Annexes

Annex 1. Geochemical data for the San José del Guaviare syenite

	Group 1			Group 2					
Sample	**CAL-0013R**	**CAL-0014R**	**JDB-0002R**	**CAL-0017R**	**CAL-0019R**	**CAL-0023R**	**CAL-0024R**	**ENA-0036R**	**JDB-0011R**
IGM	**5075307**	**5075308**	**5075538**	**5075316**	**5075318**	**5075322**	**5075323**	**5075503**	**5075547**
					Oxide (%)				
SiO_2	55.40	53.58	55.03	58.69	57.00	57.16	60.03	56.35	56.79
TiO_2	0.72	1.54	0.71	0.24	0.46	0.20	0.52	0.24	1.30
Al_2O_3	22.80	20.81	22.08	21.87	22.23	22.76	19.04	22.67	19.26
Fe_2O_3	2.47	5.32	3.43	2.83	3.72	2.01	5.55	2.39	4.77
MnO	0.07	0.18	0.10	0.06	0.13	0.05	0.13	0.05	0.26
MgO	0.21	0.80	0.34	0.08	0.29	0.06	0.04	0.03	0.46
CaO	0.44	1.04	0.50	0.19	0.13	0.22	0.24	0.45	0.49
Na_2O	8.98	7.51	8.93	9.56	9.02	9.38	6.10	8.74	8.14
K_2O	6.87	6.78	6.15	4.68	5.92	6.08	7.55	7.34	5.28
BaO	0.10	0.32	0.20	0.02	0.03	0.05	0.11	0.05	0.17
SrO	0.20	0.49	0.21	0.02	0.02	0.13	0.18	0.13	0.12
ZrO2*	0.01	0.03	0.01	0.55	0.13	0.04	0.02	0.05	0.27
P_2O_5	0.01	0.02	0.04	<0.01	0.01	0.01	0.01	0.01	0.09
Cr_2O_3	0.02	<0.01	0.03	<0.01	0.04	0.04	<0.01	0.03	<0.01
LOI	0.85	0.69	0.63	0.50	0.58	1.34	0.31	1.05	0.67
Total	99.15	99.11	98.39	99.29	99.71	99.53	99.83	99.58	98.07
					Element (ppm)				
Ba	791.00	3110.00	1830.00	152.00	97.80	379.00	843.00	301.00	1670.00
Rb	110.00	113.50	98.70	198.00	309.00	222.00	211.00	126.50	149.50
Sr	1870.00	4710.00	1990.00	124.00	119.00	1255.00	1665.00	1260.00	1220.00
Cs	0.50	0.58	0.38	0.56	1.69	1.11	1.01	0.28	1.02
Ga	19.40	23.10	20.70	37.00	28.70	28.00	23.30	23.10	29.80
Ta	14.30	23.70	8.50	20.40	16.10	9.80	7.50	4.00	32.10
Nb	139.50	312.00	111.00	223.00	244.00	186.00	140.00	71.20	625.00
Hf	3.50	7.30	1.90	77.40	16.20	7.00	2.50	7.80	36.60
Zr	110.00	259.00	61.00	4070.00	933.00	267.00	134.00	384.00	1970.00
Y	20.50	38.90	16.20	9.70	5.40	5.00	7.40	4.20	15.60
Th	1.34	3.73	0.94	16.75	17.20	12.95	6.94	5.72	16.30
U	0.32	1.00	0.24	74.20	25.10	9.55	13.25	4.06	22.40
Cr	20.00	40.00	20.00	20.00	20.00	20.00	40.00	20.00	20.00
Ni	<1	2.00	1.00	<1	1.00	<1	<1	<1	<1
Co	<1	2.00	<1	1.00	2.00	<1	<1	<1	1.00
Sc	0.80	1.50	1.10	1.20	1.40	0.80	0.60	0.80	1.10
V	15.00	59.00	20.00	16.00	11.00	12.00	40.00	12.00	27.00
Cu	<1	2.00	2.00	7.00	1.00	1.00	1.00	3.00	<1
Pb	2.00	24.00	<2	25.00	13.00	8.00	9.00	12.00	9.00
Zn	46.00	107.00	72.00	56.00	106.00	43.00	104.00	36.00	139.00
Ti	0.18	0.18	0.15	0.49	0.72	0.50	0.16	0.24	0.17
Bi	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.01	<0.01	0.01
Cd	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sn	1.00	3.00	1.00	1.00	2.00	1.00	2.00	1.00	3.00
W	3.00	6.00	3.00	3.00	3.00	2.00	3.00	3.00	5.00
Li	<10	10.00	<10	10.00	20.00	10.00	10.00	<10	10.00
Mo	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hg	0.02	0.02	0.03	0.01	0.06	0.03	<0.005	0.04	0.02
As	0.10	0.10	<0.1	0.20	0.20	0.20	0.50	0.30	0.20
Se	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sb	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

