

G RANODIORITA

GEMA

Listado de elementos traza

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SIO-78 (JF-9286)		180	350	671	50	130	5	20	3	50	70	5		11	176	1.91
SIO-86 (JF-9193)		196	342	477	42	149	11	20	4	52	128	5		20	158	1.39
SIO-87 (JF-9194)		168	345	442	46	151	8	23	4	53	128	5		12	180	1.28
SIO-88 (JF-9195)		177	340	405	41	140	9	23	2	54	119	5		13	174	1.19
SIO-90 (JF-9297)		166	368	486	66	196	10	33	8	51	126	5		12	189	1.32
SIO-92 (JF-9199)		169	371	357	52	162	10	27	3	49	120	5		11	182	.96
SIO-94 (JF-9237)		178	332	367	50	163	9	25	4	41	126	5		14	177	1.10
SIO-96 (JF-9239)		177	339	430	41	139	10	20	2	55	122	5		11	181	1.26
SIO-97 (JF-9240)		180	346	455	42	142	8	23	2	55	124			12	181	1.31
SIO-98 (JF-9241)		180	326	474	41	144	8	22	2	48	116			15	180	1.45
SIO-99 (JF-9242)		172	301	455	35	136	8	18	3	52	110	5		12	202	1.51
SIO-100 (JF-9243)		172	292	446	32	140	7	15	1	44	108			11	194	1.52
SIO-101 (JF-9244)		147	289	448	37	173	8	17	1	55	115	5		11	208	1.55
SIO-102 (JF-9245)		170	326	517	38	141	9	18	13	62	115	5		11	206	1.58
SIO-103 (JF-9246)		179	350	499	46	156	9	22	3	54	128			10	179	1.42
SIO-105 (JF-9248)		207	315	472	41	129	9	19	3	30	114			8	168	1.49
SIO-2031 (JF-9174)		192	347	479	46	173	10	24	10	58	117	10		18	159	1.38
SIO-2030 (JF-9132)		185	351	499	37	177	8	19	18	50	122	10		16	152	1.42

(Químico)

Pozo Blanco

GEMA**Listado de elementos mayores**

Ref.	SiO2	TiO2	Al2O3	Fe2O3	FeO	MgO	MnO	CaO	Na2O	K2O	P2O5	H2O	Total
* SIO-78 (3F-9286)	67.10	0.52	15.63	0.00	2.96	1.97	0.07	2.51	3.82	3.82	0.18	0.79	99.37
SIO-86 (3F-9193)	66.95	0.52	15.68	0.00	3.39	1.96	0.06	2.90	3.44	3.74	0.22	0.77	99.63
SIO-87 (3F-9194)	66.74	0.53	15.64	0.00	3.35	2.03	0.05	2.93	3.73	3.66	0.21	0.75	99.62
SIO-88 (3F-9195)	66.83	0.52	15.65	0.00	3.23	2.03	0.05	2.93	3.76	3.72	0.21	0.71	99.64
SIO-90 (3F-9197)	65.71	0.58	15.71	0.00	3.63	2.42	0.05	3.12	3.54	3.78	0.23	0.80	99.57
SIO-92 (3F-9199)	66.56	0.56	15.85	0.00	3.51	2.24	0.06	3.08	3.30	3.71	0.22	0.50	99.59
SIO-94 (3F-9237)	67.75	0.49	15.55	0.00	3.12	1.91	0.05	2.88	3.36	3.80	0.19	0.55	99.65
SIO-96 (3F-9239)	67.52	0.51	15.63	0.00	3.19	1.96	0.05	2.92	3.29	3.86	0.20	0.50	99.63
SIO-97 (3F-9240)	67.31	0.48	15.83	0.00	3.10	1.90	0.05	2.89	3.56	3.93	0.20	0.40	99.65
SIO-98 (3F-9241)	68.53	0.47	15.46	0.00	2.96	1.76	0.05	2.79	3.15	3.92	0.20	0.35	99.64
SIO-99 (3F-9242)	68.52	0.43	15.35	0.00	2.83	1.71	0.05	2.44	3.26	4.20	0.18	0.70	99.67
SIO-100 (3F-9243)	68.91	0.41	15.39	0.00	2.64	1.55	0.04	2.40	3.64	4.04	0.20	0.50	99.72
SIO-101 (3F-9244)	68.09	0.45	15.60	0.00	2.96	1.82	0.05	2.08	3.68	3.70	0.22	1.00	99.65
SIO-102 (3F-9245)	66.87	0.47	15.41	0.00	2.99	2.14	0.06	2.25	3.41	4.22	0.19	1.65	99.66
SIO-103 (3F-9246)	66.58	0.54	15.83	0.00	3.33	2.13	0.05	2.78	3.52	3.88	0.22	0.76	99.62
SIO-105 (3F-9248)	67.45	0.48	15.77	0.00	3.02	1.91	0.04	2.19	3.37	4.19	0.24	1.00	99.66
SIO-2031 (3F-9174)	67.17	0.52	15.44	0.00	3.00	2.06	0.06	2.39	4.54	3.70	0.14	0.78	99.80
SIO-2030 (3F-9132)	67.94	0.49	15.54	0.00	2.73	1.76	0.05	2.40	4.65	3.39	0.14	0.75	99.84

