

Data set on diffuse soil CO₂ flux measurements and electrical resistivity profiles in Tor di Quinto area (Rome, Italy)

Maria Luisa Carapezza^a, Massimo Chiappini^b, Gabriele De Simone^a, Iacopo Nicolosi^b, Massimo Ranaldi^a, Nicoletta Ricchetti^c, Luca Tarchini^a

a. Istituto Nazionale di Geofisica e Vulcanologia, Sezione Roma 1, Via Vigna Murata 605, 00143 Roma (Italy); b. Istituto Nazionale di Geofisica e Vulcanologia, Sezione Roma 2, Via Vigna Murata 605, 00143 Roma (Italy); c. Via Vallengunga 7, 00068 Rignano Flaminio (Roma, Italy).

On June 2009, the area of Tor di Quinto, a zone of Rome city crossed by Tiber River, has been investigated with 551 soil CO₂ flux measurements by accumulation chamber, over a surface of 3.09 km² (red area in Fig. 1a) (Carapezza et al., 2021). The hippodrome surface (0.41 km²) was investigated in more detail, with a dense regular grid (319 measurements; average spacing between points= 35 m). Soil CO₂ flux data are reported in Table 1.

The electrical resistivity tomography survey consisted of five parallel profiles (Fig. 1b and Table 2 for location) acquired using a SYSCAL Pro 10 channel resistivity-meter, equipped with 72 electrodes (IRIS Instruments) spaced 5 m apart. The total profiles length was of 355 meters. The spacing between profiles was of about 100 meters. Raw data of the geoelectrical profiles are saved in *.bin and can be read freely using the IRIS Prosys 2 software at: <http://www.iris-instruments.com/syscal-pro.html> (in attachment files ERT1-ERT5).

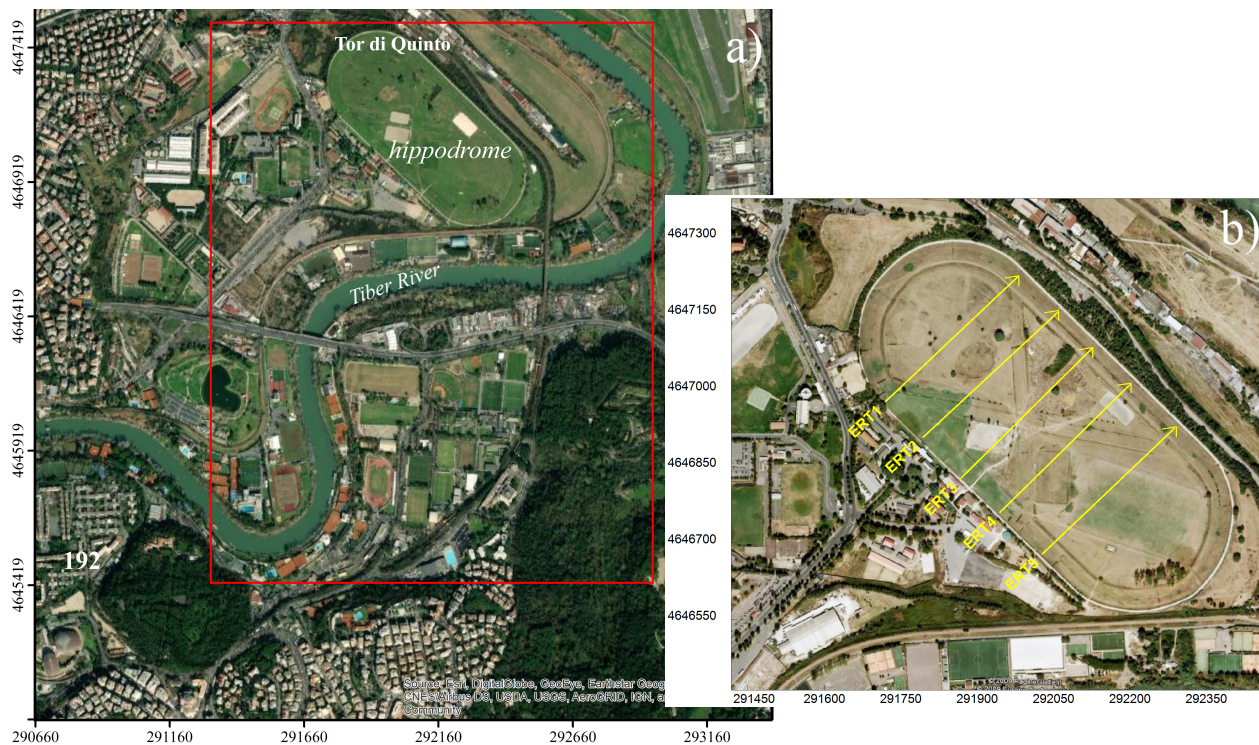


Figure 1. a) The north-central part of Rome city, crossed by Tiber River, with location of the investigated Tor di Quinto area (within the red perimeter) for soil CO₂ flux and the hippodrome where the ERT profiles were carried out. b) Location of the five electrical resistivity tomography profiles in the Tor di Quinto hippodrome. Base images from Arc GIS; geographic coordinates in WGS 84 33N.

Table 1. Diffuse soil CO₂ flux measurements at Tor di Quinto Rome - June 2009

X wgs84	Y wgs84	CO ₂ flux
		g*m ⁻² *day ⁻¹
291948	4646744	2.10
292131	4645571	2.18
292058	4646638	2.80
291864	4646823	3.36
291921	4646771	3.50
293229	4645540	3.59
291686	4647009	3.78
292114	4646589	3.92
292399	4646593	4.20
291834	4646852	4.34
292230	4647001	4.34
291952	4646925	4.48
292085	4646612	4.62
291675	4647043	4.90
292247	4646981	5.60
293139	4644810	5.65
292367	4646862	5.74
293209	4645050	5.89
292299	4646932	6.16
290374	4646192	6.30
291810	4647089	6.30
292341	4646891	6.30
292094	4647132	6.44
291759	4646925	6.72
291934	4646895	7.00
289200	4644817	7.14
291734	4646953	7.14
291832	4646797	7.28
291874	4647293	7.42
291811	4646874	7.56
292313	4646920	7.56