In	0.01	0.03	0.01	0.01	0.01	0.01	0.02	0.01	0.03
Te	0.02	0.01	0.03	0.03	0.05	0.03	<0.01	0.02	0.02
La	36.20	76.40	34.20	8.00	11.90	14.40	32.90	15.30	29.80
Ce	118.50	216.00	96.60	14.20	22.40	24.40	51.20	25.60	74.20
Pr	17.20	28.80	12.65	1.29	2.26	2.30	4.76	2.36	8.42
Nd	69.00	113.50	48.20	4.30	7.20	6.90	15.00	7.70	30.10
Sm	10.90	17.50	7.93	0.67	1.01	0.93	2.09	1.12	4.65
Eu	3.19	5.41	2.42	0.31	0.30	0.37	0.67	0.77	1.50
Gd	7.58	13.15	5.37	0.64	0.65	0.72	1.45	0.75	3.30
Tb	1.09	1.92	0.84	0.16	0.13	0.14	0.24	0.13	0.54
Dy	5.71	9.95	4.24	0.98	0.78	0.84	1.26	0.71	3.16
Ho	0.85	1.65	0.72	0.35	0.18	0.17	0.28	0.12	0.64
Er	2.12	4.09	1.66	1.59	0.63	0.57	0.83	0.52	1.91
Tm	0.24	0.50	0.20	0.36	0.14	0.11	0.12	0.08	0.36
Yb	1.24	2.71	1.00	3.08	1.09	0.75	0.78	0.56	2.20
Lu	0.15	0.32	0.11	0.65	0.19	0.15	0.10	0.09	0.43
	Group 2				**Group 3**				
Sample	**OPP-0064R**	**CAL-0008R**	**CMR-0013R**	**CMR-0027R-1**	**JDB-0024R**	**OPP-0061R**	**OPP-0065R**	**OPP-0073R-J**	**OPP-0074R**
IGM	**5075674**	**5075302**	**5075382**	**5075396**	**5075560**	**5075671**	**5075675**	**5075694**	**5075695**
					Oxide (%)				
SiO_2	63.86	59.14	56.31	61.25	66.07	67.68	69.70	74.20	64.09
TiO_2	0.18	0.99	1.35	0.85	0.63	0.55	0.49	0.13	0.85
Al_2O_3	18.53	18.53	17.12	17.22	16.75	15.18	14.42	12.63	16.38
Fe_2O_3	2.07	4.08	5.54	4.21	3.27	3.03	3.04	2.57	3.88
MnO	0.06	0.13	0.15	0.14	0.14	0.03	0.07	0.05	0.11
MgO	0.16	0.64	1.82	0.77	0.44	0.44	0.34	0.13	0.68
CaO	0.04	1.24	3.60	1.84	0.61	0.26	0.70	0.33	1.24
Na_2O	6.76	6.36	6.63	6.42	5.74	5.08	4.95	3.30	5.79
K_2O	6.47	5.95	4.40	5.58	6.03	5.50	5.40	5.44	5.82
BaO	0.10	0.26	0.39	0.11	0.15	0.05	0.09	0.07	0.10
SrO	0.07	0.18	0.33	0.09	0.03	0.03	0.05	0.01	0.06
ZrO2*	0.11	0.06	0.06	0.11	0.17	0.08	0.07	0.08	0.08
P_2O_5	0.01	0.15	0.53	0.17	0.10	0.10	0.09	0.02	0.16
Cr_2O_3	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.01	<0.01
LOI	0.27	0.69	1.13	0.11	0.60	0.43	0.26	0.46	0.31
Total	98.69	98.40	99.36	98.87	100.74	98.45	99.68	99.43	99.55
					Element (ppm)				
Ba	945.00	2270.00	3800.00	855.00	1185.00	439.00	744.00	529.00	713.00
Rb	166.50	163.00	122.00	173.00	157.50	278.00	146.00	322.00	229.00
Sr	644.00	1690.00	3100.00	752.00	249.00	306.00	472.00	115.00	474.00
Cs	0.42	1.09	1.50	0.50	0.38	2.19	0.55	1.46	1.57
Ga	30.40	20.90	23.80	25.50	22.90	25.70	19.90	21.90	23.10
Ta	1.70	10.60	6.40	9.90	4.50	14.00	9.90	5.70	16.90
Nb	46.60	147.50	112.50	152.50	114.00	185.50	128.00	67.10	219.00
Hf	15.50	7.50	9.60	16.30	26.70	14.70	12.00	21.70	14.70
Zr	798.00	416.00	457.00	821.00	1280.00	607.00	487.00	622.00	619.00
Y	8.90	34.30	44.40	38.70	141.00	31.50	45.90	31.40	102.00
Th	6.93	5.10	12.70	30.30	10.65	24.80	16.30	180.00	22.40
U	4.01	1.10	4.75	8.38	2.20	5.71	3.04	68.00	5.08
Cr	20.00	20.00	20.00	40.00	20.00	20.00	30.00	20.00	30.00
Ni	<1	<1	<1	<1	<1	<1	<1	1.00	3.00
Co	1.00	1.00	2.00	2.00	1.00	2.00	1.00	3.00	4.00
Sc	0.70	1.20	2.40	1.10	2.50	1.90	1.20	1.00	1.60