GEMA**Listado de la norma CIPW**

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SIO-78	20.60	1.09	22.89	32.78	11.43					9.75		.10		.43	76.2	25.8
SIO-86	21.86	1.24	22.35	29.43	13.09					10.47		.99		.52	73.6	30.7
SIO-87	20.10	.72	21.87	31.91	13.31					10.54		1.01		.50	73.8	29.4
SIO-88	19.87	.61	22.21	32.15	13.30					10.33		.99		.50	74.2	29.2
SIO-90	18.59	.68	22.61	30.32	14.14					11.97		1.11		.55	71.5	31.8
SIO-92	21.47	1.34	22.12	28.17	13.96					11.31		1.07		.52	71.7	33.1
SIO-94	23.10	1.13	22.65	28.68	13.16					9.85		.93		.45	74.4	31.4
SIO-96	22.86	1.21	23.0	28.07	13.29					10.08		.97		.47	73.9	32.1
SIO-97	20.98	.95	23.39	30.34	13.12					9.80		.91		.47	74.7	30.1
SIO-98	25.17	1.45	23.32	26.83	12.62					9.21		.89		.47	75.3	31.9
SIO-99	24.37	1.45	25.07	27.86	11.04					8.93		.82		.43	77.3	28.3
SIO-100	23.63	1.15	24.05	31.03	10.68					8.17		.78		.47	78.7	25.6
SIO-101	24.12	2.31	22.16	31.55	9.0					9.44		.86		.52	77.8	22.1
SIO-102	21.63	1.62	25.43	29.43	10.12					10.37		.91		.45	76.5	25.5
SIO-103	20.55	1.32	23.18	30.12	12.49					10.75		1.03		.52	73.8	29.3
SIO-105	23.05	2.31	25.09	28.89	9.42					9.71		.92		.57	77	24.5
SIO-2031	16.82		22.07	38.78	10.92				.09	9.95		.99		.33	77.6	21.9
SIO-2030	18.75	.19	20.21	39.70	11.09					8.76		.93		.33	78.6	21.8

GEMA*Listado de elementos mayores*

Ref.	SiO2	TiO2	Al2O3	Fe2O3	FeO	MgO	MnO	CaO	Na2O	K2O	P2O5	H2O	Total
SI0-84 (JF-9191)	71.42	0.29	14.34	0.00	1.91	0.99	0.03	1.92	3.48	4.62	0.13	0.65	99.78
SI0-85 (JF-9192)	74.52	0.19	13.52	0.00	1.47	0.59	0.03	1.24	3.06	4.69	0.07	0.45	99.83

GEMA*Listado de la norma CIPW*

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SI0-84	27.10	.43	27.53	29.70	8.75					5.59		.55		.31	84.3	22.7
SI0-85	34.53	1.33	27.88	26.05	5.72					3.93		.36		.16	88.4	18

GEMA*Listado de elementos traza*

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SI0-84		200	230	299	22	136	5	11	9	22	90	5		12	191	1.3
SI0-85		229	124	200	11	145	3	9	4	21	75	5		12	170	1.61