291973	4647251	7.70
293059	4645290	7.82
291679	4646938	7.98
292031	4646663	7.98
291890	4646798	8.12
292276	4646954	8.12
292371	4646618	8.12
292071	4647155	8.26
292452	4646640	8.26
293059	4645210	8.31
293059	4645360	8.36
291910	4647285	8.54
293068	4646828	8.82
293049	4644810	8.85
290430	4645968	9.10
292004	4646691	9.10
292020	4647203	9.10
292229	4646570	9.24
293179	4644880	9.38
291830	4646669	9.52
292014	4647048	9.52
291708	4646979	9.66
291679	4646861	9.80
293059	4645130	9.92
293349	4644970	9.97
293129	4645560	10.06
290375	4646354	10.08
292202	4647026	10.08
291947	4647268	10.22
293199	4644970	10.24
293269	4645430	10.28
291770	4647148	10.50
291972	4646903	10.50
292125	4647100	10.50

291658	4646845	10.64
291701	4646664	10.64
292004	4646643	10.64
292060	4646567	10.64
290404	4646072	10.78
290463	4646608	10.92
291684	4646895	10.92
291724	4646714	10.92
291776	4647055	10.92
292048	4647178	10.92
292060	4646995	10.92
292433	4646765	10.92
293068	4646755	10.92
293181	4646911	10.92
293379	4645130	10.99
291844	4646626	11.06
292486	4646488	11.06
291774	4647270	11.20
292128	4646656	11.34
292176	4647055	11.34
292150	4647078	11.48
291771	4646660	11.62
291959	4647109	11.62
292042	4647021	11.62
291691	4646908	11.76
292539	4645751	11.76
292098	4647022	11.90
292714	4645982	11.90
293160	4645965	11.90
292411	4646805	12.04
288990	4646723	12.18
290422	4646020	12.18
291847	4646082	12.32
292170	4646899	12.32

292288	4646591	12.32
293216	4646914	12.32
290561	4646613	12.46
291793	4646786	12.46
288970	4645834	12.60
291693	4646837	12.60
293139	4645390	12.63
291930	4647132	12.74
293069	4646798	12.74
293314	4647073	12.88
289194	4645748	13.02
292457	4646743	13.02
293129	4645470	13.05
292699	4645963	13.16
293279	4645907	13.16
289236	4647009	13.30
290293	4647156	13.30
291666	4646688	13.30
292898	4645988	13.30
293079	4645450	13.45
288584	4645676	13.58
289010	4646862	13.58
290571	4646444	13.58
291793	4647254	13.58
289601	4646902	13.72
290394	4646315	13.72
290513	4646683	13.72
293351	4646724	13.72
289714	4646950	13.86
292020	4646582	13.86
292151	4646561	13.86
292929	4645924	13.86
293069	4644890	13.90
289532	4646158	14.00

291756	4646698	14.00
292834	4646079	14.00
289258	4645401	14.14
289667	4646950	14.14
289895	4646467	14.14
290385	4645024	14.14
290429	4645917	14.14
290480	4646696	14.14
290907	4646356	14.14
290909	4645240	14.14
291266	4645111	14.14
291579	4645269	14.14
291673	4644861	14.14
291881	4645633	14.14
291894	4645356	14.14
291976	4646717	14.14
292218	4646013	14.14
292270	4645760	14.14
292917	4645957	14.14
293359	4645050	14.17
293059	4644970	14.19
293279	4645190	14.26
290124	4646012	14.28
290296	4646353	14.28
291292	4645210	14.28
292686	4645433	14.28
292727	4645676	14.28
289984	4646562	14.42
290486	4645679	14.42
290561	4645588	14.42
291666	4646912	14.42
291744	4646100	14.42
291752	4647256	14.42
291791	4647119	14.42

291805	4647011	14.42
291878	4644844	14.42
292128	4644995	14.42
293066	4646714	14.42
293199	4645140	14.43
288987	4645186	14.56
289266	4646694	14.56
289619	4646742	14.56
289699	4645154	14.56
291672	4645083	14.56
292031	4645612	14.56
288732	4646196	14.70
288789	4645536	14.70
289150	4644948	14.70
289536	4646187	14.70
289628	4646159	14.70
289661	4647365	14.70
289749	4645782	14.70
289896	4645437	14.70
290393	4645265	14.70
291314	4646720	14.70
291783	4646899	14.70
292173	4646676	14.70
292391	4646675	14.70
292395	4646831	14.70
288504	4646441	14.84
288709	4645868	14.84
288968	4645856	14.84
290094	4647132	14.84
290548	4646215	14.84
291458	4646821	14.84
291662	4646879	14.84
291684	4646710	14.84
291879	4646617	14.84

293319	4644890	14.97
288487	4645577	14.98
288865	4645727	14.98
288878	4644875	14.98
288986	4645298	14.98
289511	4645602	14.98
289705	4645074	14.98
289900	4646346	14.98
289985	4646540	14.98
290509	4645076	14.98
290527	4646397	14.98
290558	4645054	14.98
290638	4646054	14.98
291214	4645248	14.98
292119	4645056	14.98
292341	4646593	14.98
292645	4645674	14.98
292968	4645881	14.98
288552	4646157	15.12
288591	4646737	15.12
289628	4647089	15.12
291870	4647181	15.12
292037	4647072	15.12
292079	4646525	15.12
292122	4645061	15.12
292732	4645467	15.12
288706	4646696	15.26
288906	4644825	15.26
289598	4646214	15.26
289650	4645003	15.26
289682	4646538	15.26
289822	4646061	15.26
290017	4647028	15.26
290417	4646190	15.26