V	19.00	37.00	91.00	46.00	7.00	35.00	28.00	17.00	43.00
Cu	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	15.00
Pb	16.00	14.00	15.00	18.00	18.00	10.00	14.00	19.00	30.00

Zn	52.00	83.00	106.00	104.00	86.00	37.00	44.00	14.00	86.00
Ti	0.06	0.24	0.17	0.06	0.11	0.11	0.10	0.07	0.10
Bi	0.01	<0.01	0.02	0.02	0.01	0.06	0.02	0.14	0.08
Cd	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sn	1.00	3.00	3.00	4.00	2.00	5.00	4.00	1.00	6.00
W	5.00	5.00	7.00	1.00	1.00	5.00	5.00	8.00	6.00
Li	<10	20.00	10.00	<10	10.00	20.00	<10	<10	20.00
Mo	<1	<1	2.00	<1	<1	3.00	3.00	1.00	2.00
Hg	0.01	0.02	0.01	<0.005	0.01	0.02	<0.005	0.01	0.01
As	0.20	<0.1	0.30	0.50	<0.1	<0.1	0.30	0.50	0.30
Se	<0.2	<0.2	<0.2	0.30	<0.2	<0.2	<0.2	<0.2	0.40
Sb	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	<0.05
In	0.01	0.03	0.02	0.02	0.04	0.02	0.02	0.01	0.04
Te	<0.01	0.02	0.03	0.01	0.01	<0.01	0.02	0.02	0.02
La	33.10	99.10	144.00	122.00	326.00	70.70	73.10	71.00	175.50
Ce	49.30	209.00	275.00	220.00	195.50	225.00	186.00	61.30	269.00
Pr	4.70	23.70	29.90	22.90	53.20	18.00	18.10	13.10	41.30
Nd	14.40	84.20	108.00	78.10	200.00	58.80	62.20	44.00	146.50
Sm	1.86	12.40	16.50	11.40	30.60	8.97	9.93	6.39	23.10
Eu	0.69	3.42	5.30	2.57	7.13	1.55	1.95	1.67	4.13
Gd	1.45	9.00	11.65	8.75	28.60	5.80	7.73	5.10	18.35
Tb	0.24	1.33	1.65	1.31	3.76	0.97	1.29	0.86	2.77
Dy	1.35	7.25	8.96	6.82	20.50	5.79	7.77	4.89	15.85
Ho	0.31	1.35	1.59	1.37	4.19	1.16	1.53	1.06	3.20
Er	1.02	3.39	4.33	4.43	11.15	3.92	4.77	3.29	10.30
Tm	0.17	0.50	0.61	0.69	1.42	0.66	0.76	0.54	1.58
Yb	1.27	2.59	4.01	4.50	7.90	4.88	5.60	4.01	9.93
Lu	0.18	0.35	0.64	0.61	1.21	0.79	0.81	0.70	1.38

Annex 2. Modal composition of rocks of the San José del Guaviare syenite

Sample	IGM	Qz	Nph	Pl	Fsp	Px	Arf	Hbl	Bt	Ms	And	Opq	Zrn	Ttn	Cal	Ser	Ccn	Other	Petrographic classification	Subdivision
CAL-0008R	5075302		6.70	16.00	45.80				12.50			1.70	2.10	5.90	3.80	1.00	2.80	1.70	Nepheline-bearing alkali feldspar syenite	Cerritos
CAL-0011R	5075305		6.90	11.10	58.70	0.70			13.20			2.10	0.70	2.40	1.60	2.80		0.00	Nepheline-bearing alkali feldspar syenite	Cerritos
CAL-0013R	5075307		20.30	12.30	62.30				3.70			1.00		0.01	0.01	1.00	0.01	0.00	Nepheline monzosyenite	El Capricho
CAL-0014R	5075308		22.50	1.00	49.50				12.30			2.50	1.00	5.50	2.90	1.80	1.00	0.00	Nepheline syenite	El Capricho
CAL-0015R	5075309		15.70	4.00	70.30				4.00			1.70	0.30	3.00	1.00	0.01	0.01	0.00	Nepheline syenite	El Capricho
CAL-0017R	5075316		19.00	20.00	45.80				8.10			0.60	1.60		1.00	1.60	2.30	0.02	Nepheline syenite	Cerritos
CAL-0019R	5075318		28.30	11.00	54.30				4.70			1.70	0.01			0.01	0.01	0.01	Nepheline monzosyenite	Cerritos
CAL-0023R	5075322		23.60	1.30	43.90				12.90			0.30			2.60	6.40	9.00	0.00	Nepheline syenite	El Turpial
CAL-0024R	5075323		5.00	3.30	85.30				4.00			2.30	0.01		0.01	0.01	0.01	0.00	Nepheline-bearing alkali feldspar syenite	El Turpial
