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Analytical results and sample locality map of soil samples from the Río Viví porphyry copper district, Municipios of Utuado and Adjuntas, Puerto Rico

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INTRODUCTION

In 1970, 1971, 1972, and 1978, the U.S. Geological Survey conducted a geochemical soil survey of the Río Viví copper district Municipios of Utuado and Adjuntas, Puerto Rico.

The Río Viví district, comprises about 14 km² in the southeast corner of the Municipio of Utuado and the northeast corner of the Municipio of Adjuntas, Puerto Rico, and lies about 10km south of the pueblo of Utuado. Access to the study area is provided from the north by Route PR-605.

The geology of the Adjuntas quadrangle, in which the Río Viví district lies, was mapped at 1:20,000 scale by Mattson (1968). The geology of the district itself was described by Bradley (1971) and mapped at 1:5,000 scale by Bradley and other AMAX geologists. The district was characterized geochemically by Learned and Boissen (1973).

The principal lithologic units of the area are Cretaceous and Lower Tertiary lavas and tuffs, but significant units of Upper Cretaceous and Eocene intrusive rocks are also present. The Utuado batholith, a Late Cretaceous granodiorite body, is the major intrusive unit of the area, but the copper deposits occur in small, quartz diorite porphyry stocks of Eocene age that intrude the batholith along its southwestern margin as well as the adjacent volcanic rocks.

The Río Viví district is located in west-central Puerto Rico on the northern slope of the Cordillera Central. Topographically, the area is one of strongly dissected uplands situated between the Río Viví and the Río Pellejas, both of which are tributaries of the Río Grande de Arecibo. Elevations in the area range from 400 to 750 m above sea level. Average annual rainfall in the area exceeds 200 cm. The vegetation present is that of coffee, banana, and citrus farms, as well as pasture.

METHODS OF STUDY

Sample Media

Soil was the medium chosen to geochemically characterize the deposits and environs of the Río Viví district, inasmuch as rock in the region is commonly covered by tens of meters of soil-saprolite overburden. The results of our study clearly reflect the mineralization known from drill core information, indicating that the soils of the area are essentially residual rather than transported.

Sample Collection

Soil samples were collected at 50-meter intervals along ridge-and-spur traverses crossing an area of approximately 14 km². Most of the 632 samples collected represent the B-horizon of the solum, although analysis of variance applied to samples from 30 soil profiles indicates that choice of soil horizon is not critical, and that chemical differentiation in these immature soils was minimal. Sampling of the B-horizon simply avoids the troublesome organic content of the A-horizon as well as excessive augering or shovelling to reach the C-horizon.

Figure 1. Localities of soil samples from the Río Viví district Municipios of Utuado and Adjuntas, Puerto Rico. The grid is the Puerto Rican map grid system, ticks are 1000 m apart.

Sample Preparation

The soil samples were oven-dried at approximately 105°C, then sieved using a 0.25 mm stainless steel sieve. The minus 0.25 mm fraction was retained for analysis, although a pilot study of 6 grain-size fractions indicate that choice of fraction was not critical for most elements of interest, with the possible exception of gold.

Sample Analysis

Spectrographic method

The soil samples were analyzed for 31 elements using a semiquantitative, direct-current arc emission spectrographic method (Grimes and Marranzino, 1968). The elements analyzed and their lower limits of determination are listed in table 1. Spectrographic results were obtained by visual comparison of spectra derived from the sample against spectra obtained from standards made from pure oxides and carbonates. Standard concentrations are geometrically spaced over any given order of magnitude of concentration as follows: 100, 50, 20, 10, and so forth. Samples whose concentrations are estimated to fall between those values are assigned values of 70, 30, 15, and so forth. The precision of the analytical method is approximately plus or minus one reporting interval at the 83 percent confidence level and plus or minus two reporting intervals at the 96 percent confidence level (Motooka and Grimes, 1976). Values determined for the major elements (iron, magnesium, calcium, and titanium) are given in weight percent; all others are given in parts per million (micrograms/gram). Analytical data for samples from the Río Viví district are listed in table 3.

Chemical methods

Other methods of analysis used on samples from the Río Viví are summarized in table 2.

Analytical results for soil samples are listed in table 3.

GEOCHEMICAL DATA STORAGE SYSTEM

Upon completion of all analytical work, the results were entered into a geochemical data base. This data base contains both descriptive geological information and analytical data. Any or all of this information may be retrieved and converted to a binary form (STATPAC) for computerized statistical analysis or publication (VanTrump and Miesch, 1977).

DESCRIPTION OF DATA TABLES

Table 3 list the results of analyses for the soil samples. The data in table 3 are arranged so that column 1 contains the USGS-assigned sample numbers. These numbers correspond to the numbers shown on the site location maps (plate 1). Columns in which the element headings show the letter "S" before the element symbol are emission spectrographic analyses; "AA" indicates atomic absorption analyses. A letter "N" in the tables indicates that a given element was looked for but not detected at the lower limit of determination shown for that element in tables 1 and 2. If an element was observed but was below the lowest reporting value, a "less than" symbol (<) was entered in the tables in front of the lower limit of determination. If an element was observed but was above the highest reporting value, a "greater than" symbol (>) was entered in the tables in front of the upper limit of determination. If an element was not looked for in a sample, two dashes (--) are entered in tables 3 in place of an analytical value. Because of the formatting used in the computer program that produced table 3, some of the elements listed in these tables carry one or more nonsignificant digits to the right of the significant digits. The analysts did not determine these elements to the accuracy suggested by the extra zeros. The columns for elements not detected by the emission spectrographic method have been deleted from table 3.

REFERENCES CITED

- Bradley, R.A., 1971, The geology of the Río Viví porphyry copper deposits, Puerto Rico [abs.]: *Economic Geology*, v.66, p. 977.
- Grimes, D. J., and Marranzino, A. P., 1968, Direct-current arc and alternating-current spark emission spectrographic field methods for the semiquantitative analysis of geologic materials: U.S. Geological Survey Circular 591, 6 p.
- Learned, R.E., and Boissen, R., 1973, Gold - a useful pathfinder element in the search for porphyry copper deposits in Puerto Rico, in Jones, M.J., ed., *Geochemical Exploration 1972, International Geochemical Exploration Symposium, 4th*, London: Institute of Mining and Metallurgy, p. 93-103.
- Mattson, P.H., 1968, Geologic map of the Adjuntas quadrangle, Puerto Rico: U.S. Geological Survey Miscellaneous Geologic Investigations Map I-519, 1:20,000.
- Motooka, J. M., and Grimes, D. J., 1976, Analytical precision of one-sixth order semiquantitative spectrographic analyses: U.S. Geological Survey Circular 738, 25 p.
- Thompson, C. E., Nakagawa, H. M., and Van Sickle, G. H., 1968, Rapid analysis for gold in geologic materials, in *Geological Survey research 1968*: U.S. Geological Survey Professional Paper 600-B, p. B130-B132.
- Van Trump, George, Jr., and Miesch, A. T., 1977, The U.S. Geological Survey RASS-STATPAC system for management and statistical reduction of geochemical data: *Computers and Geosciences*, v. 3, p. 475-488.
- Ward, F. N., Nakagawa, H. M., Harms, T. F., and Van Sickle, G. H., 1969, Atomic-absorption methods useful in geochemical exploration: U.S. Geological Survey Bulletin 1289, 45 p.

TABLE 1.-- Limits of determination for the spectrographic analysis of soils based on a 10-mg sample.

Elements	Lower determination limit	Upper determination limit
Percent		
Calcium (Ca)	.05	20
Iron (Fe)	0.05	20
Magnesium (Mg)	.02	10
Sodium (Na)	0.2	5
Phosphorus (P)	0.2	10
Titanium (Ti)	.002	1
Parts per million		
Silver (Ag)	0.5	5,000
Arsenic (As)	200	10,000
Gold (Au)	10	500
Boron (B)	10	2,000
Barium (Ba)	20	5,000
Beryllium (Be)	1	1,000
Bismuth (Bi)	10	1,000
Cadmium (Cd)	20	500
Cobalt (Co)	10	2,000
Chromium (Cr)	10	5,000
Copper (Cu)	5	20,000
Gallium (Ga)	5	500
Germanium (Ge)	10	100
Lanthanum (La)	50	1,000
Manganese (Mn)	10	5,000
Molybdenum (Mo)	5	2,000
Niobium (Nb)	20	2,000
Nickel (Ni)	5	5,000
Lead (Pb)	10	20,000
Antimony (Sb)	100	10,000
Scandium (Sc)	5	100
Tin (Sn)	10	1,000
Strontium (Sr)	100	5,000
Thorium (Th)	100	2,000
Vanadium (V)	10	10,000
Tungsten (W)	20	10,000
Yttrium (Y)	10	2,000
Zinc (Zn)	200	10,000
Zirconium (Zr)	10	1,000

TABLE 2. Chemical methods
[AA = atomic absorption]

Element or constituent determined	Method	Determination limit (micrograms/gram or ppm)	Reference
Gold (Au)	AA	0.05	Thompson and others, 1968.
Copper (Cu)	AA	5	Ward, and others, 1969.
Lead (Pb)	AA	5	
Zinc (Zn)	AA	5	

Table 3. Results of chemical analysis for the Río Viví soil samples.

Rio Vávri soil samples

Sample	X-COORD.	Y-COORD.	S-Fer%	S-Mg%	S-CA%	S-Ti%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
0291	127,540	38,050	7.0	1.00	.20	.50	1,500	.5	<10	100	N	20	20	1,000
0292	127,550	38,085	7.0	.50	<.05	.30	300	N	<10	50	N	5	N	500
0293	127,560	38,125	7.0	.30	.15	.70	50	N	20	150	N	N	100	150
0294	127,580	38,150	5.0	.15	.05	.50	30	N	<10	300	N	20	20	30
0295	127,590	38,180	7.0	.10	<.05	.70	150	N	<10	70	N	N	50	70
0296	127,610	38,205	5.0	.05	<.05	.50	70	N	<10	100	N	N	70	70
0297	127,560	38,210	3.0	.07	<.05	.30	50	N	10	70	N	N	70	70
0298	127,520	38,275	5.0	.05	<.05	.30	10	N	10	70	N	N	70	100
0299	127,480	38,320	7.0	.10	<.05	.70	70	N	<10	100	N	N	30	70
0300	127,450	38,350	5.0	.15	.05	.50	30	N	<10	100	1	N	150	70
0301	127,410	38,410	3.0	.10	<.05	.50	20	N	<10	150	N	N	50	70
0302	127,230	38,200	7.0	.30	.20	.50	70	N	<10	300	N	N	50	150
0303	127,260	38,250	7.0	.20	<.05	.50	50	N	<10	100	N	N	20	200
0304	127,310	38,285	7.0	.20	.20	.70	20	N	<10	200	N	N	50	100
0305	127,350	38,320	3.0	.15	.05	.50	10	N	<10	300	N	N	30	30
0306	127,370	38,350	3.0	.15	.05	.50	20	N	<10	300	N	N	30	70
0307	127,370	38,450	3.0	.07	<.05	.50	30	N	10	100	N	N	30	100
0308	127,340	38,520	3.0	.10	<.05	.70	30	N	<10	500	N	N	30	30
0309	127,310	38,555	3.0	.05	.05	1.00	30	N	<10	100	N	N	20	50
0310	126,940	38,250	7.0	.70	.05	.70	300	N	<10	150	N	10	30	700
0311	126,930	38,305	7.0	.15	<.05	.70	300	N	<10	50	1	N	70	300
0312	126,930	38,360	7.0	.20	.05	1.00	300	N	10	150	N	N	70	200
0313	126,940	38,420	5.0	.10	.15	.50	20	N	<10	150	N	N	50	100
0314	126,970	38,470	5.0	.15	<.05	.50	50	N	<10	150	N	N	30	150
0315	127,030	38,520	7.0	.05	.07	.50	30	N	<10	70	N	N	30	150
0316	127,070	38,590	3.0	.10	.05	.50	30	N	<10	200	N	N	20	100
0317	127,250	38,590	3.0	.07	<.05	.50	50	N	<10	100	N	N	20	70
0318	127,210	38,620	3.0	.07	.05	.50	15	N	<10	200	N	N	20	30
0319	127,150	38,635	3.0	.05	.07	.70	15	N	<10	30	N	N	30	50
0320	127,090	38,670	3.0	.05	<.05	.70	15	N	<10	100	N	N	20	50
0321	127,060	38,720	5.0	.03	<.05	.30	10	N	<10	70	N	N	30	30
0322	127,030	38,780	3.0	.05	.10	.30	10	N	<10	200	N	N	30	70
0323	127,010	38,830	3.0	.10	.05	.30	30	N	<10	200	N	N	50	150
0324	126,960	38,850	3.0	.10	<.05	.30	10	N	<10	300	N	N	N	30
0325	126,920	38,860	3.0	.10	.07	.70	15	N	10	200	N	N	50	70
0326	126,870	38,860	3.0	.10	.10	.30	30	N	<10	150	N	N	30	50
0327	126,840	38,820	3.0	.05	.05	.30	10	N	<10	100	N	N	30	30
0328	126,820	38,770	2.0	.05	.10	.20	10	N	<10	70	N	N	20	70
0329	126,790	38,720	3.0	.15	.10	.30	15	N	<10	150	N	N	30	150
0330	126,760	38,670	3.0	.70	<.05	.20	10	N	<10	100	N	N	30	100
0331	126,770	38,630	3.0	.07	<.05	.30	15	N	<10	100	N	N	20	50
0332	126,760	38,560	3.0	.10	.05	.30	15	N	<10	100	N	N	20	150
0333	126,760	38,490	3.0	.70	.05	.30	50	N	<10	50	N	N	50	300
0334	126,760	38,420	3.0	.10	<.05	.20	30	N	<10	20	N	N	N	300
0335	126,700	38,350	7.0	1.50	1.50	.70	3,000	N	<10	150	N	15	20	150

Rio Vivil soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
0291	N	20	10	30	N	N	200	30	N	150	.03	1.1	50	490	8	4.7
0292	N	<5	15	15	N	N	150	10	N	100	.15	1.2	19	300	8	4.7
0293	5	<5	<10	30	10	150	300	20	N	150	<.02	1.0	2	87	6	5.0
0294	N	<5	<10	20	10	N	200	30	N	150	<.02	.9	4	17	4	5.0
0295	N	15	15	20	10	N	300	20	N	150	<.02	1.2	16	51	8	5.5
0296	N	15	10	15	N	N	150	10	N	200	<.02	1.0	10	44	6	4.5
0297	N	15	15	15	N	N	150	10	N	150	<.02	1.1	7	37	6	4.5
0298	N	15	10	30	N	N	200	10	N	150	<.02	.9	1	92	5	5.2
0299	5	10	<10	15	N	N	300	N	N	150	<.02	1.1	10	20	8	5.2
0300	N	15	15	15	10	N	200	10	N	100	<.02	1.2	11	30	8	6.0
0301	N	5	<10	10	N	N	150	15	N	150	<.02	1.0	6	40	5	5.2
0302	7	<5	20	15	30	N	200	20	N	150	<.02	1.0	10	69	4	4.7
0303	5	<5	10	20	N	N	300	10	N	150	<.02	1.2	5	170	6	5.0
0304	30	<5	<10	20	N	150	300	15	N	150	<.02	1.1	3	57	5	5.0
0305	N	<5	10	15	15	150	200	30	N	150	<.02	1.0	2	24	4	5.2
0306	N	<5	10	15	10	N	200	15	N	150	<.02	1.0	3	36	3	5.0
0307	N	7	10	15	N	N	150	15	N	150	<.02	1.2	10	69	4	5.5
0308	N	<5	10	15	N	N	200	15	N	150	<.02	1.0	3	17	6	5.2
0309	N	<5	<10	15	N	N	150	15	N	150	<.02	.8	3	22	5	5.2
0310	30	5	<10	20	N	N	200	20	N	100	.03	1.2	30	360	4	5.2
0311	N	15	30	30	N	N	300	15	N	150	<.02	1.3	20	140	12	5.2
0312	7	15	15	15	N	N	200	15	N	150	.07	1.1	10	140	10	5.2
0313	7	<5	15	15	N	150	150	15	N	150	<.02	1.1	1	72	4	5.2
0314	7	15	<10	15	10	N	150	20	N	100	.05	1.1	7	100	3	5.7
0315	10	<5	<10	15	N	N	200	15	N	150	.02	1.4	5	100	6	5.0
0316	15	<5	30	15	30	N	150	15	N	150	.03	1.3	4	54	6	5.0
0317	5	7	10	15	N	N	150	10	N	150	<.02	1.2	5	32	5	5.0
0318	N	<5	N	15	10	N	150	20	N	100	<.02	1.2	2	21	3	5.2
0319	7	<5	<10	15	N	N	150	30	N	100	<.02	1.1	2	21	3	4.5
0320	15	<5	<10	15	30	N	150	30	N	100	<.02	.9	1	24	3	4.5
0321	15	<5	10	10	N	N	150	15	N	100	<.02	1.1	2	42	3	5.0
0322	15	7	10	20	10	N	150	15	N	100	<.02	.9	2	60	3	5.5
0323	5	<5	15	20	20	N	150	15	N	150	.02	1.0	2	110	5	5.5
0324	5	<5	N	15	15	N	200	10	N	100	.03	1.0	1	17	1	5.5
0325	30	5	<10	20	10	N	200	30	N	150	<.02	.9	2	44	2	5.2
0326	5	5	15	15	30	N	200	15	N	150	<.02	.9	3	48	1	5.0
0327	5	5	<10	15	10	N	200	15	N	150	<.02	.9	6	35	2	5.2
0328	7	<5	<10	10	10	N	100	15	N	100	.03	.9	3	27	2	5.2
0329	15	10	10	15	30	N	200	15	N	100	.03	1.0	1	100	<1	5.2
0330	5	<5	15	15	30	N	150	30	N	70	.03	1.4	3	150	3	5.5
0331	5	<5	<10	15	10	N	150	15	N	150	.07	.9	2	43	3	5.5
0332	7	<5	10	15	30	N	150	15	N	150	.07	1.1	2	130	2	5.0
0333	7	<5	N	20	N	N	150	15	N	150	.02	1.0	8	450	3	4.7
0334	<5	<5	10	15	N	N	100	<10	N	70	.03	1.4	4	270	4	5.5
0335	N	15	10	30	N	150	300	20	N	150	<.02	1.5	74	72	8	6.0