290589	4645296	15.26
291794	4645362	15.26
292588	4646570	15.26
292657	4646315	15.26
293306	4647142	15.26
288944	4644809	15.40
290387	4646103	15.40
291666	4647079	15.40
291951	4646866	15.40
292419	4646660	15.40
292945	4645878	15.40
293340	4646815	15.40
288992	4647044	15.54
289286	4645175	15.54
290124	4647022	15.54
290713	4645381	15.54
291076	4646452	15.54
291688	4645033	15.54
291793	4644994	15.54
291913	4644987	15.54
292115	4646054	15.54
292351	4645030	15.54
288360	4646430	15.68
288861	4645195	15.68
289233	4647156	15.68
290174	4645562	15.68
290441	4645312	15.68
290523	4646353	15.68
290899	4645114	15.68
291418	4646693	15.68
291447	4646313	15.68
291479	4645893	15.68
291744	4647178	15.68
291919	4646925	15.68

291945	4644832	15.68
292332	4644965	15.68
292345	4646644	15.68
292771	4645047	15.68
292804	4646092	15.68
288401	4646462	15.96
288883	4645428	15.96
289584	4645519	15.96
289844	4646396	15.96
290026	4647094	15.96
291965	4646677	15.96
292472	4644766	15.96
289588	4645665	16.10
289591	4646844	16.10
289702	4645634	16.10
289890	4645996	16.10
290084	4647022	16.10
290391	4645157	16.10
290627	4645666	16.10
290830	4646179	16.10
291289	4646641	16.10
291296	4645771	16.10
291837	4647062	16.10
291839	4647218	16.10
293036	4645773	16.10
289134	4645057	16.24
289335	4645676	16.24
290220	4645345	16.24
290661	4645296	16.24
290793	4645658	16.24
291146	4644913	16.24
291524	4645702	16.24
291825	4645598	16.24
292360	4645965	16.24

293424	4645290	16.34
288765	4645479	16.38
289594	4646158	16.38
289727	4646989	16.38
289953	4646655	16.38
289970	4646628	16.38
290443	4645065	16.38
290760	4645115	16.38
291745	4646856	16.38
291901	4646978	16.38
293011	4645814	16.38
288622	4645677	16.52
289029	4645882	16.52
289924	4647354	16.52
290724	4646418	16.52
290878	4645640	16.52
290959	4645506	16.52
291121	4646201	16.52
291950	4646606	16.52
291965	4646650	16.52
292447	4646181	16.52
292707	4645650	16.52
293349	4645420	16.59
290203	4645405	16.66
290751	4645303	16.66
291683	4646820	16.66
292219	4646629	16.66
292284	4646146	16.66
293389	4645370	16.66
289511	4645841	16.80
291479	4646668	16.80
291857	4647034	16.80
293003	4645828	16.80
289330	4646805	16.94

290145	4647250	16.94
290291	4645122	16.94
290620	4645218	16.94
290699	4645669	16.94
291648	4644934	16.94
292112	4646946	16.94
292704	4644816	16.94
292962	4645843	16.94
293323	4646977	16.94
289172	4647146	17.08
289488	4646889	17.08
289525	4646264	17.08
289925	4645343	17.08
290138	4645251	17.08
290590	4646541	17.08
291123	4645150	17.08
291381	4645812	17.08
292231	4645474	17.08
293330	4646853	17.08
289787	4645453	17.22
290405	4645117	17.22
290840	4645529	17.22
291563	4645600	17.22
291702	4646749	17.22
291847	4644917	17.22
292096	4645870	17.22
292140	4645878	17.22
292545	4645844	17.22
292611	4646098	17.22
292689	4646705	17.22
293020	4644627	17.22
289130	4645095	17.36
290025	4645846	17.36
290152	4645178	17.36

290243	4645275	17.36
290506	4645513	17.36
291729	4646743	17.36
293294	4647233	17.36
293409	4645210	17.44
288939	4644840	17.50
290758	4645243	17.50
291691	4646670	17.50
291769	4646751	17.50
292255	4646640	17.50
289014	4645850	17.64
289331	4645180	17.64
289505	4646120	17.64
291008	4644992	17.64
291737	4646641	17.64
292078	4645660	17.64
292329	4645977	17.64
293169	4645220	17.75
288385	4645394	17.78
288455	4645564	17.78
289112	4645908	17.78
290076	4645112	17.78
290325	4644968	17.78
290507	4645209	17.78
290550	4646149	17.78
290669	4645510	17.78
290959	4646197	17.78
291314	4646645	17.78
291492	4645529	17.78
292546	4645930	17.78
293065	4646865	17.78
289742	4646211	17.92
290506	4646965	17.92
290607	4646208	17.92

290642	4646523	17.92
292084	4646971	17.92
289544	4646898	18.06
290438	4646116	18.06
290587	4645510	18.06
290735	4645608	18.06
291030	4645165	18.06
292290	4645371	18.06
292735	4645645	18.06
293249	4644950	18.11
288787	4645996	18.20
288805	4645953	18.20
289816	4645478	18.20
288338	4645563	18.34
289220	4645715	18.34
289943	4647295	18.34
290237	4646559	18.34
290237	4646714	18.34
290775	4645533	18.34
291066	4646005	18.34
291814	4647189	18.34
292431	4646685	18.34
292714	4646957	18.34
292719	4645067	18.34
289662	4647187	18.48
289958	4646146	18.48
290368	4646262	18.48
290634	4645088	18.48
290838	4646278	18.48
291403	4646113	18.48
291706	4645318	18.48
288970	4644779	18.62
289916	4646770	18.62
290872	4645180	18.62

292030	4646520	18.62
292338	4646160	18.62
292672	4645609	18.62
288996	4644748	18.76
289347	4646065	18.76
289635	4646616	18.76
290075	4647273	18.76
291054	4646408	18.76
291773	4645498	18.76
291813	4645540	18.76
291894	4647107	18.76
292367	4644970	18.76
292739	4645828	18.76
290343	4646005	18.90
291069	4645326	18.90
292030	4646159	18.90
292128	4645387	18.90
292142	4646927	18.90
292236	4645405	18.90
292551	4645971	18.90
292725	4645317	18.90
293339	4645270	18.92
288922	4647022	19.04
291201	4646107	19.04
292120	4645580	19.04
292859	4645990	19.04
289128	4645133	19.18
289599	4646872	19.18
289664	4645597	19.18
290265	4645239	19.18
290330	4645944	19.18
290461	4645056	19.18
291052	4644936	19.18
291509	4646561	19.18