PORFIDOS GRANODIORITICOS

GEMA

Listado de elementos mayores

Ref.	SiO2	TiO2	Al2O3	Fe2O3	FeO	MgO	MnO	CaO	Na2O	K2O	P2O5	H2O	Total
SIO-83 (JF-9196)	67.03	0.48	15.38	0.00	3.05	2.00	0.04	2.31	2.50	4.14	0.22	1.48	98.63
SIO-111 (JF-9264)	66.67	0.52	15.64	0.00	2.99	2.11	0.06	2.76	3.90	3.84	0.26	0.92	99.67
SIO-112 (JF-9265)	67.09	0.50	15.50	0.00	3.02	2.17	0.06	2.73	3.30	4.01	0.26	1.00	99.64
SIO-113 (JF-9266)	67.24	0.49	15.39	0.00	2.91	1.87	0.05	2.64	3.76	3.86	0.23	1.23	99.67

GEMA

Listado de la norma CIPW

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SIO-83	27.90	3.20	25.17	21.77	10.31					10.15		.93		.53	74.8	32.1
SIO-111	19.03	.68	22.97	33.40	12.14					10.13		.99		.62	75.4	26.6
SIO-112	22.29	1.40	24.01	28.30	12.0					10.38		.96		.62	74.6	29.7
SIO-113	21.01	.78	23.16	32.31	11.77					9.44		.94		.55	76.4	26.7

GEMA

Listado de elementos traza

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SIO-83		181	371	554	39	144	7	21	4	33	133	5		10	189	1.49
SIO-111		168	417	785	35	141	9	26	12	40	175	10		10	189	1.88
SIO-112		170	430	616	43	161	8	31	6	45	143			11	195	1.43
SIO-113		168	383	436	39	131	25	9	6	39	134			13	190	1.13

GEMA**Listado de elementos mayores**

Ref.	SiO ₂	TiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	MgO	MnO	CaO	Na ₂ O	K ₂ O	P ₂ O ₅	H ₂ O	Total
SIO-84 (JF-9191)	71.42	0.29	14.34	0.00	1.91	0.99	0.03	1.92	3.48	4.62	0.13	0.65	99.78
SIO-85 (JF-9192)	74.52	0.19	13.52	0.00	1.47	0.59	0.03	1.24	3.06	4.69	0.07	0.45	99.83

GEMA**Listado de la norma CIPW**

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SIO-84	27.10	.43	27.53	29.70	8.75					5.59		.55		.31	84.3	22.7
SIO-85	34.53	1.33	27.88	26.05	5.72					3.93		.36		.16	88.4	18

GEMA**Listado de elementos traza**

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SIO-84		200	230	299	22	136	5	11	9	22	90	5		12	191	1.3
SIO-85		229	124	200	11	145	3	9	4	21	75	5		12	170	1.61

YAMPROFITAS
DIQUES BASICOS

PED-117

GEMA

Listado de elementos mayores

Ref.	SiO2	TiO2	Al2O3	Fe2O3	FeO	MgO	MnO	CaO	Na2O	K2O	P2O5	H2O	Total
SI0-122 (JF-1235)	58.72	1.30	15.69	0.00	6.20	3.90	0.10	3.97	2.68	3.72	0.37	2.60	99.25

GEMA

Listado de la norma CIPW

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SI0-122	11.71	.95	22.73	23.45	17.87					19.79		2.55		.90	57.9	43.2

GEMA

Listado de elementos traza

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SI0-122		124	261	618	73	176	19	33	14	475	298	12		22	249	2.36

GEMA

Listado de elementos mayores

Ref.	SiO ₂	TiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	MgO	MnO	CaO	Na ₂ O	K ₂ O	P ₂ O ₅	H ₂ O	Total
SIO-89 (JF-9194)	63.86	0.88	16.43	0.00	4.90	2.52	0.07	3.94	3.45	2.20	0.24	0.92	99.41
SIO-93 (JF-9234)	57.62	1.15	16.37	0.00	6.30	4.75	0.12	4.98	3.75	2.84	0.71	0.66	99.25
SIO-95 (JF-9238)	58.31	1.00	15.67	0.00	7.23	5.55	0.12	3.35	2.79	3.72	0.52	0.92	99.18

GEMA

Listado de la norma CIPW

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SIO-89	20.66	1.81	13.19	29.63	18.25					14.16		1.69		.57	63.4	38.1
SIO-93	4.88		17.01	32.17	19.71				.52	21.76		2.21		1.70	54	37.9
SIO-95	8.60	2.24	22.36	24.01	13.45					26.12		1.93		1.25	54.9	35.9

