Handheld XRF Data (Standards and Reference Analysis)

Date	Time	Reading	Artifact ID	Notes	LE	LE +/-	P	P +/-	S	S +/-	Cl	Cl +/-	K	K +/-	Ca	Ca +/-
17-Jul-08	9:47:02	2	NIST 2702	soil standard	<LOD	0	<LOD	21283	21571	2802	10631	784	25300	722	4239	233
17-Jul-08	12:09:22	42	NIST 2702	soil standard	<LOD	0	<LOD	21952	24908	3043	6161	743	25892	783	5297	267
17-Jul-08	12:22:41	45	NIST 2702	soil standard	<LOD	0	<LOD	18523	16324	2441	3257	601	24466	700	4437	231
17-Jul-08	13:09:26	61	NIST 2702	soil standard	<LOD	0	<LOD	19487	20477	2586	2303	575	24857	707	4132	227
			NIST 2702 (AVERAGE)						20820	2718	5588	675.75	25128.75	728	4526.25	239.5
			NIST 2702	known values			1152	66					20540	720		
17-Jul-08	9:50:30	3	NIST 2781	soil standard	<LOD	0	30934	6717	21602	2122	8171	510	6370	261	53000	865
17-Jul-08	12:06:36	41	NIST 2781	soil standard	<LOD	0	<LOD	19032	22244	2101	4451	436	6428	263	55148	897
17-Jul-08	12:20:20	44	NIST 2781	soil standard	<LOD	0	<LOD	18182	23676	2097	2032	380	5932	254	52760	863
17-Jul-08	13:07:07	60	NIST 2781	soil standard	<LOD	0	<LOD	19465	24420	2165	2256	396	6337	266	54264	898
			NIST 2781 (AVERAGE)				7733.5	15849	22985.5	2121.25	4227.5	430.5	6266.75	261	53793	880.75
			NIST 2781	known values			24200	900					4900	300	39000	1000
17-Jul-08	12:25:12	46	Blank SiO2	standard	<LOD	0	<LOD	6326	<LOD	1567	<LOD	700	<LOD	229	<LOD	155
17-Jul-08	12:47:20	53	Blank SiO2	standard	<LOD	0	<LOD	6465	<LOD	1567	<LOD	663	<LOD	224	<LOD	150
17-Jul-08	13:11:38	62	Blank SiO2	standard (error?)	<LOD	0	<LOD	7412	<LOD	2059	<LOD	853	<LOD	282	<LOD	161
17-Jul-08	13:14:16	63	Blank SiO2	standard	<LOD	0	<LOD	6943	<LOD	1498	<LOD	647	<LOD	212	<LOD	147
17-Jul-08	12:28:28	47	Reference Glass B	CMOG standard	<LOD	0	<LOD	21922	6331	1990	<LOD	1380	9644	405	75093	1486
			Reference Glass B	known values			3580						8298		61143	
17-Jul-08	12:32:38	48	Reference Glass C	CMOG standard (in bag)	<LOD	0	<LOD	28423	67358	5580	16887	1314	6822	488	18111	654
			Reference Glass C	known values			611						23566		36214	
17-Jul-08	12:35:45	49	Reference Glass D	CMOG standard (in bag)	<LOD	0	<LOD	22596	<LOD	5373	<LOD	1437	79192	1579	72980	1373
			Reference Glass D	known values			17159						93766		105714	

key

number "non certified values and uncertainties"

number "certified values and uncertainties"

discrepancy in values

good correspondence

questionable correlation

Ti	Ti +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-	As	As +/-	Se	Se +/-
11530	353	318	23	1725	48	88365	1636	463	123	<LOD	73	91	12	407	15	42	8	9	2
11622	379	374	25	1745	51	89108	1762	<LOD	391	<LOD	81	83	12	449	16	51	8	6	2
11636	352	371	23	1662	46	84813	1559	<LOD	373	<LOD	75	83	12	422	15	66	8	6	2
11469	348	357	23	1727	47	85973	1578	545	124	<LOD	74	100	12	412	15	52	8	7	2
11564.25	358	355	23.5	1714.75	48	87064.75	1633.75	252	252.75	0	75.75	89.25	12	422.5	15.25	52.75	8	7	2
8840	820	352	22	1757	58	79100	2400	27.76	0.58	75.4	1.5			485.3	4.2	45.3	1.8		

4092	151	211	13	877	23	33905	484	<LOD	182	91	17	604	18	1209	22	<LOD	21	19	2
4167	152	223	13	860	23	33885	485	270	62	<LOD	48	610	18	1225	22	<LOD	20	21	2
3898	149	201	13	818	22	33152	475	209	63	<LOD	47	611	18	1251	23	<LOD	21	17	2
4248	156	187	13	853	23	34092	496	<LOD	192	66	17	611	18	1291	24	<LOD	22	20	2
4101.25	152	205.5	13	852	22.75	33758.5	485	119.75	124.75	39.25	32.25	609	18	1244	22.75	0	21	19.25	2
3200	300	202	9			28000	1000			80.2	2.3	627.4	13.5	1273	53	7.82	0.28	16	1.6