291783	4647210	19.18
292173	4645792	19.18
292254	4646579	19.18
289389	4646786	19.32
289953	4646493	19.32
290051	4646504	19.32
290527	4646556	19.32
291767	4647005	19.32
291865	4647135	19.32
292324	4646673	19.32
288578	4646462	19.46
290055	4645259	19.46
290504	4645261	19.46
290575	4645076	19.46
291571	4645762	19.46
291765	4645658	19.46
292300	4646652	19.46
292477	4646220	19.46
292487	4646300	19.46
293045	4646596	19.46
288452	4645200	19.60
288760	4646135	19.60
289974	4646574	19.60
290178	4647247	19.60
291795	4646822	19.60
289927	4647244	19.74
290640	4647128	19.74
291451	4646502	19.74
291918	4646615	19.74
292189	4646561	19.74
292366	4645213	19.74
288836	4645665	19.88
291692	4646969	19.88
291715	4646814	19.88

292229	4646140	19.88
292621	4645777	19.88
292765	4644397	19.88
289341	4645701	20.02
289720	4647389	20.02
290379	4645378	20.02
290705	4645305	20.02
290836	4647194	20.02
292460	4646669	20.02
288481	4646916	20.16
288549	4646775	20.16
288605	4647048	20.16
288685	4646608	20.16
289546	4645129	20.16
290593	4645375	20.16
291615	4645019	20.16
292232	4645774	20.16
288366	4645064	20.30
288437	4645166	20.30
289031	4646776	20.30
289293	4645049	20.30
290143	4646571	20.30
290260	4647055	20.30
290544	4647144	20.30
290922	4646272	20.30
291769	4646839	20.30
292544	4645792	20.30
293046	4645858	20.30
288641	4646063	20.44
289627	4646660	20.44
289955	4646164	20.44
291052	4646353	20.44
291385	4646798	20.44
291546	4645239	20.44

292068	4645880	20.44
289160	4645957	20.58
292152	4646628	20.58
292413	4646997	20.58
293269	4645110	20.65
288526	4645591	20.72
288765	4646024	20.72
288767	4646105	20.72
288853	4645477	20.72
288947	4645917	20.72
289403	4646071	20.72
291701	4647074	20.72
292141	4644870	20.72
293310	4645958	20.72
289116	4645169	20.86
289268	4645341	20.86
289325	4646743	20.86
289989	4644900	20.86
290527	4646440	20.86
292949	4645620	20.99
288648	4646001	21.00
288931	4645770	21.00
291898	4647158	21.00
292213	4646585	21.00
288481	4646434	21.14
288548	4646960	21.14
289107	4645655	21.14
290499	4645570	21.14
290610	4646166	21.14
291713	4646877	21.14
291859	4645499	21.14
291879	4647007	21.14
291995	4645561	21.14
292060	4645686	21.14

293353	4645881	21.14
293349	4645190	21.20
288689	4645482	21.28
289498	4646046	21.28
289688	4645730	21.28
290267	4645182	21.28
290787	4645184	21.28
291300	4646684	21.28
292357	4645924	21.28
292517	4644532	21.28
292685	4645321	21.28
292767	4646097	21.28
288493	4646156	21.42
289846	4647094	21.42
290156	4646526	21.42
290521	4645319	21.42
290592	4647130	21.42
292074	4646700	21.42
293161	4645777	21.42
288393	4645095	21.56
288405	4645537	21.56
288634	4647077	21.56
288732	4645837	21.56
289017	4645780	21.56
289045	4644889	21.56
289156	4645325	21.56
289163	4645642	21.56
290573	4645201	21.56
291271	4645065	21.56
292019	4645709	21.56
292233	4646731	21.56
292340	4646535	21.56
292650	4646033	21.56
293169	4644920	21.59

288979	4645000	21.70
289186	4645613	21.70
289820	4646201	21.70
291008	4646348	21.70
292786	4645734	21.70
288475	4645352	21.84
289324	4645595	21.84
290918	4645149	21.84
292681	4645701	21.84
293360	4646608	21.84
288376	4645357	21.98
288975	4645253	21.98
289927	4645237	21.98
290181	4645119	21.98
290361	4645449	21.98
290804	4645398	21.98
291789	4647024	21.98
292481	4646264	21.98
293279	4645370	22.08
289180	4646578	22.12
289798	4644830	22.12
290127	4645301	22.12
290187	4645505	22.12
290419	4647199	22.12
290584	4645132	22.12
290653	4645384	22.12
290679	4645100	22.12
291819	4646704	22.12
292181	4646084	22.12
292400	4645026	22.12
292583	4644969	22.12
292732	4646078	22.12
292784	4645794	22.12
291133	4646003	22.26

291406	4645895	22.26
292269	4645331	22.26
292811	4646188	22.26
289091	4645338	22.40
289780	4646070	22.40
289860	4646630	22.40
291802	4646512	22.40
292195	4646216	22.40
288770	4645228	22.54
288774	4645642	22.54
288852	4646856	22.54
288883	4645742	22.54
289010	4645024	22.54
289850	4645822	22.54
290596	4646393	22.54
291243	4644948	22.54
288928	4646974	22.68
289481	4644793	22.68
289933	4645235	22.68
290038	4646291	22.68
292187	4645875	22.68
292325	4645935	22.68
292617	4645832	22.68
288711	4646802	22.82
288766	4645502	22.82
289762	4645680	22.82
290099	4646606	22.82
290592	4646258	22.82
290870	4645401	22.82
291949	4647159	22.82
292406	4645262	22.82
292776	4645729	22.82
288372	4645510	22.96
288689	4645852	22.96