GEMA

Listado de elementos traza

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SIO-89		148	350	266	67	143	13	24	17	59	164	5		9	123	.76
SIO-93		192	307	464	132	168	19	40	56	82	233	5		21	122	1.51
SIO-95		277	266	340	95	252	24	118	134	116	194	5		22	111	1.27

~~MEZCLA?~~
ENCLAVES

GEMA**Listado de elementos mayores**

Ref.	SiO ₂	TiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	MgO	MnO	CaO	Na ₂ O	K ₂ O	P ₂ O ₅	H ₂ O	Total
SIO-79 (JF-9186)	67.21	0.52	14.94	0.00	3.48	1.90	0.05	2.40	3.59	4.21	0.21	1.10	99.61
SIO-80 (JF-9187)	66.58	0.64	14.87	0.00	3.91	2.36	0.05	2.11	3.26	4.52	0.24	1.00	99.54

GEMA**Listado de la norma CIPW**

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SIO-79	20.57	.62	25.25	30.83	10.69					10.51		10		.50	76.6	25.7
SIO-80	20.42	1.37	27.10	27.98	9.03					12.27		1.23		.57	75.5	24.3

GEMA**Listado de elementos traza**

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SIO-79		185	281	384	45	138	9	21	4	227	130	5		13	188	1.36
SIO-80		218	246	457	39	120	14	18	4	76	159	5		20	172	1.85

GEMA**Listado de elementos mayores**

Ref.	SiO ₂	TiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	MgO	MnO	CaO	Na ₂ O	K ₂ O	P ₂ O ₅	H ₂ O	Total
SIO-104 (JF-9247)	63.67	0.71	16.55	0.00	4.11	3.14	0.07	3.24	3.47	3.38	0.23	1.00	99.57
SIO-2029 (JF-9131)	66.97	0.60	15.73	0.00	3.14	1.88	0.05	2.89	4.76	2.89	0.14	0.75	99.80

GEMA**Listado de la norma CIPW**

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SIO-104	16.85	1.86	20.25	29.78	14.78					14.53		1.36		.55	66.8	33.1
SIO-2029	17.65		17.23	40.65	13.14				.33	9.49		1.15		.33	75.5	24.4

GEMA**Listado de elementos traza**

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SIO-104		165	403	671	66	196	13	42	6	65	160			8	170	1.66
SIO-2029		165	421	472	47	179	9	12	2	53	154	10		12	145	1.12

GEMA**Listado de elementos traza**

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SIO-67		390	30	72	3	151		1	5	67	50	9		6	87	2.4
SIO-68		260	100	381	7	148		4	4	74	100	6		12	135	3.81
SIO-69		270	110	320	10	149		5	2	58	90	8		11	128	2.90
SIO-70		330	44	228		119		84	29	103	40			7	110	5.18
SIO-71		340	43	149	2	127		104	4	58	30			7	110	3.46
SIO-72		290	75	201	7	145		88	2	66	70			9	133	2.68
SIO-73		313	46	202	1	119		97	2	35	60			8	136	4.39
SIO-74		343	36	109	3	143		78	16	64	20			7	107	3.02
SIO-75		250	98	356	5	159		90	1	51	110			11	141	3.63
SIO-76		300	120	178	10	115		5	3	45	130	5		11	125	1.48
SIO-77		280	70	364	10	135		5	3	35	60	5		3	123	5.2