Rio Vиви soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
0336	125,910	38,630	3.0	.70	.20	.30	3,000	N	<10	200	N	10	20	150
0337	125,910	38,700	--	--	--	--	--	--	--	--	--	--	--	--
0338	125,990	38,730	7.0	.70	.10	.50	3,000	N	<10	100	1	15	50	70
0339	126,050	38,730	3.0	.10	<.05	.30	50	N	<10	150	N	<5	N	100
0340	126,150	38,745	3.0	.15	<.05	.30	150	N	<10	50	N	<5	N	150
0341	126,180	38,810	5.0	.70	.05	.30	1,000	.5	<10	150	1	15	30	1,000
0342	126,220	38,865	3.0	.10	<.05	.70	300	N	<10	100	N	N	N	100
0343	126,270	38,920	7.0	.70	<.05	.50	300	.5	<10	100	N	N	N	1,500
0344	126,520	39,090	3.0	.05	<.05	.30	<10	N	<10	70	N	N	30	100
0345	126,470	39,090	3.0	.03	<.05	.30	<10	N	<10	50	N	N	20	150
0346	126,430	39,055	5.0	.05	<.05	.30	<10	N	<10	70	N	N	30	100
0347	126,390	39,030	3.0	.07	<.05	.30	<10	N	<10	70	N	N	30	150
0348	126,330	38,985	3.0	.07	.07	.30	<10	N	<10	70	N	N	20	150
0349	126,370	38,890	5.0	.10	.10	.10	10	N	15	150	N	N	30	150
0350	126,350	38,845	3.0	.15	.10	.30	<10	N	<10	30	N	N	20	300
0351	126,340	38,780	7.0	.15	.10	.70	20	N	<10	150	N	N	30	200
0352	126,330	38,720	7.0	.30	<.05	.20	150	N	15	30	N	N	20	1,000
0353	126,330	38,645	7.0	.30	<.05	.30	300	N	<10	50	N	5	N	1,000
0354	126,330	38,600	7.0	.50	<.05	.30	200	N	<10	30	N	<5	N	500
0355	126,420	38,550	7.0	.50	<.05	.30	300	N	<10	100	N	5	N	1,000
0356	126,450	38,590	7.0	.50	<.05	.30	500	N	<10	50	1	20	N	1,500
0357	126,490	38,630	7.0	.70	.07	.30	300	N	<10	150	1	15	20	1,500
0358	126,550	38,660	7.0	.30	.05	.30	20	N	10	100	N	N	20	700
0359	126,580	38,710	3.0	.20	.30	.30	<10	N	<5	70	N	N	20	100
0360	126,600	38,760	3.0	.20	.10	.30	<10	N	<5	50	N	N	70	150
0361	126,620	38,810	3.0	.30	.05	.30	15	N	<5	100	N	N	20	200
0362	126,650	38,850	2.0	.07	.05	.30	15	N	<5	20	N	N	20	70
0363	126,660	38,900	5.0	.20	.05	.30	15	N	<5	100	N	N	70	200
0364	126,810	38,920	3.0	.07	.05	.70	50	N	<10	70	N	N	70	200
0365	126,700	38,930	3.0	.07	<.05	.30	10	N	<10	30	N	N	70	150
0366	126,630	38,980	3.0	.15	<.05	.50	10	N	<10	30	N	N	70	200
0367	126,570	39,035	3.0	.05	<.05	.20	15	N	<10	30	N	N	20	150
0368	126,140	39,410	5.0	.20	<.05	.30	300	N	<10	30	N	N	20	700
0369	126,120	39,340	3.0	.10	<.05	.20	50	N	<10	20	N	N	20	500
0370	126,110	39,250	3.0	.07	<.05	.20	15	N	<10	<20	N	N	150	300
0371	126,060	39,210	3.0	.10	.10	.20	<10	N	<10	<20	N	N	20	300
0372	126,000	39,140	3.0	.70	.15	.50	<10	N	<10	<20	N	N	30	70
0373	125,960	39,110	3.0	.07	<.05	.70	10	N	<10	70	N	N	20	70
0374	125,910	39,060	5.0	.10	<.05	.50	70	N	15	300	N	N	20	150
0375	125,870	38,990	7.0	.15	<.05	.70	200	N	<10	<20	1	N	150	150
0376	125,870	38,920	7.0	.70	.50	.50	1,000	N	10	100	1	10	20	500
0377	125,820	38,880	3.0	.15	.10	.30	500	N	10	100	N	5	30	70
0378	125,770	38,860	7.0	.15	<.05	.20	300	N	<10	30	N	N	70	70
0379	125,730	38,825	7.0	.15	<.05	.30	300	N	<10	50	N	5	20	30
0380	125,700	38,810	3.0	.20	<.05	.50	1,500	N	<10	300	N	10	N	70

Rio Vivi soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
0336	N	5	<10	15	N	N	150	20	N	150	<.02	1.2	140	130	6	6.0
0337	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.5
0338	N	30	10	10	N	N	200	30	500	150	.02	1.4	190	43	8	6.5
0339	5	<5	10	10	N	N	100	N	N	100	<.02	.6	14	110	5	5.2
0340	N	5	10	15	N	N	150	N	N	100	<.02	.7	35	100	10	5.5
0341	5	10	15	20	N	N	150	30	N	150	.06	.8	96	980	8	5.7
0342	N	<5	<10	15	N	N	150	N	N	100	<.02	.7	21	54	8	6.0
0343	5	<5	30	20	N	N	300	N	N	100	.24	.6	62	1,000	32	5.5
0344	20	<5	<10	15	N	300	150	15	N	100	.06	.8	5	70	8	6.0
0345	15	<5	<10	15	10	200	150	15	N	100	.03	.7	5	120	5	6.0
0346	30	5	10	15	10	N	150	15	N	70	.10	.5	5	62	7	5.7
0347	30	5	<10	15	10	N	150	10	N	100	.05	.5	6	110	5	5.7
0348	30	<5	<10	15	N	N	150	15	N	100	.03	.5	7	130	5	5.5
0349	20	<5	10	15	N	N	150	15	N	150	.03	.9	7	88	6	5.7
0350	10	<5	<10	15	N	N	150	N	N	150	<.02	1.0	6	160	2	5.2
0351	15	10	15	30	N	N	200	15	N	150	.09	1.0	10	140	11	5.7
0352	N	5	10	15	N	N	100	N	N	150	.17	.9	28	650	22	5.2
0353	N	7	30	15	N	N	150	10	N	150	.07	.8	31	580	6	5.0
0354	N	5	20	20	N	N	200	30	N	150	<.02	.7	27	280	15	5.2
0355	5	15	15	30	N	N	150	20	N	70	.03	.8	48	690	7	4.7
0356	N	15	10	30	N	N	200	70	N	150	.03	.6	26	690	7	5.0
0357	N	15	10	20	N	N	150	30	N	150	.02	.7	35	970	7	5.7
0358	5	<5	10	30	N	N	200	20	N	150	.05	.7	4	370	5	4.7
0359	50	<5	<10	20	N	300	200	15	N	100	.04	1.0	3	96	4	4.7
0360	15	<5	<10	20	N	300	200	20	N	70	.02	.9	3	120	3	4.7
0361	10	<5	10	15	10	N	150	20	N	100	.05	.4	4	160	3	5.0
0362	7	<5	10	15	10	150	150	15	N	100	.03	.8	4	30	4	5.5
0363	5	<5	20	20	15	150	200	20	N	100	.11	.7	5	120	5	6.2
0364	10	<5	<10	15	N	N	150	30	N	150	.22	.5	5	170	4	5.5
0365	5	<5	N	15	N	N	150	15	N	100	.13	.4	3	110	2	5.5
0366	5	<5	<10	15	10	N	150	30	N	100	.10	.5	3	240	4	5.5
0367	15	<5	15	10	15	150	150	15	N	100	.25	.7	4	140	7	6.0
0368	N	15	15	20	N	N	150	10	N	70	.29	.7	29	580	11	6.2
0369	<5	15	50	15	N	N	150	N	N	70	.51	.7	9	500	34	6.2
0370	5	15	15	15	N	N	150	N	N	70	.17	.8	10	250	11	6.0
0371	7	<5	20	10	N	N	150	<10	N	100	.08	.5	3	340	8	6.0
0372	50	<5	15	20	N	150	150	15	N	100	.05	.5	5	66	5	5.5
0373	15	<5	<10	15	N	N	150	15	N	150	<.02	.4	4	70	6	5.2
0374	5	<5	70	15	N	N	150	10	N	150	<.02	.6	6	170	45	5.5
0375	N	20	50	30	N	N	300	10	300	150	<.02	1.1	68	150	39	5.2
0376	N	15	30	20	N	N	150	30	300	150	<.02	1.2	140	480	24	6.0
0377	N	15	30	15	N	N	150	10	200	200	<.02	1.5	93	57	24	6.5
0378	N	15	10	20	N	N	150	N	N	150	<.02	.7	36	24	24	5.7
0379	N	15	<10	15	N	N	150	N	N	150	<.02	.7	57	18	10	6.0
0380	N	<5	<10	15	N	N	100	<10	300	100	<.02	.7	120	50	8	6.5

Rio Viví soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
0381	125,640	38,790	5.0	.20	<.05	.50	300	N	<10	300	N	5	70	50
0382	125,560	38,770	5.0	.20	<.05	.50	1,500	N	<10	300	N	5	30	70
0383	125,560	38,940	5.0	.70	2.00	.50	2,000	.5	15	300	N	15	20	70
0384	125,610	38,980	3.0	.20	.07	.20	700	N	<10	200	1	10	<20	15
0385	125,650	39,020	3.0	.07	<.05	.15	300	N	<10	150	N	N	<20	100
0386	125,680	39,060	5.0	.10	<.05	.50	300	N	<10	30	N	N	<20	100
0387	125,740	39,110	3.0	.05	<.05	.20	150	N	<10	30	N	N	<20	70
0388	125,800	39,125	3.0	.10	<.05	.50	50	N	<10	150	N	N	20	150
0389	125,860	39,120	7.0	.30	<.05	.30	30	N	10	300	N	N	20	150
0390	125,140	39,105	5.0	.50	<.05	.30	5,000	N	15	200	N	20	70	200
0391	125,190	39,125	7.0	.30	<.05	.50	300	N	10	150	N	10	30	200
0392	125,280	39,170	7.0	.10	<.05	.50	300	N	<10	150	N	5	20	150
0393	125,320	39,225	7.0	.07	<.05	.50	100	N	<10	200	N	5	30	150
0394	125,380	39,245	7.0	.20	<.05	.50	1,500	N	30	150	N	10	20	100
0395	125,440	39,250	7.0	.30	<.05	.30	1,000	N	<10	300	N	20	20	70
0396	125,500	39,270	7.0	.20	<.05	.30	1,500	N	10	200	N	10	30	150
0397	125,540	39,290	10.0	.10	<.05	.30	200	N	10	300	N	5	30	150
0398	125,590	39,315	7.0	.07	<.05	.50	50	N	10	300	N	5	20	200
0399	125,620	39,360	5.0	.20	<.05	.50	30	N	<10	300	N	N	30	100
0400	125,660	39,395	3.0	.10	<.05	.30	20	N	<10	300	N	N	N	70
0401	125,700	39,415	5.0	.10	<.05	.30	300	N	<10	300	N	N	30	300
0402	125,740	39,440	7.0	.30	.05	.30	50	N	<10	150	N	N	20	200
0403	125,770	39,475	7.0	.50	<.05	.50	100	1.0	<10	100	N	5	20	1,500
0404	125,790	39,510	7.0	.10	<.05	.30	70	N	<10	150	N	N	20	700
0405	125,810	39,535	7.0	.50	<.05	.30	150	N	<10	150	N	10	20	1,500
0406	125,460	39,610	10.0	1.00	<.05	.30	300	1.5	<10	150	N	20	N	1,500
0407	125,490	39,615	10.0	.50	<.05	.30	150	1.0	<10	150	N	N	30	1,500
0408	125,530	39,630	7.0	.10	<.05	.15	150	1.0	<10	150	N	N	N	1,500
0409	125,580	39,635	10.0	.70	<.05	.30	300	1.0	<10	100	N	15	20	2,000
0410	125,640	39,610	10.0	.70	<.05	.30	300	1.0	<10	100	N	20	20	1,500
0411	125,680	39,600	15.0	.20	<.05	.70	300	.5	<10	200	N	N	20	2,000
0412	125,730	39,570	7.0	.20	<.05	.50	150	.7	<10	150	N	N	50	1,000
0413	125,760	39,550	10.0	.70	<.05	.50	300	.7	<10	200	N	N	70	1,500
0414	126,380	39,640	7.0	3.00	1.50	.50	>5,000	N	<10	500	N	30	700	500
0415	126,320	39,590	7.0	3.00	1.50	.50	>5,000	N	<10	1,000	N	30	1,000	500
0416	126,270	39,550	5.0	1.50	1.50	.30	1,500	N	<10	300	N	20	200	150
0417	126,230	39,520	5.0	1.00	1.50	.30	1,500	N	<10	500	N	10	20	70
0418	126,210	39,480	3.0	1.00	1.50	.30	700	N	<10	700	N	15	N	150
0419	126,180	39,450	3.0	.70	<.05	.30	30	N	20	300	N	N	N	150
0420	126,510	39,130	5.0	.07	<.05	.30	20	N	<10	70	N	N	30	300
0421	126,550	39,180	3.0	.10	<.05	.30	20	N	<10	150	N	N	30	200
0422	126,550	39,240	3.0	.10	.07	.30	30	N	<10	150	N	N	20	150
0423	126,560	39,280	3.0	.05	<.05	.30	30	N	15	150	N	N	20	150
0424	126,570	39,320	7.0	.10	<.05	.30	20	N	<10	150	N	N	70	500
0425	126,570	39,370	3.0	.07	<.05	.30	20	N	<10	150	N	N	20	200