289684	4645049	22.96
291220	4645789	22.96
291546	4645526	22.96
292004	4645525	22.96
289187	4645373	23.10
289315	4645332	23.10
289528	4645083	23.10
289972	4646842	23.10
290899	4645589	23.10
291335	4646066	23.10
292811	4645994	23.10
293240	4645917	23.10
288847	4645504	23.24
289352	4645376	23.24
290343	4645907	23.24
291457	4646645	23.24
291943	4647063	23.24
292253	4646866	23.24
292361	4645270	23.24
292561	4644700	23.24
292678	4645935	23.24
293103	4644742	23.24
288843	4645995	23.38
289320	4647131	23.38
289700	4647120	23.38
292159	4646115	23.38
289161	4645174	23.52
290612	4645292	23.52
291934	4644904	23.52
292422	4646084	23.52
292712	4645880	23.52
293229	4645620	23.63
288724	4645817	23.66
289052	4645329	23.66

289510	4645015	23.66
289590	4645240	23.66
290135	4644937	23.66
290559	4645252	23.66
291368	4646044	23.66
288725	4646005	23.80
288909	4645144	23.80
289490	4644928	23.80
293069	4645640	23.91
289737	4645120	23.94
291064	4645906	23.94
291130	4645275	23.94
292011	4646968	23.94
292397	4645882	23.94
292430	4645210	23.94
289250	4644876	24.08
292100	4646678	24.08
289365	4645732	24.22
289543	4647033	24.22
289756	4646167	24.22
289877	4646790	24.22
291408	4646648	24.22
292022	4645464	24.22
292197	4646874	24.22
292380	4646539	24.22
292541	4645881	24.22
289420	4645780	24.36
291841	4647161	24.36
291939	4644898	24.36
292237	4645806	24.36
292996	4647047	24.36
288594	4645628	24.50
288890	4646910	24.50
288989	4645140	24.50

289168	4645524	24.50
289270	4644975	24.50
289384	4645496	24.50
290361	4645518	24.50
291133	4645066	24.50
291278	4646088	24.50
291547	4645110	24.50
291727	4647188	24.50
291768	4646738	24.50
288616	4645710	24.64
289198	4644791	24.64
291703	4647098	24.64
291910	4645483	24.64
292087	4646231	24.64
288853	4645356	24.78
291750	4647036	24.78
291966	4646797	24.78
292069	4646657	24.78
292220	4645877	24.78
288806	4645186	24.92
289189	4645446	24.92
289350	4645572	24.92
290389	4645232	24.92
291136	4646102	24.92
291385	4646647	24.92
292185	4646601	24.92
292342	4645881	24.92
292630	4645654	24.92
292946	4646112	24.92
288343	4645421	25.06
289570	4647108	25.06
289857	4646026	25.06
292129	4645490	25.06
292135	4644924	25.06

292181	4646018	25.06
292947	4645668	25.06
293289	4645290	25.09
289275	4645468	25.20
291577	4646621	25.20
291890	4646944	25.20
289069	4644851	25.34
289171	4644902	25.34
289745	4645095	25.34
290524	4645449	25.34
290966	4645052	25.34
291262	4644976	25.34
291667	4646718	25.34
291713	4646935	25.34
292197	4646531	25.34
288565	4645603	25.48
289169	4645588	25.48
289236	4645735	25.48
289451	4645567	25.48
289975	4646795	25.48
291257	4645868	25.48
292039	4646946	25.48
288511	4645931	25.62
289095	4645792	25.62
290978	4646513	25.62
291841	4645671	25.62
291927	4646662	25.62
292059	4645540	25.62
288599	4645383	25.76
288637	4645832	25.76
288964	4645881	25.76
289422	4646859	25.76
291352	4646781	25.76
291917	4647088	25.76

292180	4645302	25.76
292226	4646848	25.76
292719	4645143	25.76
293371	4646517	25.76
288393	4645275	25.90
288694	4645740	25.90
289560	4645170	25.90
289564	4646136	25.90
291403	4645948	25.90
291988	4646774	25.90
293259	4644810	26.01
289504	4645810	26.04
290611	4646024	26.04
290739	4646726	26.04
291213	4645138	26.04
291887	4646690	26.04
293055	4646639	26.04
293075	4645846	26.04
288981	4645069	26.18
289422	4646670	26.18
289555	4647308	26.18
291921	4647181	26.18
291939	4646708	26.18
292178	4645362	26.18
292627	4646325	26.18
292924	4644445	26.18
288788	4646975	26.32
289092	4644767	26.32
290507	4647150	26.32
291406	4646823	26.32
291663	4646496	26.32
291992	4647174	26.32
292269	4644846	26.32
293059	4645050	26.32

289243	4646654	26.46
290084	4646739	26.46
290547	4646954	26.46
291753	4645330	26.46
292073	4647046	26.46
292107	4646722	26.46
293318	4645895	26.46
288542	4645104	26.60
290735	4647148	26.60
291602	4646651	26.60
291762	4647188	26.60
288553	4645383	26.74
289424	4647087	26.74
290170	4646087	26.74
291190	4645092	26.74
291434	4646819	26.74
291966	4647033	26.74
292082	4644878	26.74
292916	4645671	26.74
292987	4644537	26.74
293391	4645988	26.74
289531	4645472	26.88
289542	4645935	26.88
291096	4645876	26.88
291442	4646695	26.88
293249	4645030	26.90
289204	4645980	27.02
289215	4646625	27.02
289313	4646057	27.02
290692	4647121	27.02
290984	4647009	27.02
291729	4647062	27.02
291899	4645057	27.02
291914	4646516	27.02

292583	4645346	27.02
288657	4646377	27.16
289141	4645561	27.16
289191	4645557	27.16
289276	4645654	27.16
289648	4645320	27.16
289940	4646803	27.16
291167	4645941	27.16
292202	4646654	27.16
292637	4644648	27.16
292948	4644366	27.16
288617	4645628	27.30
288696	4646020	27.30
289923	4646475	27.30
291746	4647086	27.30
292540	4646064	27.30
292587	4644646	27.30
292688	4644929	27.30
288476	4645232	27.44
290242	4646004	27.44
291182	4645966	27.44
291293	4645006	27.44
291791	4646693	27.44
292194	4646255	27.44
292477	4646185	27.44
292568	4644610	27.44
288532	4645833	27.58
288685	4646562	27.58
288828	4645632	27.58
289705	4646101	27.58
289852	4644863	27.58
290074	4645591	27.58
291786	4647162	27.58
292587	4645599	27.58