GRANITO BIOTITICO PORFIDICO M. EL GUISO
EL GUISO

GEMA

Listado de elementos mayores

Ref.	SiO2	TiO2	Al2O3	Fe2O3	FeO	MgO	MnO	CaO	Na2O	K2O	P2O5	H2O	Total
SIO-67 (JF-9277)	75.70	0.14	13.11	0.00	1.34	0.24	0.05	0.45	3.81	4.12	0.01	0.80	99.77
SIO-68 (JF-9283)	73.96	0.27	13.26	0.00	1.77	0.45	0.04	1.07	3.71	4.24	0.01	0.84	99.62
SIO-69 (JF-9284)	73.91	0.30	13.39	0.00	1.88	0.52	0.05	1.05	3.80	4.19	0.09	0.58	99.76
SIO-70 (JF-9279)	73.05	0.23	14.10	0.00	1.72	0.48	0.04	0.55	3.45	4.38	0.25	1.79	100.04
SIO-71 (JF-9040)	73.49	0.21	14.39	0.00	1.56	0.34	0.05	0.60	3.92	4.51	0.23	0.90	100.20
SIO-72 (JF-9279)	72.74	0.28	14.46	0.00	1.87	0.45	0.05	0.71	3.79	4.65	0.25	0.94	100.19
SIO-73 (JF-9280)	72.59	0.25	14.57	0.00	1.68	0.36	0.04	0.60	3.60	5.16	0.25	1.11	100.21
SIO-74 (JF-9281)	73.26	0.19	14.38	0.00	1.55	0.32	0.04	0.54	3.90	4.44	0.25	1.22	100.09
SIO-75 (JF-9282)	72.35	0.31	14.41	0.00	1.99	0.53	0.05	1.07	3.96	4.27	0.18	0.84	99.96
SIO-76 (JF-9285)	72.24	0.34	13.91	0.00	2.20	0.48	0.06	1.17	3.94	4.52	0.12	0.68	99.66
SIO-77 (JF-9033)	74.26	0.24	13.39	0.00	1.58	0.41	0.05	0.80	3.88	4.18	0.11	0.56	99.46

GEMA

Listado de la norma CIPW

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SIO-67	35.79	1.60	24.59	32.57	2.18					2.95		.26		.02	92.9	6.2
SIO-68	32.30	.65	25.36	31.77	5.30					4.05		.51		.02	89.4	14.3
SIO-69	31.86	.91	24.96	32.41	4.65					4.39		.57		.21	89.2	12.5
SIO-70	34.32	3.33	26.33	29.70	1.11					4.13		.44		.60	90.3	3.6
SIO-71	31.30	2.53	26.83	33.39	1.48					3.49		.40		.54	91.5	4.2
SIO-72	30.24	2.51	27.68	32.30	1.90					4.21		.53		.59	90.2	5.5
SIO-73	29.79	2.59	30.76	30.73	1.35					3.68		.47		.59	91.2	4.2
SIO-74	31.81	2.80	26.53	33.36	1.05					3.45		.36		.59	91.7	3
SIO-75	29.17	1.77	25.45	33.79	4.16					4.60		.59		.42	88.4	10.9
SIO-76	27.78	.70	26.98	33.67	5.07					4.84		.65		.28	88.4	13
SIO-77	32.85	1.30	24.97	33.19	3.28					3.65		.46		.26	91	9

GEMA

Listado de elementos mayores

Ref.	SiO2	TiO2	Al2O3	Fe2O3	FeO	MgO	MnO	CaO	Na2O	K2O	P2O5	H2O	Total
SIO-1 (JF-9254)	72.79	0.24	13.95	0.00	1.76	0.45	0.04	0.98	3.50	5.05	0.10	0.92	99.78
SIO-2 (JF-9250)	72.99	0.29	13.69	0.00	2.12	0.42	0.04	1.13	3.53	4.99	0.11	0.44	99.75
SIO-3 (JF-9249)	73.22	0.28	13.60	0.00	2.06	0.40	0.04	1.17	3.56	4.84	0.11	0.49	99.77
SIO-115 (JF-9268)	71.78	0.30	14.70	0.00	2.00	0.55	0.03	0.88	3.56	4.82	0.27	0.88	99.77
SIO-2028 (JF-9276)	73.96	0.22	13.52	0.00	1.73	0.43	0.04	0.70	3.20	5.22	0.09	0.70	99.81

GEMA

Listado de la norma CIPW

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SIO-1	29.62	1.19	30.18	29.95	4.25					4.08		.46		.23	89.7	12.4
SIO-2	29.23	.69	29.68	30.07	4.92					4.57		.55		.26	88.9	14
SIO-3	29.86	.64	28.80	30.33	5.12					4.42		.53		.26	89	14.4
SIO-115	29.52	2.70	28.79	30.45	2.63					4.66		.57		.64	88.7	7.9
SIO-2028	32.45	1.56	31.11	27.31	2.91					40		.42		.21	90.8	9.6