CMR-0013R	5075382		11.00	1.00	73.00				11.30			3.30	0.01		0.01	0.01	0.30	0.00	Nepheline syenite	Cerritos
CMR-0014R	5075383		17.90	0.70	58.90				8.40			4.90	0.70	0.01	1.10	3.20	4.20	0.00	Nepheline syenite	Cerritos
CMR-0015R	5075384		16.00	4.30	70.70				7.70			0.30			0.70	0.70	0.01	0.00	Nepheline syenite	Cerritos
CMR-0016R	5075385		18.70	3.00	70.90				5.70			1.70	0.01			0.01		0.00	Nepheline syenite	Cerritos
CMR-0028R	5075397		18.30	0.60	64.70				2.00			2.60	0.60		2.30	3.30	5.60	0.00	Nepheline syenite	Cerritos
ENA-0036R	5075503		22.30	3.00	72.00				1.00			1.30		0.01		0.01	0.01	0.02	Nepheline syenite	El Capricho
JDB-0001R	5075537		18.70	4.70	65.00				9.70			1.00	0.30	0.30	0.30	0.01	0.01	0.01	Nepheline syenite	El Capricho
JDB-0002R	5075538		25.20	2.00	58.60				4.00			3.00	0.40	0.30	3.00	1.70	1.80	0.00	Nepheline syenite	El Capricho
JDB-0003R	5075539		19.00	15.00	56.70				7.00			2.30	0.01		0.01	0.01	0.01	0.00	Nepheline monzosyenite	El Capricho
JDB-0011R	5075547		10.00	9.00	70.30				7.00			2.00	1.00	0.30	0.01	0.01	0.30	0.00	Nepheline-bearing alkali feldspar syenite	El Capricho
JDB-0013R	5075549		28.00	2.30	61.70				7.30			0.01			0.70	0.01	0.01	0.00	Nepheline syenite	El Capricho
OPP-0064R	5075674		3.30	3.00	92.00				1.30			0.30	0.01			0.01	0.01	0.00	Nepheline-bearing alkali feldspar syenite	Cerritos
CMR-0027R-1	5075396	3.30		13.00	62.80	0.01	4.30		14.30			0.30	0.01	2.00	0.01	0.01			Syenite	Cerritos
JDB-0024R	5075560	19.40		8.90	46.20		11.80		4.20			4.50	2.90	0.30		1.00		0.81	Syenogranite	El Capricho
OPP-0026R	5075632	9.30		10.30	66.30		7.70		4.00			2.30	0.01	0.01		0.01			Quartz-syenite	Cerritos
OPP-0058RD-1	5075668	68.90		15.20	11.10				1.90	0.40		0.90			0.40	1.20			Quartz-rich granitoid (silicification)	Cerritos
OPP-0061R	5075671	7.70		4.70	85.30				1.30			1.00	0.01			0.01		0.01	Quartz alkali feldspar syenite	Cerritos
OPP-0065R	5075675	20.00		19.70	48.30	1.70	5.30		1.30			1.70	0.01	2.00		0.01			Syenogranite	Cerritos
OPP-0073RG	5075691	37.70		13.70	44.70					3.70		0.30	0.01			0.01		0.01	Syenogranite	Cerritos
OPP-0073RJ	5075694	29.00		8.70	59.30				1.70	0.01		1.70	0.01			0.01			Syenogranite	Cerritos
OPP-0074R	5075695	4.70		11.10	67.60		2.90		3.60			2.90	0.30	4.90		1.30		0.70	Syenite	Cerritos
OPP-0058RA	5075665	40.00		22.00	4.30				31.30	1.00		1.30	0.01			0.01		0.01	Muscovite bearing feldspar-biotite-quartz hornfels	Pelitic
OPP-0058RC	5075667	0.40		60.60	3.20				13.80	2.80	2.50	3.90	0.01			11.70		1.12	Sillimanite-andalusite bearing biotite-feldspars hornfels	Pelitic
OPP-0073RA	5075685	46.30		8.00	4.00				39.70	0.01		2.00	0.01			0.01		0.01	Muscovite bearing feldspar-biotite-quartz hornfels	Pelitic
OPP-0058RB	5075666	17.70		3.00	8.00	14.30		54.70	0.01			0.01		2.30		0.01		0.00	Biotite bearing feldspars-diopside-quartz-hornblende hornfels	Mafic
OPP-0058RD-2	5075668	53.30		16.00	4.70	6.70		14.70	4.70	0.01		0.01			0.01	0.01		0.01	Diopside-hornblende-feldspars-quartz hornfels	Mafic
