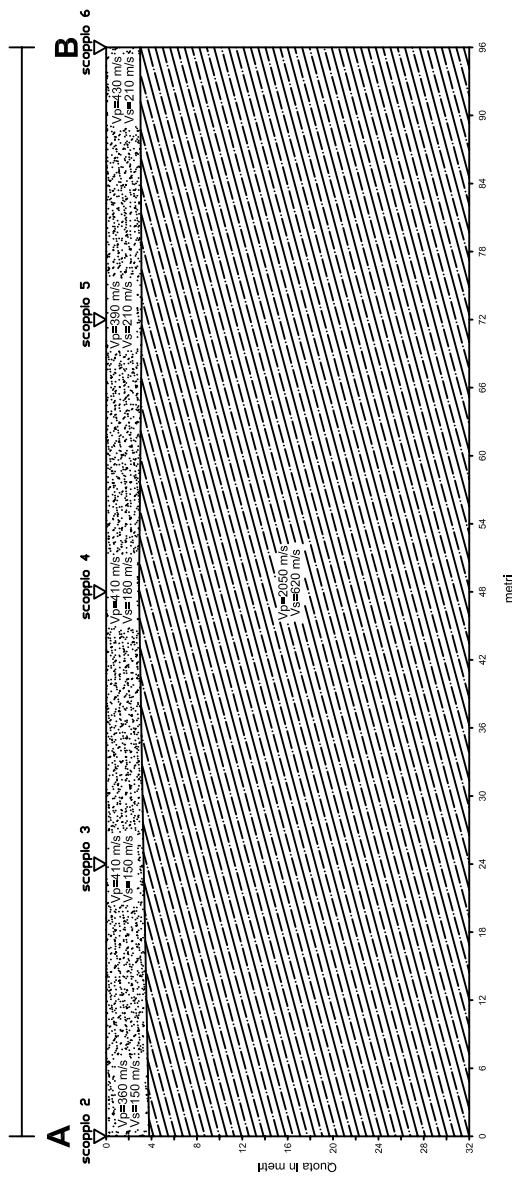
Vp=1260 m/s Velocità sismica onde P in metri al secondo
Vs=420 m/s Velocità sismica onde SH in metri al secondo



Depositi alluvionali e/o rimaneggiati

Argilliti del Complesso di Base
(Formazione Sillano)

ST9



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

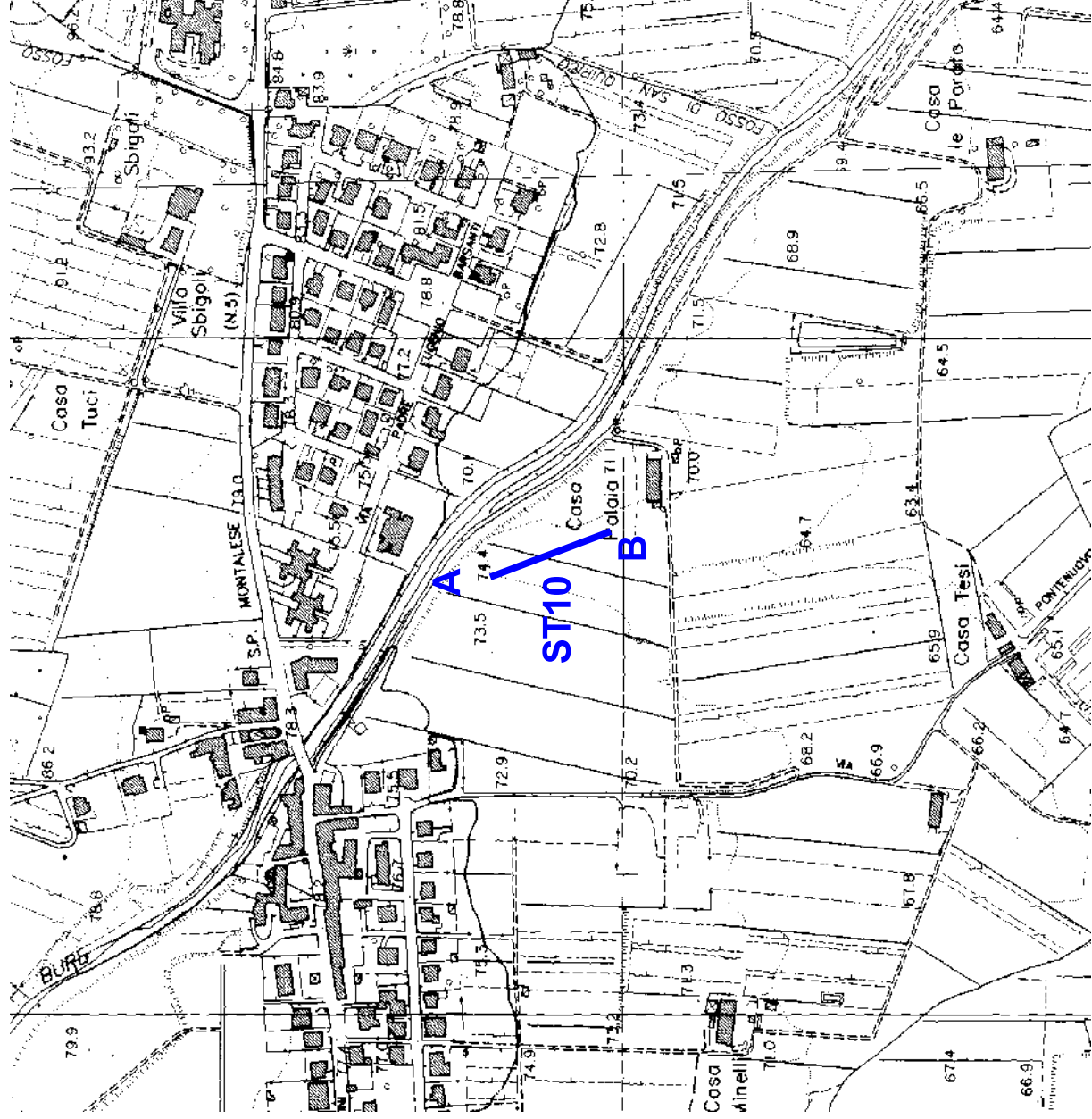
Committente: COMUNE DI PISTOIA
Località: Pontenuovo
Data: 11 aprile 2013

PLANIMETRIA IN SCALA 1:5.000

LEGENDA

ST10

Linea sismica



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

Committente: COMUNE DI PISTOIA
Località: Pontenuovo
Data: 11 aprile 2013

PLANIMETRIA IN SCALA 1:1.000

LEGENDA

ST10



Linea sismica (96 m)

X G1-G24

Posizione geofoni

● A

Tiro estremo sinistro

● B

Tiro estremo destro

● C

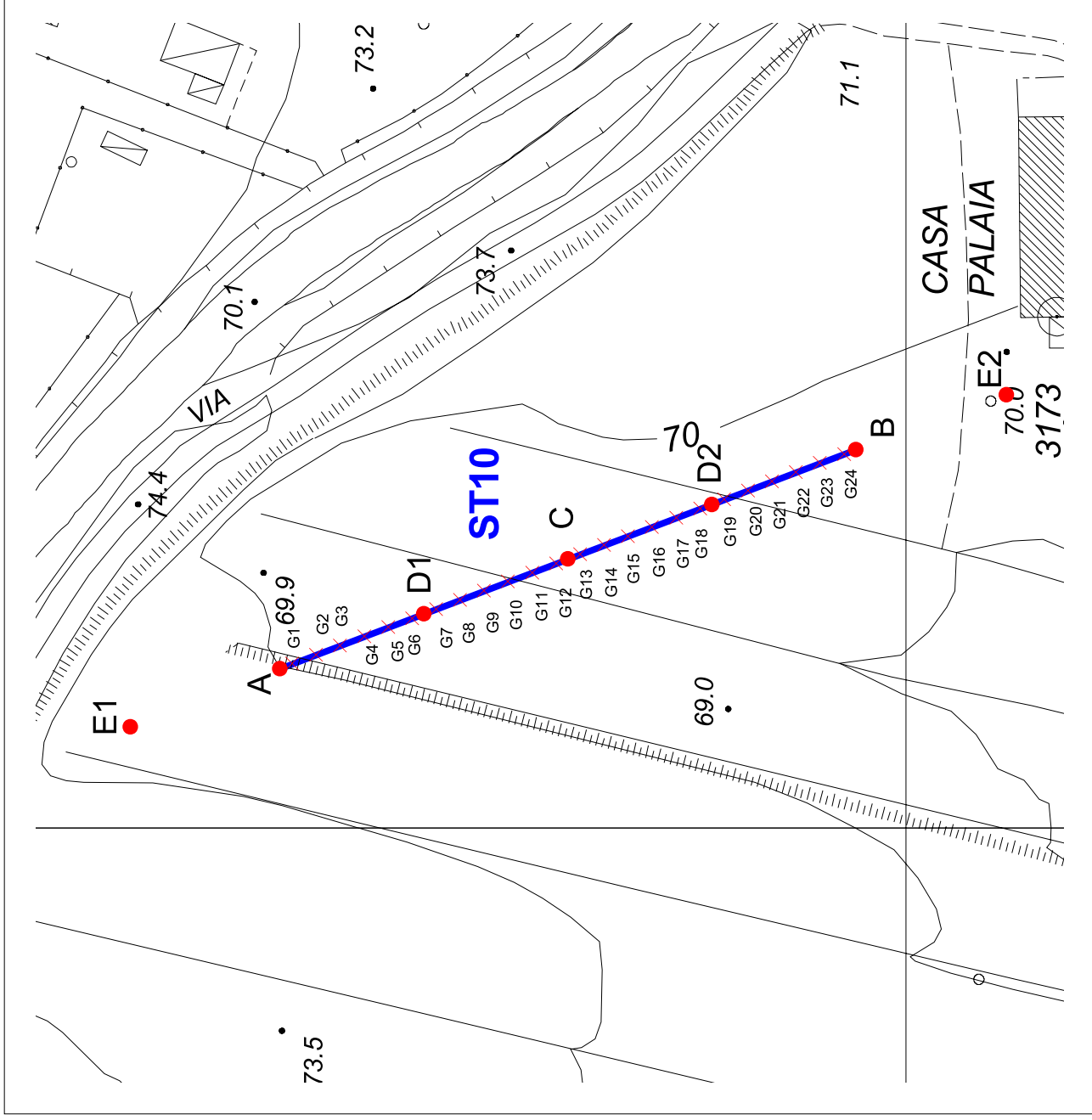
Tiro centrale

● D1-D2

Tiri intermedi

● E1-E2

Tiri esterni



LINEA SISMICA ST10

-SCHEMA DETTAGLIATO DELLA LINEA DI ACQUISIZIONE

Geofoni n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dist. Progressiva (m)	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74	78	82	86	90	94
Dist. Parziale (m)	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2
Quota (m s.l.m.)	69.9	69.8	69.8	69.7	69.7	69.7	69.6	69.6	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.6	69.6	69.6	69.6	69.6	69.6	69.7	69.7	69.7