GEMA

Listado de elementos traza

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SIO-1		316	91	248	5	117	3	1	4	51	127			13	132	2.72
SIO-2		299	80	40	4	135	3	1	2	48	156			24	138	.5
SIO-3		299	81	201	4	121	4	4	3	52	164	5		26	134	2.48
SIO-115		294	73	316	9	119	11	3	12	67	131			11	136	4.32
SIO-2028		316	60	184	3	146	3	4		407	116			15	137	3.06

GEMA

Listado de elementos mayores

Ref.	SiO2	TiO2	Al2O3	Fe2O3	FeO	MgO	MnO	CaO	Na2O	K2O	P2O5	H2O	Total
SIO-82 (JF-9184)	73.88	0.08	14.19	0.00	1.32	0.27	0.04	0.33	2.76	4.66	0.15	2.15	99.83
SIO-91 (JF-9198)	75.22	0.02	14.32	0.00	0.89	0.01	0.12	0.25	4.12	4.04	0.03	0.87	99.89
SIO-2032 (JF-175)	74.21	0.08	13.95	0.00	0.90	0.25	0.04	0.31	4.74	4.15	0.10	1.25	99.98

GEMA

Listado de la norma CIPW

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SIO-82	39.13	4.46	28.18	23.90	.67					3.11		.15		.36	91.2	2.7
SIO-91	34.84	2.81	24.10	35.20	1.05					1.86		.03		.07	94.1	2.9
SIO-2032	29.64	1.35	24.83	40.61	.89					2.26		.15		.23	95	2.1

GEMA

Listado de elementos traza

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SIO-82		532	47	81	2	100	2	4	2	21	43	5		7	72	1.72
SIO-91		771	9	11		95		4	2	46	30	18		13	43	1.22
SIO-2032		444	52	62	1	146	2	5	49	21	13	30		10	77	1.19

GEMA

Listado de elementos mayores

Ref.	SiO2	TiO2	Al2O3	Fe2O3	FeO	MgO	MnO	CaO	Na2O	K2O	P2O5	H2O	Total
SIO-81 (3F-9188)	71.91	0.29	14.17	0.00	2.15	0.56	0.06	0.59	2.75	5.10	0.16	2.00	99.74
SIO-110 (3F-9263)	72.53	0.26	14.09	0.00	1.83	0.54	0.04	0.63	3.13	5.15	0.26	1.34	99.80

GEMA

Listado de la norma CIPW

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SIO-81	33.88	3.51	30.83	23.80	1.92					5.08		.56		.38	88.5	7.4
SIO-110	32.31	2.88	30.90	26.89	1.45					4.42		.50		.62	90.1	5.1

GEMA

Listado de elementos traza

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SIO-81		354	80	282	8	112	4	6	3	42	159	5		15	119	3.52
SIO-110		310	72	177	5	82	2	1	6	33	126			11	137	2.45

GEMA**Listado de elementos mayores**

Ref.	SiO ₂	TiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	MgO	MnO	CaO	Na ₂ O	K ₂ O	P ₂ O ₅	H ₂ O	Total
SI0-108 (JF-9261)	74.22	0.07	14.44	0.00	1.07	0.06	0.02	0.39	3.96	4.31	0.32	1.00	99.86
SI0-109 (JF-9262)	74.36	0.07	14.27	0.00	0.92	0.11	0.02	0.53	3.73	4.24	0.45	1.17	99.87
SI0-117 (JF-9270)	74.65	0.10	14.22	0.00	1.15	0.10	0.03	0.40	3.62	4.00	0.41	1.17	99.85
SI0-118 (JF-9271)	75.15	0.07	14.04	0.00	0.93	0.09	0.01	0.37	3.45	4.36	0.29	1.10	99.86
SI0-119 (JF-9272)	74.46	0.10	14.36	0.00	1.04	0.14	0.03	0.48	3.45	4.26	0.39	1.16	99.87
SI0-121 (JF-9274)	74.70	0.10	14.50	0.00	1.07	0.13	0.02	0.48	3.40	4.27	0.38	1.12	100.17