OPP-0073RC	5075687	10.00		12.70	16.00	25.00		22.30	12.00			0.01		2.00		0.01		0.00	Quartz-hornblende-diopside-feldspars and hornfels	Mafic
OPP-0073RB	5075686	13.70		57.40	9.10				13.00			3.90	0.01	0.01		0.01		2.92	Sillimanite bearing biotite-quartz-feldspar hornfels	Quartz – feldspathic
OPP-0073RD	5075688	22.90		54.30	4.90				11.30	0.70		3.20	0.01	0.01				2.70	Biotite-quartz-feldspar hornfels	Quartz – feldspathic
OPP-0073RE	5075689	29.00		31.00	29.90				6.00			2.00	0.01			0.01		2.30	Epidote bearing biotite-quartz-felspar hornfels	Quartz – feldspathic
OPP-0073RF	5075690	8.00		75.60	8.00				0.70	0.70		2.00	1.30	0.70	0.01	0.70		2.31	Quartz-feldspars hornfels	Quartz – feldspathic
OPP-0073RH	5075692	18.00		63.30	2.70				8.70	0.70		3.30	0.30	0.01	0.01	2.70		0.32	Sillimanite bearing biotite-quartz-feldspar hornfels	Quartz – feldspathic
OPP-0073RI	5075693	10.30		51.10	27.70				6.70	1.70		2.30	0.01		0.30	0.01		0.01	Muscovite bearing biotite-quartz-feldspar hornfels	Quartz – feldspathic

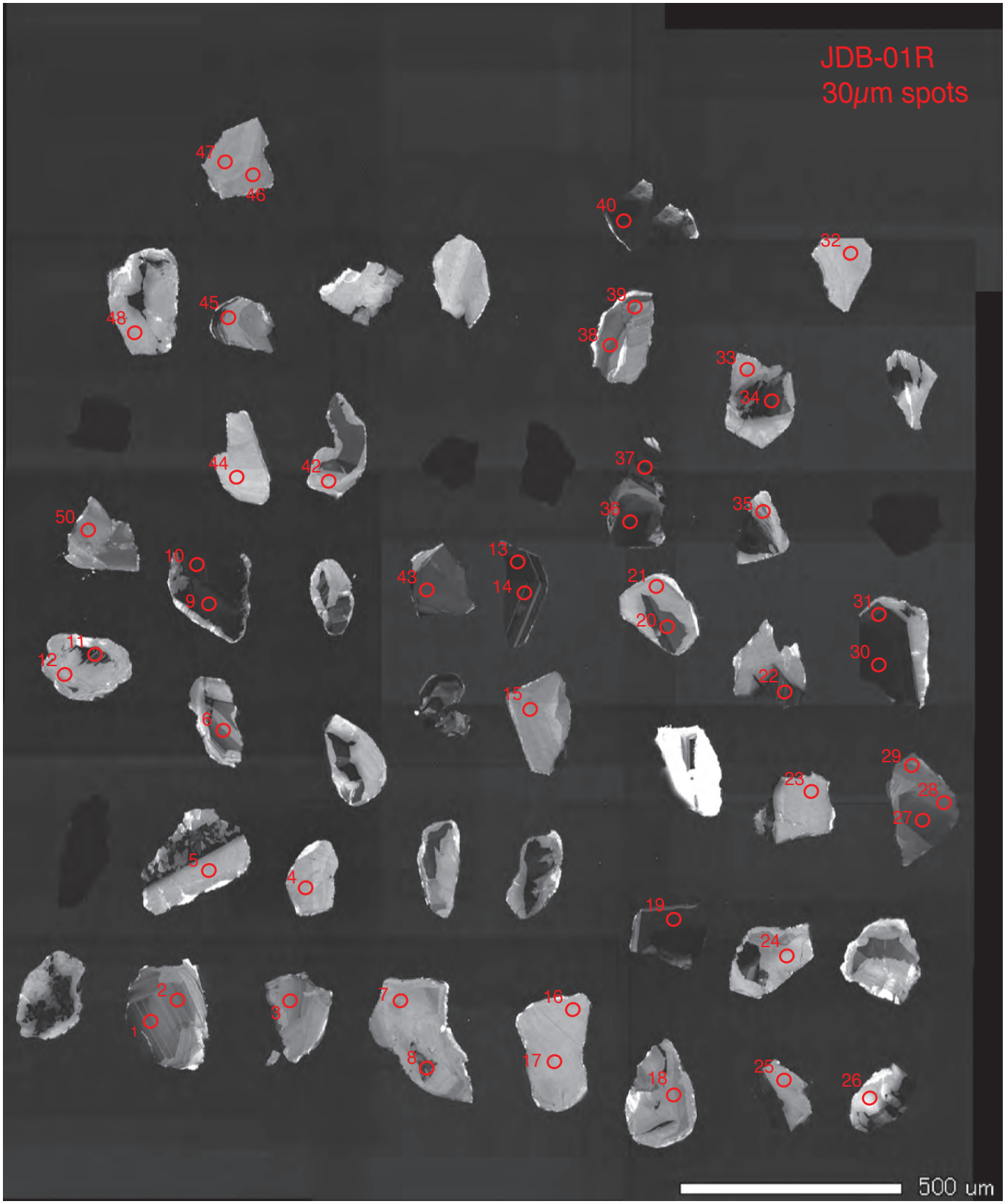
Qz: quartz; Nph: nepheline; Pl: plagioclase; Fsp: feldspar; Mc: Microcline; Px: pyroxene; Arf: arfvedsonite; Hbl: hornblende; Bt: biotite; Ms: muscovite; And: andalusite; Opq: opaque mineral; Zrn: zircon; Ttn: titanite; Cal: calcite; Ser: sericite; Ccn: cancrinite. Abbreviations according to Whitney and Evans (2010)

Annex 3. Analytical data for the U/Pb age of the San José del Guaviare Syenite

JDB-0001R (nepheline syenite)																
Analysis	Isotope ratio									Apparent age (Ma)						
	U	Th/U	206Pb*/	±	207Pb*/	±	206Pb*/	±	error	206Pb*/	±	207Pb*/	±	206Pb*/	±	Conc
	(ppm)		207Pb*	(%)	235U*	(%)	238U	(%)	corr.	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(%)
JDB_0001R_15	21	1.4	15.8983	5.4	0.8339	5.8	0.0962	2.0	0.34	592.1	11.2	615.8	26.6	704.9	115.1	84.0
JDB_0001R_13	246	0.2	16.2602	1.8	0.8162	2.4	0.0963	1.7	0.68	592.7	9.4	605.9	11.1	656.7	38.4	90.2
JDB_0001R_37	206	0.5	16.3399	2.1	0.8122	2.8	0.0963	1.9	0.66	592.7	10.6	603.7	12.9	646.3	45.7	91.7
JDB_0001R_38	45	0.9	17.0940	3.1	0.7764	3.9	0.0963	2.4	0.61	592.7	13.5	583.4	17.3	548.6	67.2	108.0
JDB_0001R_44	7	2.1	15.5280	10.6	0.8556	11.1	0.0964	3.4	0.31	593.3	19.4	627.7	52.0	754.8	223.4	78.6
JDB_0001R_24	14	1.2	15.5763	6.4	0.8547	7.0	0.0966	2.8	0.40	594.5	15.9	627.2	32.6	748.2	135.1	79.5
JDB_0001R_04	12	1.9	15.4799	7.9	0.8618	8.4	0.0968	2.8	0.33	595.6	15.9	631.1	39.4	761.3	166.7	78.2
JDB_0001R_47	12	1.7	17.1821	7.9	0.7780	8.3	0.0970	2.4	0.29	596.8	13.5	584.4	36.7	537.3	173.2	111.1
JDB_0001R_20	90	0.7	16.6667	3.0	0.8029	3.5	0.0971	1.8	0.50	597.4	10.0	598.5	15.7	603.6	64.9	99.0
JDB_0001R_17	8	1.6	15.3139	7.8	0.8757	8.2	0.0973	2.4	0.29	598.6	13.5	638.6	38.7	784.0	164.3	76.3
JDB_0001R_42	78	0.7	15.5039	3.3	0.8649	3.7	0.0973	1.7	0.47	598.6	10.0	632.8	17.4	758.0	68.7	79.0
JDB_0001R_14	181	0.5	15.8228	1.7	0.8484	2.3	0.0974	1.5	0.66	599.2	8.8	623.8	10.8	715.0	37.0	83.8