Rio Vиви soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
0381	N	15	10	20	N	N	200	N	N	70	<.02	.7	30	34	10	6.5
0382	N	15	15	20	N	N	150	10	N	100	<.02	.7	47	35	14	5.7
0383	N	10	30	20	N	200	200	15	700	100	.02	1.5	460	47	24	6.2
0384	N	<5	15	15	N	N	100	10	200	70	.02	.7	150	10	15	6.0
0385	N	5	30	15	N	N	100	N	N	70	<.02	.9	76	130	27	5.2
0386	N	7	50	20	N	N	150	N	200	70	<.02	.9	110	90	42	5.0
0387	N	5	30	15	N	N	150	N	300	70	.04	1.6	200	79	43	5.2
0388	N	<5	30	15	N	N	200	N	N	70	.05	.8	11	180	36	5.2
0389	5	<5	100	20	N	N	150	10	N	150	.04	1.1	3	130	56	5.2
0390	<5	15	30	30	N	N	200	15	N	150	<.02	1.4	62	110	18	6.0
0391	<5	15	30	30	30	N	200	15	N	150	<.02	1.5	20	110	17	6.5
0392	N	10	30	30	N	N	200	N	N	150	.02	1.9	99	100	25	5.5
0393	5	<5	30	30	N	N	200	15	N	200	<.02	1.6	29	90	11	5.0
0394	N	15	30	30	30	N	200	15	N	200	<.02	1.7	84	36	12	5.5
0395	N	5	30	30	15	N	200	10	N	150	.05	1.8	110	27	18	6.0
0396	<5	5	30	30	N	N	200	15	N	150	.03	1.4	82	77	15	5.5
0397	N	<5	30	30	N	N	300	10	N	150	.02	1.8	53	110	13	5.5
0398	5	<5	30	20	N	N	300	10	N	150	<.02	1.2	5	140	11	5.2
0399	5	N	15	5	N	N	150	15	N	200	<.02	1.1	6	66	14	5.0
0400	7	N	30	5	N	N	150	10	N	100	.05	1.3	4	55	24	5.0
0401	N	10	30	5	N	N	100	10	N	300	<.02	1.0	16	120	9	5.5
0402	N	30	30	5	N	N	150	15	N	150	<.02	1.2	5	130	19	5.0
0403	5	10	15	5	N	N	150	30	N	150	.25	.9	9	690	7	5.7
0404	5	<5	30	5	N	N	150	15	N	150	.21	1.1	9	300	6	5.2
0405	10	<5	10	5	N	N	100	30	N	150	.05	1.5	6	540	6	5.5
0406	5	<5	30	5	N	N	150	10	N	100	.49	1.9	40	820	7	5.2
0407	5	<5	30	5	N	N	100	N	N	150	.42	1.7	6	710	13	5.7
0408	N	<5	10	5	N	N	70	N	N	70	.64	1.8	9	760	7	5.2
0409	N	<5	15	20	30	N	150	15	N	100	.40	1.4	39	1,400	15	5.2
0410	N	<5	10	15	30	N	100	15	N	100	.27	1.4	26	860	8	5.5
0411	<5	<5	<10	30	N	N	150	30	N	200	.16	1.3	2	600	5	5.5
0412	<5	<5	15	20	N	N	150	15	N	150	.29	1.3	6	640	9	6.0
0413	7	15	10	15	N	N	200	10	N	150	.22	2.4	10	580	10	5.5
0414	N	700	15	50	N	N	300	15	700	70	<.02	2.9	320	240	9	6.2
0415	N	700	20	50	N	N	300	15	700	70	<.02	3.1	300	210	13	6.7
0416	N	150	<10	30	N	200	200	30	<200	70	<.02	1.5	68	36	6	6.2
0417	N	20	10	20	N	200	200	20	N	70	.03	1.5	65	58	9	6.5
0418	N	<5	15	15	N	200	150	70	N	150	<.02	1.2	54	70	8	7.0
0419	N	<5	<10	15	N	N	150	10	N	200	<.02	1.2	4	120	6	5.5
0420	7	<5	<10	10	10	N	100	10	N	100	.13	2.2	6	120	5	5.7
0421	5	<5	<10	15	10	N	150	10	N	300	.09	1.0	3	100	2	5.2
0422	5	<5	<10	7	N	N	150	10	N	150	.08	.2	6	55	3	5.0
0423	5	<5	10	7	N	N	100	10	N	100	.07	.9	6	69	6	5.0
0424	10	<5	15	20	N	N	200	10	N	150	.20	1.9	6	170	8	5.5
0425	7	<5	<10	15	N	N	150	15	N	150	<.02	1.6	8	150	6	5.7

Rio Vivi soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
0426	126,590	39,410	7.0	.70	<.05	.30	70	N	<10	70	N	N	30	700
0427	126,640	39,450	5.0	.20	<.05	.30	100	N	<10	50	N	5	30	700
0428	126,660	39,500	5.0	.10	<.05	.30	300	N	<10	50	N	10	30	700
0429	126,670	39,550	7.0	.70	<.05	.30	70	.5	<10	70	N	N	30	1,000
0430	126,460	39,160	5.0	.05	<.05	.30	<10	N	<10	100	N	N	30	300
0431	126,420	39,190	3.0	.02	<.05	.30	<10	N	<10	50	N	N	30	150
0432	126,340	39,235	3.0	.20	<.05	.50	30	N	<10	300	N	N	70	150
0433	126,290	39,260	3.0	.70	<.05	.30	30	N	10	200	N	N	70	150
0434	126,230	39,275	3.0	.70	<.05	.30	50	N	30	100	N	N	30	200
0435	126,180	39,310	3.0	.20	<.05	.30	30	N	<10	200	N	N	100	700
0436	126,150	39,350	7.0	.50	<.05	.30	100	N	<10	100	N	N	70	700
0437	126,110	39,465	3.0	.70	<.05	.70	70	N	<10	500	N	N	20	150
0438	126,090	39,510	3.0	.50	.05	.70	50	N	30	300	N	N	70	200
0439	126,030	39,510	3.0	.30	<.05	.30	30	N	<10	200	N	5	20	700
0440	125,970	39,520	7.0	.70	<.05	.70	70	N	<10	200	N	N	70	1,500
0441	125,900	39,525	7.0	.05	<.05	.70	30	N	<10	50	N	N	20	200
0442	126,080	39,575	7.0	.70	<.05	.50	50	N	70	300	N	N	N	200
0443	126,070	39,625	5.0	.30	<.05	.30	30	N	<10	300	N	N	N	100
0444	126,060	39,680	5.0	.70	<.05	.70	70	N	<10	500	N	N	20	150
0445	126,030	39,750	5.0	.70	<.05	.30	200	N	<10	300	N	10	20	150
0446	125,990	39,790	7.0	.70	<.05	.70	1,500	N	20	200	N	30	70	200
0447	125,970	39,840	5.0	.70	.50	.30	500	N	<10	150	N	20	150	500
0448	126,960	39,500	7.0	.70	<.05	.50	500	N	<10	200	N	5	150	700
0449	126,950	39,470	7.0	.30	<.05	.70	100	N	<10	200	N	N	70	150
0450	126,960	39,425	7.0	.70	<.05	.50	200	N	<10	200	N	5	20	150
0451	126,980	39,390	7.0	.70	<.05	.50	300	N	<10	150	N	5	30	200
0452	126,950	39,350	7.0	.50	.05	.30	30	N	<10	300	N	N	N	150
0453	126,930	39,285	5.0	.30	<.05	.70	30	N	<10	300	N	N	N	70
0454	126,950	39,240	5.0	.15	<.05	.70	30	N	<10	150	N	N	N	70
0455	126,940	39,185	3.0	.07	<.05	.30	30	N	<10	150	N	N	20	150
0456	126,920	39,115	5.0	.20	<.05	.30	15	N	<10	200	N	N	70	150
0457	126,900	39,065	7.0	.05	<.05	.30	20	N	<10	200	N	N	150	500
0458	126,880	39,035	3.0	.02	.07	.30	10	N	<10	150	N	N	20	200
0459	126,840	38,975	1.5	.05	<.05	.30	<10	N	<10	70	N	N	30	10
0460	127,060	38,875	7.0	.07	.07	.70	15	N	<10	500	N	N	50	30
0461	127,130	38,915	5.0	.02	<.05	.50	30	N	<10	150	N	N	20	150
0462	127,180	38,915	3.0	<.02	<.05	.30	150	N	30	50	N	N	20	100
0463	127,220	38,925	5.0	.07	<.05	.30	150	N	20	200	N	5	100	150
0464	127,250	38,940	5.0	.05	<.05	.30	30	N	15	300	N	N	50	150
0465	127,280	38,975	7.0	.20	<.05	.50	100	N	<10	300	N	5	20	150
0466	127,310	39,025	5.0	.10	<.05	.50	150	N	<10	150	N	5	20	150
0467	127,330	39,075	7.0	.20	<.05	.50	30	N	<10	300	N	5	20	200
0468	127,350	39,105	3.0	.50	<.05	.30	70	N	<10	300	N	5	20	150
0469	127,340	39,155	3.0	.50	<.05	.30	30	N	<10	500	N	5	20	150
0470	127,440	39,180	7.0	1.50	3.00	.50	2,000	N	<10	300	N	100	70	300

Rio Viví soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
0426	7	<5	<10	20	N	N	200	15	N	150	.12	1.8	21	430	5	5.2
0427	15	5	<10	15	N	N	150	N	N	300	.06	2.1	10	440	10	5.0
0428	7	5	<10	15	N	N	200	10	N	300	<.02	2.1	12	400	7	5.0
0429	10	5	10	20	N	N	300	15	N	100	.09	1.6	14	470	6	5.0
0430	30	<5	<10	20	20	500	200	30	N	150	<.02	1.5	7	120	2	5.2
0431	20	<5	10	30	N	700	300	30	N	200	.03	1.5	7	40	5	6.0
0432	70	15	<10	20	N	N	150	30	N	200	.05	2.0	8	87	6	5.5
0433	50	<5	<10	20	10	N	150	30	N	200	.03	1.3	10	87	4	5.2
0434	20	<5	<10	10	N	N	150	10	N	150	.12	1.1	14	90	4	5.7
0435	5	10	50	20	N	N	150	N	N	70	.43	1.0	11	400	20	5.2
0436	<5	<5	10	20	N	N	150	N	N	150	.45	1.3	14	320	14	5.7
0437	<5	<5	10	30	N	N	150	30	N	300	<.02	1.6	9	40	6	5.5
0438	10	<5	20	30	15	N	150	70	N	300	<.02	1.2	7	180	7	5.7
0439	50	<5	<10	15	N	N	150	10	N	150	.03	1.5	9	240	5	5.5
0440	10	5	20	30	N	N	200	30	N	300	<.02	2.0	4	470	5	5.0
0441	N	<5	10	20	N	N	300	N	N	150	<.02	2.8	13	120	4	5.7
0442	N	<5	15	15	N	N	300	30	N	200	<.02	2.1	7	80	4	5.2
0443	N	<5	<10	15	N	N	150	15	N	150	.03	2.1	10	35	2	5.0
0444	N	<5	20	10	N	N	200	20	N	300	<.02	2.6	13	58	4	5.2
0445	N	<5	10	30	N	N	150	30	N	200	<.02	2.3	30	90	4	5.2
0446	N	200	10	30	N	N	300	30	N	200	<.02	1.9	34	200	4	5.2
0447	N	150	50	30	N	N	200	10	N	100	<.02	2.5	53	210	42	5.7
0448	7	30	<10	30	N	N	300	20	N	200	.02	2.6	23	110	8	5.2
0449	N	20	10	30	N	N	200	30	N	150	.02	2.3	15	100	8	5.2
0450	N	<10	10	15	N	N	200	15	N	150	<.02	1.5	18	63	8	5.2
0451	N	<10	20	30	N	N	300	10	N	300	<.02	1.6	26	97	9	5.2
0452	5	<10	<10	15	N	N	200	20	N	150	<.02	1.6	7	52	4	5.2
0453	<5	<10	30	20	N	N	200	30	N	200	<.02	1.4	7	27	4	5.0
0454	7	<10	N	15	N	N	200	30	N	200	<.02	2.0	10	44	6	5.7
0455	5	<5	<10	10	N	N	150	10	N	100	<.02	1.9	16	87	4	5.2
0456	<5	<5	10	15	20	N	300	20	N	150	<.02	1.8	7	54	5	6.0
0457	10	<5	10	30	10	N	200	20	N	150	<.02	2.0	10	220	6	6.0
0458	7	<5	20	5	10	N	150	10	N	150	.05	1.8	14	110	4	5.0
0459	5	<5	N	5	20	N	150	20	N	200	.02	1.0	5	5	3	5.2
0460	5	<5	10	30	30	N	300	30	N	200	.08	2.3	6	13	8	5.0
0461	N	<5	10	20	N	N	200	20	N	200	<.02	1.6	9	50	12	5.0
0462	N	<5	10	20	N	N	150	<10	N	100	<.02	1.3	23	43	6	5.0
0463	N	30	10	20	15	N	150	10	N	150	<.02	1.1	12	83	6	5.5
0464	N	<5	10	15	20	N	150	15	N	150	<.02	1.2	7	89	3	5.5
0465	N	5	<10	30	N	N	300	20	N	150	<.02	1.9	26	110	4	5.7
0466	N	5	15	20	N	N	150	20	N	150	<.02	1.6	15	99	4	5.5
0467	N	5	<10	30	N	N	200	30	N	100	<.02	1.3	16	160	4	5.5
0468	N	5	10	15	N	N	150	10	N	150	<.02	.7	17	120	3	5.2
0469	N	5	<10	30	N	N	150	30	N	150	<.02	2.3	11	100	5	5.5
0470	N	30	<10	50	N	200	150	50	<200	100	.02	1.9	140	210	6	6.5

Rio Vиви soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
0471	127,430	39,240	5.0	.70	<.05	.30	500	.5	<10	50	N	10	N	1,000
0472	127,410	39,280	3.0	.30	<.05	.30	200	.5	<10	30	N	N	N	500
0473	127,390	39,320	3.0	.30	<.05	.30	200	N	<10	150	N	N	50	300
0474	127,790	38,950	7.0	.30	<.05	.50	150	.5	<10	150	N	N	100	500
0475	127,780	38,920	5.0	.30	<.05	.50	300	N	<10	50	N	5	30	300
0476	127,750	38,860	3.0	.50	<.05	.30	500	N	<10	70	N	5	N	500
0477	127,700	38,835	7.0	.30	<.05	.50	100	N	<10	70	N	15	20	300
0478	127,650	38,805	7.0	.50	<.05	.70	200	N	<10	200	N	5	70	300
0479	127,600	38,805	3.0	.10	<.05	.30	150	N	<10	150	N	N	30	200
0480	127,530	38,810	5.0	.30	<.05	.30	200	N	<10	300	N	<5	70	150
0481	127,470	38,830	10.0	.70	<.05	.50	300	N	<10	300	N	<5	70	150
0482	127,430	38,865	10.0	.30	<.05	.70	150	N	<10	300	N	<5	30	100
0483	127,400	38,890	3.0	.50	<.05	.30	70	N	15	300	N	<5	30	100
0484	127,360	38,915	7.0	.70	<.05	.30	200	N	<10	300	N	<5	30	200
0485	127,320	38,930	3.0	.10	<.05	.30	20	N	<10	300	N	N	20	200
0486	127,330	38,575	3.0	.05	<.05	.70	30	N	<10	300	N	N	30	20
0487	127,360	38,600	3.0	.07	<.05	.70	30	N	10	300	N	N	30	70
0488	127,410	38,625	3.0	.20	<.05	.70	30	N	<10	300	N	N	30	70
0489	127,460	38,630	3.0	1.00	<.05	.50	300	N	<10	150	N	5	70	1,500
0490	127,520	38,625	7.0	.10	1.00	.50	10	N	<10	150	N	N	20	150
0491	127,570	38,625	7.0	.20	<.05	.50	30	N	<10	200	N	N	30	200
0492	126,400	40,170	3.0	.05	<.05	.30	20	N	<10	150	N	N	20	150
0493	126,450	40,150	5.0	.10	<.05	.30	15	N	<10	150	N	N	150	300
0494	126,500	40,125	3.0	.03	<.05	.30	15	N	<10	70	N	N	20	300
0495	126,530	40,100	7.0	.07	<.05	.20	20	.5	<10	200	N	N	30	300
0496	126,600	40,100	7.0	.50	<.05	.30	20	1.0	<10	150	N	N	700	1,500
0497	126,620	40,115	15.0	.70	<.05	.30	30	.5	<10	70	N	5	700	1,000
0498	126,680	40,125	15.0	2.00	.05	.20	1,000	.5	N	150	N	200	5,000	2,000
0499	126,740	40,135	15.0	.70	<.05	.30	150	.5	<10	150	N	15	1,500	1,500
0500	126,770	40,185	10.0	.10	<.05	.70	100	N	<10	300	N	N	70	500
0501	126,830	40,240	10.0	.10	<.05	.70	150	N	<10	200	N	N	150	700
0502	126,860	40,280	10.0	.70	<.05	.70	1,500	.7	<10	500	N	30	70	700
0503	126,910	40,295	10.0	.70	<.05	.70	700	.5	<10	150	N	10	150	1,000
0504	126,950	40,325	10.0	.70	<.05	.70	1,500	.5	<10	300	N	20	20	500
0505	126,990	40,365	7.0	.30	<.05	.30	700	.7	<10	200	N	5	20	300
0506	127,300	40,055	5.0	.70	.10	.30	1,500	N	<10	1,500	N	10	20	150
0507	127,250	40,020	5.0	.30	<.05	.20	70	.5	<10	300	N	<5	20	200
0508	127,220	40,005	7.0	.70	<.05	.70	200	.5	<10	150	N	5	150	700
0509	127,160	39,990	5.0	1.00	.07	.30	1,500	N	<10	100	N	30	700	1,500
0510	127,120	39,970	5.0	.30	<.05	.30	150	N	<10	300	N	5	70	300
0511	127,070	39,955	7.0	.10	<.05	.50	100	N	<10	300	N	15	100	500
0512	127,030	39,940	5.0	.30	<.05	.30	100	N	<10	200	N	5	20	700
0513	127,000	39,930	7.0	.20	<.05	.30	30	N	<10	200	N	N	150	700
0514	126,950	39,925	5.0	.10	<.05	.30	20	N	<10	300	N	N	70	200
0515	126,910	39,900	3.0	.10	<.05	.30	15	N	<10	300	N	N	70	300