COORDINATE GAUSS BOAGA DI G1 E G24

	GEOFONO N.1 (G1)	GEOFONO N.24 (G24)
X(m)	1656825.54	1656858.21
Y(m)	4867095.62	4867009.62

PUNTI DI ENERGIZZAZIONE

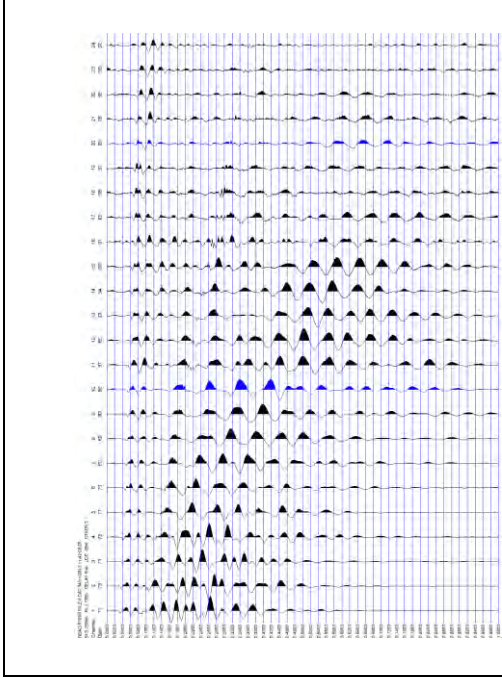
	E1	A	D1	C	D2	B	E2
	esterno sx	estremo sx	intermedio sx	centrale	intermedio dx	estremo dx	esterno dx
Onde P	15.dat	16.dat	18.dat	19.dat	20.dat	21.dat	22.dat
Onde SH	14.dat	12.dat	10.dat	8.dat	6.dat	2.dat	4.dat
Posiz. dal Geof.n.1 (m)	-27	-2	22	46	70	94	119
Quota (m)	71.3	69.9	69.7	69.5	69.6	69.7	69.8