JDB_0001R_27	65	0.7	16.2075	2.9	0.8282	3.5	0.0974	2.0	0.56	599.2	11.2	612.6	16.1	663.7	62.5	90.3
JDB_0001R_16	8	2.0	15.5039	8.4	0.8667	9.1	0.0975	3.5	0.38	599.7	20.0	633.8	42.8	758.0	176.9	79.1
JDB_0001R_43	71	1.0	16.3132	3.3	0.8254	3.6	0.0977	1.5	0.43	600.9	8.8	611.1	16.6	649.8	70.1	92.5
JDB_0001R_10	256	0.4	16.4474	1.8	0.8187	2.4	0.0977	1.5	0.65	600.9	8.8	607.3	10.8	632.2	38.9	95.1
JDB_0001R_22	132	0.9	16.2602	2.4	0.8289	3.1	0.0978	1.8	0.60	601.5	10.6	613.0	14.1	656.7	52.3	91.6
JDB_0001R_18	15	1.4	16.6389	6.2	0.8101	6.7	0.0978	2.6	0.38	601.5	14.7	602.5	30.3	607.2	133.2	99.1
JDB_0001R_31	195	0.4	16.5017	1.8	0.8176	2.3	0.0979	1.4	0.62	602.1	8.2	606.7	10.6	625.0	39.1	96.3
JDB_0001R_48	7	2.0	16.9779	9.7	0.7947	10.2	0.0979	3.3	0.32	602.1	18.8	593.8	46.0	563.4	211.3	106.9
JDB_0001R_02	39	1.6	16.4474	4.1	0.8212	4.5	0.0980	1.9	0.43	602.7	11.2	608.7	20.8	632.2	88.6	95.3
JDB_0001R_29	33	1.1	16.7785	5.5	0.8058	5.8	0.0981	1.8	0.31	603.3	10.6	600.1	26.4	589.1	120.2	102.4
JDB_0001R_28	55	0.8	16.5289	3.5	0.8188	3.9	0.0982	1.7	0.45	603.9	10.0	607.4	17.7	621.5	74.9	97.2
JDB_0001R_05	10	1.7	16.1551	8.9	0.8394	9.4	0.0984	3.2	0.33	605.0	18.2	618.8	43.7	670.6	190.5	90.2
JDB_0001R_36	264	0.6	16.5837	2.0	0.8177	2.5	0.0984	1.5	0.61	605.0	8.8	606.8	11.5	614.3	43.0	98.5
JDB_0001R_50	18	1.5	15.5763	5.6	0.8715	6.0	0.0985	2.1	0.36	605.6	12.3	636.4	28.4	748.2	118.5	80.9
JDB_0001R_07	12	1.6	16.5017	8.7	0.8226	9.0	0.0985	2.2	0.25	605.6	12.9	609.5	41.4	625.0	188.9	96.9
JDB_0001R_03	30	1.1	16.3132	5.2	0.8338	5.5	0.0987	1.7	0.31	606.8	10.0	615.7	25.4	649.8	112.2	93.4
JDB_0001R_46	14	1.5	16.8350	6.4	0.8080	6.8	0.0987	2.4	0.36	606.8	14.1	601.3	31.1	581.8	139.1	104.3
JDB_0001R_01	43	1.6	17.3010	3.8	0.7870	4.2	0.0988	1.7	0.41	607.4	10.0	589.5	18.7	522.2	83.5	116.3
JDB_0001R_45	19	1.1	16.8634	7.3	0.8083	7.6	0.0989	2.1	0.28	608.0	12.3	601.5	34.3	578.1	157.8	105.2
JDB_0001R_33	19	1.2	15.9744	5.3	0.8541	5.6	0.0990	2.0	0.36	608.5	11.7	626.9	26.4	694.7	112.4	87.6
JDB_0001R_39	32	1.4	16.2602	4.1	0.8400	4.5	0.0991	1.9	0.43	609.1	11.1	619.1	20.8	656.7	87.2	92.7
JDB_0001R_08	11	1.7	16.1290	7.7	0.8476	8.3	0.0992	3.1	0.37	609.7	18.2	623.4	38.9	674.1	165.8	90.5
JDB_0001R_32	10	2.0	15.5039	7.1	0.8827	7.5	0.0993	2.3	0.31	610.3	13.5	642.4	35.7	758.0	150.6	80.5
JDB_0001R_09	169	0.5	16.9205	2.2	0.8096	2.8	0.0994	1.7	0.61	610.9	10.0	602.2	12.7	570.8	47.9	107.0
JDB_0001R_34	153	0.5	16.5837	2.3	0.8277	2.7	0.0996	1.4	0.52	612.1	8.2	612.3	12.5	614.3	50.2	99.6
JDB_0001R_30	316	0.3	16.7224	2.0	0.8209	2.6	0.0996	1.6	0.62	612.1	9.4	608.5	11.8	596.3	43.5	102.6
JDB_0001R_26	9	1.9	16.8067	9.1	0.8176	9.6	0.0997	3.2	0.33	612.7	18.8	606.7	44.0	585.5	197.3	104.6
JDB_0001R_12	9	1.9	15.6986	8.8	0.8770	9.2	0.0999	2.8	0.30	613.8	16.4	639.4	43.8	731.7	186.6	83.9
JDB_0001R_23	9	1.9	14.8588	7.1	0.9275	7.5	0.1000	2.4	0.32	614.4	14.1	666.3	36.8	847.1	148.5	72.5