Rio Vиви soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
0471	N	N	<10	20	N	N	100	N	N	150	<.02	1.6	15	310	4	5.0
0472	N	N	<10	10	N	N	100	N	N	100	<.02	2.3	20	100	5	5.2
0473	N	N	10	15	N	N	150	N	N	200	<.02	2.7	38	250	13	5.5
0474	N	7	20	30	N	N	300	15	N	150	<.02	1.8	18	200	7	5.5
0475	N	5	<10	15	N	N	150	10	N	300	<.02	2.0	25	110	6	5.7
0476	N	<5	<10	15	N	N	150	N	N	300	<.02	1.5	15	95	9	5.7
0477	7	<5	15	15	N	N	300	N	N	200	<.02	2.0	34	98	11	5.2
0478	N	15	10	20	N	N	150	10	N	300	.05	2.2	100	98	12	5.2
0479	N	30	30	20	N	N	150	N	N	300	.02	1.4	46	69	24	5.7
0480	N	15	30	20	N	N	150	15	N	200	<.02	1.7	25	230	15	5.7
0481	N	15	15	30	N	N	300	15	N	200	<.02	1.9	34	73	12	5.2
0482	N	<5	15	70	N	N	300	30	N	300	.02	1.9	37	220	13	5.7
0483	N	15	<10	20	N	N	150	10	N	200	.05	1.0	24	250	7	5.0
0484	N	10	10	30	N	N	200	20	N	200	<.02	1.6	23	1,200	7	5.0
0485	N	<5	30	20	N	N	70	15	N	200	.02	1.6	11	250	17	5.0
0486	N	<5	N	20	N	N	150	50	N	300	<.02	.9	4	200	5	5.2
0487	N	<5	<10	20	N	N	70	50	N	1,000	<.02	1.2	7	590	9	5.2
0488	5	<5	<10	30	N	N	200	30	N	300	<.02	1.1	6	270	11	5.0
0489	7	15	30	30	N	N	200	20	N	200	.14	1.4	33	130	12	5.2
0490	N	<5	20	30	N	N	200	30	N	200	<.02	1.8	12	250	10	5.0
0491	N	10	30	30	N	N	300	20	N	200	<.02	2.0	19	170	9	6.0
0492	15	<10	N	7	10	N	70	N	N	200	<.02	.9	4	650	5	4.5
0493	30	10	10	10	150	N	100	N	N	70	.08	1.4	4	290	5	4.5
0494	700	<10	N	5	10	N	70	20	N	150	<.02	.7	2	490	2	4.0
0495	1,000	<10	20	5	100	N	70	30	N	100	.05	1.5	3	340	4	5.0
0496	700	20	20	30	150	N	150	10	N	70	<.02	2.2	4	150	4	5.7
0497	7	100	N	30	N	N	300	30	N	70	<.02	2.6	12	310	10	6.0
0498	5	1,000	30	100	150	N	300	15	N	20	<.02	3.3	62	190	14	6.0
0499	5	300	15	50	150	N	300	15	N	150	.05	2.2	29	77	15	5.5
0500	N	15	10	30	10	N	300	15	N	70	<.02	2.3	9	97	6	6.0
0501	N	30	10	30	N	N	200	10	N	70	<.02	2.4	22	86	7	6.0
0502	N	30	<10	30	N	N	300	20	N	100	<.02	2.4	73	210	8	6.5
0503	N	70	30	70	100	N	300	30	N	150	<.02	2.4	98	180	12	6.5
0504	N	10	50	30	100	N	300	30	N	150	.03	2.4	180	300	33	6.0
0505	N	<5	30	30	N	N	150	10	N	100	.05	1.9	76	97	14	5.5
0506	N	<5	10	30	N	N	100	30	N	100	<.02	1.8	260	54	6	6.2
0507	N	10	10	30	N	N	100	N	N	70	<.02	1.7	17	43	7	5.7
0508	N	300	20	50	N	N	300	10	N	100	<.02	2.0	15	54	10	5.2
0509	N	300	10	30	N	N	150	20	N	70	<.02	2.5	130	140	11	5.7
0510	5	<5	10	20	N	N	150	N	N	100	<.02	2.1	14	230	6	5.5
0511	N	30	15	30	N	N	200	20	N	100	<.02	1.7	9	16	9	5.7
0512	N	<5	10	20	N	N	150	15	N	70	<.02	1.7	7	25	3	5.2
0513	5	<5	<10	20	N	N	200	15	N	100	.04	1.9	5	45	7	5.7
0514	150	<5	<10	20	15	N	200	20	N	150	.04	1.1	3	930	2	5.5
0515	150	<5	<10	20	10	N	150	20	N	150	.20	1.0	2	84	2	6.0

Rio Vivi soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
0516	126,880	39,895	5.0	.30	<.05	.30	10	N	<10	300	N	N	100	500
0517	126,840	39,875	7.0	.70	<.05	.30	30	N	<10	300	N	N	500	1,000
0518	126,820	39,840	7.0	1.50	<.05	.50	70	N	<10	700	N	N	500	1,700
0519	126,770	39,820	7.0	2.00	1.50	.50	700	N	<10	300	N	10	1,000	700
0520	126,730	39,800	3.0	.70	.70	.30	1,000	N	<10	500	N	15	150	700
0521	126,720	39,780	3.0	.70	.70	.30	1,500	N	15	500	N	20	20	700
0522	126,700	39,740	7.0	.30	<.05	.30	50	N	<10	300	N	N	70	500
0523	126,680	39,720	3.0	.70	1.50	.30	1,500	N	<10	700	N	20	100	500
0524	126,500	40,620	7.0	.20	<.05	.70	150	N	<10	500	N	N	150	200
0525	126,480	40,675	7.0	.50	<.05	.30	200	N	<10	500	N	5	30	150
0526	126,460	40,720	7.0	.70	<.05	.50	100	N	<10	1,500	N	N	50	150
0527	126,410	40,755	7.0	.70	<.05	.50	1,000	N	<10	200	N	10	150	500
0528	126,350	40,780	7.0	1.50	1.50	.30	700	N	20	200	N	30	20	300
0529	126,320	40,815	7.0	.70	.05	.70	700	.5	<10	300	N	15	20	700
0530	126,300	40,830	7.0	.70	.05	.70	1,000	N	<10	1,500	N	5	70	150
0531	126,250	40,850	7.0	.70	.05	.50	1,500	N	20	700	N	5	70	150
0532	126,220	40,875	7.0	.70	<.05	.70	1,000	.5	<10	70	N	10	150	1,000
0533	126,180	40,900	7.0	1.00	<.05	.70	1,500	.5	<10	70	N	30	300	2,000
0534	126,140	40,935	7.0	.70	<.05	.70	1,500	.5	<10	150	N	30	100	1,500
0535	126,110	40,880	7.0	1.50	.70	.50	1,500	.5	20	300	N	50	70	1,000
0536	126,070	40,845	7.0	1.00	<.05	.70	1,500	N	30	100	N	30	150	1,500
0537	126,030	40,800	7.0	1.50	.30	.70	1,500	N	<10	300	N	50	150	1,000
0538	126,010	40,745	5.0	1.50	1.00	.30	1,000	.7	<10	300	N	20	700	7,000
0539	125,980	40,690	5.0	.70	<.05	.70	1,500	.7	<10	200	N	30	20	5,000
0540	126,040	40,675	7.0	.10	<.05	.30	100	N	<10	100	N	N	20	700
0541	126,080	40,640	1.5	.20	<.05	.30	30	N	<10	500	N	N	20	100
0542	126,120	40,620	5.0	.20	<.05	.30	30	N	<10	300	N	N	20	300
0543	126,150	40,600	2.0	.20	<.05	.30	100	N	<10	500	N	N	N	150
0544	126,200	40,550	5.0	.10	<.05	.30	30	N	<10	200	N	N	20	300
0545	126,220	40,500	3.0	.30	<.05	.30	20	N	<10	200	N	N	70	150
0546	126,260	40,450	3.0	.30	<.05	.30	30	N	30	200	N	N	50	200
0547	126,300	40,410	5.0	.20	<.05	.30	30	N	<10	200	N	N	70	700
0548	126,340	40,370	5.0	.50	<.05	.30	30	N	<10	300	N	N	70	300
0549	126,370	40,320	1.5	.20	<.05	.30	30	N	<10	200	N	N	N	150
0550	126,120	40,135	7.0	.70	1.50	.50	1,500	.5	<10	200	N	20	100	1,000
0551	126,070	40,175	7.0	.70	1.50	.50	1,500	N	<10	300	N	10	100	150
0552	126,050	40,225	15.0	1.50	.20	.70	500	N	<10	150	N	10	1,000	700
0553	126,040	40,250	15.0	1.50	<.05	.70	300	N	<10	150	N	5	1,500	700
0554	126,010	40,290	10.0	1.50	<.05	.70	200	.5	<10	150	N	N	700	500
0555	125,980	40,325	7.0	1.50	.20	.70	300	.5	<10	200	N	5	700	700
0556	125,980	40,395	7.0	1.50	.70	.70	1,500	.5	<10	500	N	20	700	700
0557	125,980	40,440	5.0	.70	.10	.30	300	.5	<10	300	N	5	30	1,500
0558	125,970	40,500	5.0	.70	.10	.30	300	.5	<10	300	N	5	50	1,000
0559	125,960	40,540	7.0	.70	<.05	.30	300	.5	<10	150	N	5	50	1,000
0560	125,940	40,600	7.0	.70	.20	.30	1,500	1.0	<10	200	N	10	150	3,000

Rio Viví soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
0516	200	<5	<10	20	N	N	300	20	N	150	.12	1.0	2	100	3	5.0
0517	30	5	<10	30	N	N	300	20	N	70	.02	1.7	5	100	2	5.2
0518	5	15	10	50	N	N	300	15	N	150	<.02	1.6	4	270	4	5.0
0519	N	150	10	70	N	N	1,000	15	N	70	<.02	2.2	12	130	5	5.5
0520	N	150	<10	20	N	N	150	20	N	100	<.02	1.1	69	140	5	5.7
0521	N	15	20	15	N	N	150	30	N	150	<.02	.7	54	970	10	5.7
0522	<5	<5	10	100	10	N	300	20	N	150	.02	1.8	8	550	5	5.2
0523	N	15	10	15	N	N	150	20	N	150	<.02	1.2	51	1,200	6	5.0
0524	N	30	10	30	N	N	300	20	N	100	<.02	1.8	18	800	8	6.5
0525	N	20	10	30	N	N	200	10	N	70	<.02	1.8	26	210	6	6.0
0526	N	<5	10	30	N	N	300	10	N	70	<.02	2.4	7	360	3	5.5
0527	N	15	10	30	N	N	300	10	N	70	<.02	1.8	17	610	4	5.2
0528	N	20	<10	50	N	N	300	20	N	70	<.02	2.5	90	560	7	7.0
0529	N	10	15	50	N	N	300	10	200	70	.03	2.5	120	230	8	6.2
0530	N	<5	10	50	N	N	300	10	N	70	<.02	1.9	54	93	4	6.7
0531	N	<5	<10	30	N	N	150	10	N	70	<.02	2.1	140	110	4	6.7
0532	N	70	10	50	N	N	300	20	200	70	<.02	2.5	200	590	10	5.7
0533	N	100	30	70	30	N	300	20	300	70	<.02	3.2	480	1,300	8	6.2
0534	N	70	10	70	N	N	300	30	300	70	.05	3.0	380	650	9	5.7
0535	N	30	10	50	N	N	300	30	200	70	.03	2.8	180	360	9	6.5
0536	N	70	10	70	N	N	300	30	<200	70	<.02	2.4	100	390	9	5.5
0537	70	70	15	70	N	N	300	20	300	70	.04	2.6	280	420	10	6.5
0538	15	100	<10	30	N	N	200	20	N	100	.07	1.9	87	3,100	7	5.7
0539	N	10	10	30	N	N	150	20	N	100	<.02	1.7	75	2,600	6	6.0
0540	7	<5	<10	5	N	N	150	N	N	150	<.02	1.5	8	400	6	5.5
0541	7	<5	N	7	N	N	100	N	N	200	.04	.5	6	55	2	4.7
0542	<5	<5	<10	7	N	N	100	N	N	100	<.02	1.3	4	230	3	4.7
0543	5	<5	N	10	N	N	70	N	N	150	<.02	.9	3	100	5	5.0
0544	10	<5	<10	7	N	N	100	N	N	100	<.02	1.1	3	160	3	5.2
0545	10	<5	N	15	N	N	150	N	N	300	.03	.8	2	68	1	5.5
0546	10	<5	N	15	N	N	150	N	N	70	<.02	1.3	4	130	4	5.0
0547	70	<5	<10	7	N	N	70	N	N	100	<.02	2.1	3	380	3	5.5
0548	150	<5	N	10	N	N	100	N	N	70	<.02	.9	1	180	2	5.5
0549	N	<5	N	7	N	N	70	N	N	100	.02	.5	10	86	3	4.7
0550	N	30	10	30	N	N	300	15	N	500	<.02	1.3	78	540	10	5.2
0551	N	30	10	30	N	N	150	30	N	100	<.02	1.0	47	64	10	5.2
0552	N	200	15	100	N	N	300	20	N	100	<.02	2.3	81	330	13	5.2
0553	N	150	10	>100	N	N	500	20	N	70	.02	2.4	57	500	12	5.5
0554	N	10	30	70	N	N	300	15	N	70	<.02	2.2	81	270	12	5.5
0555	N	150	30	100	N	N	300	30	N	70	<.02	2.2	36	280	10	5.0
0556	<5	70	20	50	N	N	300	20	N	70	<.02	2.2	130	450	11	6.2
0557	300	10	<10	15	N	N	100	10	N	150	.11	1.1	17	820	3	5.5
0558	70	7	<10	10	N	N	100	10	N	70	.05	1.2	21	760	8	6.0
0559	20	7	<10	10	N	N	100	10	N	70	.03	1.3	25	810	5	5.7
0560	15	50	<10	15	N	N	150	10	N	70	.04	1.3	30	2,300	7	6.0

Rio Viví soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
0561	125,910	40,650	5.0	.30	<.05	.15	100	N	<10	150	N	5	30	1,000
0562	125,870	40,620	5.0	.70	<.05	.20	200	.5	<10	100	N	10	300	7,000
0563	125,830	40,575	5.0	.70	1.00	.30	300	.5	<10	150	N	10	150	1,500
0564	125,780	40,570	7.0	1.00	<.05	.70	150	.5	<10	300	N	5	1,000	1,500
0565	125,730	40,540	5.0	.70	<.05	.30	700	N	<10	150	N	5	70	700
0566	125,670	40,520	5.0	.70	<.05	.30	50	N	<10	300	N	N	150	700
0567	125,630	40,520	7.0	.70	<.05	.30	50	N	<10	200	N	N	100	700
0568	125,630	40,460	7.0	.70	.05	.70	1,000	N	<10	100	N	15	700	1,000
0569	125,620	40,415	2.0	.70	<.05	.30	300	.7	<10	150	N	5	20	1,500
0570	125,630	40,350	3.0	.70	<.05	.20	300	.7	<10	20	N	5	20	7,000
0571	125,680	40,320	1.5	.70	<.05	.20	500	.5	<10	150	N	10	20	5,000
0572	125,700	40,265	2.0	.70	<.05	.20	100	1.0	<10	20	N	20	300	7,000
0573	125,780	40,220	5.0	1.50	<.05	.30	1,500	1.5	<10	70	N	20	300	7,000
0574	125,770	40,145	5.0	1.00	<.05	.30	100	N	<10	100	N	15	300	1,500
0575	125,800	40,080	5.0	.30	<.05	.70	20	N	<10	700	N	5	50	500
0576	125,850	40,070	7.0	.70	.10	.50	150	N	<10	200	N	15	700	300
0577	125,920	40,025	7.0	3.00	.20	.30	300	N	<10	100	N	30	1,000	1,000
0578	125,960	40,000	7.0	.70	<.05	.50	300	N	<10	150	N	15	700	700
0579	126,010	39,980	7.0	.70	<.05	.30	300	N	<10	100	N	30	300	700
0580	125,250	39,630	5.0	.30	<.05	.50	70	N	<10	200	N	N	30	700
0581	125,270	39,680	7.0	.70	<.05	.50	300	.5	<10	150	N	5	30	1,000
0582	125,310	39,730	7.0	.50	<.05	.30	100	N	<10	100	N	<5	30	1,000
0583	125,320	39,775	7.0	.30	<.05	.50	70	N	<10	200	N	N	30	700
0584	125,330	39,815	7.0	.10	<.05	.10	30	N	<10	200	N	5	30	150
0585	125,330	39,845	3.0	.70	<.05	.50	30	N	15	500	N	5	20	150
0586	125,330	39,880	5.0	.50	<.05	.30	70	N	15	150	N	5	20	300
0587	125,360	39,935	3.0	.20	<.05	.30	300	N	<10	200	N	30	20	500
0588	125,370	39,975	3.0	.20	<.05	.30	200	N	<10	70	N	5	20	70
0589	125,370	40,025	5.0	.10	<.05	.70	150	N	<10	70	N	5	50	150
0590	125,400	40,075	7.0	.30	<.05	.70	150	N	<10	100	N	N	20	500
0591	125,410	40,100	3.0	.10	<.05	.70	100	N	20	300	N	N	70	200
0592	125,430	40,145	7.0	.02	<.05	.30	30	N	<10	200	N	N	20	150
0593	125,420	40,190	3.0	.30	.05	.70	20	N	<10	150	N	N	20	150
0594	125,420	40,230	5.0	<.02	<.05	.30	10	N	<10	30	N	N	20	150
0595	125,450	40,300	7.0	.10	<.05	.70	50	N	15	150	N	N	50	700
0596	125,500	40,350	5.0	.70	<.05	.30	1,500	.5	<10	1,000	1	30	20	3,000
0597	125,560	40,375	5.0	.70	<.05	.30	700	.7	<10	70	1	10	20	2,000
0598	125,610	40,325	7.0	.70	<.05	.20	300	.5	<10	100	N	15	20	3,000
0599	125,600	40,290	7.0	.70	.05	.30	300	1.0	<10	50	N	10	20	3,000
0600	125,600	40,250	7.0	.70	.05	.30	300	.7	<10	70	N	10	30	3,000
0601	125,580	40,225	7.0	.70	<.05	.30	300	N	<10	70	N	N	50	2,000
0602	125,560	40,175	3.0	.70	<.05	.20	300	.5	<10	300	N	5	20	2,000
0603	125,560	40,100	7.0	.70	<.05	.30	150	1.0	<10	1,500	N	N	500	5,000
0604	125,000	40,070	3.0	.20	<.05	.30	30	N	<10	30	N	N	50	70
0605	125,000	40,105	3.0	.20	<.05	.30	150	N	<10	150	N	N	20	100