COMUNE DI PISTOIA

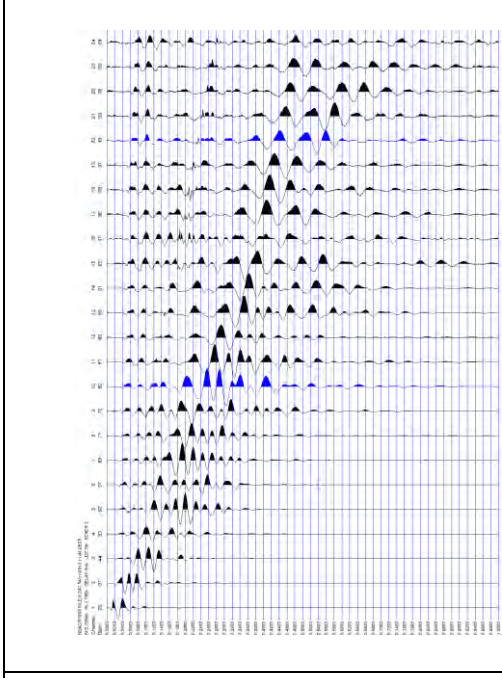
LINEA SISMICA ST10

ONDE P - REGISTRAZIONI DI CAMPAGNA

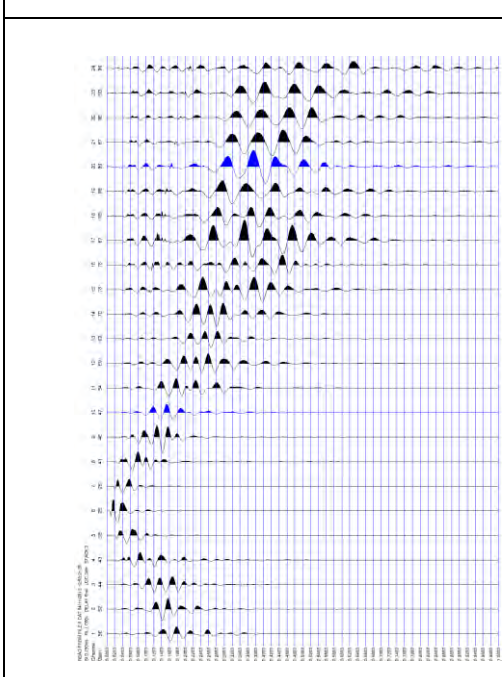
E1 - SCOPPIO ESTERNO SX - STACK 3



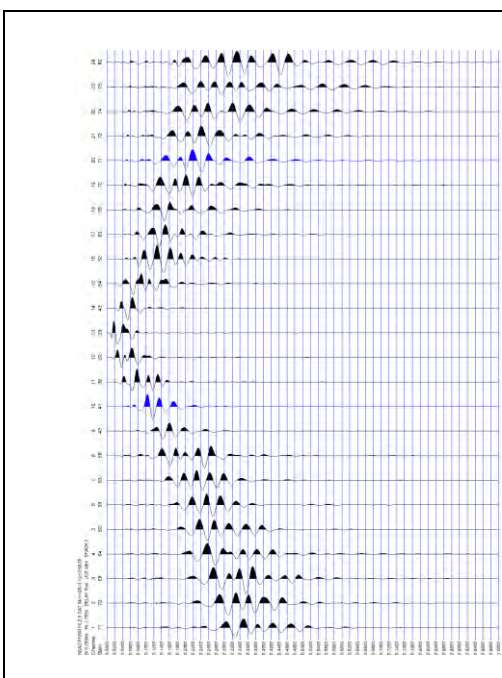
A - SCOPPIO ESTREMO SX - STACK 2



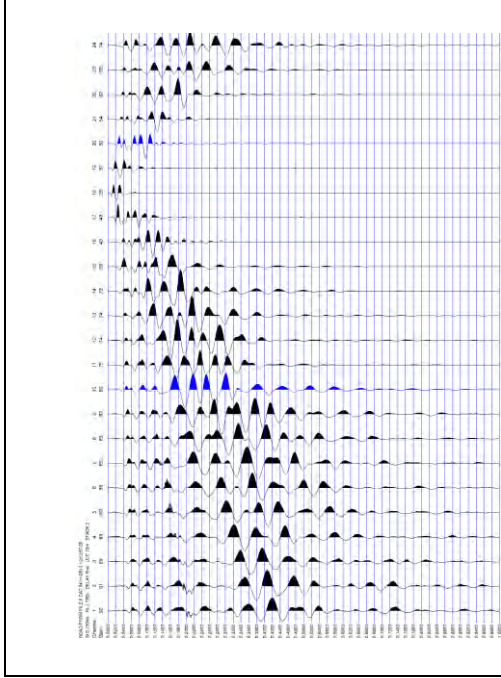
D1 - SCOPPIO INTERMEDIO SX - STACK 3



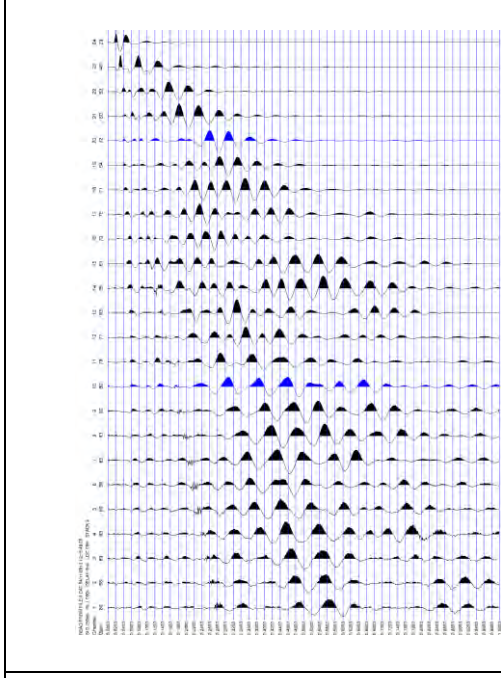
C - SCOPPIO CENTRALE - STACK 2



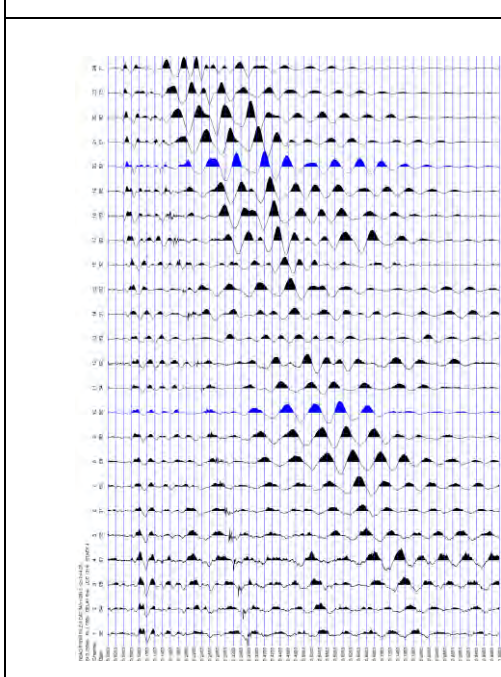
D2 - SCOPPIO INTERMEDIO DX - STACK 2



B - SCOPPIO ESTREMO DX - STACK 4



E2 - SCOPPIO ESTERNO DX - STACK 4

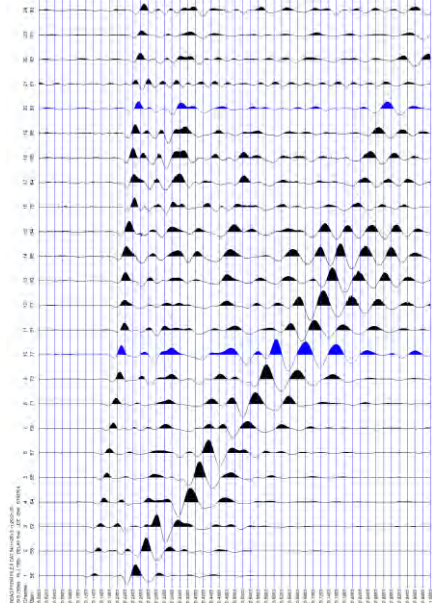


COMUNE DI PISTOIA

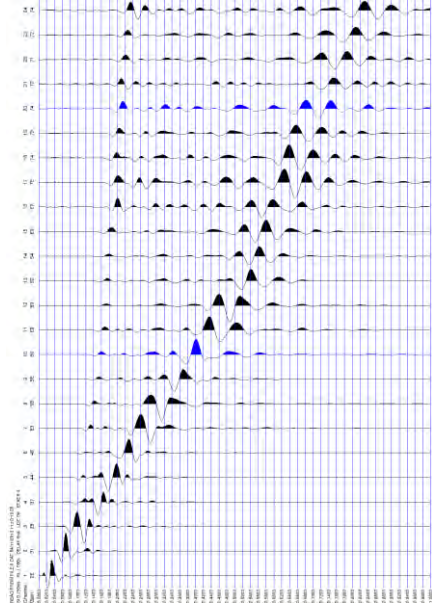
LINEA SISMICA ST10

ONDE SH - REGISTRAZIONI DI CAMPAGNA

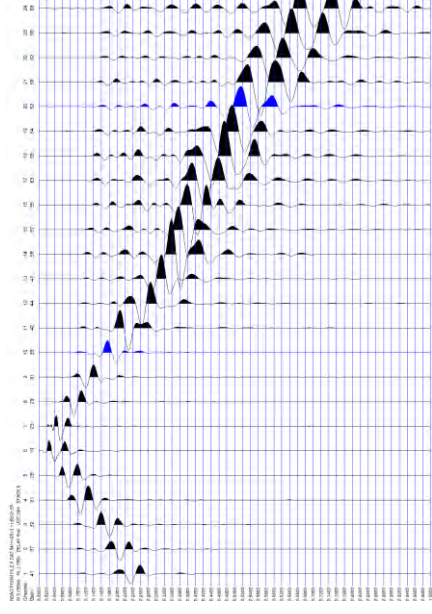
E1 - SCOPPIO ESTERNO SX - STACK 4



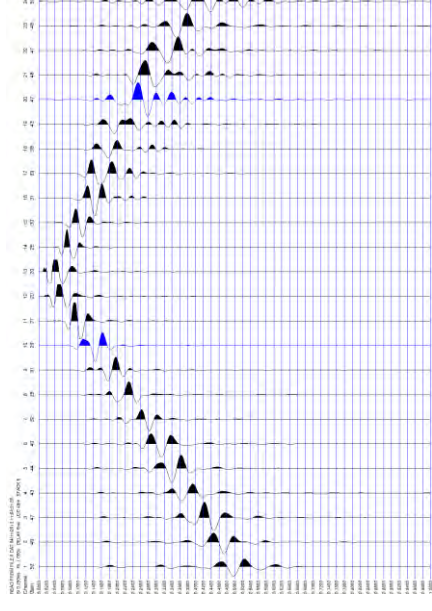
A - SCOPPIO ESTREMO SX - STACK 4



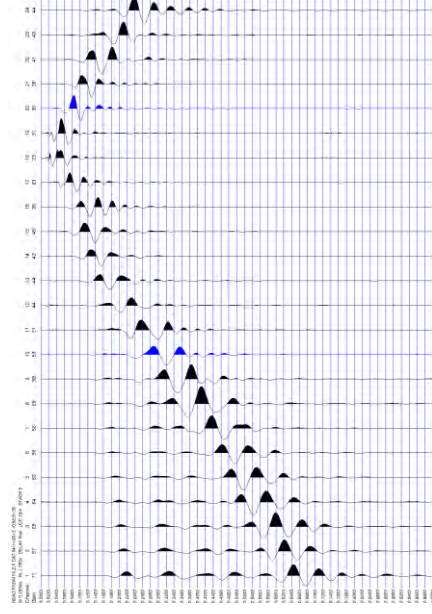
D1 - SCOPPIO INTERMEDIO SX - STACK 6



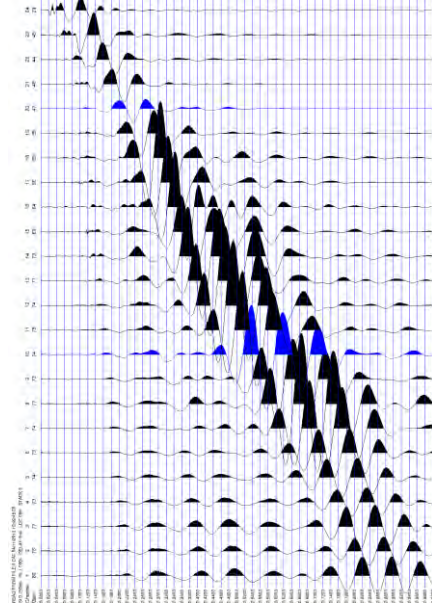
C - SCOPPIO CENTRALE - STACK 6



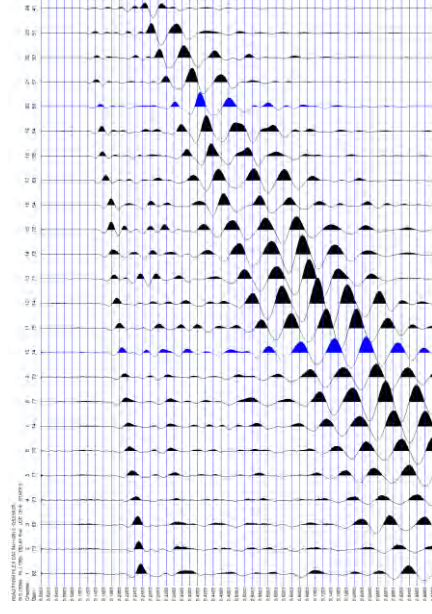
D2 - SCOPPIO INTERMEDIO DX - STACK 5



B - SCOPPIO ESTREMO DX - STACK 6



E2 - SCOPPIO ESTERNO DX - STACK 5



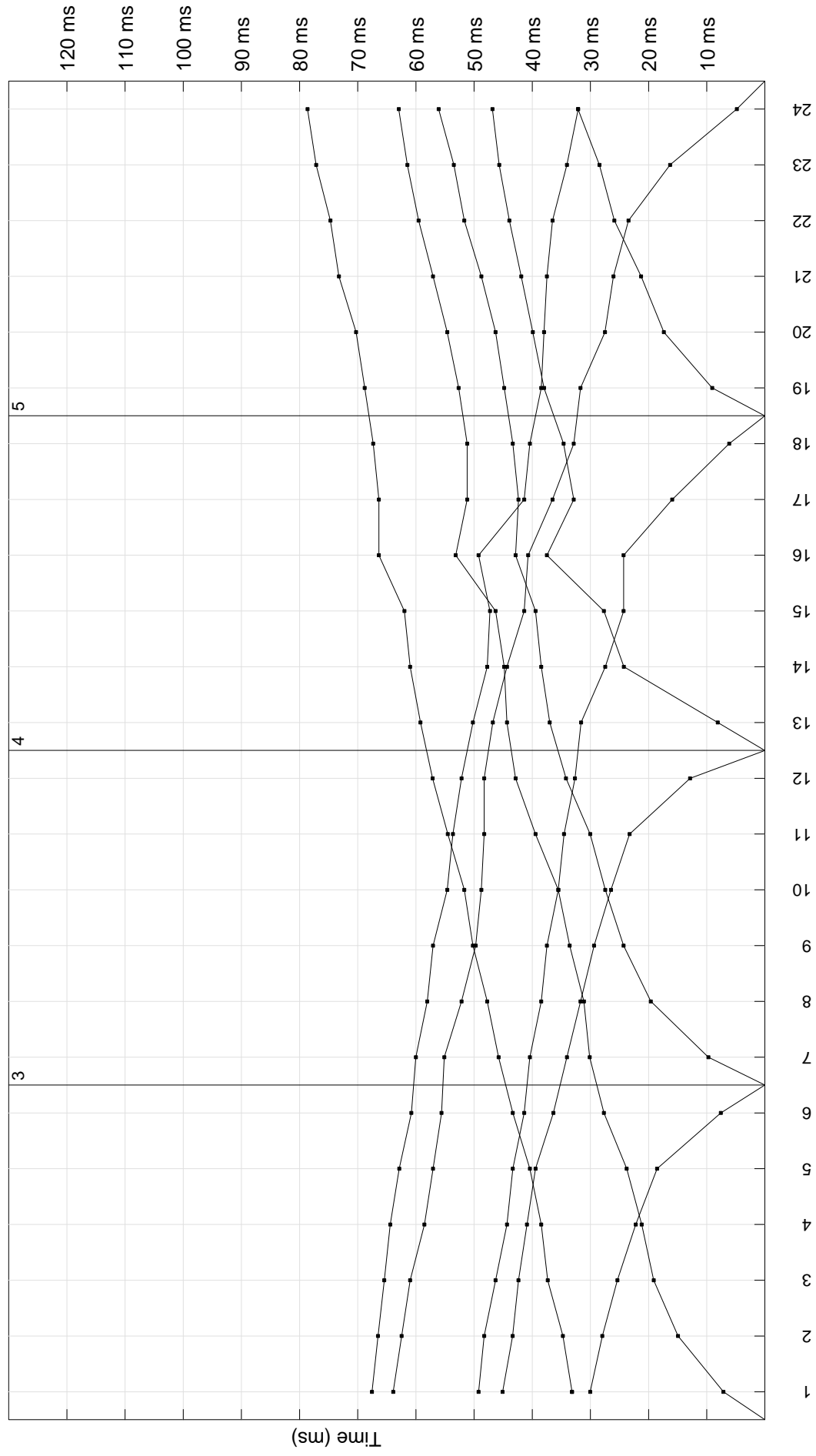
LINEA SISMICA ST10**TEMPI DI PROPAGAZIONE DELLE ONDE P ED SH**

ONDE P												ONDE SH				
	E1	A	D1	C	D2	B	E2		E1	A	D1	C	D2	B	E2	
G1	33.15	7.13	30.04	45.09	49.22	63.9	67.55		114.76	15.77	98.11	141.96	169.13	198.25	213.55	
G2	34.72	14.93	27.95	43.36	48.25	62.45	66.5		124.48	46.43	90.41	138.08	167.19	190.49	209.91	
G3	37.34	19.11	25.36	42.36	46.29	60.99	65.44		130.3	66.22	79.41	132.25	165.25	186.61	209.91	
G4	38.45	21.19	22.2	40.9	44.33	58.54	64.41		134.19	79.41	66.25	130.3	161.36	180.77	204.08	
G5	40.4	23.76	18.54	39.43	43.34	57.06	62.86		143.88	90.41	48.77	120.61	149.72	174.96	194.38	
G6	43.34	27.68	7.59	36.36	41.38	55.59	60.77		149.72	101.41	17.7	112.83	143.88	169.13	188.55	
G7	45.79	30.12	9.72	34.04	40.4	55.11	60		159.41	109.08	21.6	110.9	143.88	167.19	188.55	
G8	47.75	31.11	19.62	31.7	38.45	52.15	58.04		165.25	114.76	54.61	97.3	138.08	165.25	184.66	
G9	50.2	33.56	24.29	29.37	37.47	49.72	57.06		174.96	124.48	72.08	91.48	132.25	159.41	174.96	
G10	51.68	35.52	27.44	26.45	35.52	48.74	54.61		182.72	130.3	83.72	75.94	126.43	151.66	169.13	
G11	54.52	39.43	30.04	23.27	34.54	48.25	53.63		186.61	140.02	91.48	58.49	114.76	143.88	165.25	
G12	57.13	42.86	34.2	12.85	32.65	48.25	52.15		186.61	140.02	99.25	27.43	108.94	141.96	161.36	
G13	59.2	44.33	36.99	8.09	31.61	46.77	50.2		188.55	147.77	107.01	19.62	103.12	132.25	155.55	
G14	60.99	44.81	38.45	24.25	27.44	44.33	47.75		190.49	151.66	110.9	46.84	85.66	128.88	151.66	
G15	61.97	46.29	39.43	27.68	24.29	41.38	47.27		196.32	153.61	116.73	66.25	72.08	126.69	147.77	
G16	66.37	53.15	42.86	37.47	24.29	40.7	49.22		198.25	159.41	124.48	79.83	64.3	124.5	147.77	
G17	66.37	51.18	42.36	32.86	15.92	36.5	41.38		204.08	167.19	130.3	91.48	46.84	115.69	138.77	
G18	67.33	51.18	43.34	34.61	6.13	32.86	40.4		209.91	171.08	136.13	103.12	15.77	106.9	133.27	
G19	68.8	52.65	44.81	37.97	9.06	31.7	38.45		213.77	174.96	140.02	114.76	19.62	97.01	129.99	
G20	70.29	54.61	46.29	39.9	17.37	27.5	37.97		219.61	180.77	143.88	116.73	48.77	90.41	124.48	
G21	73.23	57.06	48.74	41.88	21.29	26.04	37.47		225.44	182.72	147.77	120.61	62.36	81.76	118.66	
G22	74.69	59.52	51.68	43.93	25.87	23.45	36.5		231.25	188.55	149.77	126.43	81.76	74.01	113.5	
G23	77.15	61.47	53.47	45.68	28.45	16.29	34.04		231.25	194.38	155.55	134.19	95.37	60.43	111.3	
G24	78.62	62.95	56.09	46.84	32.13	4.84	32.09		237.08	200.19	159.66	136.13	103.12	27.43	107.01	

