

**Appendix: Chert ppm data, Taurama**

Context of Sample			Light Elements (15kV, ADC = 45 µA, No Filter, Vacuum Setting)						Heavy Elements (40kV, ADC = 24 µA, Filter)					
Layer	Spit	Sample	Si_ppm	Al_ppm	Mg_ppm	Na_ppm	K_ppm	P_ppm	Mn_ppm	Fe_ppm	Rb_ppm	Sr_ppm	Y_ppm	Zr_ppm
1a	1	AJA1	443079.7	76673.21	14696.35	12652.1	671.7033	1614.089	103	1787	3	55	7	18
1a	1	AJA11	398724.4	75841.35	5112.715	5273.225	563.5811	1068.757	98	1529	2	52	6	18
1a	1	AJA12	404186.5	77067.85	13776.36	11107.83	1419.826	1143.24	110	1278	1	33	5	15
1a	1	AJA13	480696.1	78721.95	29838.45	67865.69	2235.239	2420.903	436	2956	5	41	14	18
1a	1	AJA14	436958.2	77417.12	19746.77	40063.82	2391.185	1709.904	124	1737	5	61	26	22
1a	1	AJA15	505042.2	79821	33979.19	57317.56	1888.703	2294.458	184	1421	4	68	7	21
1a	1	AJA16	502498.1	78667.92	24822.35	53824.69	700.3575	2238.864	193	884	1	31	4	14
1a	1	AJA17	457508.8	77619.71	18995.12	29761.8	1086.892	1689.324	131	1387	4	44	7	18
1a	1	AJA27	476829.9	77965.15	26350.27	49761.61	680.9644	1928.753	134	2275	4	34	7	15
1a	1	AJA28	476847.6	77630.75	16672.67	24376.51	588.0131	2021.772	209	986	2	54	7	15
1a	1	AJA29	439504.2	77504.96	21258.43	29955	1551.348	1584.723	199	2503	3	52	8	17
1a	1	AJA32	474657.4	77797.5	21491.13	32049.22	620.284	1874.369	139	870	1	54	5	15
1a	1	AJA46	429948.8	77856.75	18264.88	27399.89	2409.464	1513.984	119	1647	4	46	6	18
1a	1	AJA51	465955	78252.34	21171.01	35511.3	1918.533	1969.956	261	1672	4	87	7	20
1a	1	AJA7	433822.9	79896.32	25166.37	30438.84	1912.076	1728.291	44	1015	4	45	8	18
1a	1	AJA8	467092.8	78443.47	25874.35	29617.38	1177.149	1853.615	178	972	4	104	7	21
1a	1	AJA88	449345.9	77838.76	29776.36	75477.88	1409.06	1628.007	285	3856	4	32	10	19
1a	2	AJA201	523896	79763.51	38421.09	78740.31	1539.17	2495.666	66	3260	4	43	7	20
1a	2	AJA206	452820.5	77897.83	21983.69	27655.04	963.6904	1721.867	77	6094	3	71	6	18
1a	2	AJA209	349500	74832.7	-432.135	1474.315	1262.903	610.3893	166	1719	3	64	9	19
1a	2	AJA230	511715.4	80133.38	38208.5	72111.19	1562.981	2435.302	188	1206	3	102	5	22
1b	3	AJASpit3CF1	468647.5	78847.8	28262.84	41699.02	1179.217	1923.758	239	2341	4	53	6	16
1b	3	AJASpit3CF2	452451.1	80394.28	27672.18	38286.13	3159.072	1773.52	265	2051	5	53	16	19
1b	3	AJA498	459075.4	78630.27	23001.45	46586.58	1945.564	1881.204	172	1851	3	53	28	18
1b	3	AJA499	443870.4	80313.47	31335.83	54207.52	3050.341	1841.459	220	4464	7	60	5	23
1b	3	AJA500	575444.7	81112.08	48222.99	105770	558.5934	3074.412	54	1070	2	60	4	18
1b	3	AJA501	519601.8	80159.22	42128.57	90535.93	1002.797	2441.32	130	1606	4	69	8	21
1b	3	AJA502	517033.8	79206.48	29243.62	39058.58	215.8435	2416.137	262	471	3	27	3	12
1b	3	AJA503	487440.8	79360.98	34683.56	57507.38	2244.689	2077.068	280	7236	11	65	7	22
1b	3	AJA504	442312.9	80117.17	22733.8	37844.04	2485.76	1698.929	711	2938	6	61	6	19