Rio Vivi soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
0561	70	7	<10	5	N	N	100	N	N	70	.04	1.3	16	640	5	5.2
0562	<5	70	20	20	N	N	150	15	N	50	.10	1.6	36	4,400	5	5.2
0563	70	70	10	15	N	N	150	15	N	70	.14	1.5	25	1,800	7	5.5
0564	70	70	10	50	N	N	300	20	N	100	.02	1.8	5	980	6	5.7
0565	5	20	10	15	N	N	150	10	N	150	<.02	1.2	16	250	6	5.2
0566	7	5	<10	20	N	N	150	10	N	70	<.02	1.8	6	450	5	5.5
0567	70	5	10	20	N	N	150	10	N	70	.02	1.7	6	610	5	5.5
0568	5	100	10	50	N	N	300	20	N	70	<.02	2.0	35	570	10	5.7
0569	N	15	15	10	N	N	100	10	N	100	.16	1.0	54	970	11	6.0
0570	N	15	10	15	N	N	100	10	N	70	.44	1.0	57	3,300	9	5.5
0571	N	10	15	10	N	N	100	10	N	100	.30	1.1	90	3,500	20	6.0
0572	N	15	10	15	N	N	100	10	N	70	.29	1.2	22	2,000	10	6.5
0573	20	70	30	30	N	N	300	20	300	70	.07	1.9	360	3,800	38	6.0
0574	7	70	10	30	N	N	200	15	N	70	<.02	1.6	58	1,000	9	5.5
0575	50	5	10	15	N	N	150	20	N	150	<.02	.9	59	3,000	11	5.7
0576	7	100	<10	15	N	N	300	15	N	70	<.02	1.7	45	320	8	5.5
0577	7	500	10	15	N	N	200	15	N	50	.03	2.3	62	830	7	5.5
0578	7	70	15	15	N	N	300	10	N	50	<.02	2.0	49	360	11	5.5
0579	5	100	<10	20	N	N	300	15	N	50	<.02	2.2	34	470	7	5.7
0580	5	5	10	15	10	N	150	10	N	100	.03	1.2	11	470	10	6.0
0581	<5	5	10	15	N	N	150	15	N	100	.13	1.6	48	1,100	10	5.5
0582	5	15	10	15	N	N	150	15	N	150	.20	1.6	9	770	8	6.0
0583	5	<5	10	15	N	N	150	20	N	200	.10	1.5	5	340	5	6.0
0584	7	<5	<10	15	N	N	150	15	N	150	.03	1.6	4	150	5	6.0
0585	7	<5	10	15	N	N	150	20	N	150	<.02	.9	5	110	3	6.0
0586	5	<5	10	10	N	N	200	10	N	150	<.02	1.1	8	210	6	5.5
0587	N	<5	<10	20	N	N	100	100	N	150	.02	.9	50	320	5	6.0
0588	N	<5	<10	15	N	N	150	N	N	150	<.02	.7	4	32	5	5.2
0589	5	<5	<10	20	N	N	200	15	N	200	.02	1.1	9	110	6	5.5
0590	5	<5	10	20	N	N	150	10	N	150	<.02	1.3	6	160	7	5.2
0591	<5	5	<10	20	N	N	100	10	N	150	<.02	1.0	3	120	4	5.2
0592	5	<5	<10	10	N	N	50	20	N	150	.03	1.2	2	100	5	6.2
0593	100	<5	<10	20	N	N	300	20	N	200	<.02	.6	2	130	2	5.7
0594	20	<5	10	7	N	N	100	30	N	200	.27	.9	1	120	1	6.0
0595	20	5	30	30	N	N	200	30	N	300	.13	1.6	6	480	10	6.0
0596	5	5	10	15	N	N	100	10	N	200	.62	1.1	32	2,200	15	5.7
0597	N	5	10	15	N	N	100	20	N	200	.16	1.5	36	2,300	11	6.0
0598	N	5	<10	10	N	N	150	N	N	70	.22	1.2	37	2,500	12	5.7
0599	N	15	10	10	N	N	100	N	N	70	.22	1.1	46	2,400	13	6.0
0600	N	10	10	15	N	N	150	N	N	150	.19	1.1	31	1,700	11	6.0
0601	N	5	10	15	N	N	100	15	N	200	.15	1.2	30	1,800	13	6.5
0602	5	<5	10	7	N	N	100	N	N	70	.04	1.3	48	2,200	9	6.0
0603	10	5	10	50	N	200	300	30	N	70	.02	2.3	43	2,800	8	5.2
0604	<5	<5	10	20	N	N	150	10	N	150	<.02	1.4	31	32	11	6.0
0605	5	<5	10	20	N	N	100	10	<200	100	.04	.8	120	100	17	6.0

Rio Vиви soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
0606	125,020	40,140	3.0	.10	.05	.30	1,500	N	<10	150	N	15	20	150
0607	125,080	40,150	5.0	.20	<.05	.30	1,500	N	<10	300	N	20	20	100
0608	125,120	40,165	10.0	.70	.30	.70	700	N	<10	200	N	30	20	200
0609	125,170	40,160	3.0	.10	<.05	.30	150	N	<10	50	N	5	20	700
0610	125,240	40,215	7.0	.07	.05	.30	3,000	N	<10	100	N	20	30	200
0611	125,300	40,225	5.0	.05	<.05	.30	30	N	<10	150	N	N	20	200
0612	125,350	40,225	3.0	.10	<.05	.30	30	N	<10	200	N	N	20	200
0613	124,930	40,130	5.0	.05	<.05	.30	150	N	<10	70	N	5	30	100
0614	124,870	40,140	7.0	.30	<.05	.50	50	N	<10	150	N	5	20	50
0615	124,530	40,720	3.0	.20	<.05	.30	300	N	<10	200	N	10	20	200
0616	124,590	40,740	7.0	1.50	1.50	.50	3,000	N	<10	300	N	30	700	700
0617	124,630	40,765	7.0	.70	1.50	.50	2,000	N	<10	150	N	30	70	1,000
0618	124,700	40,780	7.0	1.00	1.50	.30	500	N	<10	150	N	5	20	700
0619	124,760	40,765	5.0	1.50	1.50	.30	500	N	<10	70	N	20	50	700
0620	124,820	40,760	7.0	1.00	.30	.30	700	N	<10	150	N	30	150	700
0621	124,860	40,735	7.0	.70	<.05	.50	1,500	N	<10	300	N	30	150	700
0622	124,920	40,725	7.0	1.00	1.00	.30	700	N	<10	300	N	20	700	1,500
0623	124,960	40,715	7.0	.70	<.05	.30	700	.5	30	200	N	5	700	700
0624	125,010	40,720	7.0	.70	<.05	.30	1,500	N	20	150	N	N	150	700
0625	125,040	40,700	7.0	1.00	.05	.30	700	.5	<10	200	N	15	300	700
0626	125,080	40,675	7.0	2.00	.70	.50	1,500	N	<10	500	N	15	700	1,500
0627	125,130	40,640	7.0	.70	<.05	.30	500	N	<10	150	N	N	150	700
0628	125,170	40,640	7.0	.70	<.05	.30	1,000	.5	<10	100	N	5	200	700
0629	125,220	40,615	7.0	.70	<.05	.30	300	N	<10	150	N	5	700	1,000
0630	125,270	40,575	7.0	1.50	<.05	.50	200	N	<10	100	N	10	700	1,000
0631	125,310	40,550	10.0	1.50	<.05	.70	300	1.0	<10	150	N	10	1,000	1,500
0632	125,350	40,530	5.0	.70	<.05	.30	150	N	<10	200	N	N	700	700
0633	125,420	40,515	5.0	.30	<.05	.30	300	N	<10	150	N	5	70	700
0634	125,480	40,515	7.0	.70	<.05	.50	300	N	<10	70	N	5	300	700
0635	125,530	40,520	7.0	.70	<.05	.30	70	N	<10	150	N	5	150	700
0636	125,580	40,520	5.0	.20	<.05	.20	50	N	<10	150	N	N	30	700
0637	125,120	40,585	10.0	.70	<.05	.70	1,500	N	<10	150	N	7	700	1,000
0638	125,080	40,565	7.0	.70	<.05	.50	2,000	N	<10	70	N	20	500	500
0639	125,020	40,540	7.0	.70	<.05	.30	3,000	N	<10	150	N	20	700	700
0640	124,990	40,515	7.0	.70	<.05	.70	1,500	.5	<10	200	N	5	500	1,000
0641	124,930	40,480	10.0	.70	<.05	.70	>5,000	.5	<10	200	N	20	1,500	1,500
0642	124,880	40,480	7.0	.70	.70	.50	2,000	N	<10	300	N	30	150	300
0643	124,820	40,500	7.0	.70	<.05	.50	1,500	N	<10	500	N	20	300	300
0644	124,800	40,500	7.0	1.00	<.05	.30	1,000	N	<10	150	N	30	700	300
0645	124,740	40,515	7.0	1.50	1.00	.70	>5,000	1.0	20	500	N	50	1,000	700
0646	124,710	40,520	7.0	.70	<.05	.50	3,000	1.5	<10	500	N	10	700	700
0647	124,670	40,525	10.0	.70	<.05	.70	1,500	N	20	300	N	20	1,500	700
0648	124,630	40,530	7.0	.70	<.05	.50	700	N	<10	200	N	5	700	700
0649	125,570	40,570	7.0	.70	<.05	.50	70	N	<10	150	N	N	500	1,000
0650	125,530	40,615	7.0	.50	<.05	.50	50	N	<10	200	N	N	700	1,000

Rio Vиви soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
0606	N	10	<10	30	N	N	70	20	300	150	.05	1.1	320	180	17	7.0
0607	5	7	10	30	N	N	70	30	300	100	.05	2.9	470	100	16	5.2
0608	N	15	10	30	N	200	300	30	N	100	.27	1.8	54	170	21	6.5
0609	N	<5	10	20	N	N	100	N	N	100	.02	1.1	21	450	19	5.5
0610	<5	5	10	20	N	N	150	20	<200	200	.06	1.4	180	190	31	6.0
0611	<5	<5	10	10	N	N	100	N	N	70	.02	1.0	9	310	9	5.7
0612	10	<5	<10	10	N	N	100	20	N	150	.03	.7	4	390	10	6.2
0613	N	10	10	30	N	N	150	N	N	70	.02	1.4	43	150	17	6.0
0614	5	<5	15	15	N	N	150	N	N	200	.03	.8	13	15	12	5.7
0615	5	<5	<10	15	N	N	100	<10	200	70	<.02	.5	15	180	8	4.7
0616	<5	150	<10	30	N	100	300	30	N	70	<.02	1.3	170	490	12	6.2
0617	5	50	<10	30	N	N	200	30	N	70	<.02	1.3	32	1,200	11	5.0
0618	N	20	<10	30	N	200	300	30	N	70	.02	.9	31	760	10	6.5
0619	N	30	<10	30	N	N	150	20	N	50	<.02	.6	13	310	10	6.0
0620	<5	50	<10	30	N	N	150	20	N	70	<.02	1.3	87	750	13	5.5
0621	N	100	10	30	N	N	300	30	N	70	<.02	1.1	89	580	12	5.7
0622	<5	100	10	30	N	N	200	20	N	100	.03	1.4	100	1,300	14	6.0
0623	N	30	15	30	N	N	200	10	N	70	.21	1.4	35	720	13	5.5
0624	N	30	10	30	N	N	200	10	N	100	.02	.9	12	530	15	5.2
0625	N	70	20	30	N	N	200	15	<200	70	<.02	1.8	100	810	18	5.7
0626	N	150	15	30	N	N	300	30	300	70	.03	2.3	180	1,200	15	6.2
0627	N	30	10	30	N	N	150	10	N	70	.04	1.8	34	580	14	5.7
0628	N	70	20	30	N	N	200	20	<200	70	.02	2.3	55	690	16	5.2
0629	<5	70	15	30	N	N	200	20	N	100	.05	2.0	18	920	13	5.2
0630	<5	150	10	30	N	N	200	15	N	70	.03	1.1	32	1,000	14	5.5
0631	<10	150	10	30	N	N	300	15	N	100	.03	1.4	120	1,200	16	5.2
0632	20	30	<10	20	N	N	150	15	N	70	<.02	.9	6	590	9	5.2
0633	5	30	<10	15	N	N	150	10	N	100	<.02	.8	13	430	13	5.2
0634	<5	100	10	30	N	N	200	15	N	70	.02	.9	21	930	12	5.0
0635	10	20	<10	15	N	N	150	15	N	100	.04	.7	4	540	10	5.2
0636	15	<5	15	15	N	N	100	20	N	50	.09	1.9	6	460	11	4.7
0637	<5	100	20	50	N	N	300	15	N	100	.06	1.5	60	360	20	5.2
0638	N	100	10	30	N	N	200	15	300	70	<.02	.9	170	330	22	6.2
0639	N	100	20	30	N	N	200	15	700	150	.05	1.2	230	550	43	5.5
0640	<5	50	15	30	N	N	300	30	500	150	.02	1.3	150	470	21	5.2
0641	<5	150	20	50	N	N	300	15	700	100	.05	1.3	210	630	31	5.5
0642	N	70	20	30	N	N	200	20	300	70	<.02	1.8	240	170	27	5.7
0643	N	70	30	30	N	N	300	20	1,000	150	<.02	1.5	350	270	44	5.7
0644	<5	300	70	30	N	N	200	10	300	70	.02	1.6	280	310	86	5.7
0645	N	300	150	70	N	N	300	70	1,000	100	.03	2.9	460	400	82	5.7
0646	N	150	150	30	N	N	200	30	300	100	.05	1.5	300	590	189	5.0
0647	<5	150	150	50	N	N	300	10	300	100	.02	1.8	130	400	171	5.2
0648	<5	150	30	30	N	N	300	20	200	150	.02	1.5	120	460	47	5.2
0649	7	10	<10	30	N	N	200	15	N	100	.07	1.3	6	670	13	5.2
0650	20	50	10	30	N	N	300	15	N	70	.07	1.6	5	890	12	5.0

Rio Vиви soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
0651	125,500	40,650	7.0	.70	<.05	.50	50	N	<10	150	N	N	700	700
0652	125,440	40,700	5.0	.10	<.05	.30	30	1.5	<10	300	N	N	20	300
0653	125,420	40,725	3.0	.30	<.05	.30	30	N	10	300	N	N	20	150
0654	125,370	40,770	7.0	.30	<.05	.30	30	N	10	300	N	N	70	300
0655	125,320	40,810	3.0	.02	<.05	.50	20	N	<10	200	N	N	50	150
0656	125,300	40,840	3.0	.30	<.05	.30	30	N	<10	300	N	N	20	300
0657	125,260	40,870	5.0	.70	1.50	.30	700	.5	<10	500	N	N	N	700
0658	125,240	40,910	5.0	.70	1.50	.30	1,000	N	<10	500	N	N	N	200
0659	125,500	41,050	3.0	.70	1.50	.30	1,500	N	15	500	N	N	N	150
0660	125,530	41,030	3.0	.70	1.50	.30	1,500	.5	<10	300	N	N	N	1,000
0661	125,570	41,015	2.0	.70	1.50	.30	2,000	N	<10	300	N	N	N	150
0662	125,620	41,020	3.0	.70	1.50	.30	1,500	N	<10	300	N	N	N	150
0663	125,660	40,985	3.0	.70	1.50	.30	1,500	N	<10	500	N	N	N	150
0664	125,700	40,930	3.0	.70	1.50	.30	1,500	N	<10	200	N	N	N	150
0665	125,720	40,895	5.0	.70	.10	.30	300	N	<10	300	N	5	20	300
0666	125,730	40,850	7.0	1.50	.10	.30	1,500	.5	<10	200	N	30	200	7,000
0667	125,740	40,815	3.0	.70	<.05	.30	1,500	.5	<10	150	N	15	150	1,500
0668	125,790	40,770	7.0	1.50	1.00	.30	1,500	.5	<10	100	N	20	1,500	1,500
0669	125,850	40,745	3.0	.70	.20	.30	1,000	.7	<10	150	N	15	70	2,000
0670	125,900	40,725	3.0	.20	<.05	.20	150	.7	<10	150	N	N	20	700
0671	125,940	40,710	3.0	.20	<.05	.20	150	N	<10	150	N	N	20	1,000
1338	126,320	39,210	3.0	.70	.05	.20	15	N	<10	100	N	N	50	100
1339	126,300	39,170	2.0	.03	<.05	.20	15	N	<10	100	N	N	70	700
1340	126,250	39,140	5.0	.03	<.05	.30	20	N	<10	70	N	N	70	500
1341	126,250	39,090	7.0	.03	<.05	.30	20	N	<10	70	N	N	50	700
1342	126,160	39,100	7.0	.70	.10	.30	70	N	<10	100	N	N	70	1,500
1343	126,130	39,050	3.0	.30	.10	.30	50	N	<10	150	N	N	70	700
1344	126,120	39,000	2.0	.20	.05	.30	15	N	<10	150	N	N	70	300
1345	125,910	39,240	7.0	.05	<.05	.50	20	N	<10	100	N	N	70	700
1346	125,960	39,260	7.0	.30	<.05	.50	20	N	<10	150	N	N	70	700
1347	126,000	39,270	7.0	.20	<.05	.70	100	N	<10	150	N	N	70	300
1348	126,070	39,300	3.0	.10	<.05	.30	30	N	<10	150	N	N	70	500
1349	126,120	39,320	7.0	.50	<.05	.70	70	N	<10	150	N	N	50	700
1350	125,900	39,450	7.0	.70	<.05	.70	150	N	<10	150	N	N	150	1,000
1351	125,870	39,410	5.0	.20	<.05	.30	30	N	<10	150	N	N	70	500
1352	125,840	39,360	5.0	.20	<.05	.30	50	N	<10	150	N	N	70	500
1353	125,800	39,330	7.0	.10	<.05	.20	30	N	<10	150	N	N	50	700
1354	125,760	39,280	7.0	.70	.05	.50	30	N	<10	200	N	N	70	700
1355	125,440	39,490	7.0	.30	.07	.50	700	.5	<10	150	N	10	70	200
1356	125,500	39,470	7.0	.07	<.05	.50	150	N	<10	150	N	N	150	200
1357	125,560	39,440	7.0	.10	<.05	.50	50	N	<10	500	N	N	150	150
1358	125,620	39,440	3.0	.10	<.05	.50	50	N	<10	200	N	N	70	150
1359	125,660	39,430	3.0	.02	<.05	.20	300	N	<10	200	N	N	50	300
1360	125,570	39,770	3.0	.70	1.00	.30	700	N	<10	200	N	N	10	150
1361	125,620	39,780	5.0	.70	<.05	.30	700	N	<10	300	N	15	20	150