Profilo ST10 - Pistoia - Pontenuovo - Onde P

A

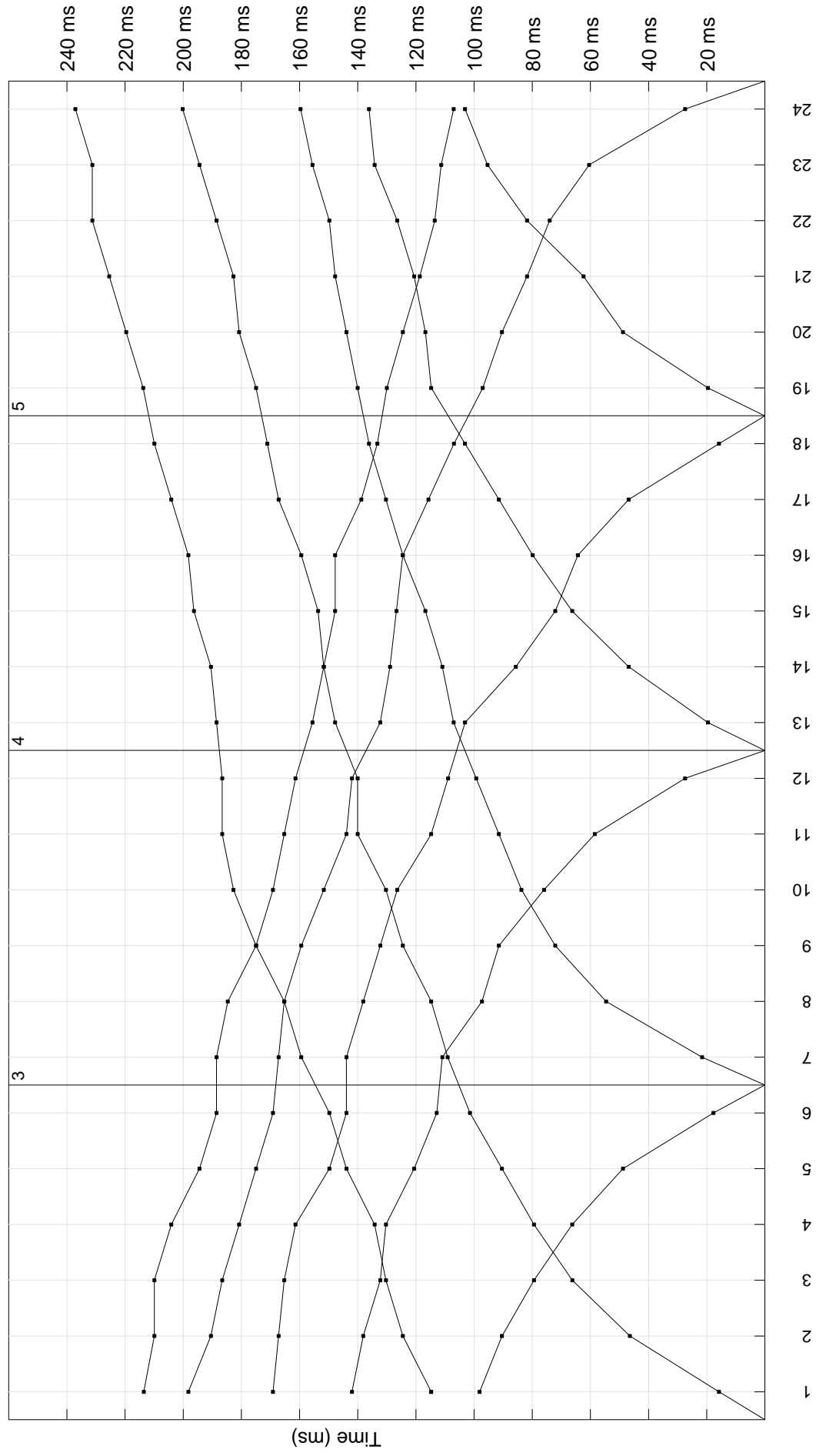
B



Profilo ST10 - Pistoia - Pontenuovo - Onde SH

A

B



**COMUNE DI PISTOIA
PROVINCIA DI PISTOIA**

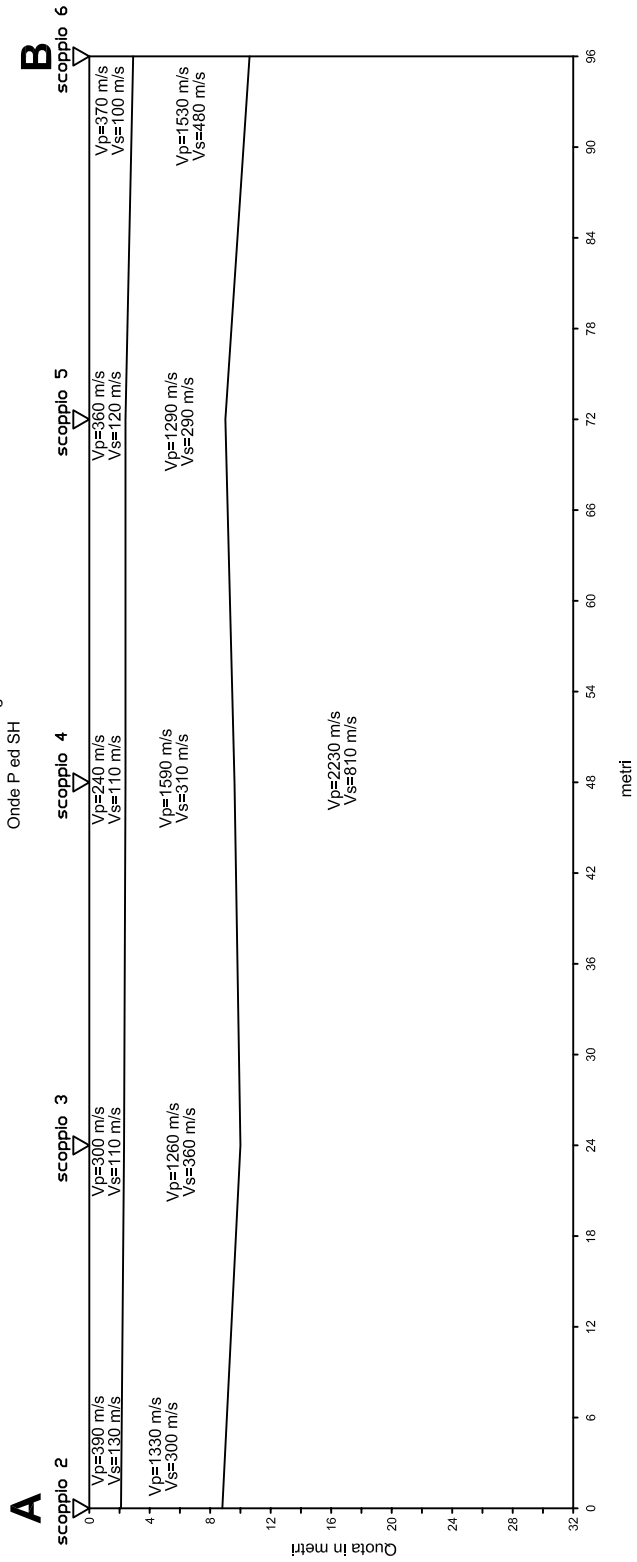
MICROZONAZIONE SISMICA LIVELLO 1

PROFILO ST10 – Pontenuovo

**Ricostruzione sismostratigrafica
Onde P ed SH**

scoppi	distanze (m)	Profondità 1° livello	Profondità 2° livello	Vp1 (m/sec)	Vp2 (m/sec)	Vp3 (m/sec)	Vs1 (m/sec)	Vs2 (m/sec)	Vs3 (m/sec)
2	0	2.1	8.8	390	1330	2230	130	300	810
3	24	2.3	10.0	300	1260	2230	110	360	810
4	48	2.4	9.6	240	1590	2230	110	310	810
5	72	2.4	9.0	360	1290	2230	120	290	810
6	96	2.9	10.6	370	1530	2230	100	480	810

Profilo ST-10 - Pontenuovo
Comune di Pistoia
Ricostruzione sismostratigrafica
Onde P ed SH

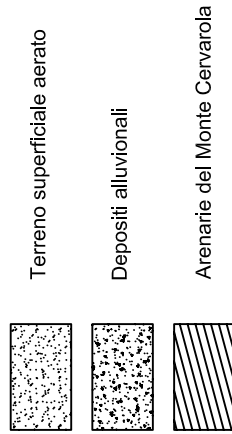


SEZIONE LITOSTRATIGRAFICA INTERPRETATIVA

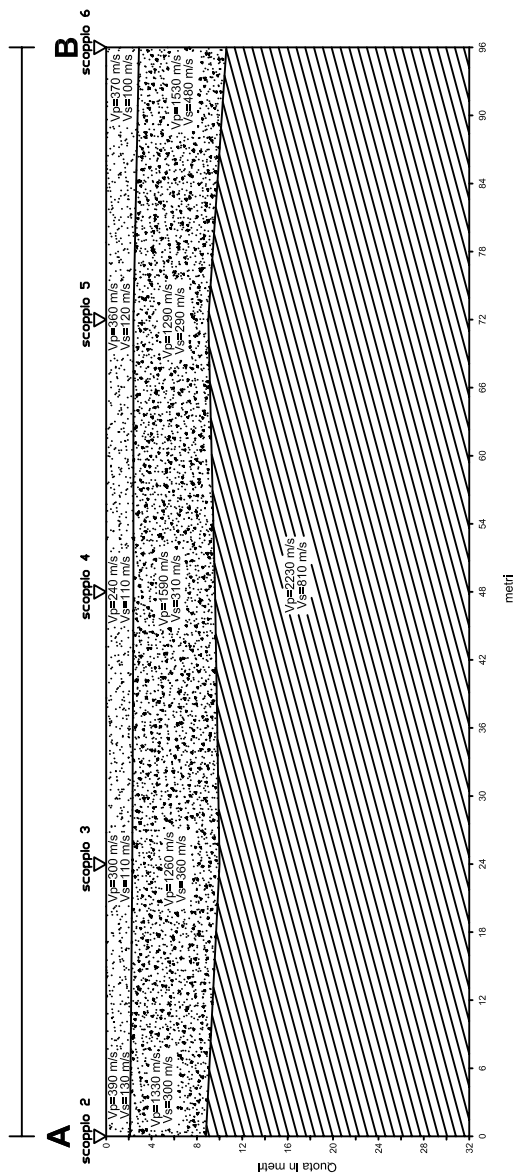
Base sismica: ST10
Committente: COMUNE DI PISTOIA
Località: Pontenuovo
Data: 11 aprile 2013

LEGENDA

Vp=1260 m/s Velocità sismica onde P in metri al secondo
Vs=420 m/s Velocità sismica onde SH in metri al secondo



ST10



COMUNE DI PISTOIA
PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPERZIONI SISMICHE A RIFRAZIONE
CON ONDE P ED ONDE SH