1b	3	AJA505	373035	75743.3	5440.595	17645.45	949.9792	879.9959	273	1845	5	49	9	20
1b	3	AJA506	375927.9	79426.2	26906.52	37788.86	5618.357	1373.755	2472	8777	26	301	20	45
1b	3	AJA507	416564	77010.42	12095.77	7968.359	981.9959	1312.111	155	1428	4	51	9	16
1b	3	AJA508	429367.7	77694.93	15919.18	13044.38	1446.437	1484.776	157	1694	5	73	6	19
1b	3	AJA510	356115.4	77234.57	41635.31	60375.57	5244.891	3118.898	750	1459	3	103	6	19
1b	3	AJA512	537376.7	79692.92	37151.42	67198.39	858.7157	2727.309	223	3130	2	46	5	16
1b	4	AJASpit4CF2	497309	79080.42	26897.84	48026.04	1330.01	2221.677	230	1961	4	43	7	17
1b	4	AJASpit4CF3	495136.6	81925.73	52332.79	90568.55	2708.267	2331.65	1732	1736	4	55	6	18
1b	4	AJA518	482250.9	79025.91	31407.26	43659.45	2107.678	2019.573	208	2136	3	39	5	18
1b	4	AJA519	410834.8	79440.39	18741.29	18271.61	1689.9	1296.228	164	3403	4	92	4	20
1b	4	AJA522	507409.8	79143.08	31271.03	47353.19	1412.397	2382.843	147	2131	4	45	8	17
2a	5	AJA445	481281.3	78986.95	25372.25	31010.78	1105.381	2068.669	162	1697	2	42	7	17
2a	5	AJA446	358118.9	75947.51	5855.805	801.0903	1263.111	697.9229	100	1296	1	52	6	18
2a	5	AJA447	448870.1	77662.72	17561.45	22753.32	1504.132	1657.866	215	1214	2	46	6	17
2a	5	AJA448	436045.8	78622.61	26931.6	20729.21	2254.071	1577.222	584	3535	2	38	6	14
2a	5	AJA449	414398.1	77924.48	20211.38	25602.04	2982.401	1884.802	233	1735	4	51	7	18
2a	5	AJA450	393882.6	78740.19	28326.19	46025.19	3286.469	1624.894	242	10400	14	96	24	29
2a	5	AJA451	204355.6	72876.05	17205.49	11992.36	7636.643	2938.053	2054	3258	17	204	12	32
2a	5	AJA452	426747.8	76307.43	12373.39	13488.14	771.7127	1398.658	175	1585	3	55	7	18
2a	5	AJA453	380250.2	76399.27	4894.687	2143.73	1882.792	895.2148	167	1626	3	36	12	19
2a	5	AJA458	369501.6	78353.12	23293.5	20523.78	4658.622	1080.404	376	20743	25	126	24	33
2a	5	AJA460	475147.7	77740.7	28615.2	72479.49	374.9228	1770.579	92	2376	3	51	8	17
2a	5	AJA463	515743.9	80600.43	35142.23	54312.09	2016.602	2417.16	85	1252	4	61	15	19
2a	5	AJA465	512084.1	80116.2	37864.84	55789.16	2988.262	2521.88	331	2023	5	67	17	19
2a	6	AJA471	491131.2	79005.35	24281.23	31151.02	1348.105	2064.639	152	2136	5	69	5	21
2a	6	AJA472	525391.9	79969.53	33551.68	41672.26	1076.283	2476.644	123	1302	2	39	5	16
2a	6	AJA473	409950.2	78290.72	17603.07	14964.22	2112.945	1266.173	250	3643	3	43	6	16
2a	6	AJA474	459492.3	78927.76	27310.37	24281.95	2355.102	1759.033	325	2887	6	112	9	23
2a	6	AJA475	584891.7	81354.29	64817.8	139981.8	2535.285	3232.064	180	1572	4	40	5	17
2a	6	AJA476	426183.9	78907.11	22762.85	28136.03	2020.41	1414.922	557	2475	5	59	6	21
2a	6	AJA483	453828.5	77803.33	22021.1	28442.08	464.6256	1832.24	55	556	2	27	5	12
2b	7	AJA240	460787.3	78390.21	18690.34	23682.12	1260.136	1740.592	152	1545	4	69	12	20
2b	7	AJA241	405197.3	76744.34	20149.43	24547.52	1853.524	2075.18	438	1961	2	64	8	18

2b	7	AJA242	492121.2	78300.33	29563.94	43111.83	835.9501	2193.074	177	1938	3	34	7	15
2b	7	AJA243	491047.3	79392.31	27574.58	33893.98	1476.92	2225.886	148	2125	7	96	7	23
2b	7	AJA245	551039.3	81615.02	52395.02	96961.18	1787.388	2911.346	324	1505	6	93	8	24
2b	7	AJA250	540516.1	80460.28	37821.01	66538.3	616.5693	2761.14	162	1016	0	30	10	13
2b	7	AJA278	519093.9	79068.76	31672.56	40920.76	855.608	2582.98	65	1327	2	43	6	16
2b	8	AJA282	188179.8	71287.46	17209.38	16986.89	7356.985	3064.157	2203	1937	4	231	9	27
2b	8	AJA284	445634.9	79981.71	35245.99	52428.05	2867.452	1923.277	240	2508	3	60	6	20
2b	8	AJA285	437735.7	77926.77	20322.27	29532.3	1775.396	1585.674	458	10338	8	63	7	20
2b	8	AJA287	495155.3	79030.93	35777.88	61160.19	1011.875	2204.85	234	6988	4	128	8	20
2b	8	AJA288	551947.6	81316.74	45992.31	78689.92	1763.357	2928.341	144	1811	4	76	7	21
2b	8	AJA290	537045.6	81463.46	55787.9	99068.15	1780.026	2843.264	39	1192	3	114	7	18
2b	8	AJA291	522379.1	80270.61	34829.06	57794.48	1575.621	2570.166	253	2379	3	49	8	20
2b	8	AJA300	424951.4	78404.46	25674.82	51967.41	1538.986	1506.649	241	6745	7	75	11	25
2b	9	AJA422	443426.5	77416.04	17890.85	22150.52	1057.906	1785.597	369	1385	2	88	7	19
2b	9	AJA423	321574.1	74061.66	-4759.44	4585.556	318.8069	83.85077	148	3132	9	124	8	26
2b	9	AJA426	464453.7	79080.41	30660.8	40330.64	2433.041	2135.846	182	1668	3	57	6	18
2b	9	AJA429	424600.8	78501.99	20924.18	28129.68	1669.325	1676.415	94	2253	3	51	5	19
2b	9	AJA432	575249	81916.88	57427.95	105278.3	1546.32	3149.113	87	1439	4	57	5	17