Rio Vиви soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
0651	20	30	10	30	N	N	200	15	N	70	.13	1.4	8	530	13	5.7
0652	300	<5	10	15	N	N	150	30	N	150	.10	.9	2	220	8	5.0
0653	50	<5	<10	15	N	N	150	<10	N	100	.12	.7	1	160	5	5.0
0654	70	<5	<10	20	N	N	150	10	N	150	.13	.7	1	240	8	4.7
0655	70	<5	<10	10	N	N	100	10	N	150	.14	.1	<1	230	5	5.0
0656	300	<5	<10	15	N	N	150	10	N	100	.07	.1	2	350	8	4.5
0657	5	<5	10	15	N	300	100	20	N	70	<.02	.9	36	620	8	6.7
0658	N	<5	<10	20	N	200	150	30	N	70	.07	.7	42	160	7	6.0
0659	N	<5	10	15	N	200	100	30	N	200	<.02	.6	78	110	11	6.5
0660	N	<5	10	15	N	300	150	15	N	70	<.02	.5	40	630	9	6.5
0661	N	<5	20	15	N	200	100	30	300	70	<.02	2.8	240	95	13	6.5
0662	N	<5	20	15	N	200	100	20	500	70	<.02	1.6	450	90	20	6.5
0663	N	<5	10	15	N	200	100	20	200	200	<.02	1.1	260	94	12	6.5
0664	N	<5	<10	15	N	200	100	20	N	100	<.02	.5	77	220	12	6.5
0665	10	<5	10	15	N	N	150	N	N	70	.10	.5	51	250	10	6.5
0666	<5	100	10	30	N	N	200	20	N	30	.10	.6	130	5,700	16	5.5
0667	10	100	10	30	N	N	150	15	N	70	.05	.6	52	1,800	13	5.2
0668	5	500	<10	30	N	N	200	30	N	50	.09	.6	78	1,900	12	5.5
0669	<5	70	10	15	N	N	300	10	N	70	.07	1.3	64	2,700	12	5.2
0670	7	<5	10	10	N	N	100	N	N	70	<.02	1.3	7	460	7	5.2
0671	15	<5	<10	10	N	N	70	N	N	70	<.02	.4	19	1,500	7	5.2
1338	20	<5	N	5	N	N	150	20	N	150	.03	---	2	59	6	---
1339	<5	5	<10	15	N	N	150	N	N	150	.19	---	2	370	5	---
1340	15	<5	N	15	N	N	300	10	N	300	.37	---	2	260	7	---
1341	N	<5	N	15	N	N	200	10	N	150	.19	---	11	1,800	5	---
1342	15	7	N	15	N	N	200	20	N	150	.09	---	10	1,800	6	---
1343	30	N	N	15	N	N	150	10	N	200	.02	---	4	700	4	---
1344	15	N	N	15	N	N	150	15	N	150	<.02	---	<1	190	7	---
1345	15	N	N	15	N	N	200	N	N	300	.08	---	1	410	9	---
1346	30	<5	<10	15	10	N	300	20	N	300	.04	---	1	340	6	---
1347	30	5	<10	20	N	N	300	20	N	500	.15	---	6	220	9	---
1348	10	<5	<10	15	N	N	150	20	N	200	.07	---	4	330	8	---
1349	15	7	10	20	N	N	300	10	N	300	.06	---	15	380	10	---
1350	10	20	10	30	N	N	300	10	N	300	.05	---	18	640	14	---
1351	10	N	N	10	N	N	150	30	N	150	.18	---	1	200	4	---
1352	N	N	<10	10	N	N	150	N	N	300	.22	---	3	270	6	---
1353	N	7	<10	10	N	N	150	N	N	200	<.02	---	3	450	5	---
1354	10	<5	30	20	<10	N	300	30	N	200	<.02	---	6	400	36	---
1355	N	5	15	20	N	N	300	15	N	200	<.02	---	54	120	15	---
1356	N	30	15	30	N	N	300	15	N	200	<.02	---	11	170	17	---
1357	5	7	15	30	<10	N	300	20	N	200	<.02	---	3	160	9	---
1358	7	<5	10	15	<10	N	150	20	N	300	<.02	---	6	110	14	---
1359	N	15	10	15	N	N	150	30	N	300	<.02	---	23	260	14	---
1360	N	<5	N	15	N	200	150	10	N	150	<.02	---	38	130	6	---
1361	N	30	N	15	N	N	150	30	N	200	<.02	---	26	80	4	---

Rio Viví soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
1362	125,680	39,790	3.0	.70	1.00	.20	700	N	<10	700	N	10	20	200
1363	125,740	39,810	5.0	1.00	.05	.30	500	N	<10	1,000	N	10	20	150
1364	125,790	39,840	7.0	.70	<.05	.30	1,500	.5	<10	1,000	N	30	300	500
1365	125,820	39,870	7.0	3.00	1.00	.50	1,500	.5	<10	700	N	30	1,500	500
1366	125,870	39,910	7.0	3.00	1.00	.30	700	N	<10	700	N	100	1,500	500
1367	125,930	39,690	7.0	1.00	1.00	.50	1,500	N	<10	700	N	15	150	500
1368	125,950	39,640	3.0	.70	.20	.20	500	N	<10	700	N	20	150	300
1369	125,970	39,600	3.0	.70	1.00	.20	700	N	<10	700	N	10	20	300
1370	125,990	39,560	2.0	.70	<.05	.30	100	N	<10	150	N	N	30	150
1371	126,010	39,510	1.5	.70	<.05	.30	70	.5	<10	150	N	N	30	1,500
1372	126,330	39,260	1.5	.02	.05	.30	15	N	<10	150	N	N	70	200
1373	126,350	39,300	1.5	.02	.05	.30	15	N	<10	150	N	N	70	150
1374	126,360	39,350	1.5	.02	<.05	.20	15	N	<10	70	N	N	70	300
1375	126,380	39,400	1.5	1.00	2.00	.30	1,000	N	<10	300	N	15	70	200
1376	126,400	39,450	7.0	5.00	3.00	.30	1,500	N	<10	1,500	N	100	3,000	150
1377	126,420	39,500	7.0	5.00	3.00	.30	1,500	N	<10	200	N	100	3,000	300
1378	126,440	39,560	7.0	.70	.05	.30	300	N	<10	200	N	10	300	300
1379	126,470	39,610	7.0	1.00	1.00	.50	700	.5	<10	1,000	N	50	1,000	1,500
1432	125,720	38,540	5.0	.70	.50	.15	700	N	<10	150	N	15	15	50
1433	125,830	38,570	5.0	.10	<.05	.15	150	N	10	150	N	5	15	50
1434	125,900	38,520	5.0	.70	1.50	.15	500	N	15	150	N	15	20	20
1435	125,980	38,450	7.0	.20	.05	.15	500	N	10	100	N	10	30	50
1436	126,050	38,380	3.0	.70	1.00	.15	700	N	10	70	N	15	15	30
1437	126,120	38,320	5.0	.20	<.05	.15	150	N	15	100	N	N	15	30
1438	126,120	38,210	3.0	.10	<.05	.10	100	N	<10	100	N	N	10	30
1439	126,210	38,560	3.0	.20	.10	.10	300	N	<10	70	N	15	10	30
1440	126,230	38,480	3.0	.20	<.05	.15	200	N	15	150	N	7	N	30
1441	126,290	38,400	3.0	.30	<.05	.15	700	N	10	150	N	15	20	30
1442	126,340	38,300	7.0	.70	<.05	.15	1,000	N	15	200	N	15	20	50
1443	126,350	38,200	3.0	.20	<.05	.10	150	N	10	70	N	N	20	30
1444	126,330	38,120	7.0	.70	1.00	.15	500	N	10	150	N	30	30	50
1445	126,640	38,270	3.0	.70	.20	.15	700	N	10	50	N	15	30	100
1446	126,600	38,170	3.0	.70	<.05	.15	700	N	20	100	N	10	<10	70
1447	126,650	38,090	3.0	.70	<.05	.15	500	N	15	150	N	10	10	50
1448	126,670	38,010	3.0	.15	<.05	.15	150	N	15	70	N	5	10	50
1449	126,680	37,930	3.0	.30	<.05	.15	150	N	10	30	N	5	30	50
1450	126,810	37,880	3.0	.10	<.05	.15	150	N	10	150	N	5	20	50
1451	126,870	37,960	5.0	.70	1.00	.15	700	N	15	200	N	5	15	50
1452	126,960	38,010	3.0	.15	<.05	.15	200	N	10	100	N	5	15	20
1453	127,020	38,090	3.0	.10	<.05	.15	50	N	<10	30	N	5	10	30
1454	127,030	38,190	3.0	.15	<.05	.15	100	N	10	70	N	5	10	50
1455	127,170	38,130	3.0	.20	<.05	.15	150	N	10	50	N	10	10	150
1456	127,240	38,090	3.0	.30	<.05	.15	100	N	10	30	N	10	15	700
1457	127,270	37,990	5.0	.70	.50	.15	700	N	10	30	N	15	70	200
1458	127,300	37,860	3.0	.15	.05	.15	700	N	10	150	N	15	10	30

Rfo Viví soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
1362	N	10	N	15	N	200	150	15	N	300	<.02	--	45	190	6	--
1363	<5	10	<10	15	N	N	150	30	N	200	<.02	--	41	61	7	--
1364	<5	150	<10	30	N	N	150	30	<200	200	<.02	--	100	310	8	--
1365	<5	700	<10	30	N	N	300	50	300	70	<.02	--	94	250	10	--
1366	5	1,000	<10	30	N	N	300	30	<200	50	<.02	--	68	310	8	--
1367	N	30	N	30	N	N	150	30	<200	150	<.02	--	100	340	8	--
1368	N	30	<10	30	N	N	150	30	<200	300	<.02	--	95	200	5	--
1369	N	<5	<10	15	N	N	150	30	N	150	<.02	--	51	35	5	--
1370	5	<5	<10	15	N	N	150	30	N	200	<.02	--	22	100	8	--
1371	5	10	N	15	N	N	150	15	N	200	<.02	--	25	950	7	--
1372	15	5	15	15	<10	N	200	20	N	200	.06	--	<1	130	2	--
1373	15	5	N	15	<10	N	200	20	N	150	<.02	--	<1	46	<1	--
1374	15	<5	N	20	<10	N	100	10	N	200	<.02	--	<1	310	2	--
1375	N	30	N	20	N	300	100	30	N	300	<.02	--	28	110	2	--
1376	N	700	N	50	N	200	500	30	<200	50	<.02	--	53	46	10	--
1377	N	700	N	50	N	N	300	15	1,000	10	<.02	--	290	160	7	--
1378	<5	50	15	20	N	N	200	15	N	200	<.02	--	17	150	12	--
1379	<5	300	10	50	N	N	300	50	200	100	<.02	--	140	700	11	--
1432	N	15	<10	10	N	N	100	N	200	70	<.05	--	190	67	11	5.2
1433	N	10	15	7	N	N	100	N	200	70	<.05	--	120	50	28	5.0
1434	N	10	10	10	N	N	100	15	N	100	<.05	--	180	18	8	5.7
1435	N	15	15	15	N	N	100	10	200	100	<.05	--	130	34	23	5.5
1436	N	15	10	15	N	N	100	20	300	50	<.05	--	650	39	12	5.7
1437	N	7	15	7	N	N	150	N	N	100	<.05	--	45	26	10	5.7
1438	N	7	10	5	N	N	100	N	N	50	<.05	--	62	36	8	5.7
1439	N	10	10	5	N	N	100	10	N	70	<.05	--	81	37	10	5.7
1440	N	<5	10	5	N	N	100	30	N	70	<.05	--	36	51	6	5.0
1441	N	15	15	10	N	N	100	N	N	100	<.05	--	85	44	20	5.7
1442	N	5	15	15	N	N	150	30	N	150	<.05	--	96	35	12	6.0
1443	N	15	15	7	N	N	100	N	N	50	<.05	--	37	26	21	5.5
1444	N	20	10	30	N	N	150	30	N	70	<.05	--	150	56	19	5.7
1445	N	15	10	15	N	N	100	10	N	30	<.05	--	150	170	22	5.2
1446	N	5	15	10	N	N	100	10	1,500	100	<.05	--	1,000	56	19	5.5
1447	N	5	10	10	N	N	100	15	<200	100	<.05	--	120	23	11	5.7
1448	N	5	15	10	N	N	100	N	N	70	<.05	--	29	27	16	5.5
1449	N	10	10	10	N	N	100	N	N	70	<.05	--	27	23	11	5.0
1450	N	10	15	10	N	N	100	N	N	70	<.05	--	94	37	12	5.5
1451	N	7	10	15	N	200	150	20	200	100	<.05	--	420	29	8	6.0
1452	N	10	10	5	N	N	100	N	N	50	<.05	--	58	19	15	5.5
1453	N	5	30	5	N	N	100	N	N	50	<.05	--	59	46	44	5.2
1454	N	5	10	7	N	N	100	N	N	70	<.05	--	22	41	13	5.5
1455	N	7	10	10	N	N	100	N	N	70	<.05	--	25	180	12	5.5
1456	N	7	10	10	N	N	100	N	N	70	<.05	--	34	1,100	10	5.2
1457	N	20	15	15	N	N	150	30	N	70	<.05	--	84	150	17	5.0
1458	N	7	<10	15	N	N	100	N	N	70	<.05	--	470	84	11	5.0