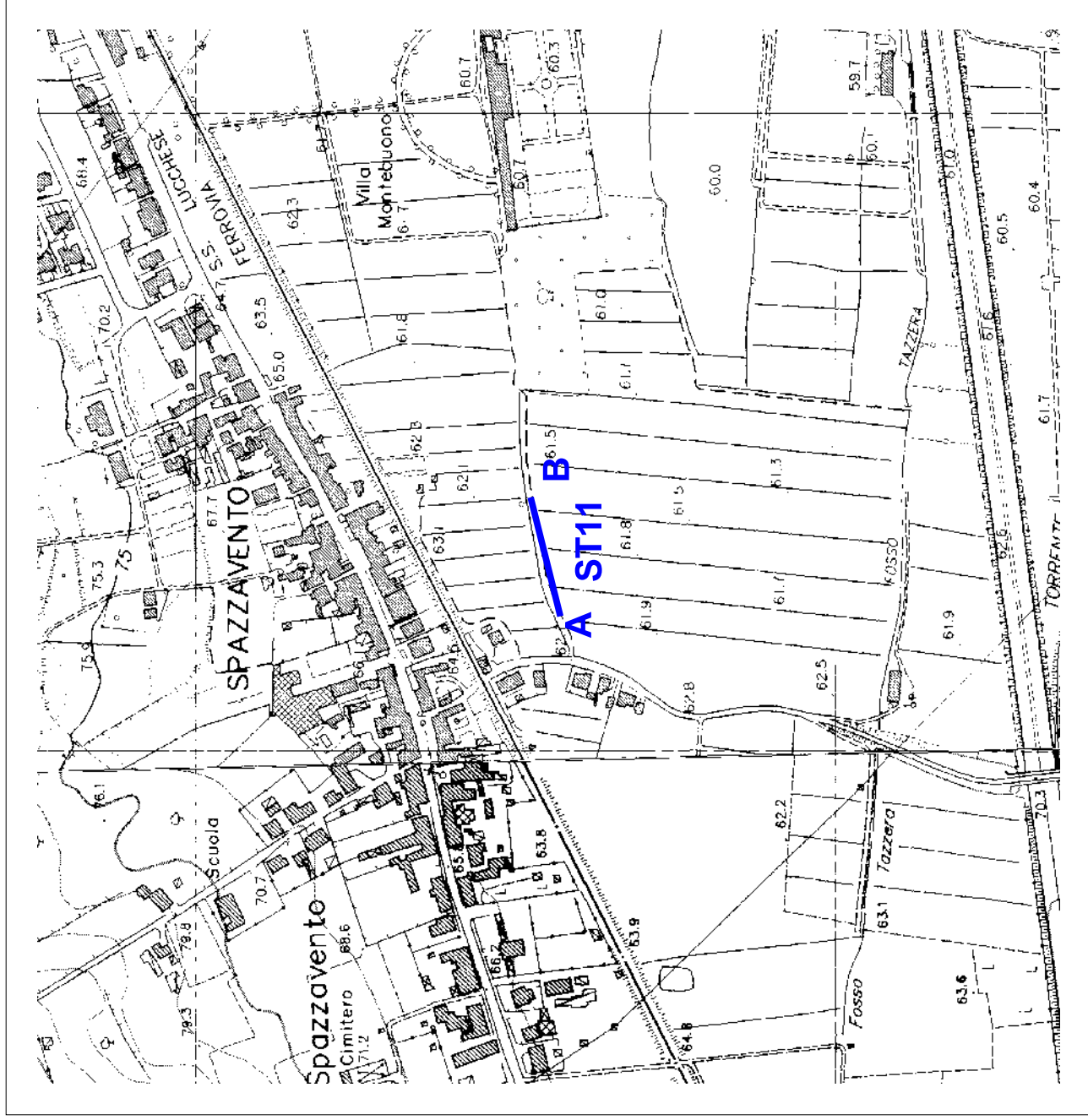
Committente: COMUNE DI PISTOIA
Località: Spazzavento
Data: 15 aprile 2013

PLANIMETRIA IN SCALA 1:5.000

LEGENDA

ST11

Linea sismica



COMUNE DI PISTOIA
 PROVINCIA DI PISTOIA

MICROZONAZIONE SISMICA DI LIVELLO 1

PROSPEZIONI SISMICHE A RIFRAZIONE
 CON ONDE P ED ONDE SH

Committente: COMUNE DI PISTOIA
 Località: Spazzavento
 Data: 15 aprile 2013

PLANIMETRIA IN SCALA 1:1.000

LEGENDA

ST11



Linea sismica (96 m)

X G1-G24



Posizione geofoni

A



Tiro estremo sinistro

B



Tiro estremo destro

C



Tiro centrale

D1-D2

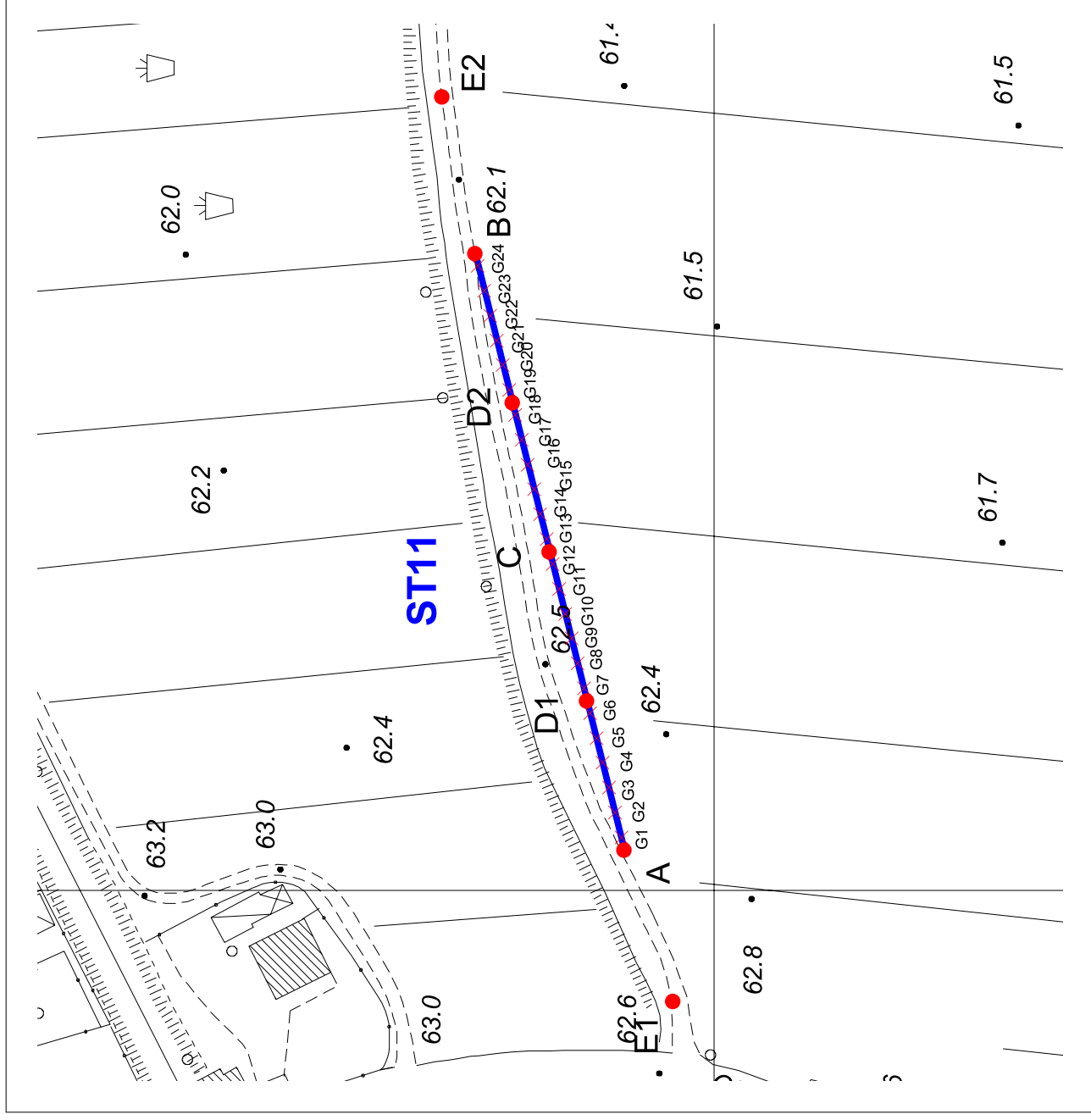


Tiri intermedi

E1-E2



Tiri esterni



LINEA SISMICA ST11

-SCHEMA DETTAGLIATO DELLA LINEA DI ACQUISIZIONE

Geofoni n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dist. Progressiva (m)	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74	78	82	86	90	94
Dist. Parziale (m)	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2
Quota (m s.l.m.)	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1

COORDINATE GAUSS BOAGA DI G1 E G24

	GEOFONO N.1 (G1)	GEOFONO N.24 (G24)
X(m)	1650608.24	1650697.47
Y(m)	4864214.47	4864236.86

PUNTI DI ENERGIZZAZIONE

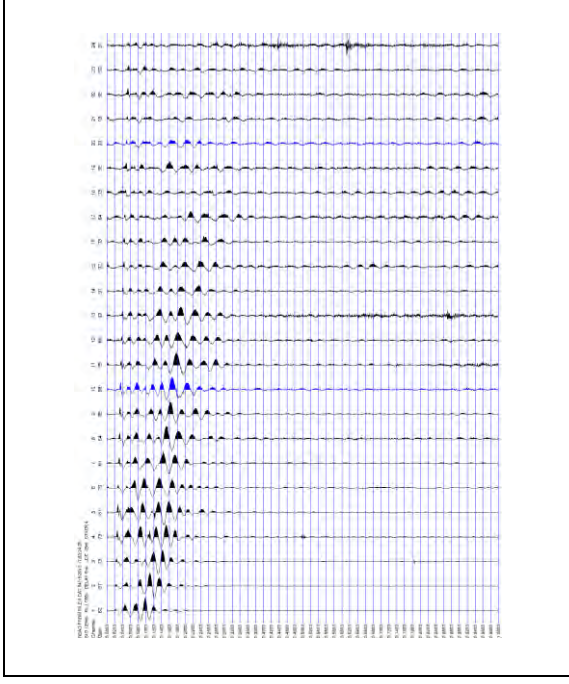
	E1	A	D1	C	D2	B	E2
	esterno sx	estremo sx	intermedio sx	centrale	intermedio dx	estremo dx	esterno dx
Onde P	17.dat	18.dat	19.dat	20.dat	21.dat	22.dat	23.dat
Onde SH	14.dat	12.dat	10.dat	8.dat	6.dat	2.dat	4.dat
Posiz. dal Geof.n.1 (m)	-27	-2	22	46	70	94	119
Quota (m)	62.6	62.1	62.1	62.1	62.1	62.1	62.2