288354	4645525	27.72
289246	4645690	27.72
289253	4644803	27.72
289472	4646547	27.72
289768	4647402	27.72
290624	4646812	27.72
290831	4646917	27.72
291700	4647202	27.72
291931	4646953	27.72
291962	4646757	27.72
291981	4645499	27.72
292385	4645138	27.72
292438	4645073	27.72
292937	4645648	27.72
292954	4645948	27.72
288440	4645027	27.86
288620	4645486	27.86
288801	4645902	27.86
289075	4644821	27.86
289434	4645326	27.86
291792	4646739	27.86
292053	4645585	27.86
288426	4645278	28.00
288604	4645005	28.00
289120	4645257	28.00
289186	4644850	28.00
289200	4645655	28.00
289631	4646941	28.00
291757	4646784	28.00
292020	4646222	28.00
288868	4645978	28.14
289063	4646289	28.14
289835	4645736	28.14
289892	4645271	28.14

291236	4646238	28.14
291813	4647138	28.14
291886	4645127	28.14
291996	4646519	28.14
292299	4646701	28.14
292643	4645597	28.14
293183	4645736	28.14
288751	4645997	28.28
288802	4646383	28.28
289504	4647071	28.28
290390	4645307	28.28
291464	4646896	28.28
291533	4645652	28.28
291950	4646518	28.28
288831	4645950	28.42
289752	4645313	28.42
290537	4646015	28.42
291205	4645003	28.42
292069	4645621	28.42
292361	4646801	28.42
292783	4645996	28.42
288839	4645713	28.56
292276	4645462	28.56
292478	4644889	28.56
292684	4646041	28.56
292933	4645990	28.56
293059	4645687	28.56
288358	4645313	28.70
288707	4646183	28.70
288886	4645835	28.70
290028	4646060	28.70
290038	4645150	28.70
290820	4646963	28.70
291083	4646069	28.70

291984	4646999	28.70
292172	4646937	28.70
293104	4645667	28.70
289260	4646747	28.84
289735	4644812	28.84
289896	4647079	28.84
291730	4646905	28.84
292373	4645075	28.84
292746	4644482	28.84
289202	4646656	28.98
291188	4646032	28.98
292150	4646530	28.98
292295	4644904	28.98
292432	4645093	28.98
289115	4645479	29.12
290039	4646750	29.12
291682	4646771	29.12
292211	4645713	29.12
292444	4646182	29.12
292644	4645902	29.12
293003	4646072	29.12
288799	4645550	29.26
288930	4645042	29.26
289239	4645622	29.26
289408	4646603	29.26
293033	4646971	29.26
288516	4645445	29.40
288782	4645930	29.40
289518	4645063	29.40
291865	4647233	29.40
291992	4646875	29.40
292231	4646529	29.40
288563	4645274	29.54
289596	4644954	29.54

290704	4647092	29.54
291729	4647235	29.54
291855	4646515	29.54
291966	4645469	29.54
292717	4644677	29.54
292959	4645923	29.54
288604	4645737	29.68
288995	4647219	29.68
289462	4647151	29.68
290527	4645386	29.68
290793	4646792	29.68
290953	4645158	29.68
291135	4644950	29.68
291144	4645853	29.68
291909	4646014	29.68
292077	4646742	29.68
290510	4645135	29.96
291858	4646711	29.96
291894	4647203	29.96
292539	4644827	29.96
288652	4646431	30.10
288669	4646718	30.10
288980	4645223	30.10
289217	4645575	30.10
289407	4647152	30.10
292070	4646789	30.10
292365	4644835	30.10
292752	4644477	30.10
288454	4645910	30.24
289209	4645774	30.24
290977	4645249	30.24
292430	4645133	30.24
289026	4644924	30.38
289091	4644737	30.38

289128	4645591	30.38
289950	4646695	30.38
290148	4645201	30.38
290879	4645178	30.38
289617	4645769	30.52
289888	4645307	30.52
290951	4646240	30.52
292135	4646240	30.52
292829	4645833	30.52
293170	4644678	30.52
289155	4646549	30.66
289193	4645493	30.66
289790	4646108	30.66
291908	4646686	30.66
288815	4645475	30.80
289151	4645372	30.80
291839	4647113	30.80
292013	4646786	30.80
292774	4646123	30.80
288479	4645286	30.94
288878	4645850	30.94
289353	4647081	30.94
289761	4647129	30.94
290780	4647197	30.94
291015	4646118	31.08
292756	4646206	31.08
292871	4646049	31.08
293230	4645967	31.08
289627	4646706	31.22
291472	4645636	31.22
291677	4647133	31.22
288926	4645870	31.36
290238	4646764	31.36
292707	4645480	31.50

293185	4645686	31.50
292302	4645440	31.64
291164	4644955	31.78
291809	4646811	31.78
291979	4647135	31.78
288423	4645113	31.92
289365	4646825	31.92
289962	4647031	32.06
292346	4646577	32.06
292779	4645839	32.06
288890	4645961	32.20
290252	4646237	32.20
292273	4646904	32.20
293062	4646678	32.20
288491	4645424	32.34
288501	4645067	32.34
291873	4646896	32.34
292038	4646904	32.34
292043	4646681	32.34
292205	4645152	32.34
292314	4646863	32.34
293068	4646027	32.34
288395	4645027	32.48
288567	4646980	32.48
288849	4645830	32.48
288860	4646230	32.48
291124	4646359	32.48
288523	4646945	32.62
289173	4646644	32.62
291703	4646849	32.62
289660	4646342	32.76
291637	4645039	32.76
291861	4646963	32.76
292621	4645484	32.76

292867	4644414	32.76
289022	4644976	32.90
291287	4646334	32.90
291487	4645833	32.90
291787	4646820	32.90
292043	4647126	32.90
292102	4646767	32.90
292201	4646971	32.90
293093	4644604	32.90
289297	4645627	33.04
289342	4647015	33.04
291772	4646793	33.04
291822	4647281	33.04
292252	4646096	33.04
292353	4646044	33.04
292903	4645638	33.04
288867	4645940	33.18
289486	4646620	33.18
290243	4647152	33.18
291734	4646184	33.18
293400	4646171	33.18
289503	4647111	33.32
290000	4646498	33.32
291852	4646924	33.32
292630	4644864	33.32
288648	4645715	33.46
289140	4645732	33.46
290912	4646927	33.46
292302	4645144	33.46
293392	4646111	33.46
289498	4644953	33.60
290130	4646711	33.60
290452	4646984	33.60
289171	4645803	33.74