JDB_0001R_35	34	1.5	16.0000	4.6	0.8648	5.1	0.1004	2.1	0.41	616.8	12.3	632.7	24.0	691.2	99.0	89.2
JDB_0001R_21	15	1.2	15.6495	7.2	0.8868	7.6	0.1007	2.4	0.31	618.5	14.1	644.7	36.2	738.3	152.5	83.8
JDB_0001R_40	135	0.7	16.7785	2.0	0.8271	2.6	0.1007	1.7	0.64	618.5	10.0	612.0	12.1	589.1	43.7	105.0
JDB_0001R_06	42	1.2	16.5837	4.8	0.8385	5.2	0.1009	2.1	0.40	619.7	12.3	618.3	24.3	614.3	103.9	100.9
JDB_0001R_25	15	2.2	15.7729	6.0	0.9227	6.4	0.1056	2.3	0.35	647.1	14.0	663.8	31.2	721.7	127.3	89.7
JDB_0001R_11	32	1.2	16.7785	5.2	0.8887	6.0	0.1082	3.0	0.51	662.3	19.2	645.7	28.8	589.1	112.9	112.4

OPP-0074R (syenite)																
Analysis	Isotope ratio									Apparent age (Ma)						
	U	Th/U	206Pb*/	±	207Pb*/	±	206Pb*/	±	error	206Pb*/	±	207Pb*/	±	206Pb*/	±	Conc
	(ppm)		207Pb*	(%)	235U*	(%)	238U	(%)	corr.	238U*	(Ma)	235U	(Ma)	207Pb*	(Ma)	(%)
OPP_0074R_11	599	1.3	16.0411	1.2	0.8188	1.8	0.0953	1.3	0.72	586.8	7.1	607.4	8.0	685.8	26.0	85.6
OPP_0074R_08	312	0.7	16.1031	2.3	0.8276	2.7	0.0967	1.4	0.54	595.0	8.2	612.3	12.3	677.6	48.2	87.8
OPP_0074R_35	190	1.0	15.9236	2.5	0.8387	3.3	0.0969	2.2	0.65	596.2	12.3	618.4	15.5	701.5	54.2	85.0
OPP_0074R_10	679	1.3	16.0154	1.4	0.8356	2.0	0.0971	1.4	0.72	597.4	8.2	616.7	9.3	689.2	29.7	86.7
OPP_0074R_23	699	1.4	16.2338	1.8	0.8337	2.6	0.0982	1.9	0.73	603.9	11.2	615.7	12.2	660.2	38.3	91.5
OPP_0074R_22	441	1.3	16.2866	1.8	0.8394	2.4	0.0992	1.6	0.67	609.7	9.4	618.8	11.2	653.3	38.5	93.3
OPP_0074R_30	473	1.4	16.3666	2.0	0.8370	2.9	0.0994	2.1	0.73	610.9	12.3	617.5	13.3	642.8	42.2	95.0
OPP_0074R_36	441	1.4	16.4745	2.1	0.8382	3.1	0.1002	2.2	0.72	615.6	12.9	618.2	14.2	628.6	46.1	97.9
OPP_0074R_44	522	1.3	16.0000	2.2	0.8665	3.3	0.1006	2.5	0.74	617.9	14.6	633.7	15.8	691.2	47.8	89.4
OPP_0074R_43	493	0.7	16.0514	1.6	0.8681	2.3	0.1011	1.7	0.72	620.9	10.0	634.5	11.0	684.4	34.3	90.7
OPP_0074R_04	242	2.1	16.3399	2.0	0.8527	2.9	0.1011	2.1	0.73	620.9	12.3	626.1	13.3	646.3	42.1	96.1
OPP_0074R_21	333	1.0	16.4935	1.6	0.8448	2.2	0.1011	1.6	0.71	620.9	9.4	621.8	10.4	626.1	34.1	99.2
OPP_0074R_31	415	1.3	16.4123	1.6	0.8498	2.1	0.1012	1.4	0.66	621.4	8.2	624.5	9.8	636.8	33.9	97.6
OPP_0074R_17	291	1.6	16.1031	1.8	0.8678	2.7	0.1014	2.1	0.76	622.6	12.3	634.4	12.9	677.6	37.8	91.9
OPP_0074R_25	290	1.2	16.3934	2.1	0.8525	3.0	0.1014	2.1	0.70	622.6	12.3	626.0	13.9	639.3	45.8	97.4
OPP_0074R_48	234	2.2	15.8228	2.2	0.8841	3.1	0.1015	2.2	0.70	623.2	12.9	643.2	14.8	715.0	47.1	87.2
OPP_0074R_02	430	1.2	16.0256	1.9	0.8755	3.2	0.1018	2.6	0.80	624.9	15.2	638.5	15.2	687.8	41.0	90.9
OPP_0074R_39	407	1.3	16.4204	2.0	0.8569	2.7	0.1021	1.9	0.69	626.7	11.1	628.4	12.7	635.7	42.4	98.6
OPP_0074R_19	121	1.2	16.5563	2.8	0.8607	3.5	0.1034	2.0	0.59	634.3	12.3	630.5	16.3	617.9	60.8	102.7
OPP_0074R_26	122	1.1	16.6113	2.2	0.8778	2.7	0.1058	1.7	0.62	648.3	10.5	639.8	13.0	610.7	46.7	106.1
OPP_0074R_33	405	1.3	16.2075	2.3	0.9541	3.2	0.1122	2.3	0.71	685.5	15.1	680.2	16.1	663.7	48.6	103.3

Annex 4.