COMUNE DI PISTOIA

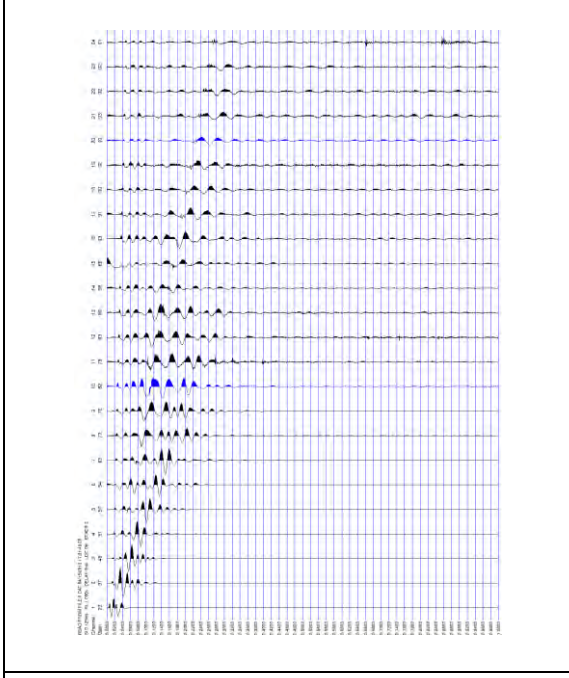
LINEA SISMICA ST11

ONDE P - REGISTRAZIONI DI CAMPAGNA

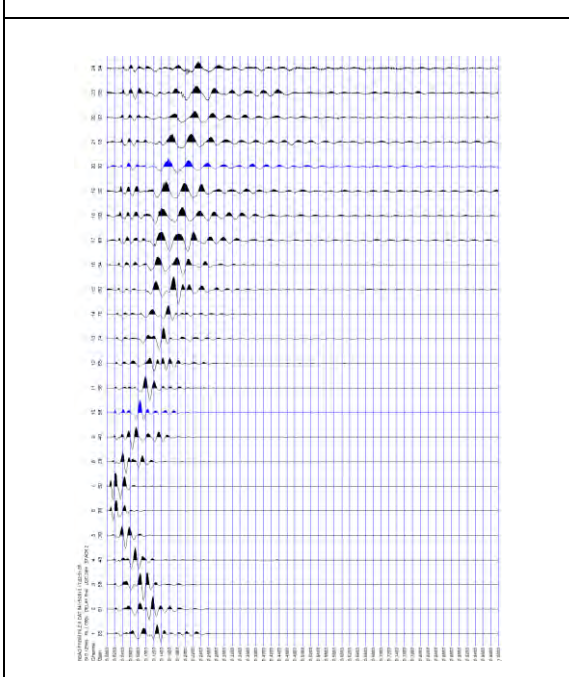
E1 - SCOPPIO ESTERNO SX - STACK 4



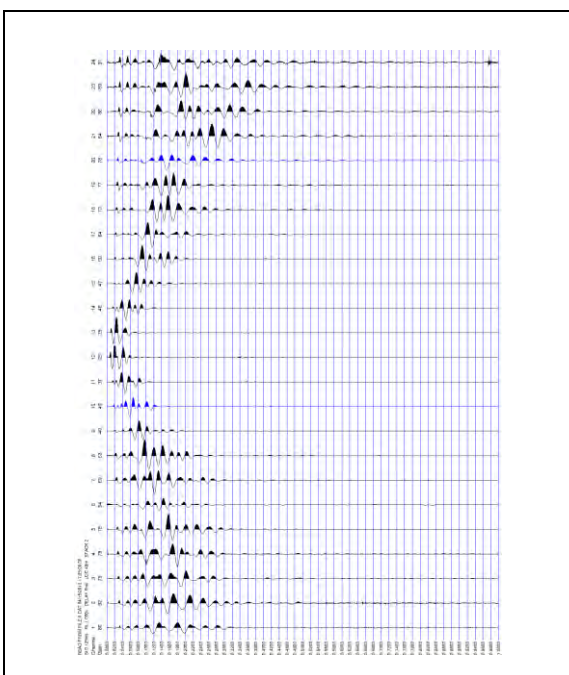
A - SCOPPIO ESTREMO SX - STACK 3



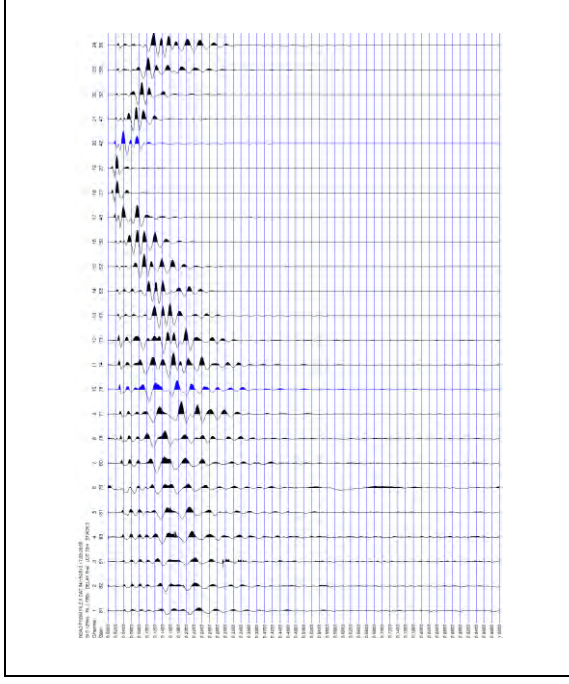
D1 - SCOPPIO INTERMEDIO SX - STACK 2



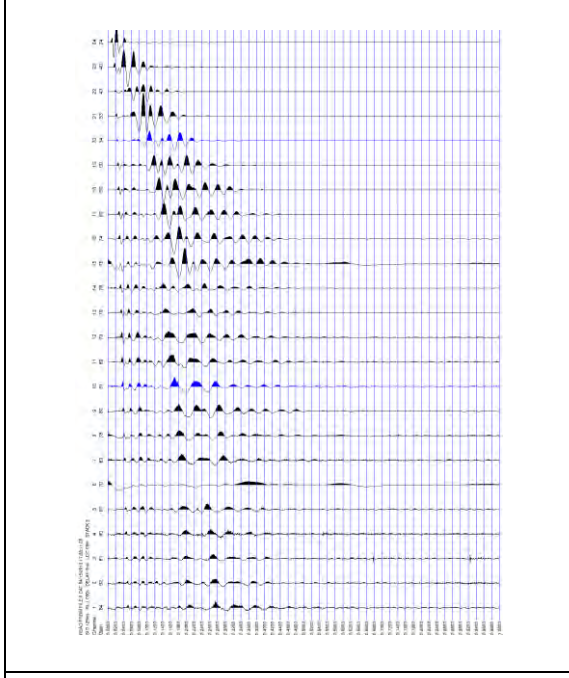
C - SCOPPIO CENTRALE - STACK 2



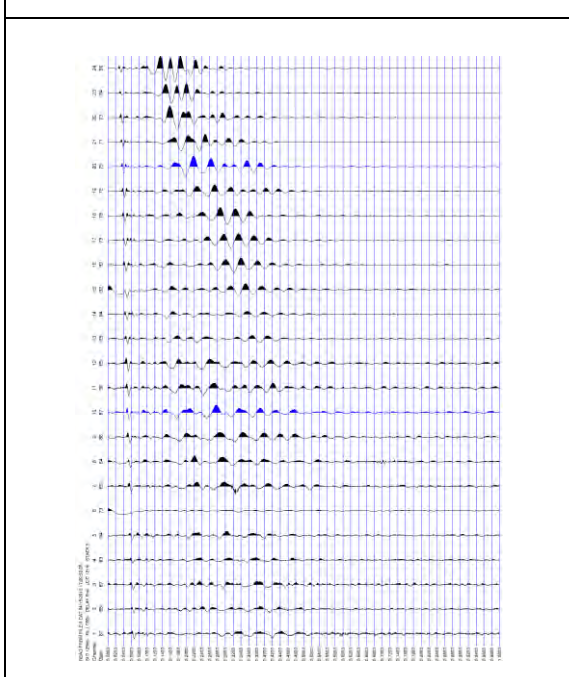
D2 - SCOPPIO INTERMEDIO DX - STACK 3



B - SCOPPIO ESTREMO DX - STACK 5



E2 - SCOPPIO ESTERNO DX - STACK 5

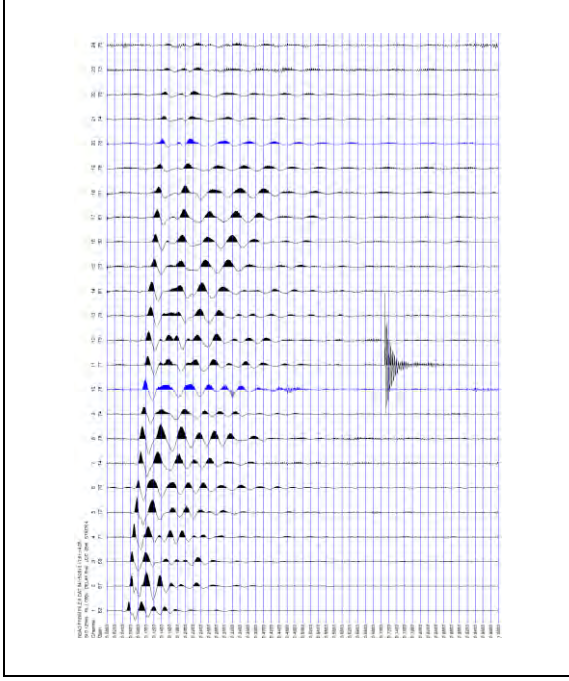


COMUNE DI PISTOIA

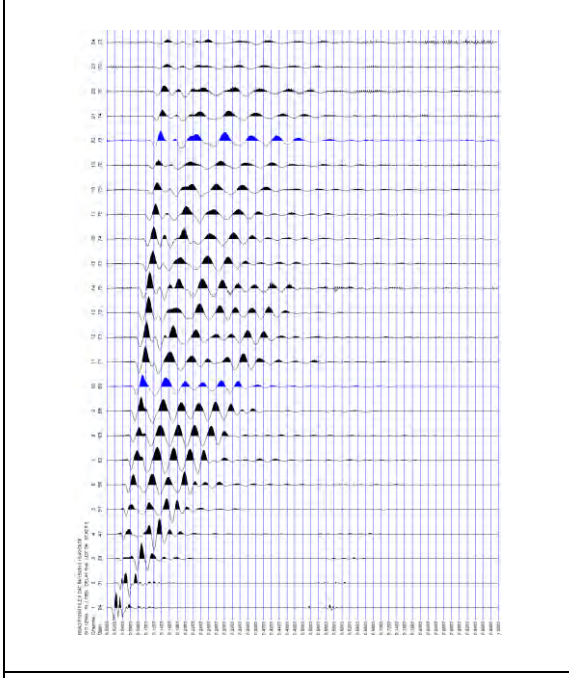
LINEA SISMICA ST11

ONDE SH - REGISTRAZIONI DI CAMPAGNA

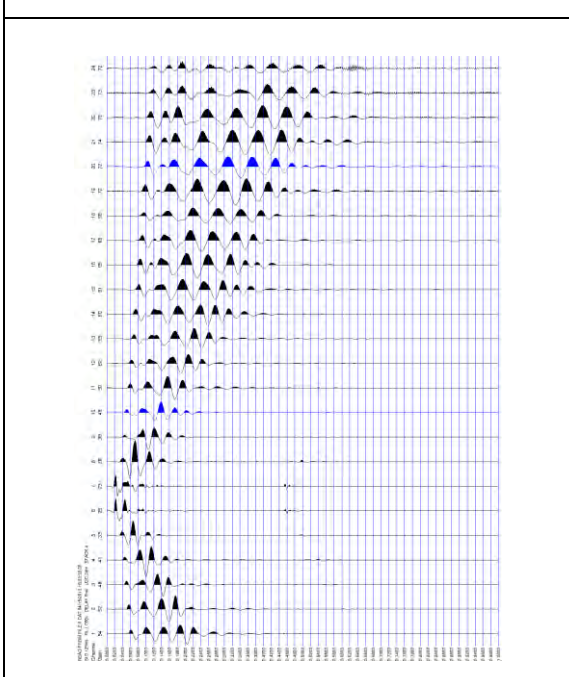
E1 - SCOPPIO ESTERNO SX - STACK 4



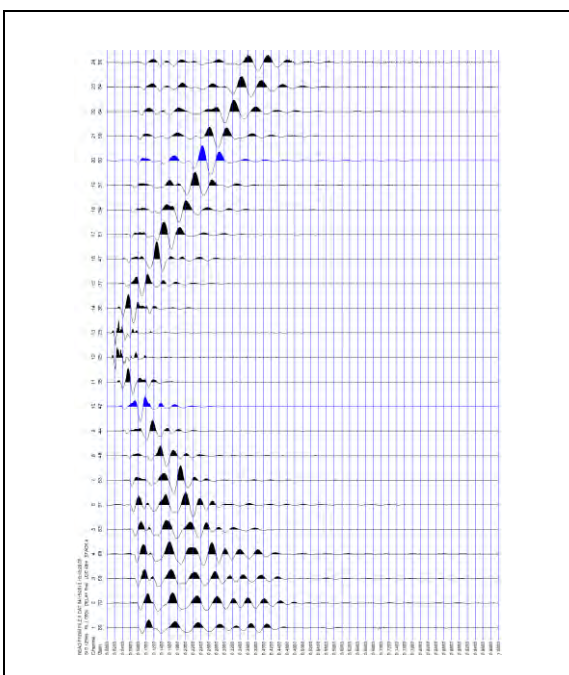
A - SCOPPIO ESTREMO SX - STACK 5



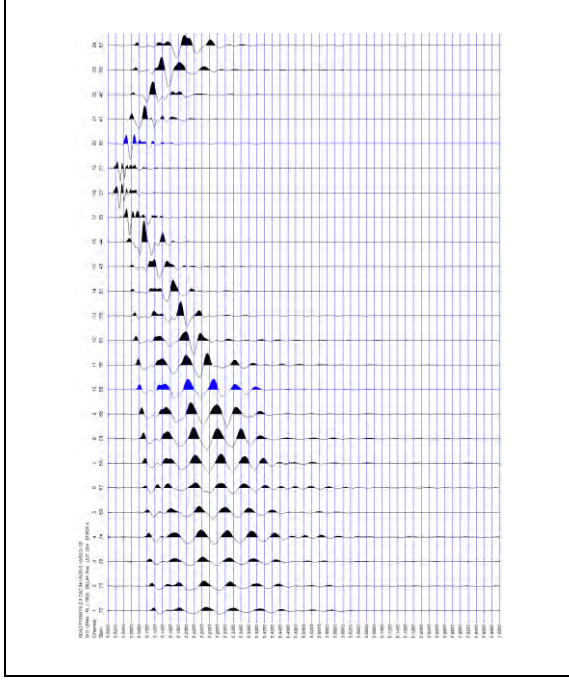
D1 - SCOPPIO INTERMEDIO SX - STACK 4



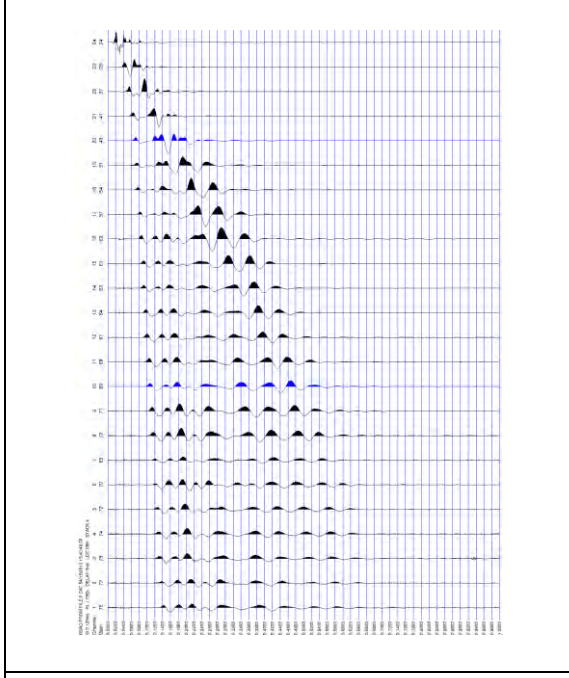
C - SCOPPIO CENTRALE - STACK 4



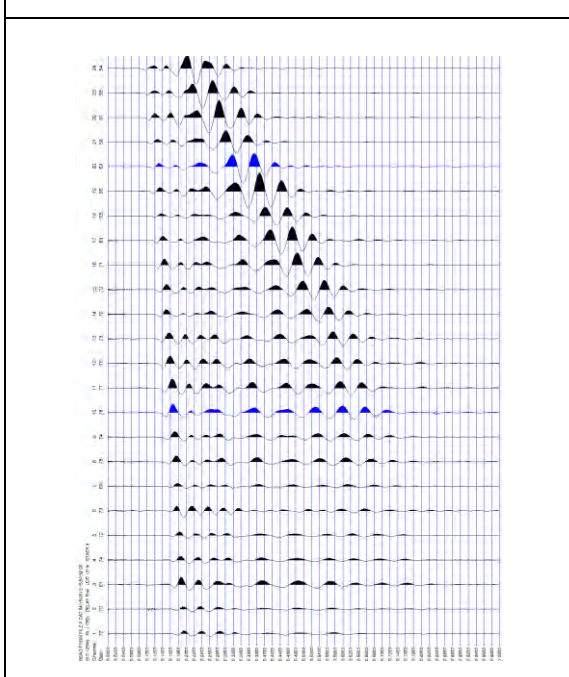
D2 - SCOPPIO INTERMEDIO DX - STACK 4



B - SCOPPIO ESTREMO DX - STACK 4



E2 - SCOPPIO ESTERNO DX - STACK 4



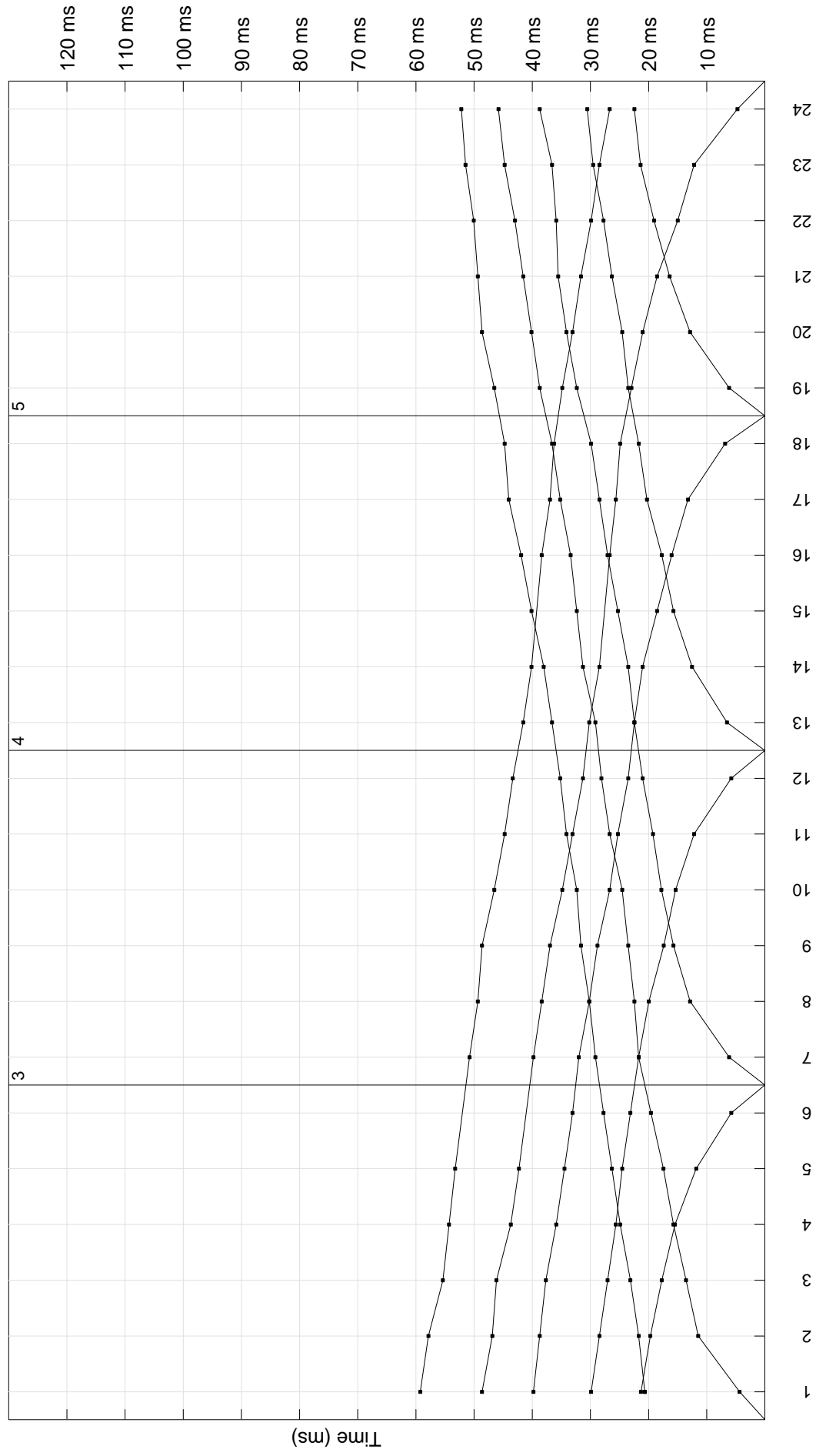
LINEA SISMICA ST11**TEMPI DI PROPAGAZIONE DELLE ONDE P ED SH**

ONDE P												ONDE SH											
	E1	A	D1	C	D2	B	E2		E1	A	D1	C	D2	B	E2								
G1	20.62	4.36	21.3	29.87	39.79	48.63	59.25		52.24	9.77	53.93	81.51	106.36	131.71	168.44								
G2	21.7	11.46	19.7	28.45	38.72	46.86	57.84		58.02	27.03	47.72	77.37	103.58	127.94	165.66								