289310	4646991	33.74
289926	4646402	33.74
292050	4646766	33.74
292129	4645618	33.74
292534	4645571	33.74
292570	4646563	33.74
292708	4646066	33.74
292729	4644755	33.74
293445	4645156	33.82
288768	4645543	33.88
289041	4646616	33.88
290892	4646147	33.88
292846	4646171	33.88
293130	4645985	33.88
288578	4645828	34.02
288805	4645936	34.02
288676	4646770	34.16
289255	4645595	34.16
291803	4645910	34.16
291810	4646993	34.16
292165	4646832	34.16
288568	4645460	34.30
288860	4646458	34.30
290992	4645298	34.44
291121	4645951	34.44
292219	4646951	34.44
292317	4646037	34.44
293048	4644697	34.44
288694	4646298	34.58
290929	4645098	34.58
291008	4647110	34.58
292201	4646913	34.58
292254	4645416	34.58
288675	4646329	34.72

288872	4646204	34.72
289904	4645789	34.72
288759	4645969	34.86
291687	4646805	34.86
292202	4645652	34.86
292013	4646926	35.00
292018	4647148	35.00
292194	4646698	35.00
292570	4646082	35.00
289060	4646069	35.14
289126	4645670	35.14
291095	4646310	35.14
291826	4646990	35.14
292141	4646701	35.14
288841	4645907	35.28
289476	4644849	35.28
289670	4645352	35.28
290758	4646855	35.28
292430	4644557	35.28
292987	4645667	35.28
289221	4645652	35.42
290272	4647093	35.42
288672	4645733	35.56
288933	4645841	35.56
289301	4647103	35.56
291665	4647097	35.56
291782	4645835	35.56
292115	4646530	35.56
288564	4645714	35.70
289758	4646079	35.70
291614	4645302	35.70
292255	4646820	35.70
288792	4645532	35.84
291504	4645756	35.84

291870	4646705	35.84
292143	4646964	35.84
292914	4646020	35.84
290072	4645471	35.98
290782	4646825	35.98
291926	4645963	35.98
292227	4646669	35.98
292277	4646841	35.98
293009	4645655	35.98
289431	4646817	36.12
293149	4645300	36.22
293053	4645659	36.26
292999	4645530	36.31
289940	4646738	36.40
291985	4646949	36.40
293036	4646047	36.40
289279	4645575	36.54
290709	4645208	36.54
290993	4645163	36.54
289279	4647106	36.82
291145	4646394	36.82
292067	4646883	36.82
288366	4645287	36.96
290254	4646833	36.96
291882	4645891	36.96
292018	4644864	36.96
292881	4646152	36.96
289422	4645926	37.10
289477	4645871	37.10
290960	4646050	37.24
293028	4645679	37.24
290844	4646844	37.38
291841	4646885	37.38
291987	4647078	37.38

292901	4645857	37.38
289275	4646764	37.52
291469	4645574	37.52
292319	4646066	37.66
292630	4644478	37.66
288815	4646001	37.80
289107	4645625	37.80
292121	4646991	37.80
289264	4644751	37.94
289291	4646367	37.94
291996	4646810	37.94
293138	4645811	37.94
290597	4646825	38.08
290714	4647098	38.08
291866	4646857	38.08
292010	4646841	38.08
289047	4646344	38.22
290389	4645199	38.36
291768	4645972	38.36
288862	4645280	38.50
289095	4645398	38.50
292301	4646097	38.50
288712	4646443	38.64
289695	4645376	38.64
291947	4645894	38.64
289992	4645182	38.78
291935	4647006	38.78
292116	4646877	38.78
292131	4646747	38.78
288584	4645357	38.92
288641	4645890	38.92
289335	4646326	38.92
291992	4646733	38.92
292160	4646723	38.92

288534	4646814	39.06
288840	4646565	39.06
291959	4646979	39.06
292302	4646813	39.20
288482	4645255	39.34
289384	4645986	39.34
291302	4645025	39.34
292349	4645987	39.34
293027	4646559	39.48
293364	4645969	39.48
292017	4646753	39.62
288954	4645795	39.76
291540	4646412	39.76
291542	4646598	39.76
292513	4645530	39.76
292852	4645539	39.76
292091	4646902	39.90
289145	4645622	40.04
292689	4646311	40.04
288939	4647117	40.18
289178	4645692	40.18
289230	4645624	40.18
291885	4647059	40.18
289218	4646696	40.32
289355	4646638	40.32
292713	4644606	40.32
292836	4644500	40.32
293054	4646928	40.32
290382	4646970	40.46
288734	4646061	40.60
288800	4646048	40.60
289049	4646746	40.74
291940	4645666	40.74
288656	4646256	41.02

289236	4645520	41.02
289618	4647355	41.16
292069	4646919	41.16
292090	4646854	41.16
292226	4646892	41.30
292275	4646726	41.30
292318	4646006	41.30
289279	4647206	41.44
291951	4647219	41.44
291826	4646913	41.58
292406	4646738	41.58
291741	4646812	41.72
293371	4646067	41.72
289492	4645866	42.00
292248	4646925	42.00
292620	4645874	42.00
289149	4645830	42.14
289798	4647115	42.14
292856	4645641	42.14
293078	4645670	42.14
289268	4646041	42.28
291406	4646752	42.28
291474	4646696	42.28
291915	4646854	42.28
290387	4647194	42.42
289119	4645827	42.56
291283	4646739	42.56
292739	4645634	42.56
289251	4646472	42.70
291265	4646298	42.70
291474	4646753	42.70
289816	4647403	42.84
290651	4646014	42.84
291909	4647030	42.84