Río Viví soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
1459	127,340	37,750	5.0	.15	<.05	.15	150	N	10	150	N	5	10	20
1460	127,440	37,670	3.0	.15	<.05	.15	200	N	10	150	N	5	10	20
1461	127,660	37,660	3.0	.15	.05	.15	150	N	10	100	N	5	30	70
1462	127,870	37,810	3.0	.15	.05	.15	70	N	10	70	N	5	10	50
1463	127,890	37,940	3.0	.10	.07	.15	100	N	15	70	N	5	10	50
1464	127,850	38,140	3.0	.10	.05	.15	150	N	15	70	N	5	10	70
1465	127,810	38,620	3.0	.10	<.05	.15	300	N	10	30	N	5	15	50
1466	127,740	38,540	3.0	.10	<.05	.15	200	N	10	70	N	5	15	100
1467	127,700	38,430	3.0	.07	.05	.15	100	N	15	70	N	5	15	70
1468	127,670	38,330	3.0	.07	<.05	.15	50	N	10	70	N	5	15	70
1469	127,660	38,220	3.0	.10	.07	.15	50	N	15	70	N	5	15	50
1470	125,600	38,630	3.0	.50	.05	.15	700	N	15	150	N	15	15	50
1471	125,600	38,520	3.0	.15	<.05	.15	300	N	10	50	N	10	15	50
1472	125,620	38,400	5.0	.10	<.05	.15	1,000	N	15	30	N	5	30	70
1473	125,660	38,290	5.0	.10	<.05	.15	700	N	15	30	N	5	20	70
1474	125,600	38,180	5.0	.10	<.05	.15	300	N	15	70	N	<5	30	50
1475	125,500	38,110	3.0	.20	<.05	.20	200	N	10	30	N	5	15	50
1476	125,460	39,010	7.0	.50	.10	.15	1,500	N	20	150	N	15	20	100
1477	125,420	38,910	3.0	.15	<.05	.15	300	N	10	150	N	7	15	50
1478	125,340	38,870	5.0	.20	<.05	.15	300	N	10	150	N	10	10	50
1479	125,280	38,770	5.0	.20	<.05	.15	300	N	10	150	N	10	15	15
1480	125,240	38,690	7.0	.30	.05	.20	500	N	15	150	N	5	20	30
1481	125,180	38,590	7.0	.50	.05	.20	300	N	10	150	N	15	10	30
1482	125,110	38,520	7.0	.70	<.05	.20	1,000	N	10	150	N	20	20	50
1483	125,040	38,440	3.0	.20	<.05	.15	700	N	<10	50	N	10	15	30
1484	125,050	39,320	5.0	.30	<.05	.15	700	N	15	150	N	15	10	70
1485	124,980	39,220	3.0	.15	<.05	.10	300	N	15	150	N	N	10	30
1486	124,860	39,210	3.0	.15	<.05	.10	300	N	10	150	N	5	<10	70
1487	124,810	39,090	5.0	.10	<.05	.20	200	N	10	150	N	N	<10	70
1488	124,860	38,980	3.0	.15	<.05	.15	500	N	10	150	N	N	15	50
1489	124,840	38,840	7.0	.70	<.05	.30	500	N	15	150	N	15	10	70
1490	124,760	38,770	7.0	.70	<.05	.20	500	N	20	150	N	20	10	70
1491	124,700	39,790	3.0	.10	<.05	.15	50	N	10	50	N	N	10	150
1492	124,680	39,690	7.0	.70	<.05	.20	300	N	15	150	N	15	15	70
1493	124,560	39,720	7.0	.15	<.05	.20	300	.5	15	100	N	N	<10	300
1494	124,510	39,620	3.0	.10	<.05	.10	70	N	15	70	N	N	15	70
1495	124,430	39,540	3.0	.15	<.05	.10	300	N	10	50	N	N	30	50
1496	124,380	39,450	7.0	.30	<.05	.20	500	N	15	150	N	10	15	100
1497	124,300	39,370	3.0	.20	<.05	.15	300	N	15	150	N	N	15	30
1498	124,520	39,040	7.0	.70	<.05	.20	300	N	20	150	N	20	15	50
1499	124,580	39,140	5.0	.30	<.05	.20	200	N	10	150	N	5	15	50
1500	124,630	39,230	3.0	.20	<.05	.20	300	N	15	150	N	5	15	30
1501	124,660	39,340	3.0	.20	<.05	.20	300	N	15	150	N	5	20	70
1502	124,720	39,420	3.0	.10	<.05	.15	150	N	10	150	N	N	10	70
1503	124,810	39,470	5.0	.15	<.05	.15	70	N	15	150	N	N	20	70

Rio Viví soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
1459	N	5	<10	15	N	N	100	N	N	70	<.05	---	63	19	12	5.0
1460	N	5	10	10	N	N	100	N	N	70	<.05	---	49	27	13	5.2
1461	N	10	15	15	N	N	100	N	N	50	<.05	---	59	81	21	6.0
1462	N	7	<10	15	N	N	100	N	N	100	<.05	---	16	49	8	5.7
1463	N	7	<10	7	N	N	100	N	N	100	<.05	---	27	33	10	5.5
1464	N	7	10	15	N	N	100	N	N	70	<.05	---	52	100	15	5.2
1465	N	5	15	5	N	N	100	N	N	50	<.05	---	60	49	16	5.2
1466	N	5	15	5	N	N	100	N	N	70	<.05	---	63	120	12	5.0
1467	N	5	15	15	N	N	100	N	N	70	<.05	---	38	110	23	5.2
1468	N	5	15	7	N	N	100	N	N	70	<.05	---	21	100	14	5.2
1469	N	5	20	7	N	N	100	N	N	70	<.05	---	16	67	11	5.0
1470	N	5	10	15	N	N	100	20	<200	70	<.05	---	200	76	10	6.0
1471	N	5	15	7	N	N	100	N	<200	70	<.05	---	49	42	15	5.0
1472	N	15	30	5	N	N	150	N	N	30	<.05	---	45	54	21	5.5
1473	N	15	30	5	N	N	100	N	N	70	<.05	---	45	43	25	5.2
1474	N	15	15	5	N	N	100	N	N	70	<.05	---	35	34	19	5.2
1475	N	15	15	10	N	N	100	N	N	70	<.05	---	39	35	20	5.0
1476	N	15	30	15	N	N	150	N	N	100	<.05	---	74	95	19	5.7
1477	N	10	10	5	N	N	100	20	N	50	<.05	---	30	24	10	5.5
1478	N	10	10	5	N	N	100	15	N	70	<.05	---	45	42	11	4.5
1479	N	15	15	15	N	N	100	N	N	70	<.05	---	59	12	15	5.0
1480	N	10	15	15	N	N	150	N	N	100	<.05	---	50	23	15	5.2
1481	N	10	15	15	N	N	150	20	N	100	<.05	---	80	23	14	5.2
1482	N	10	20	20	N	N	150	15	N	100	<.05	---	58	43	20	5.0
1483	N	7	20	10	N	N	100	N	N	50	<.05	---	39	27	23	5.2
1484	N	10	10	15	N	N	100	N	N	70	<.05	---	100	91	13	6.0
1485	N	5	<10	5	N	N	70	N	N	50	<.05	---	42	32	8	4.7
1486	N	<5	30	5	N	N	70	N	N	70	<.05	---	61	79	39	5.0
1487	N	5	15	10	N	N	70	N	N	70	<.05	---	37	44	14	5.5
1488	N	10	10	7	N	N	70	N	N	70	<.05	---	35	36	13	5.5
1489	N	15	15	20	N	N	150	15	N	100	<.05	---	34	35	15	5.0
1490	N	15	10	20	N	N	150	30	N	100	<.05	---	69	59	12	5.5
1491	N	15	15	10	N	N	100	N	N	50	<.05	---	42	160	16	4.5
1492	N	15	10	15	N	N	150	10	N	100	<.05	---	32	100	20	5.2
1493	N	15	30	15	N	N	100	N	300	70	<.05	---	130	180	29	5.5
1494	N	N	50	5	N	N	100	N	<200	20	<.05	---	110	86	82	5.5
1495	N	7	70	5	N	N	70	N	N	20	<.05	---	170	69	160	5.5
1496	N	15	70	15	N	N	150	10	200	50	<.05	---	120	72	61	5.5
1497	N	5	10	15	N	N	100	N	N	150	<.05	---	37	22	11	5.2
1498	N	10	<10	15	N	N	150	N	N	150	<.05	---	83	47	10	5.7
1499	N	10	10	5	N	N	150	N	N	70	<.05	---	39	39	13	5.2
1500	N	10	10	5	N	N	150	N	N	70	<.05	---	31	18	14	5.2
1501	N	10	50	5	N	N	150	N	200	70	<.05	---	120	54	62	5.5
1502	N	5	30	10	N	N	70	N	N	70	<.05	---	82	130	51	5.2
1503	N	5	50	15	N	N	150	N	N	70	<.05	---	38	85	34	5.5

Rio Vivi soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
1504	124,860	39,550	3.0	.10	<.05	.15	70	.5	10	100	N	5	10	150
1505	124,100	39,630	3.0	.50	<.05	.10	50	N	15	150	N	7	30	50
1506	124,160	39,700	3.0	.10	<.05	.10	70	N	10	100	N	7	30	150
1507	124,230	39,780	3.0	.15	<.05	.15	700	N	10	100	N	15	50	100
1508	124,360	39,830	5.0	.20	<.05	.10	150	N	15	150	N	N	15	70
1509	124,450	39,940	3.0	.10	<.05	.15	50	N	10	50	N	N	10	70
1510	124,550	40,000	5.0	.10	<.05	.15	150	N	15	50	N	N	15	200
1511	123,740	39,920	5.0	.30	<.05	.15	300	N	15	50	N	N	20	50
1512	123,820	39,940	5.0	.20	<.05	.15	300	N	15	150	N	10	10	70
1513	123,920	39,980	3.0	.15	<.05	.10	200	N	15	150	N	5	10	70
1514	124,000	40,030	3.0	.10	<.05	.15	300	N	<10	100	N	10	15	70
1515	124,070	40,100	3.0	.10	<.05	.15	300	N	10	70	N	10	20	70
1516	124,150	40,200	3.0	.15	<.05	.15	150	N	15	150	N	5	15	100
1517	124,180	40,320	5.0	.15	<.05	.15	300	N	15	150	N	N	15	100
1518	124,190	40,420	3.0	.15	.15	.15	300	N	15	150	N	7	15	70
1519	124,180	40,520	5.0	.70	.20	.15	500	.5	15	150	N	15	30	300
1520	123,440	40,960	3.0	.20	<.05	.15	200	.5	15	150	N	10	10	700
1521	123,550	41,010	5.0	.20	<.05	.15	200	N	10	150	N	10	10	100
1522	123,590	41,120	5.0	.20	<.05	.15	150	N	10	50	N	5	10	200
1523	123,600	41,230	7.0	.70	.30	.20	500	N	10	150	N	15	10	1,500
1524	123,530	40,200	7.0	.15	.05	.20	500	1.0	10	100	N	10	15	500
1525	123,560	40,290	3.0	.15	<.05	.20	150	N	15	100	N	N	10	70
1526	123,580	40,390	3.0	.20	<.05	.20	150	N	15	50	N	7	10	100
1527	123,560	40,490	3.0	.30	.30	.20	200	N	15	200	N	15	15	30
1528	123,530	40,580	7.0	1.00	1.50	.30	300	N	<10	200	N	20	150	70
1529	123,470	40,680	7.0	1.00	1.50	.30	1,000	N	10	700	N	20	20	700
1530	125,190	39,800	3.0	.10	<.05	.15	10	N	10	100	N	N	15	200
1531	125,090	39,810	3.0	.10	<.05	.15	10	N	10	100	N	N	10	200
1532	125,010	39,810	3.0	.50	.07	.15	70	N	10	150	N	7	10	500
1533	124,900	39,730	5.0	.15	<.05	.15	150	.5	10	150	N	7	20	700
1534	124,800	39,660	5.0	.70	.20	.15	300	N	15	150	N	15	30	200
1535	124,560	39,880	5.0	.15	<.05	.15	200	N	10	100	N	5	20	150
1536	124,640	39,920	3.0	.10	.20	.15	10	N	10	150	N	<5	10	70
1537	124,750	39,980	5.0	.15	.20	.15	10	N	10	150	N	<5	10	70
1538	124,810	40,050	3.0	.15	<.05	.15	50	N	10	100	N	<5	15	100
1539	124,380	40,170	3.0	.15	<.05	.15	50	N	10	50	N	<5	15	70
1540	124,460	40,250	5.0	.15	<.05	.15	100	N	10	150	N	<5	15	70
1541	124,590	40,270	3.0	.70	<.05	.15	300	.7	10	50	N	15	150	5,000
1542	124,700	40,210	3.0	.20	<.05	.15	70	N	10	150	N	5	10	100
1543	124,470	40,640	7.0	.20	.10	.20	700	N	<10	50	N	20	50	500
1544	124,380	40,610	7.0	.50	.10	.15	700	.7	<10	150	N	20	150	700
1545	124,370	40,870	3.0	.15	<.05	.15	500	N	10	50	N	10	15	70
1546	124,290	40,890	3.0	.15	<.05	.15	200	N	<10	50	N	<5	10	70
1547	124,210	40,950	3.0	.20	<.05	.15	200	N	15	50	N	<5	10	70
1548	124,140	41,040	3.0	.20	<.05	.15	300	N	10	150	N	5	10	700

Rio Viví soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
1504	N	10	30	15	N	N	100	N	N	50	<.05	--	37	180	41	5.5
1505	7	5	70	20	N	N	150	30	N	70	<.05	--	80	65	120	5.0
1506	N	5	30	10	N	N	70	N	200	70	<.05	--	190	82	60	6.2
1507	N	20	50	15	N	N	100	N	500	70	<.05	--	200	100	54	5.5
1508	N	15	30	15	N	N	150	N	200	100	<.05	--	100	79	17	4.5
1509	N	15	15	5	N	N	100	N	<200	70	<.05	--	35	120	16	5.0
1510	N	10	15	5	N	N	70	N	N	50	<.05	--	40	160	17	5.5
1511	N	15	15	3	N	N	100	N	N	70	<.05	--	56	20	18	5.0
1512	N	15	70	15	N	N	150	N	300	70	<.05	--	220	55	76	6.0
1513	N	10	20	15	N	N	150	N	200	100	<.05	--	100	44	37	6.0
1514	N	15	30	10	N	N	100	N	<200	50	<.05	--	170	120	83	6.0
1515	N	10	30	10	N	N	100	N	<200	50	<.05	--	180	100	76	6.0
1516	N	5	30	10	N	N	100	N	N	70	<.05	--	42	140	28	5.7
1517	N	5	30	15	N	N	150	N	N	70	<.05	--	56	160	31	5.7
1518	N	10	30	10	N	N	100	15	<200	70	<.05	--	130	87	26	5.5
1519	N	15	20	15	N	N	150	15	200	100	<.05	--	150	290	21	6.0
1520	N	5	10	15	N	N	100	N	N	30	<.05	--	49	190	9	5.0
1521	N	7	<10	15	N	N	100	N	N	50	<.05	--	31	57	10	4.7
1522	N	7	10	5	N	N	70	N	N	70	<.05	--	31	66	8	4.5
1523	N	7	<10	15	N	N	100	30	N	20	<.05	--	58	1,200	10	5.5
1524	N	10	100	15	N	N	100	N	200	70	<.05	--	130	270	94	5.5
1525	N	7	30	7	N	N	100	N	<200	70	<.05	--	100	75	32	5.0
1526	N	7	30	5	N	N	100	N	N	100	<.05	--	47	56	14	5.5
1527	N	15	10	15	N	N	100	20	N	100	<.05	--	43	12	16	6.0
1528	N	70	10	30	N	N	200	20	N	20	<.05	--	89	33	16	5.7
1529	N	50	10	30	N	N	150	30	200	100	<.05	--	95	420	10	5.7
1530	7	N	15	5	N	N	100	N	N	20	<.05	--	21	340	9	5.0
1531	7	5	15	5	N	N	100	N	N	20	<.05	--	10	240	7	5.5
1532	10	10	<10	15	N	N	100	10	N	70	<.05	--	15	450	9	5.5
1533	10	10	20	15	N	N	100	10	<200	70	.05	--	30	410	20	5.5
1534	<5	15	20	15	N	N	150	10	<200	70	<.05	--	75	280	20	5.0
1535	<5	15	20	15	N	N	100	10	<200	100	<.05	--	35	140	20	5.2
1536	N	<5	<10	15	N	N	70	10	N	50	<.05	--	6	90	6	5.0
1537	<5	5	<10	15	N	N	150	30	N	70	<.05	--	8	130	5	5.7
1538	N	5	30	15	N	N	70	10	N	70	.05	--	15	170	90	5.5
1539	N	5	<10	10	N	N	70	10	N	50	<.05	--	25	95	15	5.0
1540	5	5	20	15	N	N	70	10	N	70	<.05	--	35	120	20	6.0
1541	15	30	20	15	N	N	70	10	200	30	<.05	--	95	4,800	20	6.0
1542	N	5	20	10	N	N	70	10	N	70	<.05	--	15	53	15	6.0
1543	N	15	15	30	N	N	150	10	<200	30	<.05	--	40	430	15	5.5
1544	N	50	20	20	N	N	150	30	200	30	<.05	--	180	940	25	5.0
1545	N	5	20	10	N	N	70	N	<200	70	<.05	--	45	75	15	5.5
1546	N	5	50	10	N	N	70	10	<200	30	<.05	--	95	90	55	5.0
1547	N	5	10	10	N	N	70	N	<200	50	<.05	--	25	45	10	5.0
1548	N	5	20	15	N	N	70	N	N	50	<.05	--	35	310	15	5.0