G3	23.12	13.56	17.71	27.04	37.65	46.15	55.36		60.9	33.24	43.58	73.93	99.44	124.29	162.22								
G4	24.87	15.71	15.46	25.62	35.88	43.68	54.31		64.76	37.9	38.75	69.8	95.3	120.83	159.47								
G5	26.29	17.45	11.81	24.54	34.47	42.27	53.24		70.55	42.59	32.54	67.73	91.18	116.69	158.08								
G6	27.75	19.6	5.78	23.12	33.06	0	0		72.55	47.72	16.68	62.9	87.04	111.87	153.94								
G7	29.12	21.7	6.15	21.7	32	39.79	50.77		79.44	54.61	15.97	58.99	84.97	107.73	150.5								
G8	30.2	22.43	12.85	19.95	30.2	38.36	49.34		82.19	58.75	31.86	52.24	81.51	103.58	147.74								
G9	31.62	23.5	15.71	17.38	28.79	36.95	48.63		85.66	64.26	38.75	46.34	78.05	100.15	144.97								
G10	32.34	24.54	17.79	15.35	26.68	34.83	46.52		89.8	67.04	44.27	40.81	73.16	96.69	140.16								
G11	34.11	26.68	19.25	12.17	25.27	33.06	44.74		94.62	72.55	51.86	33.93	68.75	93.25	136.71								
G12	35.18	28.1	21.02	5.78	23.5	31.29	43.33		98.08	76.69	56.68	8.39	64.97	89.8	133.25								
G13	36.59	29.12	22.43	6.5	22.43	30.2	41.56		102.22	82.19	60.83	9.09	61.52	87.04	130.5								
G14	38.02	31.29	23.5	12.52	21.02	28.45	40.13		105.66	86.33	64.97	35.38	56.15	84.97	127.05								
G15	40.13	32.34	25.27	15.71	18.54	0	0		109.8	93.25	69.8	43.56	49.86	81.51	125.66								
G16	41.9	33.4	27.04	17.71	16.04	26.68	38.36		113.25	97.37	74.62	47.97	44.2	77.37	121.51								
G17	44.04	35.18	28.45	20.29	13.22	25.62	36.95		117.37	101.51	80.12	56.79	38.72	73.23	117.37								
G18	44.74	36.59	29.87	21.7	6.84	24.87	36.25		120.83	105.66	85.66	61.52	11.85	69.11	113.25								
G19	46.52	38.72	32.34	23.5	6.15	22.95	34.83		124.98	109.8	89.11	64.97	13.92	64.83	109.8								