289728	4645403	43.12
290964	4647276	43.12
291762	4646027	43.12
292044	4646725	43.12
292826	4645732	43.12
290102	4645372	43.26
291201	4644946	43.26
291562	4646614	43.26
292581	4644504	43.26
293193	4645944	43.26
290452	4647157	43.40
293017	4647009	43.40
288522	4646838	43.54
288822	4646291	43.68
289355	4646762	43.68
292479	4644703	43.82
290689	4646890	43.96
291579	4645698	43.96
291807	4646937	43.96
292326	4645132	43.96
292617	4645632	43.96
293009	4645834	44.24
291935	4646825	44.38
289382	4646274	44.52
290609	4646933	44.52
292544	4646015	44.52
288848	4646534	44.66
291863	4647086	44.66
292073	4647098	44.66
292725	4646215	44.80
288906	4647065	44.94
291513	4645939	44.94
292094	4646631	44.94
290895	4647236	45.08

291556	4645842	45.08
293149	4645640	45.12
292137	4645646	45.22
288734	4645535	45.36
288747	4646563	45.36
292136	4646854	45.36
291939	4646780	45.50
292254	4646705	45.64
289482	4644888	45.78
289383	4645522	46.06
289306	4646687	46.20
291890	4646879	46.34
291943	4645836	46.48
292123	4647049	46.48
289106	4646682	46.62
292448	4646715	46.76
288900	4645876	47.04
289304	4646789	47.04
288830	4645856	47.18
288936	4646133	47.46
289169	4646611	47.46
291704	4646795	47.46
291781	4645940	47.46
291948	4645703	47.46
289002	4646429	47.88
291813	4645966	48.16
289096	4645881	48.30
289615	4645274	48.30
292831	4644751	48.30
288838	4645939	48.44
289959	4647029	48.44
292121	4646600	48.44
292025	4645306	48.72
292975	4645647	48.72

291899	4647255	49.00
292306	4646761	49.00
293111	4645835	49.14
289705	4646233	49.56
292368	4646732	49.56
292650	4644746	49.84
290891	4646199	50.26
292280	4646786	50.26
288661	4646485	50.54
288647	4646527	50.82
292009	4647097	50.82
292376	4646168	50.96
292751	4646010	50.96
288496	4646219	51.24
288627	4646639	51.38
292336	4646730	51.38
292401	4646703	51.38
292154	4647019	51.66
290586	4646886	51.80
289950	4645905	51.94
289460	4646443	52.08
291833	4646958	52.22
292236	4645181	52.22
292175	4646995	52.36
293138	4646908	52.50
292404	4644816	52.64
290907	4646451	52.92
291316	4646368	53.20
292281	4646678	53.20
291757	4647104	53.34
292177	4646790	53.34
289923	4646807	53.76
291739	4647132	53.76
292039	4646814	53.76

292343	4646758	53.90
288787	4646346	54.04
292337	4646835	54.04
292467	4644631	54.18
293215	4644745	54.18
290326	4646953	54.32
291080	4644993	54.46
291211	4646342	54.74
291653	4645325	54.74
291774	4645108	54.74
288619	4646597	55.30
288874	4646433	55.30
291775	4647074	55.72
291813	4646020	55.72
291864	4647263	56.14
289140	4646592	56.84
291976	4647192	56.84
288652	4646567	57.12
291295	4646782	57.26
292203	4646761	57.40
292224	4646777	57.54
291107	4645004	58.24
292358	4646700	58.80
292263	4645866	58.94
289105	4646226	59.08
292147	4646807	59.22
292762	4644654	59.22
290154	4647006	59.50
290633	4646111	59.64
289228	4645466	59.78
292195	4646808	60.34
291884	4645830	60.48
292289	4646886	60.76
291681	4647172	61.46

291787	4646967	62.02
290733	4646884	62.72
292698	4645248	62.72
289268	4645718	63.56
291790	4647043	63.98
289114	4645707	64.12
292018	4646705	64.26
289041	4645788	64.40
293010	4644540	64.54
292380	4646771	65.10
289978	4646905	65.52
291916	4646811	65.52
292102	4647073	65.66
289476	4645394	67.90
292323	4646789	68.04
291379	4646427	68.18
291420	4646469	68.18
288616	4646149	68.32
289650	4646350	68.46
292368	4646086	70.14
292770	4645475	70.28
292318	4646622	71.96
289018	4646077	72.52
291973	4646836	73.64
288562	4645758	73.92
291934	4647235	74.76
290554	4646837	75.04
288703	4646253	75.74
288935	4646042	76.30
291885	4645594	76.86
288841	4646431	77.28
292676	4644548	78.26
289736	4645222	79.10
292254	4646753	79.38

292120	4646830	81.62
288999	4645812	82.32
289084	4646136	83.02
291509	4646643	83.72
291061	4645946	85.26
291890	4646836	87.50
292815	4645520	90.58
291714	4647157	91.14
292782	4644500	92.54
292666	4644644	94.78
292737	4645522	98.42
291340	4646390	101.22
292889	4645589	101.22
291077	4645041	101.50
292901	4645535	103.88
288518	4646181	106.96

Table 2. Coordinates of the starting and ending points of the five ERT profiles

ID	Lat WGS84	Long WGS84	Easting UTM33N	Northing UTM33N
ERT1 el1	41.56.50.240000	12.29.14.070000	291720.46	4646977.73
ERT1 el72	41.56.58.450000	12.29.25.080000	291981.4	4647223.53
ERT2 el01	41.56.48.040000	12.29.17.330000	291793.53	4646907.67
ERT2 el72	41.56.56.210000	12.29.28.500000	292058.12	4647152.13
ERT3 el01	41.56.45.510000	12.29.20.680000	291868.38	4646827.37
ERT3 el72	41.56.54.010000	12.29.31.540000	292126.13	4647082.22
ERT4 el01	41.56.43.410000	12.29.24.100000	291945.24	4646760.29
ERT4 el72	41.56.51.770000	12.29.34.830000	292199.86	4647010.91
ERT5 el01	41.56.40.850000	12.29.27.790000	292027.89	4646678.84
ERT5 el72	41.56.49.060000	12.29.38.730000	292287.22	4646924.7