<LOD	61	<LOD	12	<LOD	15	<LOD	21	<LOD	21	<LOD	26	<LOD	17	<LOD	7	<LOD	6	<LOD	3
<LOD	56	<LOD	12	<LOD	14	<LOD	20	<LOD	21	<LOD	25	<LOD	16	<LOD	8	<LOD	6	<LOD	2
<LOD	60	<LOD	13	<LOD	15	<LOD	22	<LOD	24	<LOD	27	<LOD	19	<LOD	8	<LOD	7	<LOD	3
<LOD	56	<LOD	12	<LOD	14	<LOD	20	<LOD	21	<LOD	24	<LOD	17	<LOD	8	<LOD	7	<LOD	3

<LOD	312	77	11	1908	46	3046	66	362	36	1054	42	24841	340	1757	42	<LOD	111	<LOD	11
534				1937		2380		362		778		21280		1525					
<LOD	1306	317	34	280	24	3688	107	801	100	<LOD	180	4930	163	187	35	2090	340	<LOD	81
4740				0		2380		1416		0		9040		417					
1398	127	44	10	2647	56	2815	58	176	31	324	26	2445	52	654	21	175	27	<LOD	8
2280				4261		3620		181		0		3040		802					

Rb	Rb +/-	Sr	Sr +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn	Sn +/-	Sb	Sb +/-	I	I +/-	Ba	Ba +/-
123	4	114	4	263	6	18	3	<LOD	43	<LOD	56	<LOD	96	<LOD	98	<LOD	641	1102	102
119	4	104	4	270	6	13	3	<LOD	45	<LOD	59	<LOD	100	<LOD	103	<LOD	676	1190	110
121	4	106	4	271	6	15	3	<LOD	43	<LOD	55	<LOD	95	<LOD	97	<LOD	623	1148	102
117	4	109	4	274	6	<LOD	10	<LOD	43	<LOD	55	<LOD	94	<LOD	96	<LOD	629	1082	101
120	4	108.25	4	269.5	6	11.5	4.75											1130.5	103.75
127.7	8.8	119.7	3							0.817	0.011			5.6	0.24			397.4	3.2

30	2	225	4	261	5	42	3	<LOD	35	<LOD	44	<LOD	74	<LOD	74	<LOD	546	552	52
33	2	218	4	252	4	41	3	<LOD	35	49	15	<LOD	73	<LOD	72	<LOD	552	539	52
30	2	226	4	256	5	42	3	<LOD	35	<LOD	44	<LOD	73	<LOD	73	<LOD	547	548	51
30	2	236	5	263	5	45	3	<LOD	36	<LOD	45	<LOD	75	<LOD	76	<LOD	564	508	52
30.75	2	226.25	4.25	258	4.75	42.5	3											536.75	51.75
						46.7	3.2			12.78	0.72								

<LOD	3	<LOD	3	<LOD	5	<LOD	7	<LOD	34	<LOD	45	<LOD	77	81	27	<LOD	66	<LOD	32
<LOD	3	<LOD	3	<LOD	5	<LOD	7	<LOD	34	<LOD	44	<LOD	77	<LOD	79	<LOD	72	<LOD	30
<LOD	3	<LOD	4	<LOD	5	<LOD	7	<LOD	36	<LOD	47	<LOD	80	<LOD	82	<LOD	76	<LOD	34
<LOD	3	<LOD	3	<LOD	5	<LOD	7	<LOD	33	<LOD	44	<LOD	77	<LOD	79	<LOD	69	<LOD	30

17	2	152	4	169	5	<LOD	10	106	15	<LOD	60	309	38	4187	76	1006	241	659	47
		161										315		3464				1075	

<LOD	31	460	18	<LOD	25	31	7	<LOD	87	<LOD	116	393	71	<LOD	203	<LOD	1120	9641	317
		2454										1497		226				102078	

37	3	461	9	90	4	10	3	<LOD	47	<LOD	61	1018	44	8231	128	1462	238	672	50
		482										788		7305				4567	

Hg	Hg +/-	Pb	Pb +/-
<LOD	14	126	7
<LOD	13	127	8
<LOD	14	117	7
<LOD	13	120	7
		122.5	7.25
0.4474	0.0069	123.8	1.1

<LOD	12	203	7
<LOD	11	182	7
<LOD	12	202	7
<LOD	12	210	8
		199.25	7.25
3.64	0.25	202.1	6.5

<LOD	8	<LOD	7
<LOD	7	<LOD	7
<LOD	8	<LOD	8
<LOD	7	<LOD	7

<LOD	26	4421	68
		5662	
<LOD	172	100303	2533
		340668	
<LOD	20	1912	36
		4456	