G20	48.63	40.13	34.11	24.54	12.85	21	33.06		129.11	113.94	92.55	71.86	39.43	60.7	107.04								
G21	49.34	41.56	35.54	26.29	16.37	18.54	31.62		133.25	118.08	96.69	76.69	50.49	51.86	102.91								
G22	50.06	42.97	35.88	27.75	19.04	15	29.87		136.71	122.22	102.22	80.08	54.9	44.27	98.76								
G23	51.47	44.74	36.59	29.52	21.37	12.17	28.45		140.85	126.36	104.98	85.12	61.2	34.61	95.3								
G24	52.18	45.81	38.72	30.54	22.43	4.73	26.68		144.97	129.8	107.73	88.9	68.12	14.6	90.48								

Profilo ST11 - Pistoia - Spazzavento - Onde P

A

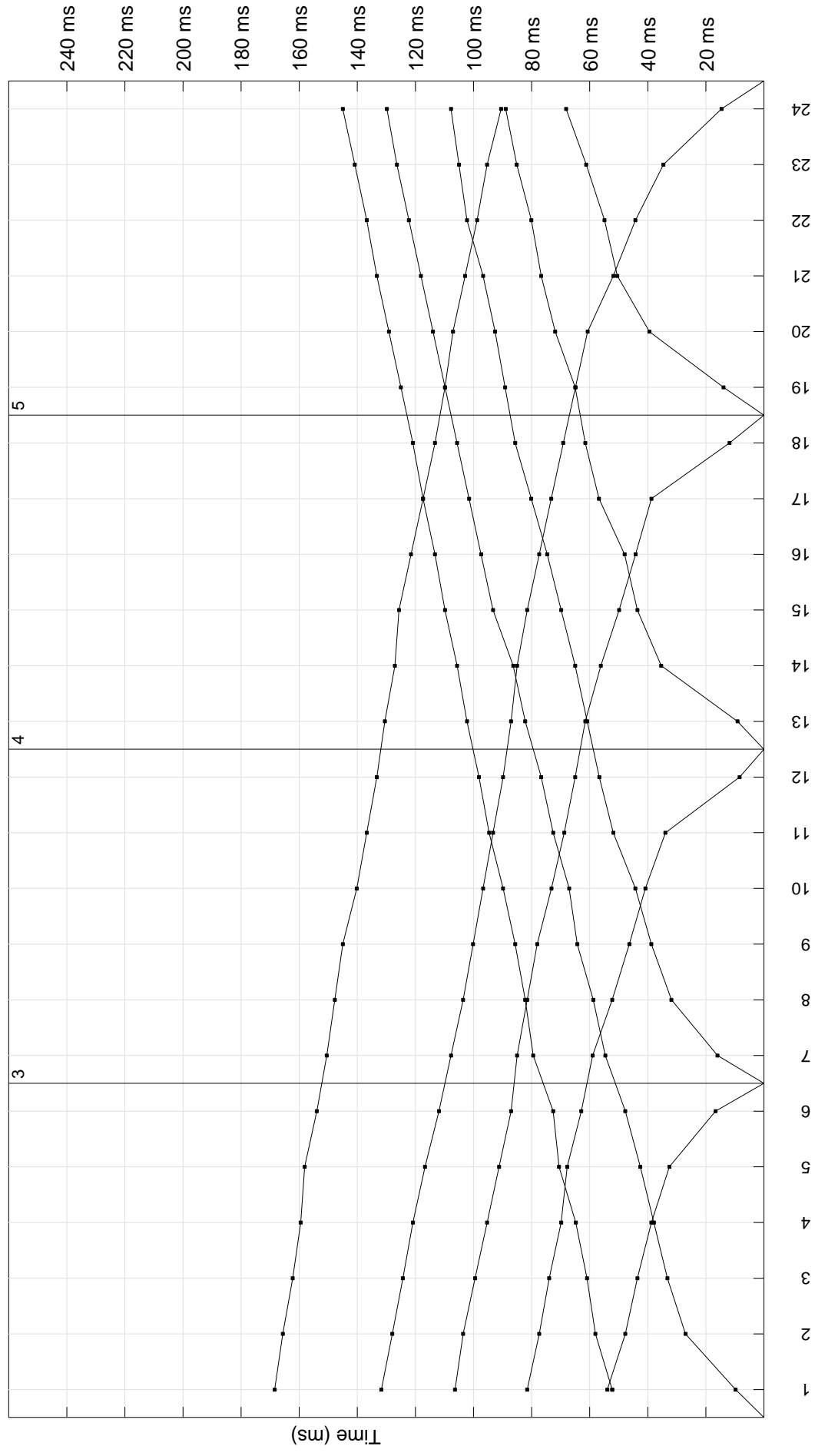
B



Profilo ST11 - Pistoia - Spazzavento - Onde SH

A

B



**COMUNE DI PISTOIA
PROVINCIA DI PISTOIA**

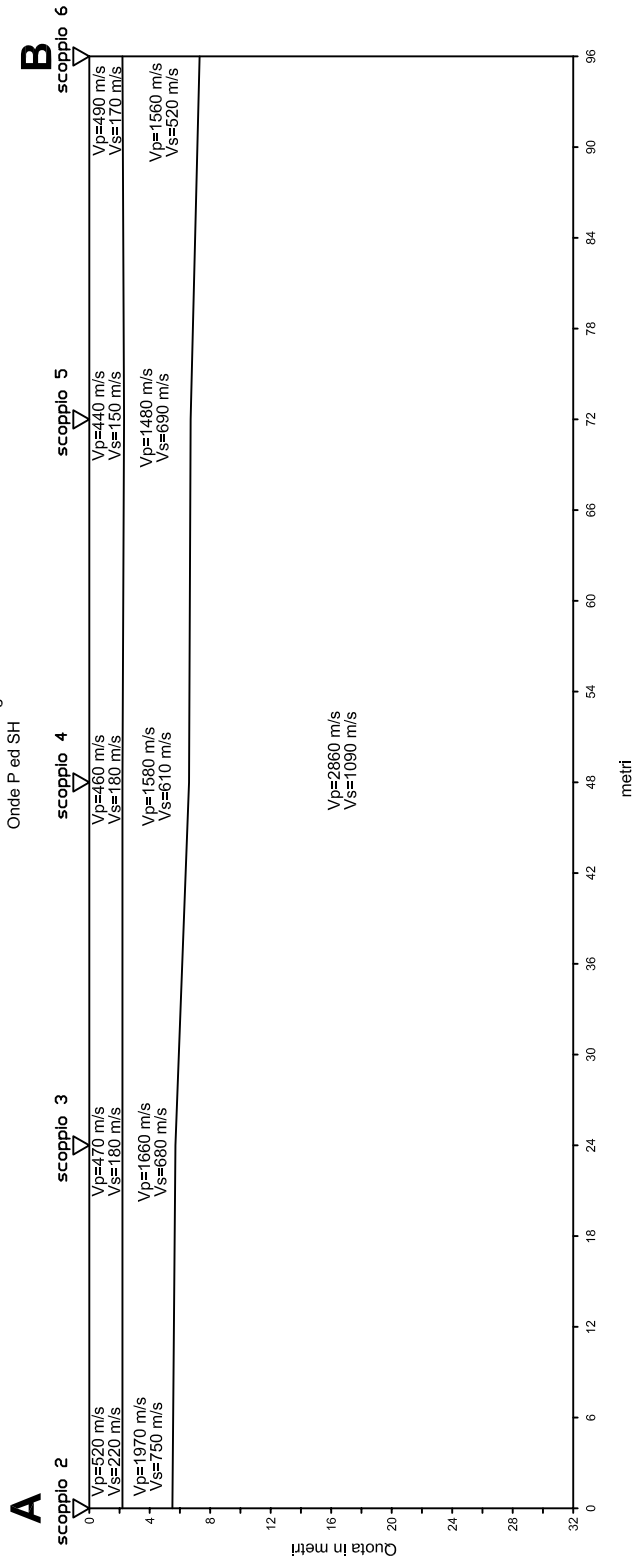
MICROZONAZIONE SISMICA LIVELLO 1

PROFILO ST11 – Spazzavento

**Ricostruzione sismostratigrafica
Onde P ed SH**

scoppi	distanze (m)	Profondità 1° livello	Profondità 2° livello	Vp1 (m/sec)	Vp2 (m/sec)	Vp3 (m/sec)	Vs1 (m/sec)	Vs2 (m/sec)	Vs3 (m/sec)
2	0	2.2	5.5	520	1970	2860	220	750	1090
3	24	2.2	5.7	470	1660	2860	180	680	1090
4	48	2.2	6.6	460	1580	2860	180	610	1090
5	72	2.3	6.7	440	1480	2860	150	690	1090
6	96	2.2	7.3	490	1560	2860	170	520	1090

Profilo ST11 - Spazzavento
Comune di Pistoia
Ricostruzione sismostratigrafica
Onde P ed SH

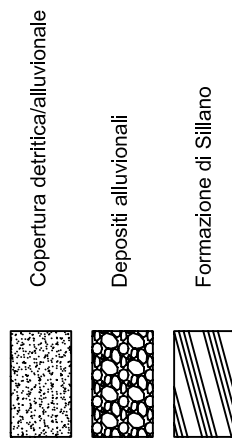


**SEZIONE LITOSTRATIGRAFICA
 INTERPRETATIVA**

Base sismica: ST11
 Committente: COMUNE DI PISTOIA
 Località: Spazzavento
 Data: 15 aprile 2013

LEGENDA

Vp=1260 m/s Velocità sismica onde P in metri al secondo
 Vs=420 m/s Velocità sismica onde SH in metri al secondo



ST11