JDB-01R
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47
46
40
32
48
45
39
38
33
34
44
42
37
36
35
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13
10
43
14
21
9
20
31
11
12
30
22
15
6
29
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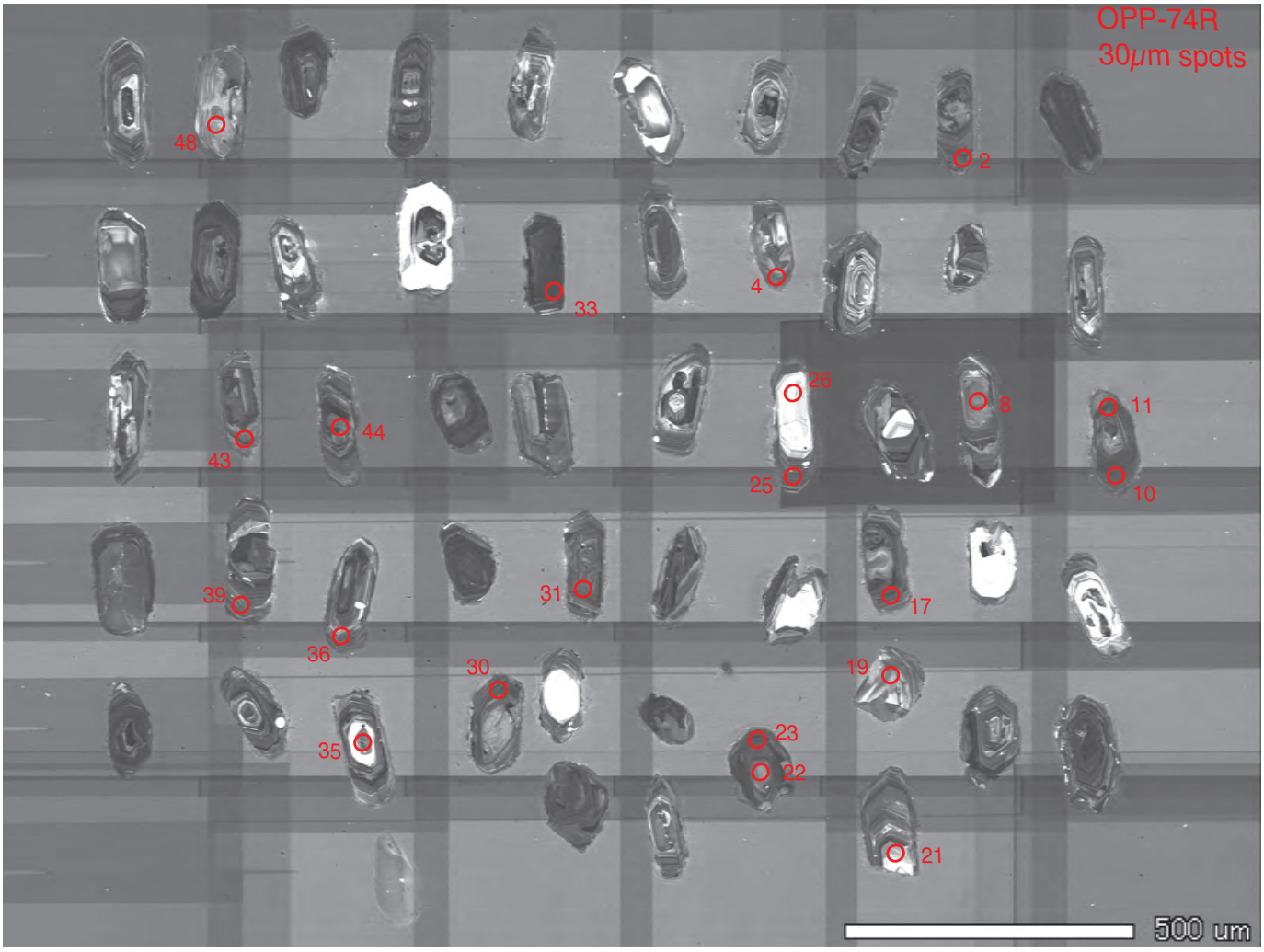
16
1
8
17
18
25
26
500 um

Annex 5.


OPP-74R
30μm spots
48
2
4
33
26
8
11
44
43
25
10
39
31
17
36
30
19
23
35
22
21
500 um