Rio Viví soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
1549	124,270	41,110	3.0	.50	.20	.15	300	.5	10	150	N	10	10	700
1550	124,350	41,120	3.0	.70	.05	.15	300	N	10	150	N	10	10	300
1551	124,450	41,100	3.0	.20	.05	.15	300	N	10	100	N	10	15	500
1552	124,520	41,030	3.0	.30	.15	.15	200	N	10	70	N	5	10	700
1553	124,600	40,980	3.0	.70	.05	.15	500	N	10	200	N	10	10	1,000
1554	124,710	40,960	3.0	.10	<.05	.10	300	N	10	50	N	15	N	700
1555	124,820	40,930	5.0	.70	1.50	.30	300	.5	10	300	N	15	10	700
1556	125,120	40,920	5.0	.15	.07	.30	500	N	10	150	N	15	15	700
1557	125,080	41,010	3.0	.70	.50	.15	300	N	10	150	N	15	10	700
1558	125,000	41,060	7.0	.70	.20	.30	300	.5	10	150	N	15	150	1,000
1559	125,300	41,270	7.0	1.50	3.00	.30	700	N	10	200	N	10	10	150
1560	125,390	41,300	7.0	.20	<.05	.15	200	N	15	70	N	30	15	700
1561	125,490	41,300	5.0	.10	<.05	.15	150	N	15	70	N	10	15	700
1562	125,570	41,260	7.0	.10	<.05	.20	200	N	15	30	N	10	30	300
1563	125,660	41,220	3.0	.10	<.05	.15	100	N	15	70	N	10	15	300
1564	125,760	41,160	3.0	.10	<.05	.15	200	N	15	70	N	10	15	500
1565	125,860	41,140	3.0	.10	<.05	.15	200	N	15	150	N	10	30	500
1566	125,960	41,140	3.0	.10	<.05	.15	100	N	15	150	N	5	30	500
1567	126,050	41,140	7.0	1.00	.20	.20	1,000	.5	15	150	N	20	150	300
1568	126,140	41,150	7.0	1.00	.70	.20	1,000	N	15	150	N	20	200	700
1569	125,600	41,690	7.0	1.50	.30	.20	1,000	N	15	150	N	20	50	500
1570	125,520	41,650	7.0	.70	.05	.30	700	N	15	150	N	20	50	200
1571	125,420	41,600	7.0	2.00	1.50	.30	700	N	15	200	N	50	700	150
1572	125,330	41,550	3.0	.70	.20	.15	200	N	10	70	N	15	20	30
1573	125,210	41,490	7.0	1.00	.50	.20	300	N	10	70	N	10	15	500
1574	125,110	41,420	7.0	1.00	.20	.20	300	N	10	150	N	<5	100	700
1575	125,020	41,360	5.0	1.00	.50	.10	300	<.5	10	50	N	10	150	500
1576	124,970	41,250	5.0	.20	.05	.10	300	N	15	100	N	<5	15	300
1577	124,930	41,160	3.0	.30	.50	.10	500	N	10	150	N	20	15	700
1578	125,000	41,760	7.0	.70	.07	.15	700	.5	10	150	N	20	15	1,000
1579	124,930	41,670	3.0	.70	.20	.10	300	N	10	100	N	15	15	300
1580	124,880	41,600	5.0	.50	<.05	.10	300	N	10	100	N	10	15	500
1581	124,830	41,510	3.0	.70	1.50	.10	300	N	10	150	N	5	10	30
1582	124,760	41,430	3.0	.50	.05	.15	300	N	10	100	N	10	<10	100
1583	124,710	41,350	5.0	.20	<.05	.15	300	N	10	150	N	10	<10	500
1584	124,660	41,290	7.0	.70	.30	.20	700	N	10	150	N	15	15	500
1585	124,580	41,880	7.0	.50	<.05	.15	500	N	10	100	N	20	50	700
1586	124,510	41,790	7.0	.20	<.05	.15	300	N	10	50	N	10	30	500
1587	124,480	41,700	5.0	.70	.20	.15	300	N	10	150	N	10	10	30
1588	124,500	41,600	7.0	1.50	1.50	.15	700	N	10	200	N	15	10	30
1589	124,480	41,500	7.0	.30	<.05	.15	300	N	10	150	N	10	10	200
1590	124,480	41,400	7.0	.20	<.05	.20	300	N	15	100	N	10	15	150
1591	124,460	41,310	3.0	.20	<.05	.15	300	N	15	100	N	15	20	300
1592	124,200	41,760	7.0	.20	<.05	.15	300	N	15	20	N	5	20	500
1593	124,180	41,660	7.0	.30	<.05	.15	300	N	10	20	N	5	100	200

Rio Viví soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
1549	N	5	<10	10	N	N	70	15	<200	50	<.05	--	65	460	10	5.5
1550	N	5	<10	15	N	N	70	20	N	30	<.05	--	95	180	65	5.0
1551	5	5	<10	15	N	N	100	20	N	70	<.05	--	25	540	10	5.0
1552	N	5	10	15	N	N	70	N	<200	50	<.05	--	10	270	5	5.0
1553	N	5	<10	15	N	N	150	15	N	100	<.05	--	30	570	5	6.5
1554	N	5	<10	10	N	N	70	N	N	30	<.05	--	15	160	5	5.0
1555	5	10	10	15	N	N	100	30	N	50	<.05	--	45	200	5	5.5
1556	N	10	10	15	N	N	100	20	N	100	<.05	--	15	430	10	5.0
1557	5	5	<10	15	N	N	100	15	N	150	<.05	--	25	370	5	5.5
1558	N	15	<10	20	N	N	150	20	N	70	<.05	--	10	290	5	5.7
1559	5	10	<10	20	N	N	150	30	N	20	<.05	--	30	65	5	6.0
1560	10	15	20	15	N	N	150	10	N	100	<.05	--	25	210	10	5.0
1561	5	10	15	15	N	N	150	N	N	30	<.05	--	15	330	10	4.7
1562	N	15	15	15	N	N	150	N	<200	50	<.05	--	25	130	5	5.2
1563	N	15	<10	15	N	N	150	N	<200	70	<.05	--	15	90	5	5.0
1564	N	15	30	15	N	N	150	N	<200	30	<.05	--	40	250	30	4.7
1565	N	15	20	15	N	N	150	N	<200	20	<.05	--	40	290	20	5.0
1566	N	15	15	15	N	N	150	N	<200	30	<.05	--	20	290	10	5.0
1567	N	15	15	20	N	N	150	10	200	30	<.05	--	70	120	15	6.0
1568	N	70	30	20	N	N	150	15	200	50	<.05	--	110	230	15	6.5
1569	N	15	10	20	N	N	300	20	200	20	<.05	--	180	95	10	6.0
1570	N	15	10	30	N	N	150	15	200	70	<.05	--	35	55	10	5.5
1571	N	500	10	30	N	N	150	15	200	50	<.05	--	55	45	10	6.0
1572	N	15	<10	15	N	N	--	10	<200	30	<.05	--	40	90	10	5.5
1573	N	15	<10	20	N	N	--	20	<200	30	<.05	--	70	320	10	6.0
1574	30	15	10	20	N	N	--	20	200	30	<.05	--	95	490	15	6.7
1575	N	30	<10	20	N	N	--	10	<200	30	<.05	--	80	540	10	7.0
1576	7	10	10	10	N	N	--	10	<200	50	<.05	--	15	170	5	5.2
1577	N	5	<10	7	N	N	--	10	N	30	<.05	--	50	610	5	5.2
1578	N	15	15	30	N	N	--	30	300	50	<.05	--	85	780	10	6.0
1579	N	15	<10	15	N	N	--	10	<200	30	<.05	--	60	380	10	6.0
1580	N	15	<10	15	N	N	--	20	<200	50	<.05	--	20	290	5	4.5
1581	N	5	<10	10	N	N	200	15	N	20	<.05	--	55	45	5	6.0
1582	N	5	10	5	N	N	50	10	N	30	<.05	--	35	45	10	5.5
1583	N	5	10	5	N	N	70	10	N	30	<.05	--	30	260	10	5.0
1584	N	15	15	15	N	N	150	15	<200	30	<.05	--	90	310	15	5.2
1585	N	20	15	15	N	N	150	10	N	20	<.05	--	65	830	15	5.0
1586	5	15	20	15	N	N	150	N	N	70	<.05	--	45	240	15	5.0
1587	N	15	<10	15	N	N	100	15	N	30	<.05	--	55	20	10	5.0
1588	N	10	<10	15	N	N	100	30	N	50	<.05	--	20	25	10	5.2
1589	N	10	10	10	N	N	100	N	300	100	<.05	--	170	100	10	5.0
1590	N	10	15	10	N	N	100	N	N	100	<.05	--	35	70	10	5.0
1591	N	5	10	10	N	N	70	20	N	50	<.05	--	50	250	10	5.0
1592	N	15	20	15	N	N	150	10	N	30	<.05	--	60	380	10	5.0
1593	N	30	15	15	N	N	150	10	N	20	<.05	--	65	210	10	5.2

Rio Viví soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
1594	124,140	41,560	3.0	.50	.20	.15	500	N	10	150	N	10	10	200
1595	124,130	41,450	5.0	.20	<.05	.15	300	N	15	20	N	10	10	500
1596	124,090	41,360	5.0	.10	<.05	.15	200	N	10	20	N	10	20	200
1598	127,170	39,460	7.0	1.50	.05	.20	300	N	<10	20	N	5	700	500
1599	127,210	39,560	7.0	.20	.05	.20	500	N	<10	100	N	15	700	700
1600	127,310	39,620	7.0	.50	.20	.20	500	.5	<10	30	N	15	700	700
1601	127,350	39,720	7.0	.20	.30	.20	300	N	<10	150	N	10	100	500
1602	127,420	39,810	3.0	.70	1.00	.15	300	N	10	200	N	15	15	70
1603	127,460	39,900	5.0	.20	.20	.15	200	N	10	100	N	15	10	100
1604	127,520	39,990	7.0	.30	.20	.20	500	N	15	150	N	20	10	150
1605	127,580	40,070	7.0	.70	.50	.30	500	.5	10	200	N	15	10	500
1606	128,090	39,540	3.0	.70	.50	.15	300	N	10	150	N	10	10	70
1607	128,010	39,430	3.0	.20	.50	.10	300	N	10	100	N	10	10	100
1608	127,940	39,360	3.0	.20	.20	.15	300	N	10	150	N	10	10	70
1609	127,890	39,260	5.0	.70	.70	.15	300	.5	10	150	N	10	10	300
1610	127,860	39,170	7.0	1.50	1.50	.20	300	.5	10	150	N	20	15	1,000
1611	127,730	39,150	7.0	.70	3.00	.20	300	.5	10	700	N	30	30	1,000
1612	127,650	39,080	7.0	1.50	.70	.30	700	.7	10	300	N	15	15	300
1613	127,590	39,040	5.0	.70	.30	.15	300	.5	10	150	N	15	15	700
1614	128,500	39,280	5.0	.70	.30	.15	200	N	15	150	N	15	10	70
1615	128,440	39,170	5.0	.70	.20	.15	700	N	15	150	N	15	15	100
1616	128,380	39,080	5.0	.70	.05	.15	200	N	15	50	N	10	15	50
1617	128,320	39,000	7.0	.30	<.05	.20	300	N	15	50	N	15	10	70
1618	128,260	38,910	7.0	1.00	1.00	.20	300	N	10	200	N	15	10	70
1619	128,210	38,810	5.0	.20	<.05	.15	300	N	10	100	N	15	20	150
1620	128,110	38,770	7.0	.50	<.05	.20	500	N	10	100	N	15	200	200
1621	128,020	38,790	7.0	1.50	1.50	.15	500	.5	10	200	N	15	300	700
1622	127,000	40,400	5.0	.20	.05	.15	700	.5	10	100	N	10	15	150
1623	126,960	40,480	5.0	.50	.30	.20	1,000	.5	10	150	N	15	10	150
1624	126,930	40,580	5.0	.30	.05	.20	1,500	N	10	150	N	15	10	100
1625	126,890	40,680	7.0	1.00	1.50	.30	700	.5	10	300	N	20	15	100
1626	126,800	40,740	5.0	1.00	1.00	.20	700	N	10	150	N	15	15	70
1627	126,740	40,830	3.0	.70	.50	.15	1,500	N	10	150	N	10	20	150
1628	126,660	40,900	7.0	.70	.30	.20	700	N	10	150	N	15	30	30
1629	126,640	41,000	5.0	.70	.20	.15	700	N	10	150	N	15	10	20
1630	126,250	41,230	7.0	.70	.20	.30	700	.5	10	150	N	15	15	300
1631	126,350	41,230	7.0	.50	.20	.20	700	.7	15	150	N	15	50	700
1632	126,460	41,240	5.0	.20	.10	.20	200	N	15	100	N	10	200	150
1633	126,570	41,230	7.0	.70	.30	.50	1,000	N	20	100	N	20	20	100
1634	126,650	41,160	7.0	1.00	.70	.30	700	N	10	100	N	15	70	100
1635	126,690	41,090	7.0	1.50	.70	.50	1,500	N	15	150	N	20	100	150
2518	126,100	41,320	5.0	1.00	2.00	.30	2,000	N	<10	300	N	15	15	150
2519	126,020	41,380	5.0	.70	1.50	.50	1,500	N	10	150	N	20	30	150
2520	125,930	41,440	5.0	.70	1.00	.30	1,500	N	10	500	N	10	50	50
2521	125,870	41,530	5.0	.70	.50	.30	2,000	.5	10	150	N	15	10	100

Rio Viví soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
1594	N	10	<10	15	N	N	50	30	N	50	<.05	--	90	150	10	5.7
1595	N	10	30	15	N	N	100	10	200	30	<.05	--	95	160	25	4.7
1596	7	10	15	15	N	N	100	10	N	30	<.05	--	45	220	15	5.2
1598	N	150	10	15	N	N	150	N	N	20	<.05	--	45	380	10	6.5
1599	N	150	10	15	N	N	150	N	200	30	<.05	--	55	760	10	5.2
1600	N	150	10	15	N	N	150	N	200	30	<.05	--	100	680	10	6.2
1601	N	100	10	15	10	N	150	10	N	50	<.05	--	55	280	10	6.7
1602	N	15	<10	15	N	N	70	N	N	70	<.05	--	55	110	10	6.5
1603	N	10	15	15	N	N	100	N	N	50	<.05	--	85	100	20	5.2
1604	N	10	15	15	N	N	100	15	300	70	<.05	--	270	220	15	5.2
1605	N	7	10	30	N	N	150	30	<200	100	<.05	--	90	310	5	5.2
1606	N	7	<10	10	N	N	100	10	N	30	.05	--	90	130	15	6.5
1607	N	5	20	7	N	N	100	N	<200	50	<.05	--	130	210	25	6.5
1608	N	10	15	10	N	N	100	N	<200	50	<.05	--	110	60	15	5.2
1609	N	7	15	15	N	N	100	15	<200	50	<.05	--	90	180	15	6.2
1610	N	15	10	30	N	N	150	30	200	100	<.05	--	80	760	10	5.7
1611	N	15	<10	30	N	N	150	30	N	50	<.05	--	55	830	10	6.7
1612	N	10	<10	20	N	N	150	30	<200	100	<.05	--	60	130	10	5.2
1613	N	15	15	15	10	N	100	20	<200	100	<.05	--	110	420	15	5.0
1614	N	10	15	15	N	N	100	15	<200	70	<.05	--	70	60	15	5.0
1615	N	15	10	15	N	N	100	20	200	70	<.05	--	260	140	10	6.5
1616	N	15	30	20	N	N	100	10	200	70	<.05	--	100	25	25	5.5
1617	N	10	30	20	N	N	100	10	300	70	<.05	--	130	25	35	5.7
1618	N	10	10	20	N	N	100	30	N	70	<.05	--	30	55	10	5.5
1619	N	15	15	10	N	N	100	N	<200	70	<.05	--	110	110	15	5.5
1620	N	70	15	20	N	N	100	N	<200	70	<.05	--	90	110	15	5.5
1621	N	70	10	15	N	N	100	20	N	70	<.05	--	120	410	5	6.0
1622	N	10	20	15	N	N	150	N	200	70	<.05	--	100	130	15	5.5
1623	N	10	20	15	N	N	150	15	300	70	<.05	--	330	180	20	5.7
1624	N	15	30	20	N	N	150	15	200	70	<.05	--	200	130	20	6.2
1625	N	15	50	20	N	N	200	20	200	100	<.05	--	160	75	35	6.2
1626	N	15	10	15	N	N	150	10	<200	50	<.05	--	130	75	10	6.2
1627	N	15	15	20	N	N	100	20	200	50	<.05	--	170	170	15	6.5
1628	N	15	15	20	N	N	200	N	200	50	<.05	--	230	30	10	6.5
1629	N	15	15	15	N	N	100	N	<200	50	<.05	--	100	20	15	6.5
1630	N	15	30	30	N	N	150	30	200	70	<.05	--	150	250	20	6.5
1631	N	15	30	15	N	N	150	10	200	70	<.05	--	85	340	20	6.5
1632	N	30	30	15	N	N	150	N	200	50	<.05	--	35	95	15	6.5
1633	N	15	20	30	N	N	300	20	N	70	<.05	--	110	90	10	6.5
1634	N	30	15	30	N	N	200	20	N	50	<.05	--	120	110	15	6.2
1635	N	15	20	30	N	N	200	20	N	50	<.05	--	100	100	10	6.5
2518	N	20	10	30	N	N	200	10	N	10	>.05	--	1,200	190	13	--
2519	N	15	<10	30	N	N	200	20	<200	70	.05	--	440	220	7	--
2520	N	10	15	15	N	N	150	10	200	70	.10	--	630	55	15	--
2521	N	10	15	20	N	N	150	15	300	50	.10	--	960	115	15	--

Río Viví soil samples

Sample	X-COORD.	Y-COORD.	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-B	S-BA	S-BE	S-CO	S-CR	S-CU
2522	125,830	41,620	5.0	.70	.10	.30	1,000	N	10	100	N	10	N	100
2523	125,750	41,680	5.0	1.00	1.50	.30	700	N	<10	150	N	20	20	70

Río Viví soil samples

Sample	S-MO	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	AA-AU	AA-CD	AA-ZN	AA-CU	AA-PB	PH
2522	N	10	10	20	N	N	150	20	200	50	.10	--	1,300	200	9	--
2523	N	30	15	20	N	N	300	15	300	30	.05	--	950	45	12	--