GEMA**Listado de la norma CIPW**

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SI0-108	34.18	3.35	25.75	33.88	-15					2.07		.13		.76	93.8	-.4
SI0-109	36.12	3.70	25.37	31.96	-31					1.92		.13		1.07	93.4	-.9
SI0-117	38.01	4.24	23.94	31.03	-70					2.28		.19		.98	92.9	-2.3
SI0-118	38.01	3.71	26.08	29.55	-05					1.86		.13		.69	93.6	-.1
SI0-119	37.60	4.18	25.49	29.56	-16					2.18		.19		.93	92.6	-.5
SI0-121	37.93	4.36	25.46	29.03	-09					2.19		.19		.90	92.4	-.3

GEMA**Listado de elementos traza**

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SI0-108	503	10	5			103	7	2	2	63	39			10	71	.5
SI0-109	530	19	11			90	1	3	5	16	28			3	66	.57
SI0-117	586	9	18	2	146	31	15	31	49	39				3	56	2
SI0-118	369	14	9	3	137	1	14	5	16	20				2	98	.64
SI0-119	593	12	24	3	134			10	11	38					59	2
SI0-121	568	17	20	1	103			6	4	26	36			3	62	1.17

GEMA**Listado de elementos mayores**

Ref.	SiO ₂	TiO ₂	Al ₂ O ₃	Fe ₂ O ₃	FeO	MgO	MnO	CaO	Na ₂ O	K ₂ O	P ₂ O ₅	H ₂ O	Total
SIO-106 (JF-9259)	69.53	0.38	15.40	0.00	2.53	0.97	0.04	2.01	3.71	4.07	0.15	0.90	99.69
SIO-107 (JF-9260)	70.42	0.34	15.05	0.00	2.26	0.89	0.04	1.48	3.37	4.74	0.14	1.00	99.73
SIO-114 (JF-9267)	69.87	0.39	15.22	0.00	2.48	0.91	0.04	2.25	3.80	3.69	0.15	0.90	99.70
SIO-116 (JF-9269)	71.16	0.31	14.88	0.00	2.14	0.64	0.04	1.19	3.43	4.54	0.29	1.20	99.82
SIO-120 (JF-9273)	70.71	0.35	14.92	0.00	2.23	0.80	0.03	1.49	3.42	4.63	0.17	1.00	99.75
SIO-2036	72.20	0.31	14.80	0.00	2.50	0.34	0.40	0.71	2.46	4.93	0.12	0.67	99.44
SIO-2035 (JF-9064)	69.78	0.43	14.92	0.00	2.38	0.84	0.04	1.66	4.27	4.07	0.17	1.17	99.74

GEMA**Listado de la norma CIPW**

Ref.	Q	Cor	Ort	Ab	An	Ne	Le	Ac	Di	Hy	Ol	Il	Mag	Ap	ITT	%An
SIO-106	25.48	1.61	24.34	31.77	9.10					6.60		.73		.35	81.5	22.2
SIO-107	27.24	2.04	28.36	28.87	6.50					5.96		.65		.33	84.4	18.3
SIO-114	26.38	1.25	22.06	32.53	10.30					6.33		.74		.35	80.9	24
SIO-116	29.96	2.89	27.19	29.42	4.06					5.15		.59		.69	86.5	12.1
SIO-120	27.91	20	27.70	29.30	6.36					5.63		.67		.40	84.9	17.8
SIO-2036	35.57	4.46	29.49	21.07	2.77					5.74		.59		.28	86.1	11.6
SIO-2035	23.66	.88	24.39	36.64	7.23					5.93		.82		.40	84.7	16.4

GEMA**Listado de elementos traza**

Ref.	Li	Rb	Sr	Ba	V	Cr	Co	Ni	Cu	Zn	Zr	Nb	Sc	Y	K/Rb	Ba/Sr
SIO-106		184	221	684	13	106	5	4	2	58	190			11	183	3.09
SIO-107		217	200	497	13	106	4	4	2	58	170			10	181	2.48
SIO-114		179	203	625	16	107	4	14	4	57	184	5		11	171	3.07
SIO-116		270	129	456	12	124	3	16	4	55	140			8	139	3.53
SIO-120		223	169	501	13	110	4	5	4	50	162			10	172	2.96
SIO-2036	70	310	101	558	12	11	6	2	14	48	293	17		15	132	5.52
SIO-2035		230	179	598	24	108	6	2	4	56	176	8		9	146	3.34